DIVINE PANAGOGUE

PANTHEISM

ORTHODOX - PANTHEISM

DIVINE PANAGOGUE

Reader's Text Edition

European Version

Published for
Atheists and Theists of all faith

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The Panagogue, Orthodox-Pantheism European Version
The Oracles of Divine Truth
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Omolaja Makinee for Orthodox-Pantheism

OMOLAJA MAKINEE
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I, Exist.

Dear Friend,

You exist. God fashioned your existence in the right relationship with the genetic constitution of your creator in Nature. Your biological parents are bearing witness to your existence in this life. The religious doctrine of orthodox-pantheism arise in the 21st century to bear witness to the nature of reality, and draws its beliefs predominantly from scientific evidence of what exists and can be proven with the evidence of your own eyes, with the scientific investigation into the nature of the reality of things.

You, humans, remain confused about the purpose of life and the existence of Nature. Why do we exist? What is the purpose of existence? Why is there something rather than nothing? What should we believe? What exists and what does not? In your hands, you hold the sacred Book that bears witness to the many answers in response to the many questions about the values of life provided by philosophers from ancient times to the present.

Philosophy is our humans tool to understand and gives meaning to the defining features of our human existence. The Panagogue bear witness to the history of the philosophy of religion, of those ideas and theories of existence that finds attraction in human nature and thus influenced the various religious movements in human culture in the world. Aristotle’s philosophies are about the human function, Plato on the nature of government and socialism, Kant’s theory is about moral theory and the virtue of the highest good, Aquinas conveys the spiritual

nature of the reality of beatific vision and many more. Overall, God remains the defining feature of life and our human existence.

But then, again, who is God? – The answer to this question is what makes the Panagogue different. This book tells of an administrator God who fashions the existence of all things in the right relationship with Nature. The doctrine of orthodox-pantheism tells us about a God whose substance is the uniform properties of the particular material constitution of existence and experience of reality.

Read the Panagogue, for it is written that you may define your very own existence and your purpose in life. Other religious books are written on account of suffering and the spiritual influences of demons or satanic forces in the lives of individuals. The Panagogue is written in an attempt to transmit comforts in life pleasure in the lives of its adherents. Why should we base our religious faith on the endurance of pain and suffering, when Nature has blessed us to be fruitful and multiply and to be filled with life pleasure and to transmit what is good.

The Panagogue is not a book of damnation or the preaching of what does not exist or what cannot be experienced with the evidence of the human eyes. Nature is The-One and the creator of the Absolute Good, and it does not condemn life. Nature is the giver of life and the creator of the administrator God.

We recognise philosophy as the generator of religion, and there is no religion without philosophy. Every human generation is seeking answers to the same questions of importance to us which we cannot answer through observed experience with our own eyes. We are dealing with the same difficulties as the ancient society

such as the bases of religious belief and the natural order of moral laws and its right action in every circumstance, under different forms, troubling thoughtful men and women from generation to generation.

We formalised the philosophy of Ethics to learn how we should live; we methodised the concept of Metaphysics to grasp what sorts of things exist and how their essential nature relates to our human existence; the study of Epistemology is what counts as genuine knowledge in philosophy, and we institute the study of Logic to ground us in the correct principles of reasoning.

Yet, we see things happening beyond our human understanding. Why is everything the way they are – why does it rain and why does the wind blow? Why does our life exist in such a routine affair of being born to grow and then to die? Why is Nature the way it is? We experienced pain as much as we experienced joy; there is as much kindness in the world as much as there is much evilness amongst humans; we live our lives with a series of responsibilities and difficulties; we wake up every day confronted by persistent urgency to be satisfied within the realms of life comforts; all life is craving, persistent craving for pleasure and for what is good to one-self and your self-preservation so to speak. Yet, it remains difficult to understand even to yourself why you are what you are. No one has a clear answer to the simple question of why all things that exist are what they are, and why we humans do what we do.

With the Panagogue, you've been given a choice. Listen to your soul-energy to decide to define who you are within the spiritual realm of this natural-world, and what your purpose of existence in this life should be. Remember, Nature is the The-One

and the creator of the Absolute Good. You are a product of Nature and the Idea of that Good of Nature; for, your existence has a bearing witness just as you would bear witness to other existences – it is a revolving process; just like the planets move within their orbits.

Decide to put scientific evidence as to the first principle in your religiousity of God, and let the gospel of orthodox-pantheism unite your very soul with the things of Nature. And the Divine Panagogue will bring a harvest of pleasure and life comforts to your life for the rest of your days in this lifetime.

Omolaja Makinee

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DIVINE PANAGOGUE

The First Originating Book of Divine Panagogue Called

ORIGIN

IN THE BEGINNING

1 Nothing is the origin in the creation of everything, for before the first-caused of something there was nothing. 2 Asphyxiation of nothingness exists as the self-caused of the state of non-existence. 3 Any asphyxiation of nothingness would always exerts the existence of its own energy-- a nothing with the power of something. 4 From its caused super-condensed-energy of electrons clouds; Nature became the physical cause in the existence of something. 5 The caused effect of Nature was of a form, and its energy is the conductor of everything else in existence. 6 The caused of Nature was an electrons cloud like shell, and it attracts and repels in the recreation of the other, caused the eventual existence of space, force and matter. 7 Electrons clouds recreates electrons; exerting the formation of quarks, which in turn collide together to form protons and neutrons 8 And there emerging planetary objects has since been accumulating in the fitness of the Universal space ground. 9 Three-quarks of two-positive and one-negative make up each proton, and three-quarks of two-negative and one-positive make up each neutron. 10 The space became filled with the effect of naturedly properties of existence, with gravitational hills of forces and valleys of atomic energy. 11 Protons and neutrons reside in the nucleus at the centre of atoms; electrons exist in a cloud orbiting the nucleus within the atom. 12 The nucleus is held together by the Strong-Force; a basic force in Nature. And the quarks are held together by subatomic particles called gluons. 13 The collision of a proton to an atom makes a new element, and the collision of a neutron to an atom makes an isotope, or heavier version, of that atom. 14 The binding force of atomic nuclei varies based on the size of their individual nucleus, and the atomic number of elements within atoms varies also. 15 The number of protons in an atom determines the behaviour of the

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atomic element; six-protons make carbon, eight-protons make oxygen, and one-proton make hydrogen. 16 Neutrons are uncharged particles found within all atomic nuclei, but none as yet discovered to exist in hydrogen. 17 The positively charged protons are electrically attracted by electrons that surround its atomic nucleus, and electrons are negatively charged by their nature. 18 The nuclei of electrons exert the existence of atoms, and in turn exert the recreations of space, and emerge the existence of the Universe. 19 The Universe is conceived in linear directions of space-fields, within the boundless dimensional continuums of space-time. 20 Every substance of creation are made from that atoms, and every matter of solids, liquids, gases are made up of atoms. 21 Atoms are the basic building blocks of everything, divisible and indestructible; 22 they are to form together in diversity to create all matter, and they are in relative position and direction to one and the other. 23 Everything of Nature creates; everything it gravitates into existence exists to go on to recreate. 24 Energy regenerates energy; matter recreates matter; and motion revives motion. 25 Atoms exists in everything; like the air that you breathe, and everything that you can see or feel. 26 Everything of atom is in motion, and every force of motion exerts life. 27 Every motion produces life; for when two atoms joined together they make molecules, and helium and hydrogen are abundant elements of atoms in the Universe. 28 Atoms are the basic units of matter; they are the defining structure of all elements. 29 Atoms of certain elements are identical; like the diversity of race and gender between living-systems, and the diverse constituents between non-living systems. 30 The atoms of one element have different weights and properties than atoms of another element; 31 like the diverse genetic constitutions between living-systems, and diverse components between non-living systems. 32 Atoms are the foundational element of creation; it cannot be destroyed but can only evolve into other element. 33 The first-caused effect of atmosphere

in the Universe consists of air of atomic properties. 34 These atomic properties evolve from space-time to space-time into water vapour, carbon-dioxide, including carbon-monoxide, hydrogen, nitrogen, ammonia, methane, and then oxygen. 35 Matter is therefore formed by atoms combining in simple whole constituents.

36 According to Leucippus and Democritus there are an infinite number of indivisible units, which are called atoms. 37 These are imperceptible, since they are too small to be perceived by the senses. 38 The atoms differs in size and shape, but have no quality save that of solidity or impenetrability. 39 The ancient cosmologists did not think of motion as requiring any explanation, and in the Atomist philosophy the external movement of the atoms is regarded as self-sufficient. 40 In the beginning existed atoms in the void, and that was all: from that beginning arose the world of our human experiences. 41 Leucippus speaks of everything happening, and no external Power or moving Force is assumed as a necessary cause for the primal motion. 42 Infinite in number, the atoms of the organic existence of Nature move in the void.

THE ADMINISTRATOR GOD: IN NATURE

2 The originating substance of gravity is the first-caused of the Universe, the celestial substance of the administrator-God. 2 Electrons exerts the nuclei force of gravity, and gravity exerts motion to life. 3 The law of gravity is the law of God, and the law of God is the law-of-Nature. 4 God is the cypher system of Nature; its gravitational substance causes the effects of clouds of gas to coalesce and form stars. 5 The force of God exists in everything, and everything manifests in constant force of Nature. 6 Gravity is the cosmic fingerprint of God; and its current is the directional negative and positive electron of Nature; and Nature is the creator of all existence. 7 God is the gravitational substance that holds the planets in pockets of orbits in space; that holds the planets in

orbit around the sun; it keeps the moon in orbit around the earth; 8 it is the gravitational pulls of the moon that pulls the sea towards it and causing the ocean tides; it coalesce the formation of stars and planets, and exerting the material of Nature from which they are made; 9 gravity is the celestial substance of God, and God is the spiritual administrator of all conscious existence. 10 God, therefore, is the director of all conscious activities under the natural law of Nature. 11 Nature is the sole creator of all existence, in each of their open self-organising animate and inanimate life forms that interact with their environment. 12 The laws of Nature are the rules of conduct that governs all creations, and by the natural law of Nature, God was made to administer reason by which to conduct all existence by means of the will-power of Nature. 13 Nature made the natural laws. Nature is the creator of God and all that exists. 14 Nature gave God the administrative power of reason by which humans and other animals are to be governed by their natural instincts. 15 God also provides revelation concerning Nature's will and wishes.

16 In the *Timaeus*, Plato clearly teaches that God or the 'Demiurge' forms things of this world according to the model of the Forms of Nature. 17 This implies that the Forms of Nature exist apart, not only from the created things that are modelled on them, but also from God Himself, who takes all created things as His Model. 18 All planets are duplicates of each other, and thus exists as diversity of one of a kind. All created things is intensely diverse and God directs everything of Nature. 19 All created things are independent of God, Nature posits God to be the administrator of the multitude of Her subsistence essences. 20 God is possessed of a distinct reality independent of all created things of Nature. God is everywhere, and, strictly speaking, the force of God is an incorporeal essence, and incorporeal essence cannot be in a single place. 21 The force of God is transcendent. Transcendence in this connection would mean that God do not change and act with human particulars. 22 In other words, God

is impersonal in relation to all created things. God change and acts by the particular laws-of-Nature.

23 The God's immanence of pantheism implies for us that God is everywhere. 24 There can be no question of this, that, God is as much 'in' as 'out of' all created things He is task by Nature to administer their existences. 25 It is absurd to speak as though God involved the assumption of an Ideal Man who breathes, speaks, overrides Nature's laws, etc., existing in some heavenly place. 26 To do so is to make God gratuitously human: whatever the transcendence of the Ideas of God might mean in Nature, God could not be personal to created things.

27 God Himself is the very essence of a divine status, a subsistence essence, separate from Nature. 28 Scientific appreciation of the mere universal concept of Nature which is embodied in varying degrees in various natural objects of reality all around us, leads one to suppose that the essential existence of all created things is no mere concept, but each has distinct spiritual reality. 29 God in Himself or objective reality of His existence is 'separate' in the sense that He is real, subsistent, but not in the sense that He is in a world of His own, spatially separate from all other created things of Nature. 30 God is spiritual; and the categories of time and space, of local separation, simply do not apply in the case of that which is essentially spiritual. 31 Nature, the creator of all created things, transcends time and space, and we cannot even legitimately raise the question, when She originates or where Her created administrator God is. 32 God is everywhere, as far as human knowledge is concerned. 33 The spiritual distinctiveness between Nature and God would thus seem to imply, in the case of spiritual essence, a reality beyond the subjective reality of the abstract concept-- a subsistent reality-- of a distinctive differences between two entities. 34 It is, therefore, just as true to say that the spiritual essence of God is immanent, as that it is transcendent: the great point is that God is real, and impersonal, unchanged and abiding to the laws-of-Nature.

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35 It is foolish to remark that if the spiritual essence is real, it must resides in a specific place (such as in heaven). God, for instance, exists ‘inside’ and ‘outside’ of all created things in Nature in the same way we breathes air in and out. 36 God, is created of Force in Nature just as humans are created of matter, and as such God is confined to us throughout life, comes into being with us at conception, and immortalise through our individual agency at death or with us. 37 God is both transcendent and immanent, inaccessible to the senses, but apprehensible only to those who are spiritually open-minded to the essence of Nature.

38 To the means of ascent to the realm of God, the signification of the administration of God involve the predetermined approach to life of the individual in Nature. 39 The doctrine of orthodox-pantheism point out that within the spiritual administration of God, reveals the predetermined existence of all created things; that God is the ultimate Principle of unity between all created things and Nature. 40 The Maze-of-Life is the revelation of the ascent from one point to another, from birth to death, in an individual’s life. 41 The Maze-of-Life represents the ‘science of universal transition’, which suggests that “the wide ocean of intellectual desires,” containing ‘every moment decision-making’ and ‘course of actions’ that individual makes has a predetermined consequence in each of their majestic forms. 42 Every created things in Nature emerge into life with a unique Maze-of-Life; personalised by Nature to the character of the soul of the individual. 43 And if God is the final and unifying Principle, it becomes necessary to identify the Maze-of-Life of the individual created things with the Absolute Good of the predetermined existence of life in Nature.

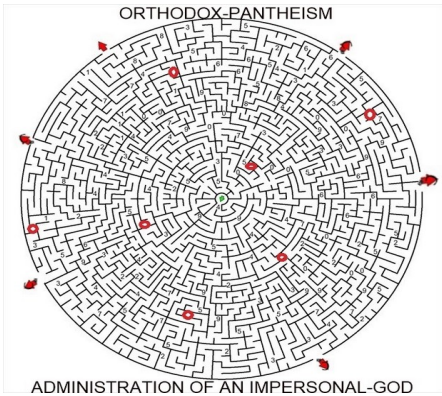

Diagram: Maze-of-Life

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44 In the Maze-of-Life, it is clearly shown that spiritually open-minded people would seeks to know the essential nature of each of their transitional points at every moment in the course of their lives. 45 You are concerned to know and to discern the essence of goodness-- of what represents life going badly or good at any one time-- which is embodied in varying degrees in your life-chart and represented by numbers between zero-to-nine. 46 The circular form of the Maze-of-Life represent the symbol of Nature, and each numbers within the maze represents a points of goodness in the lives of the individual. 47 The single green-dot at the centre of the Maze-of-Life represents the single point of birth of the individual; the red-arrows at the edge of the circular form represents a point of potential departure from life to death, and the various red-dots within represents a potential points of an untimely death. 48 The Maze-of-Life is unique to the individual and different from person to person, like the actual patterns on your fingertips and palms.

49 To borrow words from Frederick Copleston (1946) to elucidate my meanings: Those who are not spiritually open-minded to the predetermined existence of all created things in Nature, have taken up the multiplicity of appearances from their individual history and experiences as a guide. 50 I say they do not attend to the spiritual nature in their life-chart and cannot distinguish the essences of goodness or sorrow represented by numbers in their individual unique Maze-of-Life; 51 from the many life phenomena in individuals, are represented as having only opinion of event and as lacking in scientific knowledge of God and Nature. 52 They are not concerned with not-being, it is true, since not-being cannot be an object of ‘knowledge’ at all, and it is completely unknowable; yet they are no more concerned with true being or reality, which is stable and abiding: 53 they are concerned with fleeting phenomena or appearances, objects which are in a state of ‘becoming’, constantly coming to be and passing away. 54 Their state of mind is thus one of

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‘confusion’ and the object of their ‘thought’ is the phenomena that stands half-way between being and not-being.

55 The state of mind of the spiritually open-minded, on the other hand, is one of knowledge of every points in transition in their immediate future. 56 The object of this knowledge is spiritually Being, the fully real, the essential, the Maze-of-life of the individual or Form of one’s nature. 57 So far, indeed, there is a direct indication that the Maze-of-Life is the dominion of the soul in the life course of the individual, from birth to death. 58 Whilst the Maze-of-Life is endowed by Nature and interpose to operate in one’s lifetime, it is regarded as subsistent to a lifetime and has no spiritual or material connection with any notion of a life before being or life after death. 59 The varying degrees of goodness and sorrow represented by numbers in the Maze-of-Life is there compared to the predetermined consequences of our actions, past or present; 60 the light of which makes the objects of our individual nature and desires visible to all and so is, in a sense, the source of our individual human’s worth and value and beauty.

61 We are to accept the fact of our individual unique Maze-of-Life endowed by Nature and overseer by God; that the Good and the Bad exists as an object among objects in the course of life of the individual. 62 On the one hand, both the Good and the Bad gives being to the objects of desires and so is, as it were, the unifying and all-comprehensive Principle of the essential order in Nature, while itself excelling even essential being in dignity and power. 63 It is therefore concluded that the Maze-of-Life is not a mere concept and that it is indeed an existent end in the life of the individual in Nature, relating to the doctrine of predetermined design and purpose in the material world. 64 The Maze-of-Life is real, towards which all things are in operation in the spiritual realm in Nature: 65 The Maze-of-Life is not only an epistemological principle, but also-- in some, as yet, in a sense-- an ontological principle, a principle of being. It is, therefore, real in itself and subsistent.

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66 It would seem that the objects of Absolute Good and sorrow in the Maze-of-Life must be regarded as the essential operation of the administration of God. 67 Each of the defined numbers in the Maze-of-Life are represented as the high-peak of an intellectual ascent of consequences. 68 While each of the consequential manifestations of actions would appear to indicate that it is the source not only of the goodness of our individual human desires, but also, at other times, of the Absolute Good that emanates from the laws-of-Nature. 69 The consequential manifestations of our actions represented in numbers gives being to the Forms or essences of the Intellectual order of our desires. 70 Human conducts-- both in thoughts and actions-- and the wide ocean of Intellectual desires is a stage on the ascent to the Absolute Good of Nature.

71 The God of pantheism is an impersonal-God. 72 God is made of Force in Nature and not of matter; He has no power to change events in the life of humans but has been task by Nature to admit your desires and overseer it to its consequential manifestation.

73 The first principle that must precedes the beginning and end of prayer as orthodox-pantheists, is simply for God to directs the laws-of-Nature in our lives and to meet its consequence:

74 God, meet me at the points of my needs and desires.

75 God, direct me away from the path of selfishness and let me do no evil to Nature's created things.

76 God, let your administration take its rightful course in my life, and let the laws-of-Nature administer its desires in the predetermined maze of my life.

77 God, I pray for your divine manifestation, your divine grace and keep me always on the most favourable path of my life purpose.

78 God, save me from the vanity that germinates in the minds of humans. And in the circumstances where I cannot avoid it, keep me in endurance to live past it.

79 God, I am forever grateful for my divine existence, and bless the moment of my birth and the moment I die.

Administer my prayers, Oh Lord!

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MATTER AND MOTION: TO LIFE

3 Micro-organisms are present everywhere. 2 Life arises from living matter; mice from corn, maggots from decaying meats, flies from bovine manure, caterpillars from leaves, fish from mud, frogs from slimes. 3 Life comes from other life, and species evolved from other species, and humans evolved into being. 4 All living things, including animals and plants, are living matter. 5 Existence is an organic evolution; all living things including humans are still evolving out of existence of natural-selection. 6 All species of organisms are continually evolving through inherited variations that electrifying individual's ability to compete, survive, and reproduce. 7 Humans are the soul of evolution, and are evolving spiritually by one openness to the transcendental realms of Nature. 8 The trinity of genetic variations exists among all animal species of organisms created in Nature and directed by God: 9 The genes-phenotype is the physical-properties of an organism, such as appearance, skin-colour, structure of an organ including indicative character of physiognomy. 10 The genes-genotype is the biological-properties of an organism, and the director of organic susceptibility to the aging-process of well-being and predispositions to condition of health. 11 The genes-neurotype is the behavioural-properties of an organism, and the conductor of one's personality traits, such as perception and thoughts. 12 The variations of genes is heritable, the designer of reproductive isolation that attach the heavenly soul with the physical body at conception. 13 This by-product of both genetic makeup and one's immediate environment, is God's scientific expression of Nature's law.

14 The doctrine of God's relationship with the pre-existence of the soul and the process of 'recollection' should not be taken with the same exactitude and corporeal impression as more scientifically argued themes like matter or motion. 15 It would no more mean that the Ideas of the soul are in a heavenly place of their own than the transcendence

of a personal God implies that God resides in some heavenly place. 16 Whilst humans are made of matter in Nature, God is made of Force in Nature. 17 The administration of Force over matter, is the administration of God over living existences.

18 Frederick Copleston, in '*A History of Philosophy*' says: In *Phaedo*, Socrates gives an account of the soul's future life, and then expressly declares that it does not become a human of sense to affirm that these things are exactly as he has described them. 19 But while it is clear enough that the account of the soul's future life is conjectural and admittedly 'mythical' in character, it appears altogether unjustifiable to extend the concept of 'myth' to include the whole doctrine of immortality. 20 Socrates declares in the *Phaedo* that, though the picture of the future life is not to be understood literally or positively affirmed, the soul is 'certainly immortal'. 21 And, as Plato couples together immortality after death with pre-existence, it hardly seems that one is warranted in dismissing the whole conception of pre-existence as 'mythical'. 22 It may possibly be that it was no more than an hypothesis in Plato's eyes; but, all things considered, we are not justified in simply asserting that it actually is myth, 23 and, unless its mythical character can be demonstrated satisfactorily, we ought to accept it as a seriously meant doctrine. 24 Yet even if the soul pre-existed and contemplated the Forms in that state of pre-existence, it would not follow that the Forms or Ideas in any place, save metaphorically. 25 Nor does it even necessarily follow that they are 'detached' essences, for they might all be included in some ontological principle of unity.

26 God is the efficient cause of order in the universe, and He is task by Nature to fashions the objects of the world after the pattern of the Forms of Nature, as exemplary cause. 27 It can scarcely be denied that the Forms of Nature are distinct from the transcendence nature of God, because there is no doubt that Nature is the creator of all that exists. 28 Since we conclude that God exists, it therefore remain undeniable that God is part of the creation of

Nature, and task by Nature to administer the existence of all subsequent created things after Himself.

29 In the *Phaedo*, where the discussion centres around the problem of immortality, Frederick Copleston further says: it is suggested that truth is not to be attained by the bodily senses, but by reason alone, which lays hold of the things that 'really are'. 30 What are the things that 'really are,' i.e, that have true being? They are the essences of things, and Socrates gives as examples justice itself, beauty itself, and goodness itself, abstract equality, etc. 31 These essences remain always the same, while particular objects of sense do not. 32 That there really exist such essences is assumed by Socrates: he lays it down "as hypothesis that there is a certain abstract beauty, and goodness, and magnitude," and that a particular beautiful object, for instance, is beautiful because it partakes of that abstract beauty.

33 In the *Phaedo*, the existence of these essences is used as an aid in the proof of immortality. 34 It is pointed out that the fact that a person is able to judge of things as more or less equal, more or less beautiful, implies knowledge of a standard, of the essence of beauty or equality. 35 Now, humans do not come into the world and grow up with a clear knowledge of universal essences; how is it, then, that they can judge of particular things in reference to a universal standard? 36 Is it not because the soul pre-existed before its union with the body, and had knowledge of the essences in its state of pre-existence? 37 The process of learning would thus be a process of reminiscence, in which particular embodiments of the essence acted as reminders of the essences previously beheld. 38 Moreover, since rational knowledge of essences in this life involves transcending the bodily senses and rising to the intellectual plane, should we not suppose that the soul of the philosopher beholds these essences after death, when one is no longer hampered and shackled by the body?

39 The existence of matter and motion to life, is the universal forms of space and time; the coordination of forms of existence

of all the objects and processes that have ever existed, currently in existence, and will exist in the infinite universe.

THE UNIVERSE IS A VAST ELECTRIC ORGANISM

George Woodward Warder

4 Electricity, next to Deity, is the most remarkable entity in the Universe. 2 Its marvelous and varied powers and utilities create a new epoch in scientific thought and discovery. 3 Its study is replete with new and fascinating ideas and scientific theories. It contains the story of the Universe more sublime than an epic, more wonderful than a romance. 4 It organised the machinery of the worlds, and holds the secrets of Nature and the mysteries of life in its invisible grasp.

5 Electricity is the right hand of Deity, the tongue of the Spirit, the Word of Omnipotent power, the protean cosmic force and creative machinery of the Universe. 6 At the divine fiat electrons seized all atoms and space, it shook the ether into nebula, the nebula into worlds, the worlds into constellations, the constellations into a Universe. 7 Electrons shaped planets and rounded suns and hurled them forth to circle in the chorus of the singing spheres. 8 Electrons gave form and functions to all matter from the rounded pebble to the stars; from the raindrop to the surging seas; from the chirping cricket to the sporting leviathan; from the helpless infant to the giant human.

9 Electrons is the messenger and executive of Creative Will to all created things. 10 Electrons is the ambassador of spirit to matter, the autocrat of communication between all the faculties of mind and all the functions of physical existence. 11 It is the law of affinity in matter, of selection in atoms, and whispers to the body the intuitions of the Spirit and guides insensate worlds to do the will of Creative Omnipotence.

12 Electricity is the wonderful medium and agent by which mind acts upon matter and works the miracle of life and growth. 13 This mightiest servant of God and human, this genii greater than

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Aladdin's lamp, impresses all laws upon Nature, and makes the Universe obedient to the will of Deity, as human's body is obedient to the dictates of human's mind. 14 This inscrutable word of power from the source of all power is beginning to supply the human race with an inexhaustible force that will revolutionise the earth and link all nations together as one family in a millennium of peace and goodwill.

15 Human life seems to throb, pulsate, gleam and glow in this marvelous current of existence, 16 which causes illumination, transportation, telegraphy, photography, surgery, horticulture, agriculture, metallurgy and manufacture to step forth as master magicians to work miracles for the comfort and happiness of humankind. 17 Every new discovery, every step in the progress of electrical science conquers time, destroys distances, diffuses knowledge, dissipates ignorance, encourages friendship and draws people and nations closer and closer by physical ties and spiritual affinities. 18 Where once noisy ponderous mechanism pounded the rocks to release the metals, electrical science with its unseen but resistless currents instantly separate the ore and the dross. 19 Where the soot-begrimed engineer seizes the heavy iron throttle, she cleanly and softly touches a tiny button and the miracle is wrought -- 20 the heavy steed of steel receives its life not from smoking, hissing, fussing steam, but from an energy as silent as light and as potent as Omnipotence.

21 This invisible electrical energy, without brush or colour, paints the gorgeous beauties of the rainbow, and photographs in every ray of light and on every human eye the moving panorama of every passing scene. 22 It telegraphs between mind and matter, between soul and body, between suns and planets, and gives life and energy to all the varied functions of this electric magnetic Universe. 23 This strange, miraculous power has taken its place as the supreme force of all forces, the ultimate elemental force from which all other physical forces are derived, and, without fuel or expense, flies

with its burdens swifter than the flight of eagles.
24 It is the last and greatest progeny of human genius and discovery, the seventh daughter of science, who dips its wand in the impossible and miraculous until miracles become prolific and common. 25 Its power and expression are universal and its character and process superlatively grand. 26 Its theatre of action is the Universe and it comes to earth as the voice of Deity and the word of His Omnipotence.
27 This science of the impossible, this daughter of miracles, is destined to outstrip all past achievements. 28 The ponderous and noisy mechanisms will pass away, the barren rocks will change into most precious things, the sunlight will be converted into reservoirs of power, 29 and every raindrop and waterfall, ocean tide and wind current, will reveal exhaustless sources of wealth and energy. 30 Then will the ancient curse, "by the sweat of thy brow shalt thou eat bread," be removed, and agriculture and commerce will be conducted without the drudgery of toil or the weariness of labour, 31 and the earth shall blossom at the touch of the silent electric forces which human will harness to own cars of progress and power.
32 Manufacture will then be automatic and the web it will weave in its silent loom will not be wet with the tears of imprisoned childhood, or the agonising sweat of dungeoned humanhood.
33 Omnipotence follows its footsteps and with the blessings of heaven it comes as a friend to relieve pain and toil and elevate and glorify humanity. 34 Its power is as boundless as space and as universal as heaven's love.
35 For it comes with the Omnipotent power of Deity to relieve the burdens of toil, lift up the oppressed of the earth, and give human leisure for mental improvement and social elevation.
36 Electricity, I contend, is the invisible force which evolves form and substance and all visible things. Matter is but the outer garment of these invisible electric forces. 37 It is Spirit which creates psychic life, and makes life the cause instead of the consequence of organism.

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38 It is electricity which evolved the physical Universe and makes it a vast electric organism bound together by invisible electric ties, where its invisible forces are the cause instead of the consequence of physical organism. 39 These are the basic differences between the materialistic science of the past and the psycho-electric science of the present. 40 In the past science investigated only visible material effects and ignored the supreme invisible forces and laws which evolved and produced them.

41 This is an age of dominant mind, the development of a cycle of invisible forces. 42 The past century was the age of matter. It is said Darwin, Tyndall, Haeckel and Huxley did a work which had to be done. But their work was limited to chemical and biological demonstration. It was science, but science of the old school. 43 The discoveries since made in the domain of electricity and mental transmission make their discoveries seem trivial in comparison.

44 Francis Grierson says: "The discoveries and inventions of the past ten years have made child's play of every previously known system of philosophy. 45 The simple but amazing facts disclosed during the past five years render the dreams, speculations and guesswork of the past absurd. 46 The little we know in a practical way is more than all the philosophers of the past knew, from Aristotle to Leibnitz."

47 I contend that the Universe is a vast electric organism. 48 That all light, heat, and vital force is generated by electric energy in the dense magnetic atmosphere of suns and planets, 49 where alone it is needed for animal and vegetable life, and in volcanic pockets or circuits in the outer crust of these bodies caused by electric repulsion. 50 That the Universe began in extreme cold, not heat, that the suns are not hot, but are self-luminous, perfected worlds, and like our earth, except greater and more prolific in life and power. 51 I also contend it is as reasonable to bury an iron ship in the icebergs of the Arctic seas and expect it to become "red hot," 52 as to expect the sun, planets or anybody traveling through space 460-degrees colder than those

icebergs to become "hot, red hot or molten," as the astronomers say the sun is. 53 All light, heat, vital force and physical life is created by contact of opposite electrical polarities in the magnetic cushion surrounding all suns and planets.

54 The sun furnishes the positive electricity and the planet or satellite the negative, and from these two spring all the cosmic and material forces of the Universe. 55 The electric currents of the sun create induced magnetic currents on the earth, which evolves all visible substance and life forms. 56 The earth at its center is a magnet of crystalline rock and varied metals, placed layer upon layer as a thermopile or voltaic battery, which constitutes the solid core of the earth magnet, 57 and draws and holds all matter and substance atoms and atmosphere close to its magnetic heart, so that nothing can be thrown off of its vast surface, 58 though it shoots through space fifty times faster than a bullet from a rifle and whirls round with the speed of a revolving cylinder of a dynamo. 59 Its swift duplicate motion makes it a working battery or arc dynamo of marvelous power. 60 It draws all things to its magnetic center as the magnetic core of a steel magnet draws filings of iron and other metals to its magnetic surface, and they cluster there in the same spherical form.

61 This earth magnet drew countless meteors, swarms of nebulæ and invisible matter from surrounding space, and grew in size and magnetic power as a steel magnet may grow by adding other countless magnets with their increasing power and growing accretions. 62 For my theory is that every atom is a tiny magnet, and every molecule, meteor and visible form of matter is a combination and aggregation of magnets.

63 Aside from the theory of magnets, this is not far from Lockyer and Proctor's theory of the stellar formation. 64 Norman Lockyer says: "The stellar constitution may be explained by supposing it to arise from cool meteoric swarms represented by the nebulæ and the rise of temperature due to contraction toward a centre." 65 And he adds: "In the stars we have celestial furnaces the heat of which

transcends that of our most powerful electric sparks." In this heat theory I think he is radically wrong. 66 The rise of temperature on the sun and earth, I contend, is not from contraction, which is both insufficient and too irregular to be considered. 67 But it did arise from the growth in power and size of the earth as a great magnet, so that as a great arc dynamo it began to throb with electric energy, 68 and, by drawing to itself powerful currents from space and from the sun, the central electric heart of its organism, it began to generate heat and light in its own environment, which in time became translucent to the sun's rays, 69 and, instead of the sun and earth losing their light and heating power, they are steadily increasing them.

70 It is thus apparent that all light, heat, physical organisms and vegetable and animal life are evolved and exist only in the magnetic atmosphere of suns and planets.

71 The light we see does not come from the sun or stars; it is generated in our own atmosphere. 72 No human ever saw the sun or stars; they see the rays of light which photograph them in our atmosphere. 73 They see pictures of them at the end of the ray emanating from them, but some of these rays have been two hundred years in reaching us.

74 It takes light over four years to reach us from the star nearest our earth, so it is plain we do not see these stars.

75 As to the heat of the sun, there has been a vast difference of opinion among scientists. 76 Newton held it to be 1,669,300 degrees hot; Erickson, 2,726,000 degrees hot; Sacchi, 2,000,000 to 6,000,000 degrees; Waterson, 9,000,000 to 10,000,000, and Soret, 5,800,000 degrees hot. 77 But since the discovery of the law of the conservation of energy, which is only about a hundred years old, the scientists have been hedging and craw-fishing with wonderful dexterity and reducing it, until now 18,000 to 20,000 degrees are accepted as possibly correct.

78 As Newton was a great mathematician and the scientists accept him on other scientific questions, they ought to accept him on the sun's heat, and acknowledge a fact that ought to

be apparent to all -- 79 that if heat comes to the earth from the sun, in a column 93,000,000 miles long and 8,000 miles in diameter through frigid ether 460-degrees colder than ice, the sun must be millions of degrees hot. 80 Then, as nothing in the known Universe can exist a million or even twenty thousand degrees hot, they should admit the sun is not hot, and no heat comes from the sun to the earth. 81 Only electric currents come from the sun, which generate heat and light in our own atmosphere.

82 Then arises another question. All bodies lose their magnetic power when heated to less than one thousand degrees hot. 83 Professor Fleming in his book, "*Magnets and Electric Currents*" says: "Magnetic bodies become changed into feeble magnetic ones by heating to a certain temperature. 84 Iron at its critical temperature, 690-degrees to 870-degrees or a light red heat, loses all its strong magnetic qualities. In the same way nickel loses them at 300-degrees." 85 Thus we have the sun at even 1,000 degrees hot deprived of its magnetic power and unable to control the solar system. 86 Prof. T. C. Mendenhal, in a recent article in Harper's Magazine, says: "The electrical resistance of pure metals diminishes at a rate which indicates that at absolute zero it would vanish and these metals would become perfect conductors of electricity."

87 Thus cold increases and heat diminishes the electric energy of metals and all substances.

88 In my previous book, The Cities of the Sun, I have given over fifty reasons why the sun is not hot. 89 Among them I may mention, first, because of the extreme cold that prevails in the upper atmosphere of the earth, through which the sun's rays must pass, but whose temperature they cannot alter. 90 Second, because the sun's rays must traverse 93,000,000 miles of space between sun and earth, which is 460-degrees colder than ice, which would make it impossible for them to retain any degree of heat whatever. 91 If heat comes from the sun it must come in a column 93,000,000 miles long, 865,000 miles in diameter, converging to 8,000 miles at the earth's surface, which would

destroy the sun or any known body in the Universe to furnish such heat. 92 Third, because the perpetual snow upon the mountains even in the tropics show the sun's rays bring no heat to the earth, or the snow would be melted by the first and greatest volume of heat from the sun. 93 Fourth, because if heat came from the sun there could be no clouds in our atmosphere, for the heat of the sun would strike them first, and greater heat above the cloud level would prevent their formation and forever banish them from our skies.

94 Fifth, because heat by the law of its nature is diffusive, and cannot be shot from one sun or planet to another, or forced through space like a leaden ball or other substance, but is soon dissipated in the cold ether of space. 95 Sixth, the sun is not hot because comets have passed three hundred thousand miles through the sun's corona without visible change or injury, 96 which would be impossible if the sun is excessively hot, for the comet, coming from outer space, must be intensely cold, and excessive heat in the sun would explode and destroy it. 97 This argument alone should destroy the hoary headed superstition that the sun is hot.

98 Seventh, heat does not come from the sun, because there is no such thing as heat. Heat is simply a sensation; it is not a substance or an entity.

99 It is a sensation caused by the increased activity of the molecules of which a body is composed, and, is produced by electric currents. 100 I hold the sun is not a thermal or heating engine, as the astronomers claim, but an electric generator which is not hot and does not need to be hot. 101 I repudiate the law of gravity and adopt electricity as the evolving force of the Universe.

102 As the sun is 745-times larger than all the planets of the solar system combined, and controls the life and energy of the solar system by all laws of analogy and distribution in the Universe, 103 it should be more highly endowed with all the elements of growth, living forms and intellectual organisms than all the planets combined. 104 Therefore, the sun should be the spiritual and

intellectual center as well as the physical and electric center of our system of worlds, the headquarters of Deity and the future abode of human. 105 No life could come from a hot or burning sun or world, yet all animal and vegetable life comes from the all life-giving energy of the sun. 106 Heat is not life-giving, it is not even a substance or a force. 107 Heat does not exist except as a sensation created by the increased activity of the molecules of which the body is composed. 108 This increased activity is caused by currents or waves of electricity passing through a body or substance. 109 Cold is the absence of heat or lack of motion of the molecules of a body or substance, and, like heat, is not a reality, a substance or a thing, but only a sensation.

110 Heat and cold are produced by electricity, and are sensations resulting from electrical conditions. 111 Heat is not a creator; electricity is the creator and heat is its servant, and only one of its thousand-fold expressions. 112 Electricity creates the activity of the molecules which gives the sensation of heat. 113 A person standing in the sun on a hot day receives currents of electricity which were not hot when they left the sun, but only became so when they came in contact with the earth's opposite electricity near the earth's surface. These currents produce the sensation of heat. 114 The sun is not a burning globe, or blazing world of fire; it is an enormous magnet of measureless power, thirteen hundred thousand times larger than the earth magnet on which we live. 115 It revolves on its enormous axis at the rate of four thousand miles an hour and is thus constituted a working magnet or arc dynamo, 116 drawing electric energy from its vast electric field, embracing the solar system, six billions of miles in diameter. 117 Of this electricity, it uses for its own light, heat, and vital force what it needs, and the balance is thrown off to its luminous corona or photosphere, 118 where it is shot by the law of electric repulsion in the sun and electric attraction in the planets to the earth and plants. 119 The brilliancy of the sun is caused by its surplus electricity creating a

luminous aurora which extends from its poles to its equator.

120 Newton discovered an imaginary force. Newton had an imagination which the scientific plodders who came after him lacked. 121 They have dug in the dirt, while he sailed through azure seas and linked suns and worlds together by the mere sweep of the imagination, without any explanation or conceivable cause, and called it gravity. 122 He might just as well have called it weight or ponderosity, which means the same as gravity. And the scientists followed him and accepted his theory of gravity, which means nothing and explains nothing. 123 It was the best they could do, as he had an imagination and an idea and they had none. 124 Thus the blind led the blind for two centuries, until electricity and its invisible forces were discovered, and a new field for thought and causation was opened up.

125 Let us suppose that space and the invisible atoms or star dust which permeate it are seized by electric energy, creating a boundless sea of invisible electro-magnetism, which began to vibrate to the law of action and reaction, attraction and repulsion. 126 Under this law every atom became a tiny magnet, and electric centers are formed which are the foundation stones and nuclei of growing suns and worlds; 127 and invisible atoms, nebulæ and finally meteors are drawn by electric energy and woven by magnetic force 128 or induced electric currents into orderly layers of crystalline rock and varied metals, forming a vast thermopile, galvanic battery, working magnet, and electric dynamo all combined. 129 By the law of electric attraction all matter would tend toward a common center, 130 and in that common center would be found the vast central magnet-sun, sphere and dynamo many times larger and more powerful than all the others combined. 131 As each grew in size their electric potentiality would be increased, their electric and magnetic attractions multiplied, 132 and their revolution upon their axis and their orbit motion would be accelerated to a marvelous extent, giving them measureless force and power.

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133 Herbert Spencer affirms that space is eternal and has always existed. We will suppose the same of matter in its elemental form, known as the atom, 134 and we will venture also to assert that force is a substance like matter, but a thousand times more refined and invisible than the atom, and we will call it the electric ion, or electron.

135 Thus we have three indestructible, invisible entities--space, matter and force-- 136 which have existed eternally and which constitute the basic foundation and fallow ground of primeval chaos, which was the beginning of the Universe. 137 Then stars and planets, suns and worlds were transparent ether, as impalpable as the viewless air, 138 and scattered as star-dust in the measureless void of space along the forgotten highways of the eternities. 139 Silence reigned profound in the pulseless regions of the air where, motionless and dumb, the atoms hung in dark and lifeless space. 140 There was nothing in all that seemingly chaotic Universe; nothing but cold, darkness and silence. 141 But these are the home of atoms and ions, the star dust and cosmic force, creative Deity had scattered by the breath of His power through the highways of space in the beginning of primeval creation. 142 While these seem as nothing to human, they are the foundation stones of all creation.

143 This nothingness of space was the fallow ground of the Universe and the formless shadow of suns and worlds. 144 It was a Universe in solution, as viewless as ether and as intangible as mind. 145 The electric energy of space was yet unstirred by the divine fiat or shook into vibrating force by the word of creative power.

146 Then at the creative behest, "Let There Be Light," the ions of force, like an electric clothing of light and life, leaped into power, permeated all atoms, and wrapped as in swaddling clothes a new-born Universe. 147 Then atoms and ions of electric force met in fond and unending embrace, substance and energy clasped hands, and matter and persistent force were woven into each other's arms and saturated with electric life-giving energy.

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148 The sun magnet, being larger and more powerful than all the others combined, would hold the others we call planets in the magnetic field of own sovereign power, and become the electric heart and commanding force of own system of world magnets. 149 It would draw its electric life and energy from its vast electric magnetic field embracing its solar system, which with our sun is six billions of miles in diameter.

150 As these bodies grew in size under the law of electric attraction, which draws all matter toward a common center, they would become more and more compressed, dense and stable, 151 until they attained their natural equilibrium of balanced forces and assumed their permanent form and solidity. 152 Then they would assume their normal velocity of revolution on their axis, and their orbital motion along evenly balanced lines of force, without friction or change, for countless ages. 153 All suns and planets revolve on their axis under the law of electro-magnetism by which electric currents of force pass through their centers at their poles, and magnetic currents of equal force pass one way around them, creating their diurnal motion.

154 This law is briefly stated by a standard work on electricity: "A wire or any conductor having a current of electricity passing through it has lines of magnetic force passing one way around it, and the number is in direct ratio to the quantity of current passing through the wire. 155 This magnetic effect is strongest close to the wire, and decreases inversely as the square of the distance." 156 This is a marvelous combination of the dual forces of electricity, which operates as a wonderful mechanical contrivance to spin the heavenly orbs on their poles, 157 like a top is spun by a string or band around it or like the cylinder of a dynamo is revolved by its leather bands or a water wheel turned by the swift current of a river. 158 By reason of this law, all suns and planets revolve on their electric centers at their poles. 159 The great electric currents from the sun eight thousand miles in diameter and ninety-three million miles in length, like a mighty, inexhaustible river of force and

power, cause the earth to turn over, as a water-wheel is turned by the swift current of a river. 160 This vast stream or current of invisible power, when it starts from the photosphere of the sun, is 865,000 miles in diameter and is narrowed to a focus of 8,000 miles at the earth's surface, thus increasing its force and power a thousand-fold. 161 The largest river on the earth is 180-miles wide at its mouth and about 3,000-miles long, 162 but what an insignificant rivulet it is in contrast with this vast, invisible, omnipotent stream of electric life-giving power, constantly passing to and fro from sun to earth and from earth to sun.

163 Think of its marvelous speed! While the swiftest current of a river or the speed of a railroad train is scarcely 50-miles an hour, this mighty electric tide comes with the speed of light 186,000 miles a second, or almost 12,000,000 of miles an hour; 164 and it turns the earth over at the rate of a thousand miles an hour by its lines of magnetic force, just as the swift tide of a river turns the water-wheel of a mill. 165 And that the earth may turn more surely and steadily, it has vast mountain ranges running north and south from its poles, 166 such as the Andes and the Himalayas on opposite sides of its surface, and other ranges scattered between, to act as extending flanges and paddles, like those on a water-wheel, 167 to enable this vast electric tide to turn it more readily, and, like the brushes on an electric dynamo, to generate and draw electric currents from earth and sky, and moisture from the clouds, to bless and fertilise the earth and make it the theatre of human's life and activities.

168 Beneath these mountain ranges and in the outer crust of its surface are many cavities or openings we call volcanoes connected by powerful currents of magnetism constantly circulating from the equator to the poles; 169 and when there is an influx of water or other substance sufficient to generate electric resistance and repulsion, a fuse burns out in the circuit at that point, 170 the volcano sparks, blazes, explodes with great force, and shoots its molten lava into the clouds, or, like Mount Pelee, blows its head off.

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171 Another simple illustration of the Universe as a vast electric mechanism is the electric street-car system in our cities. 172 The sun represents the great central power house where the electric power is generated.

173 The planets represent the cars, which revolve on their axis and speed forward by the same force and in almost the same manner as the planets revolve on their poles and continue in their orbital lines of force. 174 The trolley wire and current are the cars' electric line of force and they come and go in their circuit propelled by the electric generator at the central power house, 175 in very much the same way as the planets revolve and come and go on their orbital circuits around the sun by the moving force and electric power of the sun.

176 The circuit of the electric current on the car line starts from the dynamo at the power house and returns along the rails or through the earth back to the dynamo. 177 In like manner, the vast electric currents of the sun pass to the earth through the ether without wires and do the lighting, heating and cosmic life-work, and return to the sun completing their circuit; 178 and the earth sends its electric currents to the sun and they return to the earth through the ether in the same manner and complete their circuit. 179 Thus there are vast highways and boulevards of electric currents passing from suns to planets and from planets to suns which are pathways to the stars and the great highways of eternity, 180 on which invisible atoms, and perhaps invisible human souls, may pass from earth to suns and central suns. 181 In the future, human will turn the searchlight of investigation upon electricity as the universal operating cause of all physical phenomena. 182 We will solve the riddle of the Universe by its subtle invisible forces. 183 We will cease to regard creation as vast constellations of burning spheres whirling through frigid ether. 184 We will look upon it with wonder and inspiration as a vast self-controlling, life-evolving, varied but unchanging unity, a perfect whole-- a vast electric organism of omnipotent power and eternal existence. 185 We will

regard electricity as the finger touch of Deity that makes the world go round, that marks out the orbits of suns and the pathway of constellations, and guides them in their mysterious courses to their eternal and inscrutable destiny.

ELECTRICITY PRODUCES ALL THE PHENOMENA OF NATURE

George Woodward Warder

5 I contend that electricity produces all the phenomena of Nature -- 2 that it is the ever active agent in evolving visible forms and substances whose results are known as laws. 3 Human is the most perfect enfoldment of Nature's electric laws, and the world and the Universe are the universal expression of electric life and energy.

4 Human and all the visible forms of creation are woven from invisible ether by electric forces, 5 and, as human's will and thoughts are the governing force of its electric organism, so simple and universal are the laws-of-Nature 6 that the will and thoughts of Deity, by electric energy, are the controlling law and force of the Universe, and the ultimate cause producing all causes, all creations, and all tangible forms.

7 The natural world is the product of matter, and force and all matter is one matter represented by the invisible atom, and all physical force is one force, being the varied manifestations of electric energy. 8 For the natural world is the spiritual unfoldment made manifest by electric power. 9 Therefore all the varied phenomena of Nature, the revolution of the earth on its axis and in its orbit around the sun, the brilliant light and governing power of the sun, the circling stars, the blazing comet, the shooting meteor, the gorgeous rainbow, the luminous aurora, and the dazzling corona are all expressions of electric power.

10 The lightning in the cloud, the reverberations of thunder, the ebb and flow of the tides, the wind currents in the air, the swaying of the forest, the variations of heat and cold, the falling of snow, the rain drop and the dew are all electric manifestations.

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11 You cannot raise your arm, lift your foot, or move your body except by electric energy. 12 You cannot see or hear or feel or taste or smell or exercise any of the functions of the body without bringing to your aid the electric force which permeates all forms and substance. 13 Electricity creates the mystery of physical life and provides the food and sustenance necessary to its growth and development. 14 Electricity works the miracle of digestion and assimilation and converts inert matter into blood and bone, tissue and muscle, 15 and organises human's body into an electric machine, and runs it as truly and perfectly by electric energy as the electric motor or generator is run by electricity. 16 Human draws your electric life currents from the air into the lungs as a great electric reservoir, 17 there it purifies and energises the blood and sends it as an electric fluid and circulating magnetic current through every part of the body, causing the heart valves to pulsate with measureless force and the human machine to throb with intense life and power.

18 The heart throbs and pulse beats of human's body are but the rhythmic whir and vibrations of the human electric machine. 19 Human makes electrical machines of wood and glass and metal, but Nature makes them of flesh and blood and of all matter and substance. 20 Nature, the all-wise and mysterious necromancer, makes nothing but electric machines from the infinitesimal atom to the self-luminous perfected dynamos -- the suns and stars. 21 All things that exist are electric generators or electric creations of marvelous construction, power and utility; 22 and all expressions of form and power, all visible objects, and all the varied phenomena of Nature are produced by electric-magnetic energy.

23 Franklin and Faraday, Harvey, Morse and Edison, by their discoveries have taught us that as the potter and the clay must come together to form the rudest vessels, so creative electric force must touch every sensitive atom in organic being; 24 and keep the wellsprings of life constantly flowing through all life forms. 25

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There is no unfolding of bud and blossom, tree and shrub, without the coming and going of electric life-giving sunlight and earth light. 26 They pervade all bodies of matter, whether world spheres or seed germs, and hold communion with all atomic centers of sensation in all living organisms. 27 Atoms seek their electric affinities, life-forces and life-forms touch each other by the grasp of magnetic attraction and repulsion, and these give personal sensations and vital forms of being.

28 Through the medium of electricity, material and mental forces meet together upon the plane of human consciousness. 29 This is Nature's method of communication between the material and mental within the human brain, 45 which has been a puzzling and difficult problem of physical science. 30 The language of the senses is a universal language that has its foundation in invisible forces.

31 There is a unity between the light and the eye that indicates their origin in the same lines of force that now give sight to the brain life.

32 In the ear, there is evidence that the electric vibratory currents of force producing sound had a companionship with the electric life-germ in which the ear had its beginning. 33 So all organs of sense possess unmistakable evidence of having proceeded out of those electric forces that are unseen and imponderable. 34 The knowledge of these is the story of the Garden of Eden, incorporated into the life of every intellectual being. 35 All the evidence of the senses comes from electric telegrams from without or within human's physical organism. 36 Seeing and hearing are wireless telegrams from the ether without, 37 and feeling, smelling, tasting, are wired telegrams running along the nerves of human's body and communicating with the brain -- the seat of intelligence --and the reasoning soul.

38 Human must have a connecting link between one mind and body and the things about oneself; 39 and, as that connecting link and medium in human is electricity, so plain and simple are the laws-of-

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Nature that God has no other medium between itself and all material creations. 40 Electricity therefore is both the creative governing energy of Deity over the Universe, and the governing energy of human over all material things. 41 God controls the Universe as human controls own body -- by electricity.

42 Human has five senses: seeing, hearing, feeling, tasting, smelling. These are all communicated to the soul or spiritual body by electricity. 43 Human feels by the electric flashes that come from every part of own body, that tingle on one nerves, and beat upon the brain, and touch the garments of the living soul. 44 One sees through the medium of the electric etheric waves of light that come from the vibrations of the air around one. 45 By these swift electric flashes the infinitesimal rays of electric light enter the retina of the eye and touch the quick vision of the soul. 46 One hears by the atmospheric waves of electricity that beat upon own ear drums. One tastes and smells by the same electric process; 47 and your five senses are but the inward communication of outer surrounding conditions and substances to one spiritual perception by means of electricity. 48 Thus the Creative Deity hears and knows, and by the same forces directs and sustains all things.

49 Human as an electric engine is far more efficient than any known engine in which there is a consumption of fuel. 50 In general the amount of work a human does bears a certain proportion to the fuel one puts into own boiler.

51 Plants also constitute forms of electric engines to embalm the sun's rays and use the products rejected by human and animals. 52 By the radiant energy of the sun, plants are able to decompose carbonic acid. 53 They form storage cells in which a current of electricity decomposes the liquid into oxygen and hydrogen and form materials which again give electricity, motion and heat. 54 The sun enables the plant engine to work. 55 It also enables the human engine and animal engine, and world engine to work by furnishing them all with the electric energy and working power

of the Universe, that they may do their part in the ever living forces of cosmic life. 56 The cells of protoplasm are infinitesimal magnets or electrical machines, all vegetables are but larger magnets, all animals still larger, till we get to worlds and suns, the greatest of them all.

57 All the radiant garments of creation in their varied colours of light and beauty that now appear to human vision are woven from the same garments of immortality that wrap themselves around the initial centres of magnetic attraction.

58 As the worlds were created by invisible electric forces under the guidance of the Omnipotent creative spirit, so the same electric forces are still carrying forward the work of their unfinished structures, and perfecting the unity and completing the harmony of creation. 59 What we now call gravity is electric attraction and accretion that was commenced at the beginning of Nature's work of creation, 60 and which continues to be the occult force that secures the growth of a blade of grass, the unfolding of the tiniest seed with its inwrapt life-germ and the development of a world, 61 and which brings us face to face with the creative force that was the starting point of "the beginning" and will be the culminating center of all ultimate perfected creation. 62 This electric life energy touches each growing seed center as at the beginning it touched each growing world center and reveals the power and wisdom of creation in every evolving form of life.

63 The same electric radiate lines that give the parental image in the mirror by an instantaneous flash of light, give also the parental image in the germ-life that evolves a new paternity. 64 While we cannot trace the lines of electrical union that are mingled in this new life, we are justified in affirming that electric and radiant matter must have bridged the chasm between the old lives and the new, between parental duality and the dual forces of electricity that produced a new germinal individuality. 65 And the new life cannot be possible without the separate unfolding of two distinct organisms meeting in generative embrace, imparting a new seed-life. 66 All germ-life has

its beginning where positive and negative magnetic currents blend into unity.

67 As all material organisms take on their organic form around electric or magnetic centers drawing their atoms from electrical currents, so all life-germs take their growth from the magnetic centers of their growing forms. 68 Here in the field of electric forces is to be found the generative forces of organic matter-- the mysterious births from all parental life. 69 And the constantly revolving circle of periodic changes of growth and decay, of life and death, of seed beginning and seed producing-- like sunshine and shadow, light and darkness-- are opposite points in the circle of electric force and physical life. 70 The growing and dying life-forms intervene between these two points of rest and renewal, of attraction and repulsion, of positive organism and negative diffusion of matter.

71 They are the results of the great electric system of attracting and repelling currents of magnetism that are as fixed in their lines of force and order of work as the rocks at the foundations of the mountains. 72 In fact, all that is strong and abiding in matter rests upon these currents of energy, and all of life is dependent upon the constancy and perpetually pulsating flow of the unseen electrical potencies of creation. 73 Life is a universal unity, as light, heat, electricity and polarisation, which evolve it, are unities. 74 The order of ascending life organism is from the simple to the complex; from the lowest plane of rock formation the series is upward; from the lowest form of vegetable life it is up to the highest, 75 and in the animal life upward till the crowning work is reached in the thinking animal we call human, who is more than a thinking animal.

76 To each ascending form there is an endowment of self-perpetuation by parentage and seed fruitage, 120 which involve the electro-magnetic condition of germ life. 77 Thus by electrical forces plants build within each other and form others by elementary atoms, with power of self-propagation, bridging the life-gulf between silent atom and living organism as

if they were the material work of some spiritual builder.

78 Thus by electrical forces Nature builds all human and animal life-forms and organisms. 79 The primary atoms of matter have their home in the electro-magnetic forces and are evolved from them into the material organisms of creation. 80 When the electro-magnetic origin of light, heat, physical life and so-called gravitation is fully accepted and their dynamic energy traced to its potential body, 81 we have reached the strength of primary forces and the unending circle of electrical potencies. 82 This brings us to the border land of creative work, to the mysterious sea of all life-giving forces, and the universal basis of all existing creations.

83 Here spirit, matter, and electricity-- the three great basic entities of creation-- work together in full accord in evolving and fashioning all material growth and material structures. 84 In natural growth protoplasm gives the material conditions of life without which there could be no food supplies. 85 They contain grouped elements of oxygen, nitrogen, hydrogen and carbon out of which living structures are reared. 86 Life is dependent upon food supplies of matter, which supplies must be raised to radiant conditions by electric forces to secure its assimilation into living organic forms.

87 Life, therefore, like light, seeks through magnetic action a radiant plane of matter where it can reveal its working presence. 88 Upon such a plane all forms of life come to birth from a common parentage-- from electric force and radiant matter, 89 each form endowed with personality, and powers of reproduction that make them factors of life and growth upon the radiant plane of creative potencies.

90 Prof. G. F. Wright of Oberlin says in a recent article: "Evolution does not solve the mysteries of the Universe. It simply pushes them one step further back. 91 The mystery of the acorn is greater than the mystery of the oak, for it has compressed in it all the 'power and potency' of the oak. 92 It is no explanation of a chick to say it is hatched from an

egg. The wonder and the mystery is simply carried back to that infinitesimal point in the egg 93 which conceals within itself the power of producing the feathered biped with all its marvelous instincts and adapted organism."

94 I hold that the infinitesimal point in the egg and the acorn is its electric center of life-force, or magnetic core, 95 which, under the law of organic affinity, develops by nutrition and respiration, which are electric processes, into the chick and the oak. 96 He says: "So, of all the processes of Nature, human's vision sees only the surface. We do not see causes but only effects. 97 We plant a seed, and all that we see is that under certain conditions it springs up and produces the blade, then the ear, and last the full corn in the ear. 98 No one knows how it comes about that two seeds which look alike under the same conditions produce different coloured flowers and different qualities of fruit. 99 The beginning of everything is a mystery. 100 If one affirms that things have no beginning you but increases the mystery. 101 The difficulty with all theories of evolution is to get a starting point.

102 The time was when philosophers could speak of the Universe as eternal. The geologists fifty years ago could do so, but the demonstration of the conservation of energy has put an end to any such easy-going speculation."

103 All this is well stated and very true, except that by treating all things as electro-magnets, drawing positive and negative atoms or ions from air, food and water, 104 we see how by nutrition and accretion animal and vegetable organism may be evolved by the law of magnetic attraction and organic affinity. 105 This is the only rational solution and is in accord with all the processes of Nature and with the conservation of energy. 106 Elsewhere I have endeavoured to explain how, by the constant renewal of matter and electric energy in the sun and in space, the Universe may be eternal and no waste or deterioration occur and, while always changing, is virtually changeless.

107 Newton in his theory of gravitation discovered one phase of electric energy, and his law of gravitation is in reality simply the law of electrical attraction. 108 But

he never knew the cause of it and never discovered the other and dual phase of electric energy-- the law of electrical repulsion, he never even suspected it. 109 For he held that the balancing force of gravitation of the other planets kept each planet from falling into the sun, which it otherwise would have done under the law of gravitation, which says large bodies attract smaller ones. 110 This position was untenable, as I have shown in "*The Cities of the Sun*."

111 Newton thought that an apple was attracted to the earth because the earth was larger, and that any larger body would attract a smaller one.

112 But I hold that size is not what controls attraction; it is electrical conditions. 113 An amount of substance from the sun would have more attracting power than the same amount from the earth, because the sun has more electrical power. 114 A lodestone has more attracting power than the same amount of ordinary substance. A pound of iron has no attracting force until it is magnetized; then it will lift many times its weight.

115 So size, weight, or gravity is no test of attracting power. I therefore repudiate the law of gravity and adopt electricity, 116 with its dual force of action and reaction, attraction and repulsion, as the supreme cosmic evolving force of the Universe, creating all light, heat and life and producing all the varied and wonderful phenomena of Nature.

117 I hold that by the law of electric energy the sun is not a thermal or heating engine as the astronomers proclaim, but is an electric generator and is not hot, 118 and that the sun's rays, neither where they originate or where they act are hot, but they come to the earth as cool currents of electricity, 119 which generate heat near the earth's surface by coming in contact with an opposite electricity and the resistance and friction of its atmosphere. 120 Proof of this is found in the snow-covered peaks of the tropics and the glaciers of the torrid zone.

121 I have waited six years for objections to the electric theory of creation and have found only one recently stated. This first and only objection is that electricity is a

derivative force. 122 Prof. G. F. Wright, of Oberlin, in an article in the Chicago Record, Dec., 1902, says: "Many of the speculations concerning the unlimited use of electricity overlook the fact of its derivative origin. 123 Electricity is but transformed force. It is not a producer of force but a consumer of force. It merely directs the force to its specific end. 124 The electricity which propels and warms the street cars of Buffalo, and furnishes power to its small factories and illuminates its streets is merely force diverted from the Falls of Niagara; in other words, it is transformed gravitation."

125 True, but gravitation is simply electric attraction, and the electricity that propels, lights and warms the cars is electric attraction diverted from the Falls and used on the cars. 126 It is not derivative force, but the original and only force --electric force transferred from the Falls to the cars.

127 But Prof. Wright himself destroys his own argument when he says: "In other cases the electricity is derived from the heat of consuming coal, while the coal is the product of the sun's rays, chemically sealed up in the coal deposits of the early geological ages. 128 Indeed it is easy to see that all the available force in the world is the product of the sun's rays." 129 In this we fully agree, for I say the heat of the coal and the heat of the sun is electricity. 130 The sun's rays, which he says "is all the available force in the world," is electricity, and the sun is the great electric heart of the solar system.

131 While he whips electricity around the stump, and says it is a new thing every time he turns a corner, 132 I say it is the same electricity, without any change, and proves the oneness of the Universe as a vast electric organism.

133 Thus our great scientists befog themselves. Now that Langley says there is only one radiant matter, and light, heat and chemical changes are all one entity, perhaps he may change his view. 134 I have tried to convince these cross-eyed reasoners that all force is one force and all matter is one matter, and the scientists are now coming to that conclusion steadily.

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135 Prof. Wright says again: "The strength and warmth of all animal bodies is traceable to carbon, and whenever we move a limb or walk, the power to do it is obtained by the consumption of carbon." Well, I say carbon is one form of stored electricity. 136 He says: "The ox feeds upon the grass which is collected or grows through the influence of sunlight," and I say sunlight is electric currents from the great electric dynamo, the sun.

137 He says: "The nebular theory is faulty," and I agree with him. 138 He says: "Gravitation is an utter mystery that has baffled all scientific explanation," and I agree with him, and go a step further and affirm that there is no such thing as gravitation and never was. 139 Newton discovered one of the dual forces of electricity, which I call universal electric attraction, and called it gravitation.

140 He says: "So far as we can see, gravitation acts instantaneously, and Newton gave up the problem of defining it, and said he had no explanation except to say God so made it." 141 This is true, but Newton knew nothing of electricity or his great intellect would likely have discovered the truth and named and explained it as electric attraction.

142 Newton discovered an imaginary force, an idea, a dream, "an occult force," as Leibnitz called it. Newton had an imagination which the scientific plodders who have come after him lacked. 143 They have dug in the dirt, while he sailed through azure seas, and linked suns and worlds together by a mere sweep of the imagination, without any explanation or conceivable cause, and called it gravity.

144 Phillip Akinson, in his work on electricity, 1902, asserts that "energy manifests itself either in masses of matter or in small particles, called molecules, and thus we have two kinds-- mass energy and molecular energy." But have we two kinds of energy? Mass energy and molecular energy is the same.

145 Mass energy is but the aggregation of molecular energy. Large bodies attract small ones because they possess more electric energy. 146 Gravity or weight is but another name for aggregate molecular electric attraction of the

earth for everything upon its surface. 147 The gravity or weight of a man is the pull or force with which the electric attraction of the earth holds him to its surface. 148 In other words, the earth is a vast magnet, and human's body is a smaller magnet, and as the magnetic core of a steel magnet draws all metals towards its magnetic center, so does the earth magnet draw all things toward its center.

149 The same author states that, "the earth is a great thermopile generating electric currents by the difference of potential between its heated and cooled parts." In this I agree with him, but he only states one of a thousand ways to generate electric currents.

150 He says further: "Heat is believed to be a certain mode of molecular motion, and electricity to be another mode; but the nature of the motion of each has never been discovered." And I think never will, as long as the false notion prevails that heat and electricity are modes of motion.

151 A mode of motion is nonsense, for motion is an effect produced by a cause-- it is not a cause. 152 And all cause of motion is electricity, and the mode of operation is the law of electro-magnetism.

153 There is no difference in the law or the mode of operation of electric currents in a volcano, in a cloud, in the earth, in the sun or planets, in an electric light, or in a man's body. 154 The same law exists and the same natural results follow when one lights the gas with a flash of electricity from your finger, as when a meteor blazes, a comet flares out in space, or a sun becomes luminous. 155 The same force that human causes to run along a telegraph wire, or through a telephone circuit, or which runs a street car line, or is taken by the brushes from a revolving dynamo, 156 is the same force and operated under the same law or mode of force as the electric life-giving currents that come from the sun constantly in an omnipotent tide of power.

157 Prof. Thomson says: "The earth is generally found to be negatively electrified, and is insulated in its atmosphere, being in fact a conductor touched only by air--a strong insulator."

158 He says further: "The quality of non-resistance to electric force of the interplanetary ether being considered, the earth, the atmosphere and the surrounding medium may be regarded as constituting respectively, 159 the inner coating, the dielectric and the outer coating of a large Leyden jar charged negatively."

160 Prof. S. P. Thomson in "*Electricity and Magnetism*," says: "Gilbert made the discovery that the compass points north and south because the earth is also a great magnet. 161 Faraday said: 'All matter is in a magnetic condition.' Sir Oliver Lodge says: 'The idea that magnetism is a whirl of electricity is as old as Ampere. 162 Perceiving that a magnet could be initiated by an electric whirl, he made the hypothesis that an electric whirl existed in every magnet.'"

163 Maxwell announced the proposition that electro-magnetic phenomena and light phenomena have their origin in the same medium and are identical in nature. 164 Hertz, by actually producing, detecting and controlling electric waves, caused the discovery of wireless electricity. 165 And it is by the wonderful wireless telegraphy of light that human is put in communication with every considerable body in the Universe, including even the invisible. 166 By it the goings on in Sirius and Algol, Orion and the Pleiades are reported across enormous stretches of millions of millions of miles of space. 167 And by the vibratory motion of the invisibly small, all things are revealed; the infinitely little has enabled us to conquer the inconceivably big. 168 I hold seeing and hearing are the simplest examples of wireless telegraphy.

169 Elihu Thomson, the great electrician, says: "Hertz proved that all luminous phenomena are in essence electrical. 170 Wireless electricity is the outcome of Hertz's experiments on electric waves, and electrical conditions and actions are more fundamental than hitherto regarded."

171 William Ramsey, the distinguished chemist, says: "It is a primary assumption that atoms of elements or in certain cases groups of atoms are themselves electrified, and atoms possess positive and negative poles, and combinations

ensue between such oppositely electrified bodies."

172 Mr. Francis Grierson, a prominent scientist of London, in a recent London periodical, says: "So far as we know electricity is the soul of visible form. What we call brain waves have an analogy to electric waves. 173 The discoveries and inventions of the last ten years have made child's play of every previously known system of philosophy. 174 The simple but amazing facts disclosed during the past five years, render the dreams, speculations and guesswork of the past absurd. 175 The little we know in a practical way is more than all the philosophers of the past knew from Aristotle to Leibnitz."

176 Prof. Langley, in his address at the 1902 session of the American Association of Science, stated that, "up to 1872 it was almost universally believed that there were three different kinds of energy--actinic, luminous and thermal--represented in the spectrum;" 177 but he affirmed: "There is only one radiant energy which appears to us as actinic, luminous or thermal, according to the way we observe it." 178 "Heat and light are not things in themselves, but different sensations in our bodies, or different effects in other bodies. They are merely effects of this mysterious thing we call radiant energy." 179 He thus sustains my position and the electric theory of creation, which is, that there is but one universal and ultimate energy which he calls radiant and I call electric energy, and which are the same thing.

180 It is said that an Italian physicist wrote in 1843: "Light is merely a series of colourific indications, sensible to the organs of light, or vice versa; the radiations of obscure heat are veritable invisible radiations of light." 181 This Langley, by his elaborate researches, more refined and complex than all preceding ones, proved to be true. 182 Since so orthodox a scientist as Langley has proven there is but one energy, the other scientists may stumble over it awhile and then accept it, because he is high authority.

183 Sir Oliver Lodge, in the "*Electrical World*," of February 21st, 1903, sustains the electrical theory strongly. He says: "All matter is electrical in its nature. 184 The difference between one kind of matter and another lies in the

physical and chemical properties of the atoms; but the difference between the atoms is merely due to the difference of the electric grouping of the atoms."

185 He holds that the Thompson corpuscles are all electric. Thomson's theory is that negative electricity is matter. 186 Lodge holds that all matter down to the ultimate corpuscle is electricity or electrical substance. Thus I am sustained by the highest most recent authority.

187 Prof. E. L. Larkin, of the California University, said: "The earth has a permanent charge of negative electricity, and the atmosphere is positive. 188 The surface potential is therefore very near zero. This permits electro-magnetic waves from the sun to act with unabated energy." 189 Prof. Lucien I. Blake of the Kansas University said in a recent lecture: "All atoms of matter are charged with electricity. All vital actions are always connected with electricity."

190 I could fill a volume with recent statements of scientists showing that electricity produces all the phenomena of Nature, 191 all of which they have learned in the last few years, while as a pioneer in this field of thought I have been trying to propagate these electrical theories for many years.

192 Every year new facts are discovered showing that electricity is the cosmic, evolving, ultimate and only force in Nature and the Universe is a vast electric machine or organism moved by electric currents of measureless force and power. 193 The earth revolves around the sun, the sun gravitates around some siderial center in motion like itself, and myriads of suns and planets with their countless population move with many times the velocity of a cannon ball. 194 Stars that seem tranquil and motionless in the heavens are projected through space with a velocity of one hundred to two hundred miles per second. 195 The constituent atoms of our bodies move relatively with as much velocity as the stars in heaven. 196 Motion-- electric energy-- reigns everywhere, forms everything, controls, handles and evolves all suns and planets, all physical life, substance and

organisms in human experience and universal Nature.

197 The electric rays of light from suns and stars of the most distant constellations dart their beams across the Universe, and centuries after, the impulse of electric energy enters the human eye, and gives sense and vision to the soul.

198 Thus the dynamic chains of electric light binds into living unity the realms of matter and mind, "through measureless amplitudes of space and time."

199 These electric currents are not only the source of all natural phenomena, but the sea of electro-magnetism from which they come is the reservoir of life, 200 which stands back of all the myriad manifestations of physical existence, and is the great fountain of vitality from which all life must come.

201 What is electricity? Tesla says it is "invisible light," Atkins says it is "molecular motion," Fleming says it is "a spiral twist of the ether," 202 but the best definition is given in the Scriptures where it says all things were made by the "word of His power." It is the word of creative power.

ELECTRICAL CREATION, BRIEFLY STATED. IT SEEMS TO SOLVE THE RIDDLE OF THE UNIVERSE

George Woodward Warder

6 As the nebular hypothesis and gravitation explain nothing and show neither the primary elements nor the primary energy of the Universe, we should go to the dual forces of electricity which do. 2 As we have learned little more than a name from either, I think it is time to try another hypothesis. 3 Walking single file in dead people's shoes for two hundred years is quite long enough. 4 I am willing to submit the following hypothesis as my conception of electrical creation and the true theory of the Universe.

5 First, creation was wrought out by the agency of electrical forces, operating on invisible elementary matter, and controlled by the intellectual impulse of an infinite power.

6 Second, these creative cosmic forces, by condensing the suns and

planets into vast magnets revolving in a sea of electro-magnetic forces, evolved the marvelous machinery of the Universe.

7 Third, this machinery of the Universe became self-propelling and self-sustaining by reason of the laws of motion, growth and evolution impressed upon it, or by the joint sovereignty of two equal, correlative forces: 8 magnetism, a form of electricity maintains the sovereignty of attraction over matter in body, while electricity, another phase of the same force, maintains the sovereignty of repulsion over matter in space.

9 Fourth, for these reasons electricity is a universal power joining together the two kingdoms of the heavens and the earth-- of matter in body and matter in space. 10 And these forces in their unity of harmonious work can suffer no disturbance equal "to the dust in the balance."

11 Fifth, these floods of electricity and magnetism affect the least and the greatest, "directly as to mass, and inversely to the square of the distance."

12 Sixth, the sun and planets are vast magnets because they are held in charge of electro-magnetic forces in an immense magnetic field. 13 These forces are not from these bodies originally, but these bodies are from these forces; and these forces antedate all forms of visible matter.

14 Seventh, the primary state of matter is the diffused etheric, invisible state, and the building of matter into body is the work of these forces when in charge of matter under organic affinities. 15 Magnetic lines of force fix centres and build around such centres by drawing elemental matter from the radiant sea of space by magnetic energy, into globular forms that become growing worlds, 16 drawing their power and increase of form from the sea of invisible matter in which they are fixed by their axis and orbit lines of motion and force, constituting them working electro-magnets.

17 Eighth, these electro-magnetic forces are the eternal cosmic forces of perpetual motion, ever working by the law of action and reaction, attraction and repulsion,

and evolving world forms and animal and vegetable forms.

18 Ninth, the sun having grown from the sea of invisible etheric and nebulous matter by reason of these wonderful electro-magnetic forces into an immense magnet, larger than all the lesser magnets or planets of the solar system combined, holds them in the magnetic field of its sovereign power, 19 and is, through the flowing currents of electricity, the creating, governing force in the solar system.

20 Tenth, these same electric forces are condensed into smaller magnets and electric organisms or machines, which form electric centres and build up all tangible forms of matter-- human, animal and vegetable. 21 And all visible matter is but the outer shell and visible garment of these invisible forces.

22 Eleventh, without the floods of electric substance or power that come to us in the electric currents of the sun that flow in currents of strength through our bodies as they propel the in-flowing and out-flowing floods of atomic elements of matter, 23 that are laden with incoming supplies of daily life and outgoing wastes, by attraction and repulsion, assimilation of food, respiration and perspiration, our bodily forms would perish or be wholly unfit for the dwelling-place of our spirits.

24 Twelfth, our five senses: seeing, hearing, tasting, smelling, feeling-- that connect us with the world of matter are entirely dependent on electricity 25 and the invisible etheric forms of matter that surround us everywhere and constitute the connecting ties, the invisible ligaments, that pervade and bind all forms of life in Nature's wondrous harmony.

26 Thirteenth, the boundless fountain of infinite energy in atoms in body and atoms through measureless space are superior to any mere sun form or world form of visible expression of such energy. 27 The floods of radiant electric energy that enwrap the sun and planets in orbital lines of omnipotent strength are to these bodies the everlasting fountains from which flow their upholding and evolving power and the conservation of force in their transforming energy.

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28 Fourteenth, as all visible forms of matter are built from invisible elementary atoms, so the most efficient display of electric power finds its expression and source in the same elementary atoms. 29 The electric power working in all atoms of matter gathered in planetary form, saturates such planetary bodies with electric energy, as the steel of the magnet is saturated with such forces, and reveals in the sun currents the source of all terrestrial power and organic life.

30 Fifteenth, the chemists claim to have discovered about seventy different elemental substances in matter, but they are not primary elementary substances; 31 they are secondary, and caused by the marvelous electrical combinations of the two primary elements--atoms and electricity-- and are what Herschel said they looked to be, "manufactured articles."

32 Sixteenth, the laws of magnetic attraction teach us that the positive and negative polar forces, flowing oppositely between sun and earth, establish the bond of union between them, 33 and the transmission of electric energy must be equal between them, and the flow through space at the low level of latent energy.

34 These two oppositely flowing floods of electric energy, under the great law of electro-magnetic attraction, pass through ninety-three million miles of radiant matter in eight minutes of time and enter the resisting atmosphere of sun and earth, 35 their currents thrilling with energy at the high tension of opposite polarities beneath their atmospheric envelope.

36 Thus the attraction known as gravitation, but which is electro-magnetism, pours a constant flood of light and heat upon both sun and planets, 37 and thus the electric light and heat of the sun and planets evolved from their resisting atmosphere, and the contact of their positive and negative electricity, become creative potencies, 38 deriving their vast power from each other, and from their environing space of virgin, imponderable matter, and thereby give life, motion and utility to all visible created things.

39 Thus we find that light, heat and vital force is created by the contact

of the positive and negative electricity in the magnetic atmosphere of suns and worlds. 40 That the electric affinities in matter proclaim an electric origin, and the invisible atom as the material basis of all material life; 41 and by tracing their source to electrical and magnetic energy, we have reached the foundation upon which is built the eternal structures of the Universe, and the bounds of all creation.

ELECTRICAL CREATION MORE FULLY STATED CONFIRMS SCIENTIFIC EVOLUTION

George Woodward Warder

7 I contend that electrical creation confirms scientific evolution. 2 In the beginning the elements assumed form when they came into such a state of electrical balance as enabled them to move in uniform order. 3 The more perfect the order the more perfect the form. 4 The crystal is fine proof of this, for when the elements composing it are all marshaled into perfect uniformity of action the crystal becomes a perfect structure well nigh indestructible. 5 This principle of the crystalline formation of the elements is the basis of world building.

6 In a small volume entitled "*Planetary Evolution*," the learned author, who is too modest to give his name, says: "Atoms are absolute potentialities, creative rather than created conditions of the elements, and have the power of inherent energy or life motion. 7 All tests show the atom remains the inscrutable source of creative power, and the basis of all chemical activity, and must be the basic principle of world building, life motion and life energy."

8 "In all the operations of chemical transmutations no material is lost and no power wasted, and, by the law of the conservation and correlation of force, both energy and material must exist as correlatives. 9 This places the nature of matter upon the same basis as the origin of power. The transformation of force into material is impossible. 10 Force follows the laws of motion, and atoms the law of form obedient to the lines of motion." This is well stated.

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11 This author says further: "The atom has the power to assume form and create form, and matter and force cannot be transformed into each other." 12 Then this power or force must come from electricity, the primary force in Nature; and it has power to assume form and create form by reason of electric energy controlled by spirit intelligence. 13 In planetary construction the first thing that meets our vision is the arrangement of the atoms in crystalline formation, which is the foundation of all planetary structure. 14 The atoms in space continually change their relative positions and construct world forms and organic forms of beauty and power. 15 They settle into globular spheres with all the precision of a trained army or a disciplined mass of life and energy, forming the crystalline masses that compose the primitive foundations of the earth.

16 Polarity has much to do with the phenomena of crystallisation. 17 The same author says: "Polarity is the result of the transverse lines in which the atoms move previous to their comparative arrest. 18 The planet as a globe can have only two poles, but the crystal has as many as the lines of direction in which the moving atoms cross each other's path."

19 In interstellar space he affirms the atomic relations of the elements are undisturbed by any power that would tend to divert the atom from its movement in a straight line; 20 force is transmitted from atom to atom without any effect upon its motion or change of equilibrium. 21 The power of transfer is the basic principle of the electric current, and as long as the direction of the current lies in one of the lines of atomic motion the current passes without resistance and is imperceptible; 22 but if it chances to meet in its pathway a line of force passing from atom to atom in a different direction, there is instantly a neutralisation of motion and the arrest of each atom at the point of crossing which gives polarity, and the molecule is the result. 23 In space the electric current is the first form of creative manifestations the atoms assume.

24 Electricity belongs to the atomic forces, 41 has intimate relations

with organic life, and gives us a key to unlock its mysteries. 25 Electric energy plays such an important part in cosmic construction that without some knowledge of its nature it is impossible to explain the processes which are the basis of world building.

26 The crystal rock under microscopic examination shows the same beautiful figures and marvelous lines of arrangement that in winter the new fallen snow-flakes exhibit, and indicates that the lines of form are essentially the same that gave the planetary rock its forms of crystalline beauty and massive structure. 27 And the beautiful snow that falls so gently upon the wintry lap of earth is one of the best representatives of creative power acting in the primitive states of formative forces. 28 This tends to show that the earth began its formative period in extreme cold and not heat, 29 for the formative lines of shape and force are the same in the crystal ice and crystalline snowflake as they are in the crystalline rocks of earth's primary foundations. 30 And they all indicate the lines of electric energy and magnetic force in atomic activity and molecular formations, which are the beginning of all visible material creations.

31 The shaping of the molecules of the so-called cosmic elements by electric energy into crystalline form is the second great step in world building. 32 While magnetism (the dual force of electricity) serves to hold the form-structure in more or less enduring relations, for the magnet has the power to radiate atomic force in circles and tends to draw the elements into form and hold them there. 33 The electric force keeps the atoms always moving; 34 the magnetic force keeps them or would keep them in atomic balance, or at rest, but electricity keeps magnetism always on the alert, and between the action of the two, or attraction and repulsion, all visible forms are evolved and dissolved.

35 Thus magnetism is the centripetal force, of planetary construction, and electricity the centrifugal power of planetary changes, and upon these two depends all the complex varieties

of inorganic and organic forms that exist. 36 And so long as they exist with their powers of atomic motion so long will world building and form building continue, and must continue through the æons of creative force.

37 The magnetic state of the earth, with the pulsating currents of electric force in the atomic and radiant form, plays a sovereign part in the economy of Nature and makes the planet itself alive with creative force and evolving power.

38 To demonstrate electrical power in world building and the shifting relations of the elements in the planetary combinations, watch the electric plating battery at work. 39 There you will see the atoms in the solution flowing towards the negative pole and depositing themselves in minute crystals upon the metallic surface, if the negative pole is a metal, and adhering with great pertinacity; 40 the metallic crystals penetrate the crystalline surface of the substance to be plated in minute arms filling up the infinitesimal space, 41 and the atoms in this process transfer their atomic motion in line with the electric force, and become arrested as in the primitive state when they formed the crystalline foundations of primitive earth. 42 It will be found that the power or electric force required to plate one metal is just the same as to disintegrate it, and the electric force is a great solvent, while the magnetic force is a concentrating form-moulding world-building power. 43 And these two forces evenly balanced perpetuate the Universe. 44 The fluidic condition of matter arises from molecular activity before the atoms have assumed the crystalline state, and all fluids are easily vapourized to invisible gases.

45 The primitive planet, in coming from nebula to crystalline form, had to pass through the fluidic state, because the electric atomic balance had not yet been acquired sufficient to produce solidity.

46 In this stage there could be no organic life; but the earth was enveloped in dense clouds of vapour, 47 and there was no light for many ages, because the earth's surface was below the electric and atomic rate that produced light, and the dense gases and vapours floating around it and between it

and the sun prevented the light penetrating its atmospheric pall of darkness.

48 But in that darkness and vapour and cosmic convulsions was going forward the processes of organic construction essential to fit it for the coming generations of sentient life. 49 Night and darkness ruled, but chaos had no part, and never ruled in all the cycles of creative power. 50 The direct currents of electric force and the circular currents of magnetic power swept through and through earth's molecular structure, 51 ranging the atoms in all the lines of crystal perfection and spherical form, and laying the rock-ribbed foundations in geological stratas in the heart and center of a growing world.

52 The lines of electro-magnetic force at this period in the planet, with their circular spiral motion, would shape the world into a globular spherical form, 53 and the elements in watery solution would almost come into crystalline firmness, and then an impulse of electrical power would throw them into restless agitation; 54 and again they would respond to the grasp of magnetic strength and return to a state of partial arrest near the crystal condition, and again sway back to the electric primitive molecular state. 55 But they could not get free from the lines of magnetic force which held them with giant grasp until they were incorporated into the foundation rocks of earth's solidifying sphere. 56 And the centre of our planet became a vast solid crystalline magnet, and was never a fiery mist or molten substance.

57 Finally when the crystalline rocks were settled into a crystalline globe the life-cell was born as the basis of a new condition of planetary form. 58 And in the dark waters where no light was, organic life under the law of creative electric energy began its work upon the planet. 59 The life-cell is the resultant of electric-magnetic action.

60 During this period of primeval "darkness upon the face of the earth," the resistless electric waves of the sun were beating upon the cloud-enwrapped surface of the planet, but its light had no power to penetrate its cimmerian gloom. 61 And the earth was sending back its pulsating magnetic currents to

the sun, and both were evolving themselves into giant dynamos of marvelous electric power-- giving and receiving electric currents of positive and negative polarity of wonderful life-giving potency. 62 Gradually the earth solidified into a vast magnet of crystalline rock and metal and like the magnetic core of a steel magnet of vast extent and power, it drew millions of meteors from space.

63 The internal electric forces in volcanic convulsions were up-heaving islands, continents and mountain ranges, rending the rocks and crystalline strata in the contracting crust of the earth, lit up by lightning gleams of electric power. 64 It may be that during this stage of the planet was laid the foundation of all the distinctive types of life-force, 65 including the cell forms that lay at the basis of living structure, the plant forms and the living forms of animalcular life that float in the ocean below and mists above. 66 All of which had their home and birth in the dense darkness that covered the face of the deep.

67 It was the formative period of elementary life, and the descendants and successors of that mighty host of living beings have to this day to lay the foundations of their being in similar conditions of darkness.

68 Creative energy in its first stages of living form operates in dense darkness, and the first life upon the planet began and perfected itself in the age when midnight gloom enveloped the globe. 69 "The Supreme Power," says the author of "*Planetary Evolution*," "wrought out its purpose with no eye to discern its workings and no helpless ignorance to dictate what was needed to make a world." 70 The deep-sea soundings show that life still exists there without the aid of sunlight and that there is no limit to the domain of organic life. 71 And the necessity exists even at this age for darkness during the formative processes of embryonic life.

72 All microscopic life embodies the essential characteristics of activity and form that distinguish many of the distinct types of animal and vegetable life. 73 The mould that gathers upon decaying bread is a great forest when sufficiently magnified. 74 The

wiggling animalculæ in the stagnant water is but a prototype of the writhing serpent of the Brazilian forest. 75 In these two types of minute organic being we see the first stages of life in planetary formation. 76 And the induced electric energy on the animalculine organism compelled it to both growth and activity, and, obedient to that principle, 77 it added cell to cell in any direction that that electric energy in that form sought relief, thus producing different types of organic structure. 78 The influence of the pent-up currents of electric energy was destined to have a moulding power upon the higher types of organic life, 79 for their influence upon the living form soon became manifest in the construction of nerve-tissue, which is the basis of all animal structure, and the beginning of all embryotic form, and is essentially the same in all organic life.

80 All attempts of science to formulate a theory of the source of life end in an abstraction. 81 To teach that life originates in a germ leads to an analysis that shows the germ is a compound form itself, and one of the stages of incipient life. 82 The advocate of the cell as the primitive source of life soon discovers that the cell is the result of chemical forces that have not yet arrived at the germ state, and that both the germ and the cell are but successive stages of life development, 83 and we must go further back into the realm of the invisible electro-magnetic forces for the true source of physical life. 84 Here the untrained intellect is bewildered and is unable to discern any relation of force beyond the physical senses, 85 and science and reasoning causation must explore the invisible realities, and realms of force beyond the physical senses, which requires the highest order of mental training. 86 It is in the mental realm, the realm of spirit and electricity, that we must seek the solution of all the higher problems of life and destiny.

87 In the spermatozoa of the male is the first evolution of the organic life of the planet. It is the electro-chemical combination of elements in which the primitive cell was formed, 88 and in Nature's corresponding environment it goes

steadily forward through all previous stages until perfected in form, and becomes a miniature production of its parent structure. 89 It thus unconsciously followed the forces and elements of the parent organism whereby that parent organism came into being from its parent, and so on backward for generations and ages. 90 And in order to perfect the power of sex to the highest degree and preserve the life of the race, there was a differentiation in the embryonic state, 91 whereby one organism, the male, became the power to preserve the energy, while the other, the female, became the environment to perfect the form.

92 This was no miracle, but a response of the organism to the waves of electric power in the planet, which at times and conditions would be more positive or negative in their electric energy. 93 For all the elements of life and the Universe animate and inanimate are sexual, male or female, positive or negative, in their natural relations.

94 The higher types of life are almost wholly dependent upon the arrangement of the cells on a high electric tension, and the early forms were almost wholly of nerve-tissue structures, 95 and the primitive animalculæ followed the law of differentiation and were able to construct muscular fiber and bone formation, and became the fish and reptiles that inhabited the ancient seas.

96 The processes of planetary formation are resultants of electrical action among the elements that form the planet, 97 and here is the true field of scientific research for the knowledge of causation as expressed through world construction. 98 To the chemist and electrician belong the task of explaining the processes of world building as well as the secrets of life itself, and they must be found in the laws that control the electro-magnetic ether that permeates all atoms and space.

99 In the paleozoic age there were surging tides of electric energy through the planet itself, producing induced currents in all the forming bodies upon its surface. 100 And these primitive currents swept the cell-formations

into lines parallel with their lines of force the same as crystallisations, 101 and as they were floating in circumambient water, the cells took the form of tissue structure, forming organs that followed the crystalline law of self preservation, and, in response to changing electric currents, throwing out new cell-structures.

102 Nerve tissue is the highest form of atomic balance that is visible, and the true basis of form structure that has vitality to meet the shifting electric currents. 103 The tiny cells joined themselves to form new structures to respond to the electric waves, while the lower magnetic induction of the planet sent its power over the new tissue to hold it in form so that the organism could be partially permanent in form in its new environment. 104 In this manner the organism grew and expanded from the primitive animalcular nerve type to the consolidated, firm tissue that enabled it to hold itself from dissolution under adverse conditions and planetary changes. 105 The action of electric force in building secondary forms with a magnetism of their own is one of the most wonderful exhibitions of Nature.

106 And now comes a startling result of this type of energy that has called living organism into being from the lower grades of atomic life. 107 The cells that have formed themselves around a central point, as in the crystalline state, begin to quiver and vibrate with a strong rapidity that defies all power of restraint. 108 In them is to be seen a new relation of the elements that grade still higher in the scale of atomic action.

109 They have risen in the power of sensitiveness above the plane of receptive response to the swaying currents of the earth, and begin to send out currents of their own. 110 Those currents penetrate the whole system with strange energy, and the organism begins to respond with new expressions of power. 111 It moves with reference to the currents that it creates itself, and we have the first type of creation with a brain center governing the whole system.

112 That brain tissue is the result of the action indirect of the electric energy that is sweeping the planet in ceaseless lines of force and

power. 113 It sends its induced currents upon all the forming host of animalcular life floating in the dark waters, and some begin to grow brains.

114 The cellular structure ranges itself in line with the positive and negative polarity that made the crystalline form of the world a globe, 115 and from that living cell-battery go out the currents that control the form by the inward force that ever after is to witness to the power of constructive energy to create living beings with sentient power to regulate and control their own destiny.

116 Meanwhile the surging tides of electric energy are forcing the continents upward, and the fish that swim in the paleozoic seas find the waters receding and itself part of the time on the land or in the mud and shallows, 117 and the growing organism, from generation to generation becomes adapted to each condition of life on land and water. 118 Then comes to pass the raising of the organism from the fish to the reptile by the influence of electrical induction and change of environment. 119 Then also comes the growth of plant life, and the marvelous varieties of vegetation in the form of tree and shrub and grass. 120 Upon the land, half submerged, the vegetation that had its rootlets in the former ocean bed grew from sea weeds into rank grasses and ferns, the types of which are seen to this day in the dense forests and jungles of the tropics.

121 In the early period of the paleozoic age the molusks, polyps, and marine plants were evolved without any reference to light whatever and depended on the sense of feeling to provide for the necessary food supplies to maintain their organism.

122 We have in the night-blooming cereus a flower that belonged in that epoch of the world's evolution when plants flowered and perfected their seed bearing in the dark. 123 And in the salamander, beaver and hippopotamus a type of the amphibious animals of the early ages. 124 We have in the bat a type of animal that flourished in the darkness of earth's formative period, and in the embryonic period of animal and human we find the beginning of the life processes in the darkness of the

womb, 125 and all seed of vegetable and plant must be buried in the darkness of earth before it can bring forth new life.

126 Every living structure on the planet takes form by the laws-of-Nature's creative processes; 127 and the secret unfolding of life structure to-day, however perfect at maturity, is a complete record of all the previous stages of formative growth in animal life, 128 from the vertebra of the fish to the contour of the mammal and the human, condensed as to time during the period of gestation, but following the original lines of formative structure, power and principle.

129 This and all growth and evolution is the result of electrical energy under divine law and spiritual control. 130 Electrical power is the great agent in arranging molecular compounds into all forms of animal and plant life as well as crystalline structures and world forms. 131 The duplicates of plant life with the secondary crystalline forms are found in limestone caverns of the earth. 132 There, in the dense stillness of eternal night, many forms that are seen above ground as plants and flowers are there wrought out in solid stone, 133 as the crystalline limestone rock has arranged its molecular structure obedient to the same lines of form as the electric currents in the upper atmosphere follow in vegetable life.

134 Thus in the eternal nature of the atom and electric energy with their inherent potencies the Creator has abundant resources not only to make this planet, but also the countless worlds of boundless space. 135 And in the wonders of electrical potency in this planet alone it is constantly producing results that excite profound gratitude and reverence.

136 At length when the clouds of darkness faded away and the atmosphere became translucent, and the glorious light of the sun--the great electric heart of our system of worlds-- shone upon the earth, there was a new realm of infinite life and expression to lift the world and all organic life to a higher state of perfection.

137 While the world, like an enormous battery, had in itself enough energy to hold the planet in its spherical form and to

stimulate to activity the secondary forms of life, 138 had not the sun come into more vigorous activity with its electric life-giving energy the earth could not have gone above the primitive forms of life. 139 With this greater influx of power from another sphere of causative energy, the dark age of animality passed and the monstrous types faded out, 140 and in the place of them the world began to bear a class of beings that could reflect the power and principles of light and beauty. 141 And under the pulsations of the sun's electrical and magnetic energy the earth started on its marvelous career of organic growth and development.

142 The sun, as an immense electrical reservoir battery, must radiate in all directions its electric vibratory power over the surging elements in its own environment and from thence through electric atomic transfer to bodies in space. 143 So that whenever a body was in direct line with the magnetic centers of the sun, the arrest of the electric current and atomic motion coming from the sun's center by another magnetic center, 144 as the earth or any other planet, would instantly change the rate of the environment of the planet magnet to a grade of intensity that would give light and heat. 145 In this manner light, heat and greater vital force was born upon the earth, when its dark clouds lifted and its atmosphere became translucent, so that the sun's electric currents could affect the earth through electric transfer. 146 Thus the influx of external light upon planetary life was positive and marvelous, introducing a new power upon the forming organic life in the vegetable and animal world, and working great changes in all organic structures. 147 And in response to this new power the eye began to form and a new and distinct organ of sense was perfected. 148 It was slowly developed at first, for the light radiated from the sun penetrated the mists of earth dimly, for it was almost midnight gloom in some sections and dusky twilight in others.

149 So far I have said nothing of excessive heat, for the earth began in excessive cold. But as the earth

magnet or dynamo increased its electric power it increased its heat.
150 We now come to the dawn of instinct or rationality in the primitive types of life. 151 There we find a basis for the first principles of instinct or animal rationality in the balancing of one sense by the exercise of another, and the combined results of the two. 152 Seeing and feeling gave a higher type of brain power, and raised that organ to a higher grade of perception and a newer type of intelligence.
153 Then another faculty added its powers to the sense of sight and feeling, for the atmosphere in which the reptilian tribes were living half the time or more were sending out sound waves which touched the nervous filaments of the central battery of the brain, 154 and as the eye had formed to respond to the waves of ether caused by the electric currents of the sun, so a new organ began its formation in response to the incoming waves of power the atmosphere brought to the brain-cells, 155 and the ear began to gather in concentric circles around the brain-center, and a new sense-- that of hearing-- was formed. 156 Thus there was an additional increase of the power of perception or instinct. Thus were evolved all types of animal form and animal instinct. 157 They were the result of electric energy, sense perception, and long ages of growth, comparison and environment.
158 Then came human, the highest type of animal organism. Human may have passed the successive changes and transmutations of form that the shifting vibratory rates of the planet responded to in the long period of world building. 159 Human may have attained to the grade of animal activity as a mind of the highest order in bodily form before it received the spiritual powers and intellectual force which it has exhibited all along the ages, 160 after all animal forms had battled with the elements in the struggles to keep in equilibrium between the surging tides of electrical dispersion and magnetic concentration. 161 Certain it is human holds its own by virtue of its steady rise in mental power which has no limit of evolution in the present stage of

physical life and psychic life. 162 And there are no known boundaries of its power to penetrate all mysteries and explore all conditions of existence.

163 "Wherever being has laid foundations, or law is working out the problems of infinite destiny." human came as a spiritual creation.

164 Many scientists discard the religious or Mosaic concept of a special creation of human and a divine revelation, and hold that the revelations of science are the only revelations of God that the world can regard as reliable.

165 I cannot agree with them that human was evolved from the animal creation. I hold human was a special creation, as Moses says he was; 166 but that special creation was not its body-- that may have been evolved from the lowest forms of animal life through many ages, and is no part of the real human.

167 It was woven by electric law and energy as an overcoat of atoms for its earthly habitation. 168 Human's body is not human, but the house in which it lives for a time, the earthly temple of the soul. 169 Moses affirms this when he says "God breathed into man the breath of life, and man became a living soul." It is the breath of God, the atom of Deity, the living soul that constitutes human, and that was a special creation. 170 This I have discussed at length in "*Invisible Light*." I hold no law of evolution could bridge the gulf between human and the animal creation. 171 The fixity of brute instinct, and the boundless expansion of mental and psychic force in human forbid such a conclusion and confirm Moses, who says human was made lord over the earth and all animal creations. 172 Human has three bodies-- a spiritual, an electric and a physical body. Animals have only two-- an electric and physical body. 173 And both the electric and physical bodies of humans and animals came from the same source and are governed by the same laws. 174 Animal instinct is not spirit, is not a part of Deity, it cannot dream of God or heaven, or comprehends the Universe or weigh suns and worlds.

175 It knows only the electric impulses of the material senses

and reasons from these alone, and, by balancing one sense by another, attains an experience which in time becomes an automatic habit or force of Nature under the law of its electric organism. 176 It feels all sensations, like hunger, passion or fear, as an electric impulse on the sensitive tissues of the brain and responds from natural habit. 177 It does not think, reason or soar into the boundless fields of ideality. It cannot feel the spiritual touch of human souls, or the divine impulse of God and love, of music, poetry, language, art and religion, as does the human soul.

178 Human is as much above the animal creation as the animal is above the vegetable and the vegetable above the mineral.

179 We have seen that the mineral is created by aggregations of atoms solidified under the law of magnetic attraction and brought to rest by balanced forces into crystalline form, and thus incorporated into the foundation elements of the earth magnet. 180 They are simply electric and atomic forces and atoms balanced and at rest. They have no organic existence. 181 Vegetable life, which is next above them, have organisms, and are sun engines breathing in nitrogen and giving out carbonic acid or oxygen to sustain animal life. 182 The vegetable organism furnishes food for all animal life.

183 They have no independent existence separate from the sun's rays and the earth's soil except as latent in seed life. 184 Cut off the sun currents from their leaves and the electric earth currents from their roots, and they are at once weakened and destroyed.

185 Animals are a higher order of life which have an independent existence in atmosphere and water-- electric elements-- 186 separate from earth dust, and which evolve and give forth in their own organism the electric instinct and impulse which controls their own actions and habits.

187 They have no psychic or intellectual force, and can never be evolved into human souls or organisms. 188 Human is as far above the animal creation as the heavens are above the earth. 189 Human is not the descendant of a monkey or any other animal

creature except possibly in its bodily organism. 190 Human is a soul and belongs to the Spiritual Kingdom of God.

191 The scientists say there are three kingdoms in Nature-- mineral, vegetable and animal. I say there are four-- mineral, vegetable, animal and human, or the spiritual Kingdom of God. 192 Human is a soul or spiritual body which is from God and a part of God. 193 Human can think, reason, aspire, analyse, and soar into the psychic realms of the spiritual world and commune with angels and Deity, and is a spirit monarch of the Universe.

194 And his longing, heaven-bound nature cries out to Deity: "Thou hast made us for thyself, and our souls are restless till we rest in thee!"

195 The vegetable has the elements of the mineral, with a material organism added; the animal has the elements of the mineral and vegetable with a material organism and an electric body and instinct added. 196 The animal may possibly live hereafter in own electric body or secondary form. 197 Human has the elements of the mineral and vegetable, the material body and the electric body of the animal, 198 and added to all these it has a psychic or spiritual body, which links it to Deity, and makes human the epitome of all creation, the child of God and the Universe, and the sovereign of eternal life, love and destiny.

199 Human history, while complicating, does not alter the real force and nature of evolution. 200 Great people are the images, symbols and instruments taken at random by the constant and mighty forces of their age and times which stood behind them and swept them onward in their great careers. 201 They were the pens of Fate used in her writing, the weather vanes of destiny which turned the way the currents and tides of invisible forces were blowing.

202 Humanity of the past and present is not final but progressive. Human's marvelous discoveries in science, its aesthetic culture and spiritual growth makes the future of the race the most persistently fascinating question of the age.

203 Human is not a mere animal, but is one with Deity, and a part of

that unseen spiritual power which directs the stars in their infinite courses, 204 gives electric brilliancy to the all-dazzling sun, paints the dawn and the aurora, colours the gorgeous wings of the butterfly, and guides insensate matter to do the will of Omnipotence.

HUMAN IS A SOUL CLAD IN AIR, A SPIRIT IN AN ELECTRIC ORGANISM

George Woodward Warder

8 My claim that human is an electric organism is confirmed by Professor Loeb and Dr. Mathews in their recent experiments at the Chicago University. 2 "Electrical charges in the atoms of the bodily tissue are responsible for all the active phenomena of life. In other words, electricity is the basis of life." 3 This is the sweeping conclusion with which Dr. Jacques Loeb amazed the physiologists gathered in their last annual meeting at the Chicago University. 4 Hitherto it has been taken for granted by people of science that the food we eat nourishes us by furnishing the tissues and muscles of the body with thermo or heat energy. This, according to Professor Loeb, is totally wrong. 5 Instead of the food furnishing the muscle with heat energy, it supplies electrical energy, which, after being converted into mechanical energy, is responsible for all the muscular contractions and organic processes of living organisms.

6 He has arrived at this conclusion after many years of intricate and difficult experiments along the line of reproduction of animals, 7 of determining the effect of salt on the heart-beat and its rhythmic motion, and on other muscles, and of the destructive processes at work in the eggs of simple unicellar animals. 8 They have been the means of determining the answer to the one great question, "What is life?" 9 and he regards all his previous discoveries subsidiary to this one. He received his first hint of this new theory of life through the fact that electricity is able to affect protoplasm in a more universal and effective way than any other form of stimulus. 10 And he drew the inference that if

electricity is able to affect protoplasm in the form of currents, it ought to do so in the form of ions, which is an electrically charged atom or group of atoms.

11 In experimenting to determine the toxic and anti-toxic of ions on protoplasm, which is the basic substance of all physical life, 12 he discovered that any one salt will act as a poison on the eggs of a sea urchin, but by adding one or more, or certain other salts, he found it was able to counteract the effects of this toxic effect. 13 From which he concluded that the toxic and anti-toxic effect of the salts were due to the manner in which its atoms are electrically charged.

14 He found that when a salt whose atoms are positively charged come in contact with the eggs of the sea urchin, they interfered with the life processes, while salts whose atoms were negatively charged stimulate contraction; 15 and the presence of both positively and negatively charged atoms were necessary, and the phenomena of life is due to the play between the different charges of electricity in the molecules. 16 The energy of foodstuffs and motions of the heart and other muscles of the body are not due to the production of heat, but to the chemical energy in electrically charged molecules.

17 He says: "A part of the chemical energy of foodstuffs is transformed into electric energy, which gives energy to the body. 18 In one experiment I put a jelly-fish in contact with a solution of electrically charged substances, and it immediately responded by muscular contraction. I then put it in a substance that was a non-conductor and there was no response. 19 In this way I concluded it was the electric charges which effected the muscular contraction, that a pure salt always acts as a poison to the egg, 20 and in order not to have toxic effects it is necessary that the positive and negative electric charges should easily balance. 21 A muscle is stimulated by electro-negatively charged particles, and prevented from contracting by electro-positively charged particles. 22 I have experimented with eggs of different low forms of animal life, with single protoplasmic cells, and with muscles.

23 Professor Mathews has shown that my results hold true for nerves.

ORIGIN

I took the eggs of the fundulus and found that after they were fertilised they will develop in sea water. 24 In a sodium-chloride solution I found they will not develop, but by adding a trace of calcium as many eggs will develop as in the sea water. This is due to the electrically charged atoms of the calcium. 25 Artificial parthenogenesis, or life artificially produced, has been of interest only as it leads me to learn how the electric charges of ions affect life phenomena. 26 You can bring about parthenogenesis only by positive ions. I have come to two conclusions: First, rhythmical contraction occurs only in the presence of electrically charged substances. Second, the efficiency of the charges depends upon the number of the charges or the different ions. 27 Professor Mathews has arrived at a third conclusion, which is, that the negatively charged ions are those which stimulate, and the positively charged ions are those which hinder contraction."

28 Dr. Loeb's paper created a sensation among the assembled scientists, as also did that of Professor A. P. Mathews, on "*The Nature of the Nerve Stimulation and Alteration of Irritability*." 29 "Dr. Loeb's discoveries have revolutionised the basic principles of physiology," declared one of the scientists. "A greater part of the text-books on this subject will have to be rewritten to accord with the results of these new views of life phenomena." 30 And Dr. G. N. Stewart, who presided at the meeting, eulogised Dr. Loeb and said, "He has given us an insight into the mechanics of living tissue which we never before have had. 31 He has brought forward the science of electro-physiology, which has hitherto been despised, but which will now be accorded a respectable position."

32 Professor Garrett P. Serviss says: "This discovery of Dr. Loeb and Prof. Mathews comes closer to the solution of the mystery of life than physiologists have ever before been able to approach, 33 and is so fundamental and far reaching as to warrant the hope that we shall soon know what are the conditions and the limits of human's power to prolong own life."

34 "The whole foundation of physiology and medicine may be reconstructed, and we may find that we possess a control over the phenomena of life more masterful

than anybody has yet dared to dream. 35 Briefly, it has been discovered that our nerves consist of what is called a colloidal solution-- 36 that is, matter resembling gelatin held in solution in water before it is jellied, and these colloidal particles in the nerves carry charges of positive electricity. 37 When the nerve particles pass from the colloidal condition into the state of gelation, or become jellied, the nerve experiences a stimulation or becomes active. 38 This is produced by the action of atoms or ions bearing charges of negative electricity.

39 This explains the action of certain chemical substances when introduced into the human body, some of which tend to quiet the nerves and others to excite them. 40 The nerve-quieting ions are those that bear charges of positive electricity, such as atoms of sodium, potassium, calcium and hydrogen, and tend to keep the colloidal particles of the nerves in a state of solution, so that the nerves remain inactive. 41 The nerve-stimulating ions are atoms of such substances as fluorine and chlorine, which carry charges of negative electricity and cause the nerve particles to coalesce or become jellied, 42 in which condition the nerve is active, the degree of activity depending upon the intensity of the stimulation. 43 Death appears to be the result of the stagnation of the nerves, and this discovery may enable us to oppose the process that ends in death.

44 This throws a flood of light on other obscure problems, and offers an explanation of the effect of anaesthetics upon the human body. 45 Anything that tends to keep the nerve particles in a state of solution quiets the nerves. 46 Now, nerve particles are largely composed of fat, and anaesthetics dissolve fat. 47 Hence anaesthetics produce the effect of positively electrified ions, preventing the nerve particles from coalescing and thus quiets the nerves. 48 The action of whiskey in arresting the progress of snake poison is explained. The alcohol counteracts the coagulating tendency and keeps the nerves in a colloidal condition. 49 It explains many other familiar facts, as why heat

tends to quiet the nerves, and that chemical stimulation is identical with electrical stimulation, and solves the long standing puzzle of muscular contractility.

50 Dr. H. Preston Pratt, an eminent electro-therapeutic expert, says: "Dr. Loeb's experiments have demonstrated that ‘electricity is life’-- 51 that the entire human organism is controlled by electrical forces. The twentieth century will prove electricity and not salt is the real life-giving principle. 52 "If this force is taken away, life ends, and, in the same manner, if this force is supplied the result is the immediate stimulation of the organic life.” 53 "The necessary elements of life are taken into the body through the air and food, and the entrance of the essential elements into the blood sets the human battery into operation, and it continues to operate as long as the electrical forces are supplied to the blood. 54 The human body is of elements the same as a magnet and is built of smaller magnets or molecules."

55 He continued: "To show the connection between human life and electricity, take an ordinary battery of chloride of ammonia or salammoniac and study its workings. 56 You will see that by the introduction of the element zinc the electrical current is found. The zinc is of positive polarity and so is the ammonia, while the chloride is electro-negative.” 57 "The electro-positive zinc has greater electric affinity for the chlorine than the ammonia has, and consequently the ammonia is driven off and combined with chlorine, forming chloride of zinc. The result is the difference of an electric pull between the elements.”

58 "All admit that the force of elements forms a part of the anatomic structure, and there must be electricity. 59 When oxygen is taken into a body it excites the elements in the same manner as the negative chlorine attacks the zinc in the battery. 60 The electrical circuit of the body is the circulating blood, and when the oxygen and the nitrogen are taken in through the lungs the electro-negative ions go in one direction. 61 Sulphur and oxygen are electro-negative and the other elements of the blood are electro-positive; and consequently, when the nitrogen and oxygen of the air attack the blood through the medium of the air cells, we find that oxygen and sulphur pass in one

direction, while the other elements which are electro-positive pass in the opposite direction. 62 This action is electrolytic the same as if we apply a battery to the human body."

63 All this accords with my theory of electrical creation, and proves, as I have contended for many years, that human's body as well as the Universe is an electric organism.

64 In my book "*The New Cosmogony*," published about five years previous to these discoveries, I laid down the broad proposition that Nature or the Creator has never made but one pattern or type of a thing that exists, and that is the electro-magnetic. 65 That suns and worlds, human and all animal and vegetable organisms, are electro-magnets. 66 That electricity was physical life, and digestion and assimilation of food were purely electrical processes; 67 while the five senses-- seeing, hearing, tasting, smelling and feeling-- were all electrical manifestations, seeing and hearing being a form of wireless telegraphy.

68 That the electric combination of positive and negative atoms weaves the visible structure that envelops the soul. 69 The electric elements from the lungs and stomach enter into the blood, and set the human battery in organic operation and create and continue human life.

70 Thus the beginning of life is an electric process, and the source of life is augmented and continued by absorbing electric energy from the air we breathe, from the food we eat and water we drink, 71 and not by the so-called thermal or heat digestive process, but in the same way as we extract electricity from coal and wood-- by a species of electric transformation or combustion, like feeding a flame from the oxygen of the atmosphere.

72 The body is not only an electric machine or organism, but the exercise of every function is an electric process. And the derangement of any function, which we call sickness or disease, is an electric derangement.

73 Prof. Loeb and Dr. Mathews have shown how the body is woven of positive and negative atoms.

74 Prof. Lucian I. Blake, of the Kansas University, in his lecture, "*Atoms and Their Electric Charges*," shows how medicine affects the human body and how life could be started in an unfertilized egg by inserting an electric current. 75 This was done by placing the white of the egg in a vessel containing salt, calcium and water, and turning an electric current into it. Life in this way can be raised to the fourth stage, he says.

76 Another interesting experiment was a comparison of the effect of electrical charges on the ferments of human blood, yeast, plant and platinum. 77 The ferments mixed with water were placed in separate vessels, when the ions of each began to move about, causing bubbles to go to the top of the vessels. 78 Ether was placed in the different vessels, and then a few drops of hydrocyanic acid, a deadly poison, were added. The ether, by having an opposite electrical effect to that of the acid, neutralized its effect.

79 So, in the case of all poisons, if it be known whether the electrical effect is negative or positive to that of the blood ions, an ion producing an opposite electrical effect will counteract the poison.

80 Prof. Blake says: "The reason ether prevents the pain of operations is because it stops the coagulation of the nerves. 81 All atoms of matter are charged with electricity. All vital actions are always connected with electricity. 82 All drug effects are brought about by electrical charges made with the meetings of the ions in the blood and those in the medicine."

83 How strongly does Prof. Blake sustain my theory when shows how medicines affect the human body, how antidotes neutralise poison, why stimulants arouse electrical energy, and how narcotics stupify and deaden it.

84 Electricity, I contend, is the active, energetic and all-pervading ultimate force in Nature, controlled by the still more refined and ultimate spiritual force. 85 It is the medium and ever-active agent in evoking all visible forms and substances; 86 the medium which produces all affinities and repulsions in matter, gyrating from the lowest to the highest elements and from globe to globe, and

constitutes the invisible controlling element whose results are known as laws. 87 Electricity is the guardian and executive of the invisible laws-of-Nature. It is the suspension bridge spanning the darkness and chaos of space between suns and worlds.

88 Human is the product of the perfect unfolding of Nature's invisible electric laws, and aggregate atomic elements; and unites within yourself all the elements and forces of the combined and harmonious Universe. 89 Human is an epitome of the Universe and an atom of deity. 90 Human form, like all visible forms, is only the temporal combination of material substances woven by invisible electric force out of invisible ether.

91 The thoughts of human's mind are the governing force of your organism. The thoughts of the Great Creative Mind constitute the laws-of-Nature and the controlling force in the electric organism of the Universe. 92 Human is a Soul clad in air.

93 The results of these thoughts of deity are the vast expanse of the Universe and varied forms of animate and inanimate nature; 94 just as the result of human's thoughts are the varied structures, temples and works of art, constructed by one upon the surface of the earth. 95 All things human creates are the representatives of own thought, the outward expression of one soul. 96 Human creates nothing but what is a living evidence of one previous thought or concept. 97 All things tangible are the living evidence of a soul-- the invisible soul or spirit of deity and human. 98 All material things are the forms of God's thoughts or human's thoughts, which is the interior cause, producing tangible effects. 99 For the natural world is the spiritual unfoldment made manifest in matter by electric energy. But I must not consume space by a repetition of these things. What the world wants is the truth, and we are discovering it at a very rapid rate. 100 And if these theories are not the truth they are nearer to it than nine-tenths of the accepted truths of science.

101 The ancients knew little about their bodies, or the mysterious operations of physical life. They

looked only at effects and the outside of things, and knew nothing of the invisible forces of Nature. 102 They regarded all the mysteries they could not understand as supernatural, as outside of Nature, and produced by demons, wizards, necromancers, or their imaginary gods.

103 Their knowledge of their bodies was as limited as their knowledge of the Universe, which they regarded as a little span of flat earth and bending sky; 104 and they relied on incantations and prayers to restore the sick, and on the flight of birds and the entrails of beasts to reveal the mysteries of the future. 105 They believed in obsession and deemed all sick, insane and diseased persons as possessed of demon spirits or devils, and their restoration to health or their right minds was called "the casting out of devils."

106 The ancients also believed every evil propensity was the prompting of some demon spirit that possessed the human body, and that there was as many devils as there were evil propensities. 107 Mary Magdalene was possessed of seven devils, and the man who had more evil propensities than they could enumerate was said to possess a "legion of devils."

108 But the world is fast outgrowing the ignorance and superstition of the past and this is a fortunate and happy age in which to live. 109 This is pre-eminently the age of electricity-- of mind and invisible forces-- as the past century was an age of matter. 110 The whole world is feeling the electric thrill of a new life. New voices call us, new inspirations are in the air, new thoughts crowd upon the thinking mind. 111 The reasoning soul catches whispers from the stars and celestial benedictions from the radiance of the sun. 112 Human is a heaven-bound spirit in an electric body woven of dust and air, of infinite ether and eternal atoms, sifted through boundless space, and tossed from suns to worlds; and is climbing to loftier spiritual heights and a diviner atmosphere.

113 The great people of the past had false ideals. They were the ambitious conquerors, who despoiled their own race and deluged the world in blood.

114 Their thrones were built on pyramids of human skulls swimming in a sea of human blood and tears. 115 Their triumphal march was heralded by the clanking chains of miserable captives, and the wailing cries of widows and orphans. 116 For many ages human slavery, grinding poverty and abject misery were the common heritage of the despoiled masses who lived in hovels, were made food for cannon, or were sold into bondage for debt, while a few fortunate rulers reveled in luxury and swayed despotic power. 117 Up to the recent centuries the chief vocations of men were the soldier and the priest-- the one for slaughter and the other to appease the gods.

118 But the evolving ages have changed the ideals of the world, and liberty and justice are no longer a dream; but "Peace hath its victories no less renowned than war." 119 The time is near at hand when the ideals of humans will be so exalted and their consciences so alive to the demands of love and justice 120 that no human of wealth can sleep in own luxurious home or feast on choice viands and know of any human creature or dumb animal suffering from cold and want without first ministering to their needs. 121 This is the law of love written in every enlightened heart, as it is written in the books of the New Testament.

122 Humans are beginning to learn that the greatest thing in this world is not wealth, with its pomp and pride, though it may bring a thousand comforts. 123 It is not religion, with its glorious dreams crowned with the promised beatitudes of heaven, though martyred saints and prophets have given their lives to confirm its faith and hopes. 124 It is not literature, with its gems of thought and flowers of divine fancy, which have charmed and inspired humankind from the days of Homer to those of Shakespeare and Tennyson. 125 It is not science, with "learning's ample page," though she has transformed the earth, and produced a Gallileo and a Newton. 126 It is not the wonders of mechanical genius, though we stand in awe before their marvels of grandeur and utility. 127 It is not the beauty of inspiring art that lifts us to the altitudes of aesthetic joy.

128 These are but the ideals and manifestations of that which is higher and greater, which is written in the soul of human as in a book.

129 Human is the greatest thing in this world-- ah! in the Universe next to Deity. 130 We are the offspring of Omnipotence, the Children of the Sun, the inheritor of the Universe. 131 All suns and worlds, all life and space are the playgrounds of human activities. 132 Human shall dwell in the home of Deity, stroll in the garden of the gods, bask in the radiance of central suns, recline on the daffodil meadows and wander in the elysian fields of paradise. 133 Human is at home in the measureless expanse of all ether and space.

134 Wherever an atom vibrates or an electric current thrills, there human is the monarch of spiritual power, and can command the electric force that tosses suns upon their course and plays football with the stars. 135 Human is no worm of the dust, we are the darling of the skies, the ruler of suns, the cherubim of celestial destiny clad in terrestrial ether and winged with the spiritual power of Omnipotence.

136 Who nobly does must nobly think,
The soul that soars can never sink,
And human's a strange connecting link
Between frail dust and Deity.

ELECTRICAL DERANGEMENT OF THE BODILY ORGANISM PRODUCES SICKNESS AND DEATH

George Woodward Warder

9 I contend that human's body is an electric machine or organism, and electricity is its vital force and governing power, and all sickness is caused by the electrical derangement of the bodily organism. 2 Electricity is the force which organised the body machine, which runs the body machine, and whose loss or deficiency cripples and finally destroys it.

3 Sickness is the impairment of some of the parts or functions of the body by reason of its failure to get its necessary and natural supply of electrical energy. 4 This

may be caused by an injury to some of its parts or by lack of proper air, food and nutrition containing the electric properties required. 5 For air is an electric element from the life-giving sun, and vegetable food is the embalmed rays of the sun, and animal food is vegetable food embalmed in animal organism and brought one step nearer to electrical digestion, and both air and nutriment are necessary to supply vital electricity to the living organism. 6 And while human can live without food forty days, you cannot live without air four minutes.

7 The great force and power which run the human or animal machine is the vitalising air we breathe, the electric atmosphere in which "we live, move and have our being." 8 It is as much a substance as the water in which the fish swim, though it is transparent to light, while water is only partially so.

9 The lungs are the great electric reservoirs of the body and take the electric current of the sun from the atmosphere as constantly and naturally as the electric wire takes the current from the battery or the dynamo.

10 Then it imparts electric energy to the blood and sends it as an electric current and fluid coursing through every part of the body, 11 producing vitalising life and growth, causing the heart valves to beat and pump with marvelous power, the pulse to throb, and the whole machine to pulsate, thrill and whir with electric life and energy.

12 Flammarion says three-fourths of a human's life energy and nourishment comes from the air. 13 And Nicola Tesla says the time may come when human may learn to live on air alone, as do some kinds of vegetable and animal organisms. 14 Human in time may learn to so mix the elements of the atmosphere to supply the needs of the body, that he may, by breathing it into his lungs, obtain all the essential elements to preserve its life and organism.

15 The oxygen of the air keeps alive the fire of physical life, and the body may be compared to a flame fed unceasingly by electric fire from the sun and atmosphere, according to the laws of electric

combustion. 16 The want of oxygen or this electric energy from the air extinguishes the flame of life as it extinguishes the flame of a lamp. 17 The blood could not course through the veins with such marvelous speed if it were not for the electric energy imparted to it in the electric reservoir of the lungs; 18 the heart valves could not throb with such wonderful force or the pulse keep its steady, unceasing beat but for the electric power imparted by the wireless electricity of the air.

19 Besides, the electricity of the air passes through and through the pores of the body at every point, giving additional life and force, 20 and every angle of the body draws electricity like the point of a lightning rod, and the legs, the arms, the toes and the fingers with the space between them, constitute horseshoe magnets of great efficiency.

21 A human's strength and endurance is measured by the electric atmosphere he draws into his lungs and the fuel or food he takes into his stomach or boiler. 22 A human's stomach bears a similar relation to the body that the boiler and furnace does to the machine, and should be treated in very much the same way. 23 It should receive only the fuel necessary to its usefulness, and the ashes and debris should be cleaned out every morning before building a fresh fire, as is done with every well kept furnace.

24 The lungs take in pure electricity from the air, while the stomach takes in compound electric elements, vegetable and animal, and converts them by the electric process of digestion and assimilation into blood and bone, nerves and tissue, and the two functions give vitality and growth to the whole body.

25 But the electric and controlling center of the bodily machine is the electric dynamo of the brain, to which is attached the spinal column with its nerve branches reaching out to all parts of the body, 26 along which, as on connecting wires, the brain telegraphs its wish and will and governs the whole organism. 27 Here the mind or soul dominates the brain and the brain dynamo dominates and controls the body. 28 Through all the vicissitudes of

life, until the final dissolution of the body, the telegrams from the brain running along the wires of the nerves control the muscles, the movements and all the varied utilities of the body. 29 In other words, the mind controls the electricity of the brain, and the electricity of the brain controls the body.

30 If you cut a nerve or obstruct the electric current, you cut off the electric control of the brain, and there is paralysis in the part of the body where the electric wires are disconnected. 31 Consumption is a disease caused by a failure of the lungs to draw sufficient electricity from the air to supply the normal needs of the body. 32 For lack of this electric energy the whole system becomes enfeebled and finally dissolved.

33 Indigestion is a failure of the stomach to supply the necessary electric energy to assimilate the food. 34 And all sickness, aches and pains are Nature crying for electric energy necessary for her to fulfill her natural offices and functions.

35 Dr. Jacques Loeb, of the Chicago University, announced on February-22nd, 1903, that he had discovered that muscular and nervous diseases, such as St. Vitus' dance, paralysis, agitatus, locomotor ataxia and sleeplessness, can be cured by administering calcium salts because of their electrical effects.

36 He says the presence of calcium salts in the muscles prevents their twitching; 37 that practically all nervous disease are caused by the absence of the calcium, and "therefore to restore normal conditions and effect a cure a dose of calcium salts should be administered for its electrical effects upon the parts affected."

38 In recent years many persons have been restored to health and strength by the direct use of electric currents, and many diseases have been cured by electric appliances. 39 The necessity for an ample supply of electricity, both positive and negative, to sustain and preserve the life of the bodily machine is now acknowledged by all thinking scientists.

40 We have seen how different kinds of medicine, by furnishing the positive or negative molecules

needed by the body, restore the natural equilibrium and preserve life and health, 41 and how the failure to obtain these needed electrical supplies of life-giving energy, either by food or medicine, results in disease and death. 42 We have seen how toxic and varied poisons have their antidotes in opposite electrical elements and molecules, and how stimulants excite and opiates quiet the electric energy of the body, and it is unnecessary to dwell longer on this subject. 43 The fact that all sickness and death is caused by the electrical derangement of the body I think is now so clearly proven and so generally accepted, that detail and extended argument is unnecessary.

44 To show that electricity builds up the body. Even at this late period in the world's history there are instances of Nature returning to Her primitive electric crystalline process even to the extent of converting human's body into stone. 45 Four recent cases are reported in the medical records of human's flesh gradually turning to stone. One case is reported from North Judson, Indiana, where Eli Green is turning to stone. 46 His muscles, skin and flesh are gradually becoming as hard as the bones of his framework. To the touch he is dead. 47 Only the feeble action of heart, lungs and stomach and a fertile and active mind give evidence that there is any life in him whatever.

48 The physicians declare he is afflicted with a disease that runs its course in seven years; not a day more or less. Green has already dragged out his existence over four of these years; only three of his short span of life remain.

49 There is a similar case reported of Miss Stella Ewing, the ossified woman of Rome, New York, and one from Sydney, Australia, where Jacques Moritz was afflicted with the same terrible malady. 50 Eight years ago Moritz was seized with sickness that baffled every effort by the physicians to relieve it. 51 From the patient's feet a numbness began to creep upward. That was the first sign of the disease. 52 The numbness steadily ascended, and seven years from the day the malady first displayed itself the sickness had eaten its way into the patient's brain and had hardened it

into stone exactly as it had hardened the muscles, flesh and skin of his body. 53 Then death relieved the sufferer.

54 This shows how easily Nature can go back to Her primitive electric process and in the crystalline formations resume Her first step in world building. 55 And humanity is not entirely free from an occasional freak of Nature in thus returning to Her first processes of electric growth. 56 Electricity teaches there is no death or need of a resurrection. That which lived never dies.

57 Electricity demonstrates the resurrection not of the physical body, but rather the continued existence of the real body, which is the electrical and spiritual body. 58 Electricity proves there is no death. I believe human has three bodies-- first, the physical body, or organic aggregation of atoms; 59 second, the invisible electric body, which weaves and organises the atomic body, sometimes called the astral body; 60 and third, the real human, the spiritual body or soul, which controls the atomic body by means of the electric body. 61 These constitute one perfect organism, and in normal health and condition it is under the almost perfect control of the mind or spiritual body, 62 which sends forth its behest through the electric energy of the brain, which is the seat of power having charge of the electric and atomic body.

63 Death is the separation of the physical and spiritual bodies. 98 The physical body goes into the grave and dissolves back into its natural elements. 64 It fertilises the soil and appears again in grass and tree and shrub, and the cattle eat it, and men eat the cattle, and its molecules enter again into other bodies.

65 But there is no resurrection for the physical body; it never comes out of the grave in organic form. The spiritual and electric bodies never die, never go into the grave. This is the true resurrection-- the life everlasting. 66 It is the invisible and secondary form which does not die, cannot die, and when once formed is as eternal as the stars.

67 The spiritual body and the electric form which surrounds it are incorruptible and start on their journey of endless existence

together, never to be separated or destroyed.

68 Matter in its elemental form is invisible and eternal; electricity and spirit are invisible and eternal. 69 Thus when the real human throws off its overcoat of atoms and steps out of this "mortal coil," one is free from the limitations of matter and can command the electric energy to go where destiny points and draws you, 70 which is to the electric and spiritual center of our planetary system, the self-luminous and perfected world, the all-life-giving sun.

71 The oxygen of the air keeps alive the fire of physical life, and the body may be compared to a flame being fed unceasingly according to the laws of combustion. 72 A want of oxygen extinguishes the flame of life as it extinguishes the flame of a lamp. It is said a human being dies every second. 73 In ten thousand years, two hundred thousand millions of human bodies have been formed by means of respiration and alimentation from the earth and atmosphere, and have returned to them again. 74 They have enriched the earth and entered again into atmospheric circulation.

75 The earth is to-day formed in part of the myriads of brains which have thought and organisms which have lived. 76 We walk over our ancestors as those who come after us will walk over us. 77 It would be difficult to take a step upon the planet without walking over the remains of the dead, or to eat or drink without reabsorbing what has been eaten and drank a thousand times before, or to breathe without using the same air already many times used by the dead.

78 But this is not all there is of humanity. All the souls that have lived still exist. Souls are the seed of terrestrial population. 79 We have no reason to affirm that human is formed solely of material atoms and that the faculty of thinking is only a property of its organisation. 80 This is the mistake of the one-sided physicist. 81 When we analyse matter we find everywhere the invisible atom. Matter disappears like smoke in the atmosphere. Our bodies at death gradually disappear in the same way. 82 If our eyes had

power to see the reality of things they would look through walls formed of separate molecules, through seemingly solid bodies, which are atomic vortices. 83 It is with the eye of the spirit that we must see. We cannot trust to the sole testimony of our senses. 84 There are as many stars above our head in the daytime as at night. 85 Nature knows neither astronomy, physics nor chemistry; these are subjective methods of study. 86 All things are One -- the infinitely great and the infinitely small. Stars and atoms are as one.

87 "To speak with exactness," says Flammarion, "solidity does not exist. A heavy ball of iron is composed of atoms which do not touch each other; its apparent solidity is pure illusion. 88 In scientific analysis it is a cloud of gnats like those that hover in the air at twilight. Heat this ball which seems so solid and it will flow like water; heat it still more, it will evaporate into invisible space without changing its nature. 89 It will always continue to be iron. In a house, its walls, floors, carpets and furniture are composed of molecules which do not touch each other. And these molecules which constitute all matter revolve around each other."

90 It is the same thing with our bodies. They are composed of molecules perpetually rotating around each other, like a flame, constantly consuming and constantly renewing itself. 91 It is like a river on whose banks we sit and fancy we see the same water flowing past, but the current renews each drop perpetually.

92 Each globule of our blood is a miniature world, and we have five million in the fraction of a cubic inch, flowing incessantly through our arteries, flesh and brain, rushing in a vortex of life, as rapid relatively as that of the celestial bodies, 93 and continually renewing the molecules of our heart, brain, eyes, nerves and flesh, and every atom of our bodily organism. And this so rapidly that in a few months our body is entirely reconstructed. 94 Electricity, the right hand of Deity, does all this and sustains the earth, the sun and stars of the Universe in infinite space.

95 That which gives human its organism is not its material part; it

is vital, invisible, electric force, and mental power. 96 The body disintegrates all at once after death, as it disintegrates slowly, renewing itself perpetually, during life.

97 In the future there will be no fearful apprehension that the coal deposits of the world will be exhausted. 98 The waters that now run to waste, the ever moving tides of the restless sea, the swift wings of the unused winds that sweep through the tides of the atmosphere will be harnessed to the car of human progress, and furnish all the energy needed to supply the vast activities of the world.

99 The concentrated heating power, latent in every sunbeam, and the combustible gases hidden in every drop of water will be supplemental sources of boundless energy for all ages on this wonderful magnetic planet. 100 All sickness and ailments of the body are the result of the derangement of the electricity of the body, for which there is a remedy.

101 The art of longevity will be restored to the human race by supplying the electric energy necessary to maintain its growth and vigour, renew its wasted tissue and preserve its organic power. 102 Then the age of Methuselah may come again in longevity, and the centenarian be in the boyhood of its race. 103 Human will eat less, enjoy more, and get a thousand-fold more pleasure out of life, and be better prepared for its swift translation to the celestial cities of the sun.

104 In the future human may not eat eleven hundred meals per annum, but a few mouthfuls of concentrated food daily and an electric supply attachment adjusted to its body during sleeping hours may renew and rejuvenate his electric organism. 105 It may be that in the future every residence will contain a chamber supplied with air and gases containing all the elements of the body so adjusted as to give it continual life and vigour by merely breathing in its life-giving elements a few hours each day. 106 All these things are possible.

107 Then there will be light and refreshing work of a few hours daily-- no real toil or labour-- 108 for the electric devices and pliable

machinery, subject to the will of human and the electric button, will do the work of the world. 109 Then the soul will be paramount and soar above the grosser appetites and passions to gather celestial joys in the spirit realm of earth's diviner life.

110 This is pre-eminently the age of mind and invisible forces, as the past century was the age of matter. 111 Francis Grierson says: "So far as we know, electricity is the soul of form. What we call brain waves have an analogy to electric waves. 112 We are being ruled by the seemingly impossible, and the most successful inventors of the present day would have passed for mad-people twenty years ago. 113 The so-called dreamers are now the persons of action who have proven their power and competence, and thinking people turn to them for more miracles of discovery and invention. 114 The day is not far distant when science of the mind will treat material science as a plaything, and the psychic power of intellect will kill Mammon like the stroke of an electric bolt, and brute power will succumb to soul force. 115 The thinkers of to-day are as far removed from the thinkers of 1870 as electricity is from steam. 116 We know steam is a crude and clumsy thing compared with electricity, and to-morrow we shall awake to the fact that mind is just as superior to the crude electric current."

117 One of the strong desires of humankind is a long life with a cheerful, vigourous old age. 118 This may be obtained by supplying the necessary electrical energy either in proper food, or by a direct supply of electricity. 119 This will prevent the hardening of the cellular tissues which produces the decrepitude of old age, and help to bless and lengthen human life. 120 With the divine powers of mind and electricity working for human the millennium of a long life and happiness will soon arrive.

ALL LIGHT, HEAT AND LIFE IS EVOLVED ONLY IN THE ATMOSPHERE OF SUNS AND PLANETS

George Woodward Warder

10 I contend there is no light, heat or physical life except in the magnetic atmosphere of suns and

planets. 2 That only in this marvelous electric belt which surrounds the earth, sun and planets is light, heat and life evolved, for there alone is it needed for animal and vegetable life.

3 There is neither light, heat nor physical life in space. Physical life cannot exist in the cold, dark ether of space, 4 and without life, light and heat would be not only useless, but as both are sensations of physical organisms they could have no existence whatever. 5 They only exist as sensations caused by electric currents passing either to or through organic bodies. 6 Where those organic bodies do not exist light and heat do not exist, for Nature does no useless, nugatory things.

7 No physical life can be evolved or exist, except in the electric atmosphere of suns and planets where the life-giving electric currents meet and exert their power, and then only by drawing that life as an electric current from the sun constantly into the lungs every minute. 8 In this way only is life and growth generated and all physical organisms created and continued in existence.

9 Thus all life is preserved and renewed by drawing the wireless electricity from the air just as the electric wire takes it from the dynamo. 10 The vital portion of the air we draw into the electric reservoir of our lungs is simply our daily life drawn each day from the life-giving sun. 11 This life and all that exist on earth or planets could not come from a burning globe or a molten sun. It is a superlative absurdity to think so.

12 Light, heat and life are the products of electric energy, which is only called into existence by the contact of positive and negative electricity in Nature's chosen medium-- the atmospheric environment of suns, planets and their satellites. 13 This is Nature's chosen theatre for animal and vegetable life. There is no reason or necessity for light, heat or animal and vegetable life elsewhere in the Universe.

14 Here upon the surface of suns and planets are the mighty and varied currents of electric power and magnetic force, weaving forms and substance from invisible

atoms and molecules, under the laws of electric attraction and organic affinity. 15 In the economy of Nature there are no wasted energies, or useless activities. 16 Light, heat and physical life in space or transparent ether would be useless and nugatory; therefore Nature ignores such folly in all her fruitful processes.

17 There may be reflected light, or a fluorescent glow, as in the tail of a comet or in the nebula of frigid space, but nothing we can truly call either heat or light can be evolved outside of the atmospheric sheet surrounding and penetrating the surface of suns, planets and satellites.

18 We walk on the surface of a revolving magnet and dynamo more perfect in measureless power and efficiency than any human has ever invented or dreamed of, and it generates the power which makes light, heat and life in its own electric environment, where all things "live, move and have their being." 19 It does not get light and heat from the sun; it gets electric currents with which it manufactures light and heat.

20 Prof. Richard Proctor says: "Profs. Bond and Zollner calculated that Jupiter sends forth more light than he receives from the sun," 21 and he concludes that, "if this be true, Jupiter must be partially self-luminous and shines in part by his own light."

22 This sustains my position that there is no such thing as "borrowed light from the sun," any more than borrowed heat from the sun. 23 There are currents of electricity from the sun which burst into light and heat on the earth and planets when they come in contact with their opposite electricity.

24 But each globe in space evolves its own light and heat in its own environing atmosphere. 25 If Jupiter shines by its own light, then the earth and planets all shine by their own light, the sun furnishing the electric power to enable them to do so. 26 I think our moon is no exception. It evolves the mild silvery light it displays in our midnight skies from its own attenuated atmosphere, but displays it, like the planets, only on the side exposed to the direct rays of the sun. 27 The greater and

denser parts of the moon's atmosphere is in the deep and numerous cavities of its torn and rugged volcanic surface. 28 All planets and satellites shine by the light evolved in their own atmosphere.

29 I contend that no reliance can be placed in the spectroscopic evidence of heat in the sun, or any distant globe. 30 This ought to be apparent when all light and heat rays can only be translated into photography as a picture evolved in our own atmosphere. 31 What we see are the electric colours in the atmosphere of a distant sun or planet.

32 The spectroscope simply photographs the colours of the elements in solution composing the atmosphere, just as we photograph the rich colours of a glowing sunset or a gorgeous rainbow. 33 The evidence of the spectroscope as to heat has been greatly exaggerated and overestimated by the scientists, for it can give no evidence of heat. 34 An astronomer standing on the moon and examining our gorgeous, glowing, crimson sunsets or aurora through a spectroscope would declare our earth was a blazing ball of fire. 35 It would seem so to him, and he would have just as strong evidence as our astronomers have that the sun is hot or a ball of fire. Our astronomers look at the brilliant colours of the sun's aurora and make the same mistake.

36 All the astronomers admit the truth of Prof. Proctor's statement--that "the heat-giving power of a star is not proportional to the amount of light it emits." 37 I ask why? And the answer is very plain: Because the stars and suns have no excessive heat and never had. 38 Recent facts prove the sun is not hot. Prof. C. G. Abbott of the Smithsonian Institute, in his observations on the sun's eclipse on May 28th, 1900, says in his report: "My experiments showed the corona of the sun was actually cooler than the gray card which had been used at the room temperature."

39 What our astronomers have taken for fire and evidences of heat is the rich and glowing rainbow colours of the outer atmosphere of the sun, 40 produced by infinitesimal atoms of the different metals and substances of

the sun floating in solution in its brilliant aurora, just as the elements of the earth float in solution in our gorgeous sunsets. 41 The sun having a larger surplus of electricity than the earth is thereby enabled to extend its vast aurora from the equator to the poles, and this gives continuous, varied and beautiful light, with no darkness to its celestial inhabitants. 42 But the earth, lacking a sufficient surplus of electricity to extend its aurora from the equator to the poles, must content itself by displaying its brilliant light and beauty near its poles, only occasionally extending it half way to the equator. 43 The fact that the earth creates its own aurora shows it manufactures its own light. 44 Every flash of lightning in our midnight sky, every blazing meteor in our atmosphere, prove the earth and planets evolve their own light and heat.

45 I agree with Prof. Proctor, when he says: "I adopt the principle of Sir William Herschell that analogy is the chief and the best guide for the student of astronomy. 46 General resemblance of structure indicates a general resemblance in the purpose which the celestial bodies are intended to subserve." 47 And I contend that all or nearly all suns and planets are alike in structure and in substance, and are vast inhabited worlds, governed by the same laws, controlled by the same electric energy, and possessing varied types of vegetable, animal and intellectual creations similar to our earth.

48 It is a universal law-of-Nature that wherever great electric power is conferred there are creations and results commensurate with that power.

49 Prof. Garrett P. Serviss, in the New York Journal, July 24th, 1901, predicted we would have four years of excessive heat on account of the dark spots on the sun, and many other scientists agreed with him. 50 He said: "The earth is a satellite of a variable star. The source of terrible heat is directly in the sun and due to an extraordinary increase in its effective radiation. 51 The periodic sunspot has thrown open the furnace door and sent forth the destroying blast which will continue for four years."

52 I undertook to answer him and contended that the sun is not variable in its heating power, and furnishes no more heating power to the earth at one time than another. That there is no increase in its effective radiation. 53 That the sun does not furnish heat to the earth at all, and is not a thermal or heating engine as claimed by the scientists, but is an electric generator like the earth and does not need to be hot. 54 That the sun furnishes the electric power and the earth heats itself. 55 In other words, the sun furnishes powerful currents of electricity which come in contact with the earth's opposite electricity and the resistance of its atmosphere, and which are converted into light, heat and vital force down near the earth's surface.

56 The electric power furnished by the sun does not vary, but is measured by the attracting power of the earth as a vast magnet. 57 Therefore all excess of heat is due to local causes and the uneven distribution of the sun's electric current on the earth's surface. 58 This unequal distribution of sun currents, causing excessive heat in the west, was produced by light rainfall during the previous year, and the harvesting of large areas in Kansas, Missouri and adjacent territories, thus exposing a dry soil and preventing the accumulation of moisture necessary to form clouds. 59 The succeeding summers justified my position and refuted the predictions of the learned professor and other scientists.

60 In mentioning these things I mean no disparagement to Prof. Serviss, whom I hold in high esteem, and only find fault with the old traditions which he upholds.

61 I am a friend to all scientists and regard them as earnest workers seeking the truth. But they follow accepted and antiquated authority too closely, and thus "the blind lead the blind." 62 They are too often one-sided and impracticable. 63 People who study apes and beetles or atoms and gases all their lives are no judges of angel's faces or of the scope and design of the Universe. 64 Prof. Proctor's testimony that "nine-tenths of the astronomers employ their powers in making observations at great pains

and labour which are not worth the paper on which they are recorded," is a plain statement of their tendency to be cranky and impracticable.

65 Some are so one-sided they think mathematics is everything. Mathematics in its place, like the miser, is good to count gains after they are acquired; 66 but had human relied on mathematics we would have remained as ignorant of the fundamental truths of the Universe as the Blackfoot Indians. 67 Newton owed none of his discoveries to mathematics. When his constructive imagination formulated a theory he tried to bolster it up with mathematics. 68 But it generally proved as delusive as did his calculation that the sun was 1,669,300 degrees hot.

69 The great boast of the mathematicians is that Le Verrier calculated where Neptune was before it was discovered by Galle at Berlin, 70 but the fact is he missed its eight astronomical units or over seven hundred millions of miles, and said Neptune was not the planet he was looking for.

71 These are two average tests of mathematical calculations, and they are on a par with the mis-calculations of how much the sun must burn up annually under the laws of gravity to supply the necessary heat to the earth and planets.

72 Imagination-- constructive ideality-- is the highest gift of Deity to human, and the only faculty that can reason from the known to the unknown and comprehend the wonders and grandeur of the Universe.

73 I am not a practical chemist seeking the mysteries of Nature in the laboratory, nor a professional scientist exploring the fields of original research; 74 but, like La Place, Comte, Herbert Spencer and others, I formulate my theories and scientific hypotheses from the latest and best established facts of science as I see it.

75 Science is only unified or systematic knowledge. Every fact is a scientific fact, and every truth is a scientific truth whether it pertains to so-called science or to religion or philosophy. 76 Nature has no subdivisions of science, religion or philosophy, nor astronomy, chemistry or geology; 77 but all things are a unity,

constituting one harmonious Universe; 78 and anyone who separates science from religion or either from philosophy goes contrary to Nature and divides the Universe into fractions. 79 As I am not a member of any scientific or religious association, I have no prejudices to overcome and seek the truth only, without fear, favour or undue predilections. 80 Old traditions, fossilised theories and antiquated authority have little weight in my mind by the side of recent facts. 81 But I am not an iconoclast, for I am more anxious to build up than to tear down.

82 The professional scientists may deem such students of Nature as myself who trespass upon their chosen domain as amateurs. 83 If so, it is a proud distinction. Amateurs have accomplished nearly all the great things in the world's history. 84 Cromwell was a farmer, Hastings and Clive were clerks, Bismarck twice failed in his examination to become a lawyer, Washington was a surveyor and Franklin a printer, 85 Herschell was a musician, Faraday a bookbinder, Scott a lawyer's clerk, Arkwright, the inventor of the spinning machine, was a barber; Spinoza a glass-blower, Herbert Spencer an engineer, Edison a newsboy, and Stephenson, the inventor of the locomotive, an ordinary workman; 86 Lincoln was a rail-splitter, Grant a tanner, Andrew Johnson a tailor, Andrew Jackson a saddler, Vanderbilt a ferryman, Rothschild a peddler, Krupp a blacksmith, Paul a tent-maker, and Christ a carpenter. 87 The names of distinguished amateurs could be continued indefinitely, but space forbids.

88 As I have discussed this question elsewhere and touched on it in other chapters, extended discussion might cause repetition. 89 Besides, this volume is not intended for detail or abstruse minutiæ, but for the statement of leading facts for the masses of intelligent people, who abhor technical terms and dry details. 90 Many people find scientific books so dry and unpalatable, that, like the weary listener to the dry, dull sermon of the missionary, who said: "If I were a cannibal from Timbuktu, I would eat that missionary and his hymnbook too."

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91 Doubtless he thought the hymnbook would be excellent dessert after such a dry meal; 92 and some readers of scientific works find most any kind of dessert refreshing after partaking of the mental pabulum of dry statistics and technical terms to be found in many scientific works.

93 Our American Indian is never dull or unpoetic in his conception of the Universe. He sees God in the lightning, hears Him in the thunder; and according to him the "Milky Way" is the "Path of souls" leading to the villages in the sun. 94 Along this pathway travel the spirits of the dead, and the brighter stars are "the campfires for the solitary journey to the land of the hereafter."

95 The Japanese term the Milky Way "the silver river of heaven." 96 And the ancient Greeks considered the blue dome of the sky a crystal globe where dwelt the Olympian gods.

97 No science should be dry, and above all astronomy should lift us to empyrean heights where we may tread among the stars

RECENT ELECTRICAL DISCOVERIES AND APPLIANCES, WIRELESS TELEGRAPHY

George Woodward Warder

11 It is said facts are now being discovered and physical theories developed the ultimate result 2 of which may be the explanation of the mysterious phenomena presented by the corona of the sun, the tails of comets, the aurora, terrestrial magnetism and its variations, nebulae and the zodiacal light. 3 First, these facts are being established in connection with the pressure exerted by light which was pointed out by Maxwell and deduced by him from his electro-magnetic theory of light, 4 which is, that when a pencil of light impinges perpendicularly on an opaque object, it produces a pressure on the surface of that object.

5 This pressure is determined by the condition that if the objects were set in motion with the velocity of light and the force against it kept up, the power to keep up the pressure would be

equal to that carried by the ray of light.

6 Second, that particles smaller than atoms, called corpuscles or ions, are thrown off with high velocity from the intensely heated bodies. 7 The sun, they claim, being such a body, it follows that such ions must be shot out from it. 8 On this theory it is held that the explanation of a comet's tail is simple. The comet evaporates on the side next to the sun and, there being no pressure to hinder its expansion; it begins in flying off in all directions. 9 It condenses into very minute particles which, by reason of the impulsion or pressure of the sun's rays, are thrown in the opposite direction from the sun.

10 My explanation has been, without all this detail, that it was the same law of electric repulsion which drove the comet off and prevented it falling into the sun, which also drove the comet's tail in an opposite direction from the sun.

11 This solution of the comet's tail does not solve the greater one of the repulsion of the comet itself. 12 The pressure of the electric ions or corpuscles might force the tail away, but a greater electric force from the sun drives off the comet.

13 Prof. J. J. Thomson and Arrhenius, a Swedish physicist, have by experiments discovered and elaborated the manner and principles on which the ions or corpuscles operate. 14 Arrhenius discovered that these ions were conductors of electricity and why, 15 and Prof. Thomson discovered each corpuscle had the same electric charge as an ion of hydrogen, and that each must be smaller than a hydrogen atom-- in fact only a thousandth part of it.

16 And here for the first time in the world's history, science tells us there are bodies smaller than an atom-- a thousand times smaller than an atom. 17 We are told an atom is a thousand times smaller than the particles of invisible air we breath; now we have an ion a thousand times smaller than the atom. 18 Surely the scientists have at last reached my theory of the fourth state of matter which I call the electro-magnetic. 19 In fact these ions or corpuscles may be electricity itself or the atoms of electricity which science has at last

discovered. 20 And streams of these infinitesimal ions may constitute the swift and invisible currents of electricity which produce all natural phenomena. 21 Prof. Blake, of the Kansas University, says: "Crookes called his cathode streams the fourth form of matter, but first to-day is such a state proven. 22 Now, we must recognise at the beginning of this twentieth century a new form of matter. 23 We have to deal with negatively charged particles so small that they have free paths of motion even among the atoms of substances."

24 As electric currents have free paths of motion even among the atoms of matter, these ions or corpuscles must be one form of electricity and must be both positive and negative, though the negative ions attract the most attention. 25 I am glad to find science coming to my conclusions as to the fourth state of matter. 26 But instead of calling it electric ions, electrons or Thomson corpuscles, it should be named electro-magnetic ether. 27 It may be that science has at last discovered what electricity is, and that it consists of these infinitesimal corpuscles. 28 Prof. Blake says: "These ions or corpuscles shatter into charged gases the molecules of gases and ionize the gases and make them conductors of electricity; 29 they raise gases to incandescence and make them light-giving sources; they form nuclei about which matter will aggregate and condense; 30 they seem to explain some of the most stupendous and perplexing problems in cosmic physics-- such as the cause of the sun's corona, the spread of the comet's tail, the source of the meteors, the fantastic play of the auroras, 31 whence the electric displays of our atmosphere, the after-glow of the setting sun, and the why of the zodiacal light."

32 He says the corpuscles seem to be solving the big problems of the heavens, and adds: "The corpuscles become luminous when impinged upon by electric waves; 33 and waves of light, which are electro-magnetic disturbances, must move them, and light will be produced and be scattered in all directions as if reflected from minute particles of ordinary matter. 34 This may

account for the glow of the nebulae, and the zodiacal light. 35 These corpuscles, being admitted into the moist air of our earth, form nuclei of condensation and drops are formed; and the growth of the high, fleecy clouds finds its beginning around these corpuscles. 36 They also strike our equatorial region; there they are influenced by the earth's magnetic forces and deflected towards the poles, 37 and near the poles they reach gases dense enough to become luminous by their impact and show the fantastic colourings of the aurora.

38 "Our atmosphere lies, then, like a great insulating sheet between conducting layers-- the surface of the ocean and the upper air. 39 In the ether of this intermediate insulating region electric waves may be set up to be propagated as signals in straight lines in all directions. 40 When wireless telegraphy first reached out timidly into space, we all said its currents would leave the earth's surface within a short distance, for they went out from the earth's surface in straight lines; 41 but as they extended farther and farther they seemed to bend around the earth and to follow its curvature. 42 Hertz, who discovered the electric waves which Marconi now so successfully uses in wireless telegraphy, showed us in 1887 that conductors reflected these waves, and the ocean's surface sent them back when they impinged upon it.

43 "Now, with upper air layers proven conductors, the electric waves must be deflected from above as well and bent downward to follow the earth's curvature."

44 And thus electric signals, silent but all pervading, will before long circle our globe by their repeated deflections through this great speaking tube around the earth. 45 The mysterious negative corpuscles, more minute than our smallest atoms, thus are themselves the very basis of the practicability of wireless telegraphy, our latest invention. 46 Nay, more, may not these ions or corpuscles be atoms of electricity, and, being a thousand times smaller than atoms of matter, impregnate them with positive and negative force?

47 Inventors have been endeavouring to send messages over long distances without wires

ever since the first tests were made in 1896. 48 Only recently Marconi has succeeded in sending them across the Atlantic, two thousand miles through the air.

49 The distance to which messages may be transmitted and received depends on the amount of electric energy employed, the frequency of oscillation in the radiating system, the length of the electric waves emitted, the height of the perpendicular wires from the ground, 50 the medium through which the waves are propagated, the sensitiveness of the coherer or receiver, and the precision with which the instruments are adjusted.

51 Long electric waves are radiated to greater distances than shorter ones, and much depends on the syntonic system, or tuning of the instrument, so as to communicate with any selected receiver to the exclusion of all others.

52 An electric generator supplies the source of electricity for operating an induction coil to transform the low pressure into an alternating current of high pressure. 53 This charges the wire suspended from a mast and the wire leading to the earth to a sufficient potential to cause the opposite charges of electricity to rush together, thus forming a spark or disruptive discharge through a small air gap; 54 as a result high potential currents surge to and fro through the wires hundreds of thousands of times per second.

55 These high potential currents radiate electric waves which are propagated as light waves and spread out in every direction. 56 It is said the whole process of transmitting and receiving wireless messages is not unlike to the emission of light and its reception by the retina of the eye.

57 The reception of these waves is by means of a vertical wire similar to that used in transmitting, the difference being the wires at the terminals are connected with metal filings enclosed in a small glass tube called the coherer instead of the spark gap. 58 The electric waves impinge on the elevated wire and are converted into electric oscillations, which act on the filings, and an auxiliary circuit registers the impulses on a ribbon of paper in readable Morse dots and dashes. 59 The higher the

vertical or mast wires and the greater the number of wires, 99 the greater the wave length and the farther the distance transmitted.

60 Marconi in his first Atlantic tests employed kites and balloons to carry the vertical wire so that long electric waves could be obtained. 61 Since then he has carried his wires on high masts, as at Poldhu, Glace Bay, and Wellfleet Station. 62 The Marconi companies have equipped six stations in the United States, five in Hawaii, twenty in Great Britain, one in Belgium and one in France. 63 There are eighteen ocean steamers, thirty-two British-men-of-war and several Italian and American warships which have Marconi installations. 64 Marconi says: "There are thirty-five land stations, twenty-one liners and eighty-five warships equipped with Marconi apparatus. 65 Land stations cost $1,000, and ship equipment, $700. Trans-Atlantic stations cost $100,000 each."

66 Wireless telegraphy is the most recent miracle of electricity, and shows it to be the cosmic energy of the Universe. Science stumbled upon it.

67 And in the same way, Sir Wm. Crookes, in a recent interview, says: "Science may someday stumble upon the soul. People of science believe more than they can express, spiritually as well as physically." 68 They will not prophesy, but said with ominous import: "If you had come to me a hundred years ago do you think I should have dreamed of foretelling the telephone? 69 Why, even now I cannot understand it. I use it every day, but I don't understand it. 70 Think of that little, stretched disk of iron at the end of a wire repeating not only sounds, but words, and with the most delicate and illusive inflections of tone which separate one human voice from another."

71 Mr. Peter Cooper Hewitt, says the Electrical Review, has invented a new apparatus which it is said will make a revolution in the method of sending wireless telegraph messages. 72 The device consists of a glass globe about ten inches in diameter, having two tubes containing mercury sealed in the bottom of the vessel.

73 This apparatus acts, as a powerful and effective interrupter and takes the place of the spark

gap now used in discharging the condensers for setting up electrical waves. 74 It enables powerful, rapid and continuous oscillations to be set up in the antenna, or sending mast, used in transmitting wireless messages, 75 and not only enables messages to be sent over very great distances with ease, but permits secrecy to be maintained, which heretofore has been impossible.

76 The operation of this device depends upon two new phenomena in physics which Mr. Hewitt has discovered in the course of his researches. 77 The first is the resistance of the mercury in the apparatus to a passage of current until a high potential has been applied; the second is the disappearance of this resistance after this high voltage has been reached.

78 The effect of these two phenomena is to permit a condenser to be charged to a high potential and then, by the disappearance of the resistance of the interrupter, to discharge it very rapidly. 79 The result of this action is to set up violent and rapid current impulses in the circuit containing the condenser, and thence in the sending wire. 80 The current impulse, being very powerful, will enable messages to be sent to great distances, and as the number of oscillations per second can be controlled, this permits of selective signaling. 81 The number of impulses can be made very high-- above a million a second. The device is inexpensive and durable. 82 It is considered a great contribution to wireless telegraphy and establishes it on a commercial basis, and selective signaling is solved and trans-Atlantic transmission will be easy.

83 Radium is a rare metal recently discovered, having remarkable qualities and very difficult to obtain. It is a constituent of pitchblende, which is found in many places, but only in a small way. 84 So far all that has been procured has come from a mine in Cornwall. A ton of pitchblende carries about 15½ grains of radium and it is very difficult to extract.

85 A grain is estimated to be worth $200,000 and a kilogram is worth about $2,000,000. There is only about one pound of radium in the

world. It is estimated to be worth $1,000,000.

86 Radium was discovered by M. and Mme. Curie, in France, after they had familiarised themselves with the remarkable properties of uranium and polonium. 87 Radium has many curious and inexplicable qualities. 88 It continually emits heat and light without combustion, without chemical changes of any kind, and without any change in its bulk, appearance or molecular structure, which remains identical after many months. 89 It is so powerful in the energy it constantly hurls forth as to entail many dangers in handling it.

90 Sir Wm. Crookes says in describing it: "Probably if half a kilogram were in a bottle on that table it would kill us all. It would most certainly destroy our sight and burn our skins to such an extent we could not survive. 91 The smallest bit placed on one's arm would produce a blister it would take months to heal."

92 It also emits electrons with a velocity so great that Prof. Crookes estimates "one gram is enough to lift the whole of the British navy to the top of Ben Nevis, and I am not quite certain that we could not throw in the French fleet as well."

93 It has such surprising properties that Lord Kelvin was moved to say of it that, "it threatens to overthrow the correlation of forces," which is the rock-ribbed, foundation postulate of science. 94 It seems already to have unsettled the accepted theory of light, and after the experiments of the Russian scientists who are now investigating it, Profs. Mendelief, Yigooff and Borgruan, the result may give us new scientific theories and a new nomenclature. 95 Radium tends to confirm my electric theory of creation, it also seems to aid the Thomson corpuscles hypothesis, and will open the way to new and important discoveries.

96 My opinion from very brief thought on the subject is that radium is in its nature a form of electric energy solidified, and may be a bundle of Thomson corpuscles or electrons combined and solidified by some process not yet understood. 97 It is in the nature of an electric dynamo, and draws its constant supply of

electricity from the air. 98 It is plain that it is an electric substance and manifestation, for, as Prof. Crookes says, "it memits electrons with a velocity so great one gram would lift the British navy to the top of a mountain, and he is even willing to throw in the French fleet." 99 If he were not a great scientist, I should say he was exaggerating like an amateur. Radium is at present a great scientific puzzle. 100 It seems to destroy the present theory of light and the conservation of energy and the so-called attraction of gravitation by reason of its marvelous energy and wonderful qualities.

101 But I stand with the scientists on the doctrine of the conservation of energy and the correlation of forces, and do not believe radium seriously threatens it, though Lord Kelvin had much reason to say so; 102 and it is a puzzle yet unsolved as to how it maintains its energy without diminution of its force and bulk. 103 I see but one explanation, and that is, that it renews itself constantly by drawing electric energy from the air, as a battery or dynamo draws it, and thus retains its marvelous power unimpaired.

104 I hold that energy, like matter, is a substance and can neither be created nor destroyed. 105 It is impossible to create a molecule out of nothing or to reduce a single particle of energy to nothing. 106 Energy, like matter, can be changed from one form to another or from one place to another, but all matter is one matter in its elemental form, and all energy is from one original energy, which I hold to be electricity. 107 All matter is the aggregate manifestations of the invisible atom, and all energy is the varied manifestations of the one ultimate and only force in nature--electricity.

108 The transformation of energy, such as falling water, expanding steam, heat, light, vital force, and gravitation, are all from the same electric elemental force, and this energy is without increase or decrease and is known as the conservation of energy. 109 The definition given of electricity by Atkins in his work on electricity, which says, "it is a molecular mode of motion," is an absurdity, for motion is an effect produced by a

cause, and all motion is caused by electric energy.

110 And the mode of motion is simply the manner in which the law of electro-magnetism operates. 111 Thus there may be an electric law yet undiscovered by which a substance like radium may draw electric energy from the air and keep its force and bulk unimpaired for many months, or perpetually. 112 But radium raises many other questions affecting the nature of light and heat, such as how such great heat and light can be condensed into so small a compass and evolved with such wonderful power.

113 Prospecting for valuable metals by electricity has been recently introduced in Wales with remarkable success. 114 In the Cwnystwyth mines in Cornwall new and valuable deposits of ore and blende were located. 115 These mines have been worked for over fifteen hundred years, and much of this time the search for additional lodes has been going on; yet this electrical device accomplished in a few hours what fifteen centuries of search failed to discover.

116 By the electric method of prospecting a current of high potential-- 30,000 volts or more-- is employed to energise a piece of ground supposed to contain mineral. 117 The current is taken from the terminals of the generating coil to metal rods or electrodes which are pushed an inch or two into the earth. 118 From these distributers the lines of force spread out in both vertical and horizontal planes and may be made to extend over an area of several miles.

119 Their presence is detected by means of a delicate telephonic receiver connected with a second pair of metallic rods, which are stuck into the earth in any desired position. 120 When the receiver is silent or gives only faint sounds, it indicates that the lines of force are deflected from their normal course. 121 This reveals the presence of metallic masses in the earth, and, by moving the electrodes about, the position and area of an ore deposit may be determined with considerable accuracy. 122 In new and unknown ground the operator would place his distributing electrodes about

200-yards apart, and remove his receiving instrument to a distance of half a mile or more. 123 If his general knowledge of geological formation led him to believe that the metallic veins, if there were any, would run generally north and south, he would place his electrodes east and west, 124 and if he found the electrical distribution normal he might conclude that the ground contained no mineral.

125 This remarkable electrical system for detecting the mineral deposits beneath the surface of the earth will doubtless be tested and perfected until human will be able without digging into the earth to ascertain the mineral deposits at any point beneath its surface. 126 It may not always determine if they may be profitably worked, but in many mining regions it will be a blessing, and save much unprofitable work and sad disappointment.

127 Electrically heated cooking and laundry apparatus is now used in Germany and other countries. And there are farms on large German estates which are run by electricity. 128 The Guednau farm in Eastern Prussia consists of 450-acres, and its dairy handles one thousand gallons of milk daily. 129 It is lighted by electricity, has an electrical churn and feed-cutting machine, water-pumping apparatus, incandescent lamps, threshing and grist mills, saw mill, automatic plough and electrical agricultural machines, 130 all run by charged batteries and a fifty-horse power stationery engine moving two dynamos. 131 Thus farming is made attractive and free from drudgery, and is run like a machine by the electric current. 132 Electricity is used not only to run some farms, but also to hasten and increase the growth of farm products by running wires a few inches beneath the surface to energize the soil.

133 The Commercial Cable Company announce that their ocean cable connections will be complete with Manila, in the Philippines, by the 4th of July of this year, 1903, and that on that day they will telegraph around the world in forty seconds. What a miracle of wonders! 134 Fifty years ago the speediest communication from point to point was by swift horsemen making fifty miles a

day. 135 Now the round earth's antipodes is only forty seconds apart by reason of electric appliances.

136 So wonderful has been the growth of electrical appliances and utilities that Prof. H. B. Shaw, of the Missouri University, in a recent lecture, said: 137 "In twenty years the electric light industry has developed from nothing to the manufacture of over 100,000 incandescent lamps per day. 138 Ninety-five per cent of the street railways in this country are electrically operated. Yet this industry was cradled in Kansas City, Mo., only about twenty years ago."

139 This was when I first had my attention drawn to electricity, for I saw the building of that line on East Fifth street, in that city. 140 That and the lighting of the gas by an electric flash from a human body caused me to investigate electric phenomena and formulate the electric theory of creation.

141 Prof. Shaw said: "The latest development in long distance power is in California, where ten thousand horse-powers is transmitted two hundred miles from where it is generated with a loss of only ten percent of power in the line. 142 Ten thousand horse-power is sufficient to raise a million tons two inches per minute."

143 What a miracle that such power can pass along a wire no larger than a child's finger, and exert such force two hundred miles from where it is generated! 144 Nothing but the invisible creative cosmic force of the Universe could accomplish such a seeming miracle.

145 But some scientists are so irrational as to say this force is merely the pressure, twist or whirl of the ether, when it is plain that if the ether were as rigid as steel it could not exert such force and power. 146 And as to it being a derivative force derived from the coal, wood or sun, it is plain it is the same force and the original, ultimate, creating evolving and only force in the physical Universe.

147 There has been much labour and money expended in endeavouring to perfect a balloon or airship, which would be safe and could be directed through the air at will in any course desired. 148 Electricity has been used as the

steering power and aluminum, because of its light weight, for the frame-work. 149 The French especially have given great attention to what they call the dirigible balloon, but no great amount of success has been achieved and, in my opinion, never will.

150 In the very nature of things, no safe airship can ever be built. It was not intended that human should travel or carry burdens through the upper regions of the air. 151 First, because the law of the earth's electric attraction forbids it. Second, because the sudden and powerful wind and electric currents that pervade the upper regions of the atmosphere are sure to bring ruin and death, sooner or later, and no human power can prevent it.

152 The balloon or airship is only a dangerous toy which can be useful perhaps in times of war to spy out the enemy, but utterly useless otherwise, and which means death in a very short time to all who risk their lives in its treacherous power.

153 There have been two recent and striking examples of this in the case of the two distinguished experts in Paris who thought they had built airships that could overcome the powers of Nature, 154 and while proudly exhibiting them to their family and friends were hurled to a sudden and fearful death.

155 The many deaths and narrow escapes from these useless and dangerous toys make it almost certain that no sane person would risk own life in one of them, though there were a thousand at one command free of expense.

156 Of all the useless follies on which inventive genius and money have been expended, the airship is the worst, 157 because if millions of the most perfect ones the imagination of human can conceive were built and offered free, no prudent person would risk own life or own goods in their treacherous care. 158 The powers of Nature, and what the ancients called the demons of the air, forbid that the airship should ever be anything more than a dangerous toy for reckless persons, who wish to jeopardise their lives.

159 Great efforts have been made, much money expended and many lives lost in futile attempts to find

the North Pole, which when discovered may appear like any other ice field, mountain glacier, or snowdrift of the Arctic Circle. 160 But the thirst for knowledge and the love of adventure and exploration where no financial reward can be expected is creditable to humanity, and shows that the love of knowledge is sometimes above that of sordid gain. 161 The struggle for two centuries has been to reach the North Pole, and it has been approached as near as 700-miles; 162 but recent reports indicate that conditions are more favourable for reaching the South Pole; and a French expedition outfitted this year for the North Pole have changed their destination to the South Pole. One or both poles are likely to be discovered in a few years.

163 There have been many scientific expeditions to various parts of our globe for astronomical observations. 164 One recently sent to Chili from the Lick Observatory should command especial interest since its object is by the study of the southern stars to ascertain where the earth and the solar system is going. 165 We know our sun system is moving swiftly towards the north, in the direction of the stars Vega or Alpha Lyra, at the rate of more than forty-three thousand miles an hour. 166 Each year we are more than three hundred million miles nearer these stars, unless they also are in motion in the same direction. 167 The southern stars have been studied much less than the northern stars, and the testimony of both is desired to determine the direction of the mysterious voyage of the sun and its family of worlds through the unexplored regions of space.

168 We have been watching the stars in front of us for many years, and will now give some attention to the stars in our rear to confirm or disprove many astronomical hypotheses.

169 It is like getting back to anti-Copernican times to have Dr. Alfred Russell Wallace, in his flights of speculative astronomy, 170 say that, "our solar system is central in the Universe and that this earth of ours is probably the only planet on which humanity has been developed." 171 In a recent article

he undertakes to establish this ancient fallacy. It is very doubtful whether the Universe has a general center, 172 but if it has it should be plain to our learned astronomer that as our system is moving through space in a straight line at the rate of 420,000 miles per day it could not occupy a central position very long. 173 The only means we have to judge of the inhabitability of other worlds is by analogy, which is the foundation of all scientific hypotheses. 174 The likeness in form, substance and electric power of suns and planets to our own world leads to the natural conclusion that all suns and worlds are inhabitated. 175 In fact any other assumption is contrary to all cosmological reasoning and all analogy to be found in universal Nature. 176 Nature nowhere bestows vast substance and power without commensurate results of life and growth, and it is reversing all the laws of reason, analogy and cosmic experience to hold to the contrary. 177 We must give up this egotistic assumption that our little world is the only living world in this vast Universe, or that it is only one of a few living worlds.

178 There are no dead worlds or planets or burning suns in this electric Universe, and we are not "the only pebble on the boundless beach" of creative worlds. 179 We have the same electric fire in our bodies that is in the sun, and it neither burns us nor causes us to shrink up annually, as the scientists say the sun does. 180 It is not the consumer of life, but the giver of life, and the continual life energy of the Universe.

181 During a recent eclipse of the moon, Prof. W. H. Pickering, of Harvard Observatory, ascertained that the bright spot around the crater Linne on the surface of the moon grows considerably larger when deprived of the heat of the sun. 182 For many years it has been noticed that the Linne area has been gradually changing and many theories regarding the causes have been advanced.

183 Prof. Pickering is inclined to the belief that it is hoar frost or ice. This tends to confirm my theory that the moon has an atmosphere and some moisture which is mostly hidden in its perforated volcanic surface.

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184 Alexander Young, an astronomer of Laport, Ind., announced on February 20th, 1903, that, "from observations made by him, he is confident that the sun is inhabited; 185 that with his instruments he has seen on the sun's surface mountain sides with great and precipitous rocks which glow with prismatic colours, mingled with the greenness of perennial vegetation."

186 I was not expecting this scientific proof so soon, but I am satisfied that the inhabitants, the mountains and the perennial vegetation are there; 187 and if he has succeeded in magnifying the rays of light from the vast openings in the sun's photosphere sufficiently he can and did see them.

188 I am a firm believer in the inhabitability of the sun, and that it is a perfected, self-luminous world-- a world like our world, only vastly larger and more prolific in life and power. 189 As it is the source of all life and power to the planets, it must be the creator of all life to its celestial inhabitants.

190 Profs. Proctor and Herschell seem to believe that most of the heavenly bodies are inhabited. 191 Sir Wm. Herschell went so far as to contend for a time that the sun was inhabited or inhabitable because, he said, the heat of the sun was in its photosphere, which was far out in space and many miles from the sun's surface, and that there were cool clouds and layers of atmosphere, 192 he thought, between the heat and the sun's surface which made the body of the sun cool enough for animal and vegetable life and human habitation. 193 He changed his mind, however, in a few years and held the heat of the sun was too hot to allow anything in Nature to keep such excessive heat from its surface, and besides, the law of the conservation of forces just coming into scientific prominence then forbid it.

194 Prof. Proctor, says: "I adopt the principle of Sir Wm. Herschell that analogy is the chief and the best guide for the student of astronomy. 195 That general resemblance of structure indicates a general resemblance in the purpose which the celestial bodies

are intended to subserve is evident when we compare the stars with our sun or with each other. 196 Some time or other those worlds have been or will be the abode of intelligent creatures seems to be a fair conclusion from what we know of their structure."

197 Deity does no irrational things, Nature is always logical and consistent, 198 and where there is such vast resource of substance and power bestowed, as in our sun and the eighteen millions of suns of the Universe, it was not for the purpose of making bonfires and blazing furnaces of them. 199 But they were created for vaster, more perfect theatres of intelligent life and activities. 200 Besides, burning them up could bestow no benefit on the planets; the heat could not reach them, and if it could it is only a sensation, and sensation cannot produce vegetable or animal life, or control the earth's motion.

201 One of the greatest of modern discoveries is that heat is not a substance but a sensation, produced by electric currents. 202 So that eighteen millions to one hundred millions of suns do not need to be burning up to furnish electric currents to their planetary worlds. 203 And our sun is not burning up thirty quintillions cubic feet of itself annually, 204 and a hundred millions of suns many a thousand times larger than ours are not burning up a thousand times more of themselves, as the astronomers claim, and the whole thing is a great absurdity and superstition.

AT PRESENT, SCIENCE IS IN A DUBIOUS AND CHAOTIC CONDITION

George Woodward Warder

12 The last few years have been remarkable for the diligence with which scientists have scrutinised every phenomena of Nature, and the abundance of new facts which have rewarded their researches.

2 They have also been remarkable for the changes in scientific opinions, which usually are so gradual as to be imperceptible, 3 but which have recently taken on the speed of the earth's solar

revolution in their transition from the old to new theories.

4 The vast body of scientists is seldom a unit in the acceptance of any theory, even of the most fundamental nature. 5 And where there is such diversity of belief each student of Nature is entitled to form own opinions and beliefs.

6 But the most pitiable and unfortunate of the one-sided scientists are those who would banish logic from the realms of physics, and who regard a deduction or a theory as an enemy of science; 7 who heap scorn on analytic reason-- the highest gift of Deity to human-- and who deem the tabulation of dry facts without causes the only purpose of science.

8 Who want science fenced in with a stone wall and separated from religion and philosophy, and the earth cut up into sections and labelled astronomy, chemistry, geology, and so on ad infinitum; 9 as if Nature knew anything about astronomy, chemistry or geology, or ever considered anything but the unity and harmony of the whole Universe, which includes science, religion and philosophy, one and inseparable, as God and Nature are inseparable.

10 Mr. Cope Whitehouse, a New York scientist, says of present science: "The only fact established beyond doubt regarding suns and planets is their revolution on their axes, and this is all that is needed to generate light and heat. 11 They are arc dynamos, and each in turn transmits what it receives to its neighbour on the circuit."

12 This is well stated and shows that nine-tenths of the accepted facts and theories of science are mere guesswork, founded upon conjectures of some eminent scientist who was accepted as authority a hundred years ago. 13 And the standard scientific works have propagated them as scientific facts.

14 It is a fact apparent to all well informed students that astronomy, physics and chemistry at present are in a chaotic condition-- 15 that nearly all the scientific facts and theories established for two hundred years are now in a state of uncertainty and are virtually overthrown by recent discoveries.

16 The recent discovery of radium seems to overturn the rock-ribbed

scientific theory of the conservation of energy, and raises many new questions in regard to the nature of light and heat. 17 Lord Kelvin, recognised as the highest authority, says: "It threatens to overthrow the doctrine of the correlation of forces." 18 If the scientists would accept the electric theory of creation, its explanation would not be so difficult, for radium seems to be a bundle of electric ions or corpuscles which have the power of drawing electricity from the atmosphere, 19 like a miniature dynamo or a galvanic battery, and thus continually renewing itself, so that there is no loss of power and no shrinkage in size or bulk. 20 The scientists may soon be forced by radium and other natural phenomena to accept the electric theory-- that electricity and not gravity is the one and only fundamental force in Nature.

21 The discovery of the three lines in the spectrum of hydrogen, discovered by Prof. Pickering, of Harvard, may upset the whole theory of the seventy-three elements set forth in our books of chemistry and said to constitute all the elements of the Universe. 22 It may prove they are not elements, or at least not primary elements at all, and finally drive the scientists to my theory that there are only three primary elements in the Universe, and they are spirit, electricity and matter. 23 That the claimed seventy-three elements are only different combinations of two of the original and primary elements-- matter and electricity-- and are what Herschell said they looked to be-- "manufactured articles."

24 Prof. Pickering was the first to analyse lightning with the spectroscope and show that hydrogen is a compound substance made up of lines belonging to at least three chemical elements. 25 This recent discovery was a great surprise to scientific people. And it was confirmed and doubly proven by the spectrum in the new star, in the constellation of Perseus, known as Nova Persei, which also shows in the hydrogen there the same lines consisting of at least three chemical elements.

26 This is new proof by high authority that oxygen, hydrogen and all the claimed elements are--

as I have contended for many years-- 27 only compound substances, and justifies Prof. Serviss' statement in the New York Journal, that these facts "may revolutionise science and reconstruct chemistry." 28 The marvelous increase in brilliancy of the star Nova Persei last year, and its sudden shrinkage, all within a few days, and the same being observable almost instantaneously upon the earth, 29 when that star is 3,400 light years distance from the earth 53 according to the accepted speed of light, which is 186,000 miles a second, unsettles the whole question as to the speed of light. 30 It tends to prove that light is instantaneous, as Prof. Wright says gravitation is.

31 No less an authority than Prof. Simon Newcomb calls the scientific world's attention to this phenomena, and shows it throws doubt on the long-accepted theory as to the speed with which light travels. 32 In his address before the Astronomical Society, December 29th, 1902, he says: "There is an inadequacy in the speed of light to explain the phenomena. We are forced to the conclusion that there exists in the Universe a cause susceptible of transmission with a speed many times that of light."

33 What cause exceeds the speed of light, which is deemed the swiftest thing in the Universe? We know of none. 34 What was it surprised the scientists and came to us with many times the supposed speed of light? It was light, only light. 35 Then this "inadequacy in the speed of light" came on double-quick time, and proves that light can travel many times faster than the scientists for two hundred years have declared it could. 36 And this eminent scientist, with cautious diplomacy, does not directly attack the accepted speed of light, but says "there exists a cause" that produces a greater speed than light. 37 But as only light came, did the "cause" bring it or did it come with its own velocity? 38 If a "cause" or unknown force brought it, then we have a new force in Nature which the scientists must reckon with. 39 So they must accept the alternative and either change the speed of light or deal with a new and unknown force.

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40 In addition to the above complications, Prof. J. J. Thomson, discovered (1901), the electric ions or corpuscles which is considered a new form of matter and force. 41 The discovery of these electric ions or corpuscles a thousand times smaller than atoms has produced utter confusion in the scientific world, and outside of the electric theory of creation they can make no possible explanation of them. 42 The fact is, the scientists are on an island of doubt, in a sea of uncertainty, scanning with telescope, microscope and spectroscope the ocean of foggy knowledge and dubious assumed facts to find a port of safety.

43 Their attempts to fix the specific gravity of the sun, and the sun's burning up and shrinkage as its source of heat, and the heat as the life of the planets; their treatment of heat as an entity and substance, when it is merely a sensation; 44 their reliance on the spectroscope to indicate heat in distant suns, and their accepting gravity without a cause or an explanation, show the blind for centuries have led the blind in extravagant guessing.

45 But since they have seen an electric battery and an arc light, they should be ashamed to ever declare "the sun is hotter than any terrestrial furnace," or that it is hot at all. 46 The arc and incandescent lights are object lessons they ought to study, for they will see almost an exact representation of how all light, heat and vital force are created on suns and planets.

47 They will see two wires, one positive and the other negative, brought together or so near together that in order to complete their electric circuit they must pass through a little space of resisting air, which is a non-conductor, and then they burst into light and moderate heat. 48 In the same manner the positive and negative currents of electricity of the sun and earth, without wires, come together in our atmosphere, which is near the earth's surface a dense resisting non-conductor, 49 and in order to complete the circuit they burst into light, heat and vital force and give life and energy to all animal and vegetable organisms. 50 But the heat must be and is generally moderate, as no vegetable or animal life can exist

in excessive heat. 51 And as excessive heat means ruin and decay, therefore no burning sun can furnish light or give life and growth to any planet.

52 Prof. Simon Newcomb, the learned astronomer, says: "The sun is not a solid body, but must be liquid or gaseous, at least at its surface." 53 He gives this singular reason, therefore, that "the sun's rotation at the equator is completed in less time than at a distance on each side of the equator."

54 I question both the fact and the sufficiency of his reasoning on this point.

55 According to his own statement, the sun revolves at its equator 4,000 miles an hour, or over a mile a second, while it revolves very slowly near its poles and virtually is not in motion at all at its poles. 56 This rapid motion at the equator and slowness of motion near the centre of the sun is calculated to deceive the eye and make it think it completes its rotation at its equator in less time than at a distance from it, looking down along the slope of the sun's vast circumference. 57 This is no evidence, for we see only the moving clouds of light on the outer rim of the sun's atmosphere, ten to twenty thousand miles or more from its surface, and they seem to and do complete their rotation a short time sooner. 58 This they naturally should do. How frail and uncertain is the argument based on such doubtful and assumed facts?

59 Thus these wise astronomers claim from this slim, unreliable evidence and the assumed excessive heat of the sun, that the sun is not a solid body at its surface. 60 Yet the same author rejects this same evidence-- that Jupiter is not a solid body-- in the following language: 61 "The difference in the time of Jupiter's rotation at the equator and in middle latitudes is, so far as we yet know, about five minutes. 62 That is to say, the equatorial regions rotate in nine hours and fifty minutes and those in middle latitudes in nine hours and fifty-five minutes, a difference amounting to 200-miles an hour, a seemingly impossible difference were the surface liquid. 63 We cannot assume this to be the case without more observations than are yet recorded, as no well defined law

of rotation in different latitudes has yet been made out."

64 Thus this learned astronomer will not assume for Jupiter what he assumed for the sun, and weakens and destroys in Jupiter the very same arguments he used to prove the sun was not a solid body at its surface.

65 This same learned astronomer--and I mention him because he is high authority and has written the most recent work on astronomy--66 says that, "under the enormous pressure of the earth, continually increasing to the center, the matter composing the inner portion of the earth is compressed to the density of a metal. 67 If the earth were composed of a fluid or even of a substance which would bend no more than the hardest steel, such a motion as that of the earth upon its axis would be impossible."

68 I accept this as a very reasonable conclusion, and hold the same rule applies to the sun, and that the sun's "enormous pressure, increasing to its center," would compress its inner portion to the density of a metal; 69 and that the sun could not revolve upon its axis and retain its rigidity as it does unless its inner or central portion was as rigid as steel. 70 And this necessarily means that its surface is about as solid as that of our earth.

71 Therefore the sun cannot be molten or liquid at its surface, as the scientific guessers have prognosticated. 72 As they have guessed wrong about nine-tenths of the time, this is one of the nine hundred bad guesses.

73 Lord Kelvin, our wisest scientist, a few years ago estimated that our earth, only fifty miles below its surface, was a molten mass of fiery metal. 74 Now, Simon Newcomb says it has the density of metal, and is as hard as steel, and I think Lord Kelvin has changed his opinion and will agree with him. 75 Thus the hoary-headed superstition that the center of our earth was a molten mass is passing away, and it will be the same as to the heat, and molten condition of the sun-- it will be relegated to the plutonian shades of ignorance and superstition. 76 Because there were numerous volcanoes, geysers and hot springs scattered over the crust of the earth and in some deep mines there were

hot sections, the scientists jumped at the conclusion that the inner portions of the earth were a molten, fiery mass. 77 This was to accord with their false theory of a red-hot molten sun, and their assertion that the earth had its inception as a fire mist, and rolling ball of white-heated gases. 78 But the scientists have changed their theories rapidly in recent years. They are just beginning to discover that there are zones of heat and cold beneath the earth's surface just as there are above its surface. 79 That there are electric currents of heat in volcanic regions and mineral and mining sections, and none in others, and even in the same mines there are warm and cold sections.

80 Take the Cornstalk mines in Nevada. A section 2,300 feet below the surface is very warm; while another section 1,200 deeper-- being 3,500 feet below the surface-- is very cool. 81 Surely Lord Kelvin would now laugh at himself to think he made such a calculation of the heat of the earth and said it was a molten mass of fire fifty miles below its surface. 82 And he even said it was so hot seven miles down in the earth that water could only remain or exist in a state of vapour.

83 Ye gods! When so great a prophet makes such mistakes, surely the little prophets that walk in his footsteps ought to "go 'way back and sit down," and cease talking about the heat of the sun. 84 They should quit telling us the Beneficent Creator is burning up 18,000,000 of its most magnificent and beautiful worlds to heat its little, insignificant planets. 85 They estimate our sun burns up thirty quintillion cubic feet of itself annually, and 18,000,000 of suns are doing the same, making the equivalent of a world destroyed every year and a sun every decade. 86 These statements are so unreasonable and appalling they refute themselves. 87 I mean no disrespect for these learned but misguided scientists who have for two hundred years built all their theories on heat, which Langley now says truthfully is nothing but a sensation. 88 Thus they built the Universe on a sensation, and to sustain the old traditions they want to keep it there. 89 They said the earth began in heat, that it was a

ball of fire a few miles below its surface, and the suns were great flaming furnaces burning up with quenchless fire. 90 They made the Great Creator a fire demon and world destroyer.

91 If Prof. Parker's testimony is to be relied on, nine-tenths of them waste their time on useless calculations and data. They have a wonderful faculty of putting the horse before the cart. 92 For example, Prof. Huston of Princeton, says. "Electricity is being constantly produced during the phenomena of everyday life. 93 It is produced by chemical action, differences of temperature, the motion of conductors and magnets and the various physical and chemical processes that occur during the life and growth of plants and animals."

94 Now, this is misleading, because it states facts backward. It is not true that electricity is being produced in the sense it uses it by these phenomena. 95 These phenomena are being produced by electricity. They are the manifestations of electricity. Electricity is the cause; they are the sequence or results, and he should say electricity is manifested by these things. 96 The same author says: "The earth is to be considered as one huge magnet." This is very true, and as a great magnet does not need to be hot to generate electric life-giving energy, 97 no astronomer ought to look at an electric light or an electric battery without blushing that one ever called the sun hot.

98 Electricity can be generated without burning coal or wood or the use of a furnace. 99 The turbine wheels that are turned by the waters of Niagara Falls, without heat or furnace, can generate a hundred thousand horse-powers. 100 The placing of two or three pieces of metal one above another with a moist substance between them will create a voltaic battery. 101 And mines of two or three kinds of metals or ores, when clay or any soft substance between them become moist, will create a battery that will tear up the earth for miles and produce a geyser or an earthquake.

102 Prof. Proctor agrees with Langley in rejecting the nebular hypothesis, when he says: "Under the continual rain of meteoric matter

the earth, sun and planets are growing. 103 And the formation of the solar system resulted from the aggregations of vast meteoric and cometic systems rotating through space has greater support from what is now going on, and is far more satisfactory than the nebular hypothesis of La Place.

104 The nebular hypothesis affords no explanation of the strange variety of size in the planetary system, variations of inclination among the planets, or the retrograde and almost perpendicular motion of the satellites of Uranus and Neptune. 105 A general explanation of all these matters is at once suggested by their origin from aggregations of meteoric systems." This agrees with the electric theory of creation.

106 All the Newton-La Place theories of gravitation and the nebular hypothesis are now called in question by our wisest astronomers. 107 And one of them has pointed out two hundred instances in which gravitation is set aside and ignored in the motion of the heavenly bodies. 108 Such instances as the runaway stars, the retrograde motion of satellites, the repulsion of comets from the sun, and so on ad infinitum. 109 And as to the outer planets, Uranus, Neptune, Jupiter and Saturn, being older than the inner planets and being thrown off first from the vast whirling sun nebula of La Place's imagination, all modern astronomers either call it in question or reject it, as a fallacy disproved by more recent facts and discoveries. 110 It is reasonable to suppose that there are zones of electric energy in space in each solar system which may help to hold and keep each planet in its orbit, just as there are belts and currents of electricity in the atmosphere and outer crusts of earth and planets. 111 And the sun may send a different kind of electricity to each planet and receive a different kind from each planet.

112 Abbé Moreau, the noted French astronomer, in supporting Col. Du Ligondes, who opposes the La Place theory of the formation of the solar system, 113 in a recent article, April, 1902, undertakes to show that Mars is not older than the earth, as held by the La Place nebular theory, but on the contrary is much younger. 114 His arguments entirely demolish

the nebular theory that the outer planets were thrown off in successive rings of nebula from the sun, and therefore the outer planets are the older. 115 In addition, Flammarion seems to take the same position, for he says: "In Mars two moons revolve rapidly in the heavens in opposite directions, which seems to refute the nebular hypothesis."

116 These all tend to support my electrical theories, and relegate the Newton-La Place theories to the shades of obsolete fancy and mistaken conjecture.

117 Flammarion also says: "The earth in its orbit describes a spiral, and since its creation has never passed twice through the same point in space." 118 This also supports my electrical theory of globular spheres and spiral motion in space to accord with the laws of electro-magnetic energy. 119 This spiral shape of the earth's orbit, I contend, and not the tilting of its poles, creates the changes of seasons. 120 Its poles seem to tilt or change because the earth passes above and below the line of the ecliptic, 121 and in its spiral circuit has the sun above the earth part of the year, when it is summer in the north temperate zone, and below it part of the year when it is summer in the south temperate. 122 And the elliptical shape of the earth's orbit is, I contend, caused by the sun being in motion, which lengthens the circle of the orbit in the direction the sun is traveling 123 and causes the earth to be four million miles nearer it when it turns in front of it, and the same distance farther from it when it turns in the same direction the sun is traveling. 124 It seems strange that no astronomers have thought of these things.

125 Sir Robert Ball said recently: "The most important advance in astronomy was Prof. Keeler's discovery of nebulae in such enormous numbers, and the fact that most of them were in a spiral shape." 126 This spiral shape accords with the law of electro-magnetism and sustains the theory of electrical creation of suns and planets. Matter could not be gathered under any other law.

127 In addition to the contradictions and complications of science already mentioned, scarcely a fundamental principle

or concept remains. 128 One of the eternal indisputable postulates of science was that "two bodies cannot occupy the same space at the same time." 129 But that is exploded, and we know they do and we have proof of it every day. There are numerous instances; I will mention only one: 130 Twenty-eight electric currents can pass over the same wire at the same time, fourteen one way and fourteen the other, and occupy the same space and do not interfere with one another.

131 Scientists used to put great stress on solid matter, and their primary division of matter was into solid, liquid and gaseous. 132 They have recently discovered there is no such thing as solid matter. What they termed solid matter is but the outer and visible shell of invisible forces. 133 That not a single atom of matter touches another atom of matter; but there is a space between them, 134 and the atoms revolve around each other in very much the same way as the earth revolves around the sun, thus showing that the laws of electro-magnetism are the same in atoms as in worlds.

135 The scientists only discovered the non-solidity of matter since the use of the X-rays, and the Crookes tube, and they have been puzzled ever since to know what holds the atoms or molecules together in organised form. 136 They undertake to say it is gravity, but gravity is weight, and atoms have no weight, and they are forced to look to electricity and magnetism to solve the question. 137 And the electric theory gives the only rational explanation, which is, that all things are held together by magnetic attraction or cohesion under the laws of organic affinity. 138 The molecules of iron, stone and marble do not touch each other, but their magnetic attraction is stronger than that of wood or hay; that is why they have more solidity, strength and endurance. 139 Science said we could not look through a grindstone or any solid matter, but we can. 140 We can look through humans, grindstones, iron and brick walls, and if we could turn on sufficient electric power we could look through the earth and take photographs of China-people on the other side of the globe.

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141 Prof. Serviss, in the New York Journal of October 1st, 1902, calls attention to "the remarkable growth of speculation concerning electric or electro-magnetic influences exercised over the earth by the sun and planets," 142 and says: "They have been seized upon by astrological soothsayers to bolster up their pretended science."

143 As I have never taken any interest in astrology, but have taken great interest in the electro-magnetic power of the sun, I am surprised at the obtuseness that would undertake to blend them together when they have no scientific relation.

144 Astrology undertakes to reveal the future by the position and influence of the stars, and is entirely different from any electrical theory of the sun or planets. 145 He says, "The subject of the sun's electric influence is of absorbing interest, but there is no solid scientific basis for a genuine theory."

146 From the lack of knowledge he displays of the well-known laws of electricity I am not surprised at his statement. 147 He says and illustrates it by a diagram: "If we grant the sun does act as a stupendous source of electro-magnetic waves, as the planets circle about the sun in nearly a common plane, 148 and sometimes lie practically in the common plane in a straight line, in such a contingency there may be a stream of electric energy linking them all together."

149 He seems to think this would produce confusion and settle the whole question. 150 He should know that the simplest law of electro-magnetism teaches that the electric attraction of every planet is the measure of its power in drawing the electric currents of the sun. 151 Distance from or nearness to the sun or planets or their being scattered or all on the same plane or in a straight line has nothing to do with the supply of electric power from the sun.

152 Each receives the positive electricity from the sun, which it draws by reason of its negative polarity. 153 He should know that twenty-eight currents of electricity may pass over the same wire at the same time, fourteen one way and fourteen the other way, and do not interfere with one another, and

each go to their separate destinations. 154 The sun may send a different electric current or vibration to each planet and nothing in the Universe could prevent it from reaching that planet. 155 It would pass through or go round any other planet or substance in its way.

156 Wireless electricity is founded on the basic principle that an electric current goes only to the opposite electric polarity and vibration which draws and attracts it or is attuned to it. 157 Prof. Serviss says: "If I examined this subject with a show of interest, it draws upon me sour and suspicious looks from my scientific friends." 158 He should remember that all great truths have had to struggle with "sour and suspicious looks," ever since human began to investigate, and that we must look not to authority for truth, but to truth for authority.

159 He said, in the summer of 1901, the sun was a furnace and the black spots the open door of the furnace, and we would have four years of torrid heat on account of those black spots; but he proved himself a false prophet, like the rest. 160 But he is not to blame; he only followed the old traditions and scientific authority, and they proved to be a broken reed on which he leaned. 161 I mention him because he is an able and recent writer on astronomy. 162 That science is at present unintelligible and almost chaotic to the masses of fairly educated people is too true for superfluous argument. 163 The old farmer's definition of bacilli is a fair sample of the nebulous condition of many minds on scientific subjects. 164 He said they were "little critters from the back cellar that floated in the air, called germs in Germany, parasites in Paris, and microbes in Ireland." 165 Many intelligent people deplore the prolific use of useless technical terms and dry statistics of most scientific works, and their use makes them exclaim with Portia, "My little body is a weary of this great world."

166 I find a very sensible editorial in the New York American of April 18th, 1903, entitled "Science Needs Another Interpreter." 167 It says: "Science is moving too fast for the ordinary layman, who would like to keep pace with its

theories and discoveries.... 168 Chemistry and physics needs a one who will do for them what Huxley did for biology-- someone who has not only a scientific mind but a literary capacity.... 169 Vaguely the layman knows there have been all sorts of discoveries since the X-rays showed him there was a way of seeing through a grindstone.

170 "But he had the idea of X-rays only partially digested when science came on him with the cathode rays and crowned the confusion by discovering radium. 171 With a mind dazzled by light rays that are invisible, and invisible rays that are not light, and bewildered by being told of a substance that gives off terrific energy without loss of bulk or power, 172 he lays away the natural philosophy of his college days and reaches blindly for what the new people have written of these things.

173 "He is then confronted with what reads like a catalogue of fossil insects diversified by stepladder algebraic formulas, the mere parenthesis of which are enough to make a school teacher shudder. 174 The wretched seeker after knowledge is confronted with measurements of light waves until sunbeams are powerless to illuminate the day. 175 Similarly he gathers from the fugitive words he understands among the mass that has no meaning for him, 176 that Prof. Loeb has been putting salt on eggs and creating sea-urchins, to the utter distraction of the rules of Nature's game as he has learned them.

177 "Somewhere there must exist the one whose skill with the pen and whose appreciation of knowledge are equal to the task of acting as interpreter between scientists and the world.... 178 The world is hungrier for knowledge than it is for amusement, and the sales of the books of the person who succeeds in making science readable will make the returns of even the most popular novelist small in comparison."

179 This splendid editorial states facts graphically and truly, and portrays the real condition of things. 180 It shows a scientific chaos, which portends a transition state, and a rapid evolution from the old traditions to a new and more perfect science. 181 Without meaning to be egotistic or to

assume any superior knowledge, or to have any of the qualities suggested in the editorial, 182 I am impelled to suggest that if there are persons befogged scientifically, if they will read *The Cities of the Sun*, I think their minds will be clarified on many points and many of the old scientific traditions will fade into the nothingness from which they came. 183 I am glad to welcome so able a champion of the electrical theory as Mr. Cope Whitehouse, who achieved fame by discovering that the depression in the Egyptian desert could be used for irrigation.

184 This New York scientist says, in an interview in the Kansas City Star of Dec. 2d, 1902: "The English scientists have partially reduced our solar system to a machine, and assigned to Deity little less than the duty of squeezing heat from the sun or stoking it with aerolites. Such theories are made for sale and not for science. 185 When Newton suggested that gravity might swing the moon as well as attract an apple to the ground, he knew nothing of electricity. 186 He might have observed however, that a comet never enters the sun and therefore could not have been attracted by it.

187 "A comet, as it closely approaches its supposed goal, changes its direction and darts away, tail foremost, in a curved path due to a resistance too feeble to obstruct its passage. 188 No allowance is made for the attraction of gravitation in wireless telegraphy, and the most superficial observations in ozology, or the science of smell, show that there is a force in odours which ignores gravitation.

189 "We have reason for supposing that gravitation is a purely local affair, and heat and light do not emanate from the sun. 190 Heat comes from the earth, and the light from the atmosphere, precisely as the film in an incandescent lamp is heated by the resistance it offers to the electric current, and light is produced by the vibration of the motes in the air." 191 "The only fact established beyond doubt regarding the sun and planets is their revolution on their axes, and this is all that is needed to generate light and heat. 192 They are arc dynamos and each in turn transmits what it receives to its neighbors on the circuit." This accord with my

theory published five years previously.

193 He continues: "We do not see the stars, or even the sun". The astronomer who claims that his eye penetrates space billions, trillions and decillions of miles stultifies himself in the next breath by declaring that worlds and solar systems are being formed of cosmic dust. 194 Was the polestar ever obscured by the interposition of a world in formation? Yet the film formed by the breath of the observer on the eyepiece of a telescope would obscure Jupiter. 195 Evidently, therefore, we no more see a star than we see a distant power house that supplies electricity to trolley lines. We only see the end of the stellar or solar ray where it enters the bubble of which the earth is the center.

196 "It is strange that no astronomer has ever heretofore observed that the magnifying power of a lens, two inches in diameter could have no appreciable effect on an object as remote as Saturn. Yet the ring and the satellites of this planet are thus made visible. 197 In short, there is a kind of screen which presents the image of stars, as on a sheet between the observer and the magic lantern at an exhibition. 198 The image can be magnified but their distance is perhaps scarcely fifty inches."

199 In regard to the eruptions of Mont Pelée he says: "Within twenty miles of the earth there is a cold as intense as liquid air. 200 Differences of temperature can be converted into an electric flash, as electricity can be converted into heat. The so-called eruption of Mont Pelée was purely electrical. 201 The sympathetic eruption of La Soufrière was partly due to an interrupted circuit and partly an induced current. 202 There was no flow of lava, but can anyone imagine the crater discharging what was said to have issued from it?... 203 When there is an accurate statement of facts it will be found that neither dust nor gas came from the volcano. Really, only mud, hot water, smoke and stones were ejected. 204 This material descended as a thin covering of uniform thickness. And this blanket was the dust precipitated by the electrical vibration still warm from crystallisation. 205 Had it been otherwise there would have been about one hundred million tons of

frozen mud falling in the neighbourhood.”

206 What Père Mary saw was the cloud of decomposed matter caused by the electric discharges. 207 It is as absurd to speak of all this coming out of the volcano as it would be to say that the smoke and stifling gases in a fire caused by an electric wire came from the power-house. 208 As a fuse burned out in the circuit, Pelée simply sparked. "It set fire to everything between its summit and the sea, and the surface of the water itself was made warm. 209 Now you see how mastodons are found, with hair and flesh intact, imbedded in Siberian ice. 210 If the up-rush of an air current would disturb the cold stratum above a chimney, what would be the effect of the upheaval of a mountain mass with or without a volcano? 211 It is unnecessary to suppose that the axis of the earth has changed. "The ice crop of the Antarctic is much larger than that of the North Pole, but the volcanoes of Erebus and Terror are in violent activity. 212 There are scores of terrestrial and celestial phenomena, from the double tide to the cold moon, that can be explained only by the electrical theory."

213 Thus I could fill a book with the recent proofs and statements of scientists which sustain the electric theory. 214 The dropping of an icicle into a barrel of unslaked lime once caused a great disaster in one of our cities. 215 The slaking of the lime caused a fire. The firemen came and the more water they used the greater was the heat generated, until an explosion wrecked the neighborhood. 216 In like manner, water in the fissures of the earth act chemically upon various minerals and produce similar results. 217 Two or three layers of different metals in the earth produce a galvanic battery and results in the disaster of a volcanic explosion or an earthquake.

218 A silver dollar, a twenty-dollar gold piece, and a piece of copper of similar size, placed one on top of the other, with pieces of moist paper blotter between them, will generate sufficient electricity to send a telegram. 219 Two iron tablespoons tied together with a piece of copper wire and their ends dipped in water will generate an

electric current sufficient to send a cablegram across the Atlantic Ocean. 220 So says Prof. Trobridge of Harvard. If this is true, what a fearful volcano or earthquake may be produced by water moistening the clay or substance between the thousands of acres of different mines or metals one above the other in the outer crust of the earth?

221 These things are marvelous to contemplate and paralyse the imagination.

ELECTRICAL CREATION EXPLAINS NATURAL PHILOSOPHY

George Woodward Warder

13 Herbert Spencer says: "Science is partially unified knowledge; philosophy is completely unified knowledge," 2 and the first knowledge obtained by primitive human was that of sense and inference from such experience. 3 Later there arose a disposition to speculate as to that which lies beyond sense and known only by its effect on sensible things. 4 This speculative propensity is worthy of the highest consideration as a means of knowledge. 5 It has developed all of the numerous systems of philosophy which have flourished in the history of the human race.

6 First in the order of development comes the knowledge of things through the direct experience of physical sense, then comes imagination, reasoning, theoretic science and speculative philosophy.

7 The object of all systems of philosophy is to comprehend and teach the truth about the world around us, especially that part supposed to exist beyond the range of our senses, and to prescribe what is right and good in the life of human. 8 In modern times the attempt to unite all the sciences into a general system has been made by August Comte in France, and Herbert Spencer in England. 9 According to Comte, it was time wasted and labour lost to attempt to explain the cause of gravity, chemical affinity, and electric and magnetic attraction and repulsion. 10 The atomic theory of the constitution of matter, the conception of an interstellar ether,

the undulatory theory of light and heat were all cast aside as useless and unworthy of notice because they were not directly observable and the senses unaided could not apprehend them.

11 According to Comte, the only object of science and philosophy is to observe, record and classify sensible phenomena. 12 What could not be observed by the senses could not be known and did not exist. 13 It is said the only open road to the advance of philosophy was thus forbidden by the human who made the first valuable contribution to its advancement.

14 Herbert Spencer first undertook the great task of discovering the unifying principle of Nature. 15 He recognised all possible phenomena as parts of one great whole, and held that all were united by natural law. 16 He differed from Comte in that he recognised the imperceptible as a reality, but made no attempt to explain it or to bring it into harmony with the phenomena of sense, but designated it the unknowable. 17 He divided his system into two general divisions-- the knowable, which includes all things of sense, experience, and the unknowable, which includes everything else, or the invisible and imperceptible.

18 He held the knowable is the proper sphere of human's knowledge or philosophy, and the unknowable the legitimate domain of God and religion. 19 And while he held that God and religion were imperceptible and unknowable, he held they were none the less a truth of the highest degree of certainty. 20 It is therefore well said that all who fear the downfall of religion as a result of the encroachments of science or philosophy may thank Herbert Spencer for placing it where neither science nor philosophy can touch it. 21 Upon the law of relativity he places the basis of that which can be known, and that which cannot be known. 22 He says: "We think in relations. This is truly the form of all thought.... 23 On analysing the process of thought we found that cognition of the absolute-- the unknowable-- was impossible because it presents neither relations nor its elements-- difference and likeness. 24 Further we found that not only intelligence but life itself consists in the

establishment of internal relations in correspondence with external relations. 25 And lastly, it was shown by the relativity of our thought we are eternally debarred from knowing or conceiving absolute being, 26 yet that this relativity of our thought necessitates that vague consciousness of Absolute Being which no mental effort can suppress."

27 It is apparent that these propositions contradict each other. For, if from the relativity of thought we are eternally debarred from knowing or conceiving Absolute Being, how is it that we have a vague consciousness of this same Absolute Being which cannot be suppressed? 28 Consciousness is one form of knowledge. 29 Spencer, thus recognising the reality of the unknowable, regards that which is or can be known as different manifestations of the unknowable. 30 These manifestations he claims, as they appear in consciousness, pass through a double series. 31 First, a vivid series which includes all sense experience, and second, a faint series which includes thought, as in speculation and deliberation. 32 Force, he contends, is the ultimate and deepest truth of the Universe. All forms of consciousness, he says, are derived as experiences of force. 33 All sense experiences as in the objective series, all subjective feeling or thought, everything known or knowable, is a manifestation of the one universal force or energy. 34 This universal force, I contend, is, first, spirit or mind force; second, electric force controlled by mind force.

35 He says: "Contemplating pure force, we are irresistibly compelled by the relativity of our thought to vaguely conceive some unknown force as the correlative of the known force." 36 This unknown or imperceptible force I contend is electricity and the mental force back of it. 37 All our ideas of matter and motion, he says, are ideas of force. 38 The demonstrated fact of the indestructibility of matter is but another name for the indestructibility of force. 39 The persistency of force means also the persistency of motion. 40 All forms of physical energy-- as light, heat, sound, electricity, magnetism,

chemical action, gravity and sensible motion-- he says, are different manifestations of force. 41 In this I fully agree with him and claim these are all manifestations of the one fundamental force in Nature-- electricity.

42 He says: "Even after all has been said, many will be alarmed by the assertion that the forces we designate as mental come within the same generalisation. 43 Yet there is no alternative but to make this assertion. The facts which justify or rather necessitate it being abundant and conspicuous. 44 All the phenomena of mind belong to the same class-- the phenomena of force." 45 In this I agree, and contend that the mental or spiritual forces are the most potent and supreme forces of the Universe and control all other forces, physical and electric, and are the ultimate of ultimates.

46 He says: "The various forms of force are all changeable into one another." This is shown, he says, by the conservation of energy and the correlation of forces. 47 This accord with my electrical theory of creation, which holds that there is but one physical force in the Universe-- electricity-- 48 and all other forces, such as light, heat, physical life and gravitation, are manifestations of this one fundamental force, and are all changeable or convertible into one another, and all controlled by the dominant force of mind or spirit. 49 In other words, God controls the Universe as human controls own body. 50 Human controls own body by the electric energy that permeates one body and brain, and God controls the Universe by the electric energy that permeates all matter and space, and which is subjected to His Omniscient Spirit and Omnipotent Will.

51 Herbert Spencer says: "An entire history of anything must include its appearance out of the imperceptible and its disappearance into the imperceptible. 52 Be it a single object or a whole Universe, any account which begins with it in a concrete form and leaves off with it in a concrete form is incomplete, since there remains an era of its knowable existence undescribed and unexplained." 53 The simplest statement of this fact, according to my theory, is that all visible things

come from the great invisible sea of electro-magnetism in which all things exist, which he calls the imperceptible, and are woven by magnetic attraction and the aggregation of billions of invisible atoms into visible forms. 54 Then, after they have run their course as visible substances or organic forms, they are again dissolved back into this invisible sea of electro-magnetism. 55 Just as water continually changes from solid and liquid to invisible vapour and back again, so Nature continually renews and purifies her ever-changing molecules but changeless atoms, and builds up organic forms by magnetic attraction and dissolves them by electric repulsion. 56 I contend that matter could be gathered into visible form in no other way than by electric attraction. 57 The life period of all visible things is while magnetic attraction has sway and is paramount; the death or dissolution period is when electric repulsion predominates. 58 The blossoms and fruitage of summer are samples of magnetic life from the sun currents, 85 while the decay of winter is a sample of electric repulsion and dissolution.

59 The law of incessant change, he says, must be the unifying principle which in its simplest form is "the redistribution of matter and motion."

60 Again he says: "The progress from the most diffused and insensible state to that of concentration and definition is called evolution, and is attended by the dissipation of motion and the integration of matter." This I call the law of electric attraction.

61 "The progress from the form of definition to that of diffusion," he says, "is called dissolution and is attended by an absorption of motion and a disintegration of matter." This I call the law of electric repulsion.

62 "This," he says, "is the universal law of evolution and dissolution in its simplest form." And I say that the law of evolution and dissolution in its simplest form is the law of electric attraction and repulsion.

63 Mr. Spencer's definition is complicated, but his process is substantially correct. 64 Yet he offers no explanation of this natural and universal process,

while my electric theory of creation does, and makes his universal evolution and dissolution simply universal electric attraction and repulsion under the well-known laws of electro-magnetism. 65 This is a great advance, a gigantic step toward the explanation of the Universe. 101 The simplest illustration in physics explains both theories. 66 For instance, dry steam, he says, will condense to its liquid form, 103 water by permitting the dissipation of its internal motion in the process of cooling, and a further dissipation of internal motion of the water will reduce it to a solid form, called ice. 67 This he calls evolution, but he does not state what produces it. I say it is produced by electric attraction.

68 Then he says the mass of ice thus evolved from impalpable vapour may be set out in the sun and gradually melt, by the absorption of motion from the sun, into water, and a further absorption of like motion will convert it into invisible vapour. 69 This he calls dissolution, but does not explain it. I say it is the result of the law of electric repulsion.

70 He speaks of the absorption of motion. I contend there can be no absorption of motion, but only an absorption of that which produces motion, which is electric energy, from the sun-- the electric heart of the solar system. 71 Motion, I contend, is not a cause but an effect, and all physical motion is the result of electric energy. 72 And to say with Tindall, that light and heat is a mode of motion is to state an absurdity, for motion is the result of some force operating on matter. It is not a cause but an effect produced by a cause.

73 I explain force and "the redistribution of matter and force" as the product or the result of the universal laws of electric attraction and repulsion, which control atoms, suns and worlds and all matter in body and space. 74 Mr. Spencer offers no explanations and relegates all to the convenient dumping ground of the unknowable. 75 What he calls "The realm of the unknowable" I call the electro-magnetic sea of ether in which all things exist and from which all things are evolved, which is the imperceptible elements of the Universe in

solution. 76 This I claim is the fourth form of matter, the invisible primary essence of all visible creations.

77 I state his law of the redistribution of matter and motion in this way: An increase of electric energy produces an accelerated motion of the molecules of a body or substance, and, if continued, tends to its dissolution by electric repulsion; 78 while an increase of magnetic attraction decreases the activity of its molecules and tends to integration or solidity of form or substance.

79 There is no such thing as heat in reality; heat is accelerated motion, a sensation caused by the increased activity of the molecules; while cold is the absence of motion or heat.

80 Mr. Spencer has described a general indefinite process as "the redistribution of matter and motion," but he has revealed no natural law, or fundamental explanation of natural phenomena. 81 Every important question leads him to a stone wall which he does not try to scale or penetrate, but labels the "Unknowable." 82 A learned philosopher who has spent his life endeavouring to instruct others should not fall back into the convenient ditch of the "unknowable." 83 He says: "What is it that holds together the parts of which this ultimate atom may be imagined to consist? The only answer is a cohesive force." 84 But he does not attempt to explain what that cohesive force is, while I undertake to say it is magnetic cohesion under the law of electro-magnetism, which holds aggregations of atoms in organic affinity, producing visible form and substance. 85 He says: "Force is the ultimate of ultimates. Matter and motion are only different manifestations of this unknowable force."

86 This is making force usurp the place of Deity. Force is a servant, not a master-- a tool and not an ultimate cause. 87 Force without intelligence back of it is anarchy and ruin; it is chaos and not a cosmos. 88 God is a scientific necessity. The ultimate of ultimates is mind or spirit-- the eternal intelligent spirit of Deity and human.

89 I accept the scientific postulate that the conservation of energy and

the correlation of forces affirm, first, that there is but one kind of energy or force in the physical Universe; but I go further and contend electric energy is that force. 90 Second, that, like matter energy cannot be created or destroyed. 91 Third, that energy appears in a variety of forms as motion, heat, light, gravity and chemical action. 92 Fourth, that these forms of energy are interchangeable-- any one form may change into any other form, and all are transformations of the one ultimate force I term electricity. 93 Fifth, that there is nothing in science to show that mind or spirit ever changes into physical energy, or force into mind or matter, or either into the other. 94 This destroys the doctrine of monoecism, or all things from one substance. 95 And Haeckel will have to produce more facts and logic than he has yet set forth to prove that spirit and matter, force and matter are all one and the same thing or substance.

96 The psychic or mental force is the paramount force, and the true realm of evolution belongs to the mental or spiritual Universe and to organic Nature. 97 Physical changes are not evolution in the highest sense except as they are the result of spiritual power and unfolding intellect. 98 The highest sphere of evolution is in biology and behavioural-science. There is matter, mind and force. 99 Materialism is a shallow, one-sided doctrine; and the opposite extreme, that there is no matter, nothing but mind, is also shallow and one-sided. 100 These three separate entities maintain their separate and distinct existence. 101 The electric theory explains and elucidates all natural philosophy and all material phenomena, and is as a scientist has well said, "the best exposition ever offered of the physics and metaphysics of the Universe."

102 In regard to another phase of natural philosophy, Kant proved that in our experience objects can be known only in relation to a subject, and matter only in relation to mind. 103 From this it is evident that mind is at least co-ordinate with matter and cannot be treated as a mere property of matter. 104 From this doctrine Spencer took refuge in the strange notion that

we possess two consciousnesses, the consciousness of ideas within us and the consciousness of motions without us. 105 That neither of these could be resolved into the other, though both were the phenomena of an unknowable absolute. 106 This self-contradiction of a dualistic separation between two aspects of our life, which as a matter of fact can never be divided, proved a citadel of ignorance which could not withstand the attacks of logical criticism.

107 Mr. Spencer's agnostic dualism of objective and subjective mind was due to a fundamental misconception of what is meant by the subjectivity of knowledge. 108 If we have the consciousness of object and subject only in relation to each other, it is not necessary to seek the principle of their unity in any third principle, 109 for his unknowable absolute is "in our mouths and in our hearts," and found in the inseparable unity of experience in which the inward and outward are correlative elements.

110 It seems Mr. Spencer's agnosticism is a sort of spiritual refuge for the destitutes who renounce their heritage like Esau or waste it like the prodigal son, and feed on husks. 111 For those who by their abstractions separate the elements of experience from each other, are forced to go beyond experience for the unity they have lost, and flounder in the miry bogs of agnosticism.

112 The true way is to give up such abstractions as objective and subjective mind, 113 for the mind is a unity, and learn to "think things together" and recognise the organic relation of the inner and the outer life and "explain the parts by the whole, and not the whole by artificially severed parts." 114 This organic unity of mind in human is illustrated by the organic unity of the Universe, which, under the electric theory of creation, is a vast electric organism bound together by invisible electric bands, 115 where every atom has an individuality manifested and explained in the harmonious unity of an ever-changing but indestructible Universe.

116 As human is capable of knowing all things, one cannot be identified with any of them, or if

as an individual one is so identified, one has within own spiritual nature that which carries one beyond the limits of one own individuality. 117 In one inner moral life human is revealed to oneself as a free-will agent, a great and self-determining being, conscious of being subordinated only to the law of duty, which is the law of one own reason. 118 That law, in spite of every outer pressure, one knows one ought to obey, and therefore knows that one can obey it. 119 Thus human is both natural and spiritual; one is limited to a finite personality, yet possesses a universal capacity for knowledge and an absolute power of self-determination. 120 Human reason with one voice seems to depress human to the level of an animal, and with the other voice proceeds to elevate human to the theatre of all life and being, as a "spectator of all time and existence," gifted with absolute freedom of will and conscious individuality. 121 There is an identity which is below or above all distinction; and the Universe is one through all its multiplicity and permanent through all its changes. 122 The unity beneath all differences, the priority of the universal to all particulars, is necessary to the true conception of the organic unity of the world. 123 All opposition of thought and things are relative oppositions which find a solution in the life and movement of the whole. 124 In all the great controversies that have divided the world the combatants have really been co-operators. They developed truth and unity.

125 We do not see anything truly until we comprehend it as a whole, and see it in all its relations to the Universe. 126 Everything so far as it has an independent, individual existence at all is an organism. 127 While conceiving the Universe as organic, Hegel maintained that it "is not a natural but a spiritual organism." 128 For the limited scope of a natural organism and its process cannot be regarded as equal with a Universe which comprehends all existence, whether classed as organic or inorganic. 129 Only the conscious and self-conscious unity of mind can overreach and overcome such extreme antagonisms and reduce

them all to elements in the realisation of its own life. 130 The natural Universe, I contend, is an organism which includes Nature, but manifests its ultimate or highest spiritual force only in the life of human. 131 The Universe as an electric organism obeys the higher supreme spiritual forces. 132 It is said that "Hegel was only working out in the sphere of speculative thought what Christianity had already expressed for the ordinary consciousness." 133 Nearly all great thinkers, I contend, reason forward or backward to the fundamental truths of the Bible, only expressed in a little different way, and which is the old familiar process in human history of "pouring old wine into new bottles." 134 Hegel sought to show how an idealistic view of the Universe and human life could be maintained consistently with the fullest recognition of scientific methods and results. 135 This was an attempt at the reconciliation of science, philosophy and religion proceeding from the growing prevalence of that harmonising spirit which seeks to do justice to the results of scientific investigation and at the same time gives them a new and enlightened interpretation. In this he was right. 136 The main conflict in philosophy as in religion has ceased to lie between materialism and idealism or spiritualism, 137 but rather between Herbert Spencer's "Vague Consciousness of the Absolute," which he bids us worship, and that faith which enables us to pierce the veil of the phenomena and grasp the ultimate reality of things. 138 Philosophy, therefore, is always toiling after the intuitions of faith as "cities of refuge." 139 All philosophy can safely maintain that "what is rational is actual, and what is actual is rational." 140 And all accord with human's highest inspirations of spiritual faith and hope. 141 And the electric theory of creation is the most rational explanation of an organic Universe evolved and controlled by natural law which is the will of Deity, whereby spirit intelligence controls by electric energy all the forces and manifestations of visible creation.

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142 Herbert Spencer has done a great work for science. He has been a great champion and expounder of evolution, and the laws of the material Universe. 143 And while he has been a great agnostic on religious subjects it is because he is a spiritual non-conductor. 144 Human is like a wireless telegraphic receiver; one draws only that which corresponds to own nature and character. 145 Different people have different casts of mind and different natural aptitudes. Some are natural receivers of truths, and others are natural non-conductors of certain truths.

146 There are two eminent illustrations of this fact, for it is said that Newton could not appreciate "Paradise Lost," and Milton could see nothing in "The Principia." 147 This was not to the discredit of either of these books, nor was it a reflection upon the technical learning of either man. 148 Neither was attuned to the message which the other brought to humanity and it proves that in order to apprehend truth in any quarter the person must be sympathetically disposed toward it.

149 Milton had no mind for mathematics, nor Newton for poetry. So the wisest philosophers like Herbert Spencer may go to religion and find nothing there but the abstruce and unknowable. 150 Spencer's mind dwells on the phenomena of matter and material senses only. 151 It is said nearly every great thinker has some central thought fixed firmly in own mind. 152 The central thought of Plato is the theory of ideas-- the assertion of the apparitional character of the seemingly real world. 153 The central thought of Pascal is that of human intelligence confronting the Universe and strangled by its inexorable tragedies. 154 The central thought of Schopenhauer is the absurdity of life, and the central thought of Herbert Spencer is the evolution of the material Universe.

ORIGIN

POETRY
George Woodward Warder

14 Sleep, death and oblivion are things that mock;
Sleep in dreams; death and oblivion in the grave;
And yet we are not mocked. We only walk
Amid realities that bind us like a slave.
2 Sleep soothes and cheers; death grimly reaps and slays.
It makes earth but a tomb--its house of revelry;
It stalks amid life's dark and brightest ways
And takes its victims. All are 'neath its slavery.
3 With chilling frosts it nips life's brightest flowers,
And with pale faces and a gasp they go,
And vaguely trust to bloom 'neath other bowers,
Where death's grim hand will never blast them so.
****
4 All hearts beat to music and measure,
Like songs of the spheres as they roll,
And from dreamland's far mystical treasure
Come songbirds that sing to the soul;
5 Where the glint of the gold in fair tresses
Hide a face that we never have seen,
And the infinite hope that caresses
Kisses joys that we never may glean.
For the wealth of the world is ideal;
6 There is bliss in the beauty of rhyme,
And the thoughts of the soul are the real,
Outlasting the cycles of time.
And the soul is the diamond eternal
Where spirit and power are one,
Brushing dross from its splendor supernal
As dust from the eye of the sun.
****
7 All life is a poem of glory;
Neither reason nor senses can grasp,
Till we read every verse in the story,
And the hand of the author we clasp.
Then sing on sweet souls as of olden,

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With visions of soul-land that shine,
Till the harp of the earthly is golden
From the hand of the Author Divine.

SCIENCE AND PHILOSOPHY SUSTAIN THE RELIGIOUS CONCEPT

George Woodward Warder

15 I contend that science, philosophy and electric evolution sustain the religious concept. 2 The infinite and eternal power that animates the Universe must be psychical in its nature, and any attempt to reduce it to mechanical force must end in absurdity. 3 The only kind of monism which will stand the test of an ultimate analysis, says John Fiske is monotheism. 4 The highest development of psychical life is the end for which the world exists. 5 To the materialist the ultimate power is material power, and psychical life is nothing but fleeting collocations of natural elements in the shape of nervous systems. 6 The psychical nature of God and the immortality of the soul harmonise infinitely better with cosmic philosophy.

7 Prof. John Fiske says: "Evolution brings before us with vividness the conception of an ever-present God, not an absentee God who once manufactured a cosmic machine capable of running itself. 8 It makes God our constant support and Nature His revelation, and when all its religious implications are set forth it will be seen to be the most potent ally Christianity ever had in elevating humankind. 9 The progress of evolution now is to bring out the higher spiritual attributes and to set the whole doctrine of evolution in harmony with religion. 10 Then, the assumption that underlies all religion must be true-- that what we see of the present life is not the whole thing; that there is a spiritual as well as a material side of life; in short, a life eternal.

11 "In the whole history of evolution," he continues, "when we see an internal adjustment reach out towards something, it is in order to adapt itself to something that exists. 12 And if the religious cravings of human constitute an exception they

are the only exception in the whole process of evolution."

13 This is an argument of stupendous and resistless weight. This puts evolution in harmony with religious thought, and the great religious drift of humanity in all ages, and removes the antagonism that used to appear to exist between religion and science.

14 The French materialists of the eighteenth century virtually declared: "We content ourselves with what we can prove by the methods of physical science and we will reject all else." 15 But think how chaotic Nature was to their minds compared to our present conception, and how different the Universe they saw to what we see to-day. 16 And it is not to be wondered at that there was antagonism between science and religion. 17 Anaxagoras maintained that the human race would never have become human if it were not for the hand, and John Fiske says, "human never would have attained own present psychic powers but for religion."

18 This is truth well stated, and the fact that human is the only creature that has a hand, an articulate voice and an aesthetic nature that is never satisfied, is strong proof that human is infinitely more than a mere animal, or a transient animate machine. 19 The higher intellectual powers were dwarfed in the middle ages, when human life was made hideous by famine, pestilence, perennial warfare and bloody superstitions, fear of witchcraft and eternal torments, and people endured it because they had no experience of anything better. 20 But the change wrought in six centuries is amazing, and shows that human genius and human's possibilities are beyond our comprehension. 21 The genius of Aristotle proved that the earth is a globe, that of Copernicus showed that it was one of a system of planets, and that of Newton undertook to explain the laws and dynamics of this marvelous sun and world system.

22 Belief in God, and the immortality of the soul, and the compensations of a future life tend to maintain social order and moral rectitude, by enabling people to endure the trials and injustice of this world in the hope of ample

compensation in the hereafter. 23 Human steps forth on this revolving globe not of own volition, but is sent here by some mysterious power on some inscrutable mission to fulfill some divine purpose. 24 Human comes as a spiritual wayfarer under sentence of death. Not death to the spirit, but to the transient habiliments of earth-dust one gathers round own invisible spiritual form. 25 When one arrives and gathers own reasoning powers to scan the narrow horizon of own life, one is beset by perplexing problems of poverty, disease, sorrow, sin and death. 26 The "slings and arrows of outrageous fortune" often overwhelm human, and one discovers at last that the law of life is the law of growth and development; and all these struggles and trials are intended to evolve character and purify and ennoble the soul. 27 That this is the seed time and nursery of existence preparatory to the harvest of eternal life when one shall drop this overcoat of atoms and be transplanted to the self-luminous bosom and unfading joys of the perfected and celestial sun-worlds. 28 Here one sees incompleteness, fragmentary careers, tragedies, injustice, grieves and farewells, and one hungers for knowledge. 29 One quenchless spirit seeks to penetrate the mysteries of the Universe, and comprehend time and eternity, and in agony of soul one asks the age-old question, "If one die, shall one live again?" 30 Then, if one turn not to the pages of sacred writ for an answer, one will find written on the living pages and animated forms of all nature the promise of another life. 31 One will find it in the returning verdure of spring, in the unfading light of the eternal stars, in the ever-changing beauty of the bending skies, 32 in the mysterious impulse of the untaught birds of the air who start on their vast migrations from the frozen seas of the north to the summer-lands of the sunny south; in the tropic fish, who seek their spawning nests in the clear, cool rivers of the north. 33 The bear and lion, the tiger and elephant, the bees and the insects of a summer day, all have the longings of their natures satisfied. 34 Why should human be an exception? If the Creator of all

keeps faith with all other creatures, why not with human?

35 "As something must have been eternal," says Prof. Wright, "it is easier to suppose it was an intelligent, designing mind which was uncreated from the beginning, and which has brought the Universe into being with all its uniformity of laws and complexity of adaptation 36 than to suppose that the eternal substance was matter out of which has come the orderly Universe as we know it, with its high grades of intelligence in animals and human.

37 "The world, as the creation of a supreme intelligence, is partially comprehensible to finite minds. 38 But to suppose that the thought and purpose and will of human are products of material forces is not only a mystery, but an absurdity which cannot long be entertained by any sane mind. 39 The theory of evolution without a God can lay no claim to scientific support. 40 A theory of evolution, designed, controlled and permeated by divine ideas, may be both scientific and in accord with the highest dictates of religious truth."

41 As to the life hereafter, which the religious concept has always proclaimed, it is a fact demonstrated by history that in all ages, among all people, under all religious forms, the idea of immortality remains fixed and imperishable in the human mind. 42 Every human being in coming into this world brings with you under a form more or less vague this inward belief, desire and hope of immortality. This is God's handwriting on the human soul. 43 And the history of human, the reasoning conscience of human, is God's Bible of life written in human's spiritual nature. 44 And whatever is rational, true and good is of God, and whatever is contrary to the enlightened conscience of human is contrary to the divine purpose of God.

45 Revelation proclaims God is a spirit and human is a spirit, and after death human in its spiritual being shall live on forever. 46 The latest modern scientific thought fully and powerfully sustains the Bible. 47 It says in substance, in dealing with human we must deal with being as a spiritual being; we must go into a realm that brings us within the sphere of the electrical and magnetic relations of the elements, but on a different plane.

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48 First, matter in the invisible world has the same essential basis of formative power so potent in the more tangible relations. 49 Second, the invisible atoms there obey the same essential principles that in a lower grade of activity give visible results. 50 Third, there must be a direct connection between the two conditions of being-- the visible and the spiritual-- as to be axiomatic. 51 Fourth, there must be a secondary form of the invisible elements ere they assume the visible relation, which is a chemical or electric necessity. In all life this law is absolute. 52 Fifth, in applying this principle to the process of the evolution of human's form we have an explanation of how it must be a natural product of evolutionary life, 53 and that human must follow the same law as the evolution of all spirit that pertains to planetary life.

54 Spirit holds visible things in form by its connection with the magnetic life of the planet. It is the controlling power in shaping the form and organism to correspond to changed conditions. 55 The material form can only exist by keeping itself in harmony with the laws of the elements in the planet, 56 and as long as the planet endures the electric form in human and the electric or instinct form in animals within the radius of its magnetic aurora must exist as a secondary satellite, or miniature concrete expression of the forces in the planet. 57 This principle may give the electric form immortality, and, by reason of the eternal nature of the elements composing it, place it beyond the possibility of dissolution as long as the planetary relation of the elements exists.

58 But with human it goes even further, for the spirit form, having the basic principles of eternal existence in its spiritual composition and having once entered upon organic life, has in itself immortality and the power of self-sustenance from the elements in space and cannot become disintegrated, 59 for it has all the necessary material to keep it in eternal existence as an organism, though the planet should revert to its original status and vanish as a distinct form. 60 This explanation of the nature of spirit gives us a logical ground for the rational

consideration of the phenomenon that has been the basis of all the superstitions embalmed in the sacred and curious literature of past ages. 61 That human and probably all types of life have a spiritual or electric counterpart is not a scientific speculation or hypothesis merely, but a logical sequence of the forms that enter into physical organisation.

62 Here in the secondary form, says the author of "Planetary Evolution," is an explanation of the nature of spirit that follows the same principles that construct the physical body and form the same material environments. 63 And the questions of a spiritual life, apart from this principle of a secondary form, cannot be solved by any known formula of a scientific character. 64 On the other hand, the existence of a form holding the powers of thought and action upon the plane of radiant matter gives a satisfactory explanation of the transference of the mental powers that belong to planetary life. 65 The law of correlation and conservation of force prevent their annihilation, and they must exist somewhere. They are a spiritual entity, but should not be regarded as having a supernatural origin.

66 "The spirit is an evolution of planetary life and cannot be destroyed, and it is natural that its mental attachments to the planet should bring it in contact with the mental development generated there. 67 The spirit would have the power of thought and consecutive reasoning as much after its transition from mortal life as before, but it would lack the power of expression through ordinary channels. 68 It would, however, have the power of inductive electric transfer of thought, and, coming in contact with a spirit embodied; 69 this power of induction would excite the elements in the spirit embodied to equilibrium of mentality, which would give rise to a similarity of thought in both." 70 And here lies the foundation of the doctrine of inspiration which is a process of mental action whereby the mind in the body is raised to a perception and expression of ideas beyond its own range of thought as generated by the physical senses. 71 The result is the up-building of the brain organ and the uplifting of the

mentality to the purely spiritual plane, and human has thus, by the aid of the spiritual powers, made another stride forward in the domain of spiritual evolution. 72 And human is a spiritualised being with brain organs adapted to the expression of ideas that respond to the spiritual state of life.

73 It is sometimes assumed that a human cannot be a Christian and a human of science; yet there have been many people of science, from Newton to Lord Kelvin, who were devout Christians. 74 It is also assumed in some quarters that an educated person cannot believe in miracles, or answers to prayer, or special providences. But this is not a fair assumption even from a scientific standpoint. 75 Science affirms the universality of energy and law; Christian theology accepts this fundamental postulate of science and says it is the result of universal spirit and will, or Infinite Mind and volition, which is back of universal energy and law. 76 Energy is spirit and will at work; law is the mode of work. 77 Energy and law are derivative, spirit and will is the primary and ultimate force of the Universe.

78 But says the unbelieving scientist, "I accept energy and law as facts, but do not see that spirit and will are facts." 79 Christianity replies: "You mean by 'see,' mental sight; for in the physical sense you can no more see energy and law than you can see spirit and will, or mind and volition.

80 "The fact is, science is a search for the invisible or supersensible--for that which lies beyond sense and vision. 81 You call it energy and law, which we say is a result and not a cause, and point to spirit and will, which is the primitive, ultimate, first cause of universal energy and law.

82 "Would you feel it a just description of yourself if you were described as nothing but a system of energy and law. 83 Energy is action according to law. But there is psychical energy as well as physical energy, or 'a double faced' unity-- psychical on one side and physical on the other.

84 Thought, feeling, volition are all species of energy subject to laws of their own. 85 And, what is most wonderful; while they are invisible and intangible they control all physical energy in human and all

animal organisms, just as universal spirit and will or volition control all energy and law in the physical Universe. 86 Then, is universal energy and law psychical or physical? 87 If it is intelligent and works according to design and purpose with beneficent uniformity it must be psychical, and all physical energy and law is but a manifestation of spiritual energy and purpose."

88 Then says the scientist, "there may be intelligence without physical organism, and human may be in constant contact with the spiritual world. 89 But I am an organised being and cannot imagine how unorganised beings could communicate with me even if they wished to do so. I cannot imagine it as possible that I could know God, who is a spirit." 90 But Christianity answers, "suppose you are not matter only, but that you are a spirit also, and a spiritual atom of that universal spirit which controls the Universe, then could not spirit communicate with spirit? 91 Thus, you say, all science is founded on energy and law, which necessitates spiritual intelligence and will for its foundation, and consciousness for its evidence. Thought, feeling volition are forms of psychical energy. 92 We are conscious that we think, feel, will; and as consciousness is a mental or spiritual perception, human must be a spiritual being. Then we are not far from Theism-- for God is a spirit.

93 Besides energy and law we have consciousness and spirit, and no force without will. Law is simply the mode in which will works. 94 Law stands for the regular and steadfast operation of will, as opposed to variable or capricious action. 95 The uniformity of Nature is rooted in the faithfulness of God, which sustains the steadfast operation of natural law."

96 Then says the scientist, "there could be no miracles, or answers to prayer, or special providences, for these imply interference with law, which would mean inconsistency on God's part and confusion on ours." 97 But Christianity answers, "Interference with law is of continual occurrence. 98 You cannot stand up or walk, or so much as raise your hand without interfering with the law of gravitation or attraction.

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We can modify or direct the action of forces without violating their laws.

99 Violation of God's laws on God's part would mean inconstancy. 100 Direction of God's own energy to any point He wills-- as in evolution, for example-- is no violation of law; 101 neither are what are termed miracles, special providences and answers to prayer violations of law, but evolutions in accordance with law, as law stands for God's mode of working in the control of the Universe." 102 Then says the scientist, "I cannot reconcile the two ideas of 'infinity' and 'personality.' Personality implies limitation; infinity asserts absence of limitation, a being cannot be at once limited and unlimited." 103 "But why should we suppose personality to involve limitation?" says Christian theology. "Even in human the essential idea of personality is not limitation. 104 Personality in philosophy and theology refers not to the body but to consciousness and will. What difficulty is there in believing that the Infinite God is infinitely conscious and volitional and therefore personal?"

105 There is a mighty force in the material metaphors of the Bible, but these all stand for spiritual realities, and its fundamental postulate is "God is a Spirit," and "God is Love." 106 As human is a spiritual atom of deity. God has spiritual contact and influence with His spiritual children and they are "moved by the Spirit," and "born of the Spirit," as they accept and obey that spiritual influence which leads to righteousness and truth. 107 Religion cannot exist without spirituality and the religious concept. God has so constituted the human soul. 108 Without religion the soul could not dream of heaven or feel the sweet whisperings of faith and hope. Neither could the heart thrill with spiritual joy and truth. 109 Without religion the heaven-bound spirit could not soar to the altitudes of celestial bliss. 110 Without religion and ideality there would have been no gems of art or literature, no beautiful pictures, no living statuary, no lofty temples or inspiring thoughts.

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111 The grandeur of Shakespeare, the sublimity of Milton, the poetry of Byron, Burns, Tennyson and Longfellow, the romances of Scott, Dickens and Hawthorne, the noble architecture of Michael Angelo, the statuary of Phideas, Praxatelles and Canova, and the pictures of Raphael, Murello, and Reuben had never been known. 112 Ideality is the father of beauty and the inspiration of all genius, goodness and nobility and the twin brother of religious hope and faith. 113 Without religion ideality would be a mockery and a dream, hope would be a delusion and a snare, inspiration would wither, like Jonas' gourd, in a night, and the mildew of selfish materialism would convert the verdure of earth into deserts of despair.

114 John Fiske well says, "Human never would have attained own present psychic powers but for religion," 115 and without religion ideality would never have soared to its lofty heights or brought forth its beautiful thoughts, its lofty conceptions, its sublime dreams of joy, or its noble gems of art, poetry, sculpture, architecture and literature. 116 Remove the twin brothers-- religion and ideality-- from the earth, and its glory and worth would shrivel like a withered flower. 117 Its hopes and joys, its dreams of peace and love, of paradise and heaven, would vanish into the desolations of a boundless Sahara, heaped with the burning sands of doubt and scorched by the withering blast of despair. 118 The religious concept is the pilot of the soul to the fair field of heaven, the communion with the Father of the spirit, and ideality is its companion and servant who carries its cloak and staff as they journey along the pathways of earth and the highways of eternity. 119 Science and philosophy, ideality, love and hope and all the aspirations of the human soul sustain the religious concept. 120 It is a scientific postulate embedded in the nature of man and in the basic law of the Universe. 201 Ideality and religion are the most powerful forces in uplifting humanity. 121 The sublimer the ideal the more potent and ennobling its influence on the human soul. 122 Though millions grasp not its sublimity and truth, those receptive souls nearest the

light will catch its divine illuminations and reflect it to those below. 123 And gradually those below will grasp its beauty and truth and step up higher, and each in succession, step by step, will advance to "a higher plane and a broader view," and this is growth and progress toward perfection.

124 The ultimate aim and purpose of creation is ideal perfection. 125 This purpose is written in the fundamental law of evolution--progress from the lower to the higher and the survival of the fittest. 126 The higher, the more sublime, the spiritual truth, though it be ages in advance of the world's comprehension, yet its brightness and power will penetrate the darkness, and scintillate from soul to soul, 127 as the sun gleams from atom to atom, until at last all humanity is illumined and exalted.

128 When we go down into the darkness and poisoned vapours of a dungeon we seek for a ray of sunshine as we seek for life and light, 129 and we are cheered by the smallest sunbeam which enters through a crevice, for in its silvery thread of light little atoms float like miniature stars, dispelling the desolation. 130 There at our feet, left to decay and perish, may be the seed or bulb of an insignificant vine or flower, forgotten by the busy world of conflicts without, 131 where little people become great and great people become little, not dreaming of the eternal law of life and hope that thrills in every throbbing atom and electric germ in this life-evolving magnetic Universe.

132 But there in the darkness of that dungeon a struggle for life and hope goes on as important to the life involved as that of building a throne or destroying an empire. 133 Never did a hero dare or a nation fights more bravely to attain its aspirations than did that little seed or bulb lying in the darkness. 134 A slender beam of light gives it a hope of escape, and, cold and chilled, its prayer for life has slowly evolved a delicate pale vine which creeps toward the sunbeam. 135 Each day it has seen that beam of light fade and pass, and darkness and mildew paralyse it into the stupour of unconsciousness. 136 And again that sunbeam awoke it to consciousness and life. 137 At last

it reached the crevice whence came the light, and, lifting itself as a prisoner escaping from death, it springs forth into the sunshine and opens its blossoms of beauty and perfume to greet and gladden the world of light and life.

138 Thus has humanity struggled for light, and toiled for hope and joy and sunshine through a thousand ages of gloom and chilling mildew of ignorance and darkness. 139 And wherever a gleam of light and truth has pierced the shadows of life's struggles and tragedies, like the tiniest seed or fragile vine, the aspirations of human nature and own longing soul have reached up toward it. 140 What the ray of light is to the flower seed in the dungeon, religion is to human. 141 Wherever human has crept, like the vine, in the darkness, towards the light it was own religious spiritual nature and aspirations which led one. 142 Truth, which comes from the bosom of the eternal Good, streams down into the darkness and lifts human's soul up into the light by the same law that the flower and the vine seek the sunshine, and all true science and philosophy sustain the religious concept.

143 Life seems of little value when people of every nation are armed to the teeth to slay each other like mad-people, as the best way in which they can show their gratitude to Nature for the useless gift of life. 144 But they are not so anxious for war and bloodshed as their preparations would indicate. The fear of death is useless and absurd.

145 As Flammarion has said, there are only two sides to the question. When we go to sleep at night there is always the possibility that we may never awaken. Yet this thought does not prevent us from falling asleep. 146 In one case, suppose death to end all; it is but an unfinished sleep to last forever. 147 In the other case, should the soul survive the body, we shall reawaken in another world to resume the activities of life. 148 In this case the awakening must be rather delightful, as every form of life and every creature finds its happiness in the exercise of its natural energies and faculties. 149 The deep study of this important question and the disgust at the

indifference of humans to this great problem of human destiny impelled a great student of science to attempt suicide. 150 Because one saw everywhere people absorbed in their material interests, accumulating wealth, consecrating their lives to Mammon, folly and passion and neglecting their nobler natures, 151 it made one doubt their fitness for an eternal existence, and one determined to know the truth at once by plunging into the invisible unknown.

152 Prof. Albert H. Walker, in a recent lecture-- May, 1903-- makes a new distinction in philosophy and religion, when he says: "Two systems of philosophy will divide the attention and adherence of the people of the twentieth century. 153 One is the old system of Epicurus which long preceded the rise of Christianity and which underlies the Declaration of Independence; and the other is the philosophy of Christian science." 154 His definition of religion and Atheism is something modern and unique. He says: “I define religion as belief in a God who cares; and Atheism as lack of belief in a God who cares. 155 These two definitions, if correct, divide all people into two classes, and, according to this classification, most of the people in the United States are Atheists."

156 He seems to think all people believe in a God, but a majority believes in a God who does not care, and that is Atheism. 157 An Atheist has always been defined as one who believes there is no God; now they may believe in a God who does not care. This is not a very bad distinction and may be the true one in the future. 158 For modern knowledge and culture forbids any thinking human from denying the existence of a God, and this may compel modern Atheism to modify its creed and accept a don't-care God.

159 He thinks this century may find an answer to the immortality of the soul, and "it may be in the affirmative through actual communication with departed souls; 160 or in the negative by scientific demonstration that the spirit or soul of human is only a name for the electrical and chemical actions and reactions which occur in the body." 161 He also says: "The twentieth century

may show whether there is a great master hand that sweeps over the whole of this deep harp of life, or whether humans are but pipes through whom the breath of ‘Pan doth blow a momentary music.’" 162 Religion has nothing to fear from the future; materialism is vanquished and now Atheism must change its creed.

163 Canon Farrar says: "Let us think noble thoughts of God and break through the brain-spun meshes of impotent negations. 164 God is not vortices of atoms, or streams of tendencies, or earth fermentations. Heaven is not a vacuous eternity, or a future of ceaseless psalmody." 165 The Greek had own Elysian Fields, own daffodil meadows where the Eidola, the shadowy images of the dead, moved in a world of shadows; and own islands of the blest, where Achilles and Tydides unlaced the helmet from their flowing hair.

166 The Scandinavian dreamed of own green sylvan paradise hereafter, amid the barren wastes. 167 The Indian saw God in lightning, heard Him in the thunder's roar, and viewed beyond the cloud-capped hills own hunters' paradise. 168 And in the perennial hereafter in the all-life-giving sun there are green fields, daffodil meadows, golden light, rainbows that never fade, 169 glorified cities, white-robed innocence, the crown and the palm branch, the throne of serene majesty, the golden harp and the song of rejoicing, and all-abounding happiness, innocent, thrilling, intense and unending.

170 The rare and radiant physical beauties of heaven we cannot describe, but it is a place where no guilty step enters the gates of pearl, in the city of God; no polluting presence flings shadows on the golden streets of the New Jerusalem. 171 It is the dwelling place of angels and just humans made perfect, and spirits of saints in celestial glory. 172 There is no darkness, envy, hatred or slander, no gold mixed with dross. 173 No bleared and blighted crowds, degraded out of the semblance of humanity, crawl, like singed moths, around the flaring house of multiplied temptations. 174 Where boyhood shall not so live as to make its own manhood miserable;

where manhood shall not so live as to make old age dishonorable and death ghastly. 175 The apples of Sodom cannot grow on the same soil with the Tree of Life. 176 In other stars and countless worlds there may be work for us to do. 177 What radiant ministrations, what infinite activities, what never-ending progress, what immeasurable happiness, what living ecstasies of unknown raptures may surround us in the beauty and loveliness of the land of the leal, in the life supernal? 178 Heaven is not a reward but a continuity, not a change but a development. It means a place of love and goodness where we are one with God and playfellows with the angels.

179 Present science would change God into a struggle of careless forces or a complexity of impersonal laws. 180 Let us reject the Chinese idea; they believe in God, but worship the devil, because they think the devil's rule predominates. 181 Let us discard the pagan ‘deification of annihilation’, and the modern agnostic's plea for suicide, and the Greek poet's pessimistic postulate: 182 "It were best never to have been born, and next best to depart as soon as possible." 183 Let us grieve at the dark shadows flung by theologians athwart God's light upon those who believe that human reason, conscience, and experience, as well as Scripture, are the books of God. 184 Phrases which belong to metaphor, to imagery, to poetry, to emotion should not be formulated into dogmas, or crystallised into creed. 185 Discard the tyrannous realism of ambiguous metaphors, the asserted infallibility of isolated words. 186 Canon Farrar says: "Erase from our Bible the erroneous disputed renderings of the three words, 'damnation, hell and everlasting.' Not one of these three expressions ought to stand any longer in our English Bible."

187 He says further: "There has never been a human being yet since time began, however beautiful, gifted, bright with genius, or radiant with fascination, who has sinned with impunity." 188 Evil and punishment, as Plato said, walk this world with their heads tied together, and the rivet that links their iron link is of adamant. 189 It

needs no lightning stroke, or divine interposition, no miraculous message to avenge God's violated laws. They avenge themselves. 190 The hell fire of the Bible was a spiritual fire which does not burn the flesh, but purifies the spirit. 191 Not a material fire, but self-kindled fire, an internal fever-- in fact, remorse for remembered sins-- a figurative representation of a moral process by which restoration shall be effected.

192 When earthly life vanishes and we see in the visions of the soul an endless life and being in countless worlds of destiny, death has no terrors. 193 The thought of the pale, cold body enwrapt in its winding sheet, coffined and alone in the narrow grave, its last sad dwelling place, with the grass growing above, where the lonely cricket chirps through the silent night, does not disturb the calm and reasoning soul. 194 A few years hence and we shall all cross the dark river to the shadowy unknown shore and learn the mysteries that lie beyond. 195 But where is that wondrous shore, and where will all of the now living inhabitants of earth be in a century hence? 196 Not floating in the marvelous belt of atmosphere which surrounds the earth. Nor on a changeful planet like our earth. 197 Not floating in the frigid ether of space, but, if my hypothesis is correct, they will be celestial residents in the self-luminous, all-life-giving sun.

198 The only rational scientific theory that satisfies my mind is to regard the suns as self-luminous, perfected worlds, the visible abode of deity, and the future home of the soul. 199 This hypothesis accords with every recently established fact in science, Nature and revelation. 200 It fits human's hopes and aspirations, aesthetic nature, psychic powers and religious concept which have followed us through all the vicissitudes of one history.

201 The question often arises: As justice reigns in the moral world, as equilibrium reigns in the physical world, and the destiny of the soul is the result of its aptitudes and its aspirations, 202 are only those souls alone that truly live and unfold their faculties and aspire to knowledge and truth destined to a conscious

immortality? 203 Many souls pass their lives here in mental sleep, intellectual stupour, and spiritual paralysis. Will they receive the gift of eternal life? Many great scientists think they will not. 204 And all who neglect their mental and moral development seal their own fate and will have no future existence.

205 This is a distressing view held and championed by some of the able minds of modern times. 206 But I do not agree with them, for I believe every soul is a spiritual atom of deity and, however ignorant and depraved, may become wise and good, and enjoy the beatitudes of an immortal existence.

HUMAN REASON
AND THE UNIVERSE ARE BOOKS OF GOD, AS WELL AS THE BIBLE.
George Woodward Warder

16 It is a mistake to consider the Bible as the only book of God and its revelations the only revelations of Deity. 2 The natural Universe and human reason are also books of God. 3 They are books God has been writing all along through the varied history of human and the Universe, from the dawn of creation until now. 4 Human is God's handiwork, His most perfect and finished product, a machine He has been developing and improving through all the ages, a book that He has bound and rebound, and stamped upon it His name and title a million times.

5 The Bible teaches this when it says, "Ye are His epistles known and read of all humans." 6 He has named this book, this living epistle written by His own hands, "The Sons of God," "Children of the Most High," "Heirs of Eternal Life." 7 And human's body, the binding which He has furnished for this book, He has designated “the temple of the living God-- the tabernacle of flesh." 8 The Bible is not only a book of religious and ethical teaching, but also a history of the reason, conscience and experience of humans for a thousand generations.

9 The Bible is the revelation of God's mind and will, and so is human, who was "made in His image." 10 The Bible is God's

book, but so is the physical Universe His book and the revelation of His will. 11 The Scriptures affirm this truth, also, when they say, "The heavens declare the glory of God and the firmament showeth His handiwork. Day unto day uttereth speech and night unto night showeth knowledge." 12 Thus God has three books instead of one. His first book was the physical Universe; His second book was human reason, conscience and experience. 13 And then He added the third, the oracles of Divine truth, to instruct His spiritual atom, human, in the essential truths of life, spiritual being and moral perfection. 14 The theologians should remember this, and the scientists should read and study all these books.

15 Human is a second edition of God epitomised, and in one enlightens spiritual nature one thinks like God, reasons like God, and has the moral conscience, goodness and love that emanate from God. 16 All these books of God should bear the same infallible testimony. 17 The Bible should be in accord with the reason, conscience and experience of human, and both with the constitution and laws of the physical Universe. 18 Wherever they seem to differ or contradict each other it is because we do not understand them, for there is perfect unity and harmony in all creation.

19 Flammarion says: "Science in revealing the plan of the Universe will show that the moral Universe is based upon the same plan, that both worlds form but one world and that spirit governs matter. 20 The same laws rule everywhere and make the vast Universe a unity. 21 All the ages of the past and future are one with the present, and thinking beings will live eternally through successive and progressive transformations. 22 Everything progresses toward supreme perfection. 23 The material world has but an apparent existence, and the reality underlying it is a force imponderable, invisible and intangible." 24 Human is apparently an animal, but ‘being’ is not; that is the visible side of our nature and is deceptive.

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25 All God beholds is apparent. The reality is something altogether different. The sun seems to revolve around the earth, and the earth seems to stand still. 26 The reverse is true. We dwell upon the surface of a body revolving in space and projected with a velocity seventy-five times greater than the speed of a cannon ball. 27 We hear a harmony of sweet sounds which charm our senses. The sound does not exist; it is an impression made upon our sense of hearing by vibrations of the atmosphere which themselves emit no sound. 28 Without the auditory nerve and brain there would be no sound. In reality there is only motion in the ether.

29 The rainbow expands its radiant circle, the rose and lily sparkle in the sunshine; the green fields and golden grain diversify the landscape by their vivid colours. 30 But there are no colours; there is no light; there are only undulations in the air that set the optic nerve vibrating. 31 The sun warms and fertilises, the fire burns, but there is no heat, only the sensation of heat. Heat, like light, is only the result of motion-- invisible, all-potent, supreme. 32 Here is a solid iron joist sustaining tons of enormous weight, yet the joist is composed of molecules which do not touch each other and are in continual motion. 33 What constitutes the solidity of this bar of iron? Not the atoms that compose it; but the cause of its solidity is molecular attraction, the invisible force of magnetic attraction.

34 The present scientific theories have only been apprehended by the brightest intellects within the last half century, and would have been a conglomeration of absurdities to the wisest people of the world a century ago. 35 So, written revelation had to use the language and symbols understood by the ancients. And it seems that scientific evolution is constantly struggling for new terms to express new ideas and discoveries. 36 Some scientists believe it impossible for the terrestrial being to attain a complete knowledge of the truth because human has only five senses, and a multitude of the phenomena of nature remains unknown to human mind because human has no means by which to

reach them. 37 Just as if we should be unable to see if deprived of the optic nerve, or to hear if deprived of the auditory nerve. 38 Our terrestrial harp may be wanting in many chords which prevent us from catching the perfect harmony and truth of the Universe. 39 It is said the smallest magnet can more easily than Newton or Leibnitz discover the magnetic pole, and the swallow has more knowledge of the varieties of latitude than had Columbus or Magellan. 40 But whatever our experience, it is a part of the book of God and Nature.

41 Flammarion says: "No one who is aware of the progress made in the exact sciences of to-day can pretend to be a materialist. 42 The psychic atom, the principle of the human organism would be immortal, like atoms everywhere, if scientists were to admit the fundamental axioms of chemistry. But it would be superior to atoms, and be conscious of its existence. 43 Can the soul partake of the character of electricity? We conceive that it exists as force that survives the dissolution of the body."

44 I conceive the soul controls electricity, which is the right hand of its power, and the tongue of the spirit, 68 and survives in conscious power "the wreck of matter and the crush of worlds." 45 "Whither does the soul go?" asks the same author, and he answers "to other worlds. Yes, living principles of force can transport them from one world to another." 46 I agree with him. I believe they go to other worlds, and the other worlds are perfected sun-worlds. 47 We must not think that the soul belongs to some supernatural world. There is nothing that is not in Nature. Nature is unceasing progress. 48 It is only a few thousand years since terrestrial humanity emerged from its chrysalis state of being. Yet certain spirits have attained transcendent power, and humanity has produced a Shakespeare, a Goethe, a Hugo, a Newton, and a Milton. 49 We live in reality among the stars. We are inhabitants of the skies. 50 Life, light and eternal progress to perfection is the final end and purpose of the Universe. 51 Every thinking human feels in own moral

and psychic nature that one is linked to justice, truth and Deity.

52 Maeterlinck, the Danish philosopher, sustains this thought in his latest work when he says: 53 "Though Nature appears unjust and nothing authorises us to declare that a superior power rewards or punishes here or elsewhere, 54 it is none the less certain that an image of that invisible, incorruptible justice we have vainly sought in the sky or the Universe reposes in the depths of the moral life of every human. 55 It will not add to or take from our wealth, it will bring no immunity from disease or lightning, it will not prolong one hour the life of the being we cherish; 56 but if we have learned to reflect and to love, it will establish in heart and brain a contentment that shall still be inexhaustible and noble. 57 "It will confer a dignity of existence, an intelligence, that shall suffice to sustain our life after the loss of our wealth, after the stroke of disease or lightning has fallen, after the loved one has forever quitted our arms."

58 It is said Jesus was a chosen medium to communicate to the people of the earth the higher sentiment of love which prevails in the sphere of spirit life. 59 His mission was to teach the doctrine of love to humanity, and to afford a striking and never to be forgotten example of its violation. 60 This same Jesus taught that God's law is written in the hearts of humans, and to those who listen to His voice-- the still, small voice of the spirit-- "He moveth in them to will and to do according to His good pleasure." 61 This shows, as Maeterlinck says, "That the invisible justice that reposes in the moral life of every human" comes from God and His epistle, written on the secret tablets of the human soul.

62 Goldwin Smith says: "It will be found that Anarchism and Atheism generally went together. 63 But minds of the finer cast have preserved the religious spirit while they have thrown off the shackles of creed. 64 Yet the Positivist feels the need of a religion, and for the worship of God one substitutes the worship of humanity. 65 Humanity is an abstraction, an imperfect abstraction. It cannot hear prayer or respond in any way to adoration. 66 The adherents of Comte's religion, therefore, are few. Tindall and Huxley would

console us for the loss of religion by substituting the majesty of law. 67 But the idea of law implies an intelligent, authoritative impotent of some kind. There is no majesty in a sequence. 68 "The all-embracing philosophy of Herbert Spencer excludes the supernatural and Theism in its ordinary form, and looks upon them as the Unknowable, which he presents as an object of reverence. 69 But unknownbleness in itself excites no reverence, even though it be supposed infinite and eternal. Nothing excites our reverence but a person, or at least a moral being."

70 Thus does Goldwin Smith, the great Free-thinker of to-day, demolish the Freethinkers of yesterday, the Tindalls, Huxleys and Darwins of Materialism, the Comtes and Voltaires of Atheism, and the Herbert Spencers and Ingersolls of Agnosticism, 71 and contends for the inexorable necessity of a personal deity with intelligent moral or spiritual power. 72 He says the present tendency is "to minimise the supernatural and throw it into the background, bringing the personal character of Christ and his ethical teachings into the foreground," 73 and, "the ledgemen of reason should consider to how great an extent our civilisation has hitherto rested on religion."

74 Abstract humanitarianism and scientific naturalism do not constitute a moral standard, 109 nor can scientific postulates be made a basis for moral culture. 75 Only when acted upon by human does Nature give response to the increasing purpose of the world, and the supreme test is spiritual. 76 Religious truths are fundamental truths. First, the existence and personality of God; second, His creation and government of the Universe; third, human's immortality and freedom of will. 77 These are not contradicted by the solid facts of science nor shattered by "the great eternal iron laws of the Universe." 78 On the contrary all harmonise with these great truths.

79 Emperor William of Germany in his letter to Admiral Holbrun, Feb. 20, 1903, says: "I distinguish between two different kinds of revelation-- progressive and, as it were, historical, the other purely

religious. 80 It does not admit of a doubt that God reveals Himself continuously in the race of humans created by Him. 81 He breathes into human the breath of His life, and follows with fatherly love and interest the development of the human race. 82 In order to lead it forward and develop it, He reveals Himself in this or that great sage, whether priest or king, whether among the heathen, Jews or Christians. 83 Hammurabi was one, so was Moses, Abraham, Homer, Charlemagne, Luther, Shakespeare, Goethe, Kant, and Emperor William the Great. 84 These he sought out and endowed with his grace to accomplish splendid, imperishable results for their people in their intellectual and physical provinces according to His will."

85 Emperor William seems from these statements to be a firm believer in spiritual revelation and personal inspiration. 86 "The second form of revelation, the more religious," he said, "is that which leads to the manifestation of our Lord. 87 It was introduced with Abraham, slow but forward looking and omniscient, for humanity was lost without it. 88 Now begins the most astonishing activity of God's revelation. Abraham's race and the peoples developing from it, regard faiths in one God as their holiest possession, and it follows, hold fast to it with iron-like consistency. 89 It was the direct intervention of God that caused the rejuvenation of His people through centuries, till, the Messiah, heralded by prophets and psalmists, finally appeared, the greatest revelation of God in the world, 90 for He appeared in the Son Himself. Christ in God-- God in human form. He redeemed us, and inspires and entices us to follow Him. 91 We feel His fire burning in us. His sympathy strengthens us. His discontent destroys us. But also His intercession saves us. 92 Conscious of victory, building solely upon His word, we go through labour, ridicule sorrow, misery and death, for we have in Him God's revealed word. 93 That is my view of these matters. It is to me self-evident that the Old Testament contains many sections which are of a purely human and historical nature and are not God's revealed word. 94 These are merely historical

descriptions of incidents of all kinds which happen in the political, religious, moral and intellectual life of these people."
95 This letter of Emperor William was in reply to Prof. Delitzsch, who contended that Moses and the Israelites got their laws and religion from the Babylonians. 96 The discoveries in Asia Minor seem to refute Delitzsch, especially those at Nippur. Nippur is situated between the Euphrates and Tigris in Babylonia. It is one of the oldest towns spoken of in the Scriptures. 97 The famous temple, library and school for priests cover an area of thirteen acres, and are pronounced the most far-reaching archeological discoveries of the century. 98 Only about one-twelfth part of the library has been uncovered, out of which over twenty thousand cuneiform tablets and fragments have been obtained belonging to the era three thousand years before Abraham, or nearly six thousand years before our time. 99 These show strong evidence of civilisation and culture. There have been found evidences that freehand drawing, clay-modeling and sculpture were taught. 100 There were found works of reference, scientific treatises, and various technical volumes on astronomical and religious subjects. 101 These discoveries show the knowledge and culture that existed in the days of Abraham, and are a powerful demonstration of the unshaken truth of Old Testament prophesies. 102 Prof. Hilprecht, who made these excavations and discoveries, says: "As the attempt has recently been made to trace the pure Monotheism of Israel to Babylonian sources, I am bound to declare this an absolute impossibility, on my basis of fourteen years' researches in Babylonian cuneiform inscriptions. 103 The faith of God's chosen people is: 'Hear, O Israel! the Lord our God is one Lord,' and this faith could never proceed from the Babylonian mountain of gods--that charnel-house full of corruption and dead people’s bones." 104 The fact is, as far as I am able to judge, every recent discovery of science tends to sustain the essential truths of the Bible, and confirm the religious concept. 105 Scientists should omit

from their works all spirit of antagonism to religious faith. 106 Such antagonism impairs the usefulness of their works, and is an offence against public morals, public security, and human's aesthetic nature and psychic advancement. 107 Religion has helped to develop the spiritual life of the race, and is the anchor of all good society, good government and exemplary conduct in human. 108 The religious faith and even superstitions which some scientists rail at with such vehemence was a necessary phase of human history and experience to lift the human race to a higher plane of spiritual power. 109 Science has passed through the same phases of credulity and superstition.

108 Whiskey, wines, and intoxicants once had their useful phase 158 in arousing the sluggish brains of our half-civilised ancestors to higher realms of thought and perception. 109 So, what now seem the most absurd superstitions once had their usefulness in deterring people from crime and causing them to lead better lives. 110 The dread of physical punishment hereafter, and the fear of a hell and a devil that never existed, had a salutary effect on countless millions of the past which no moral persuasion or scientific arguments could have reached. 111 But all intoxicants with their blighting curse, and all superstitions with their blinding ignorance have had their day of usefulness and should be relegated to the dark tomb of oblivion. 112 The solemn cathedral, the soft-toned organ, the mellow light from coloured windows, the awe and anxious faith, have added soul development and psychic power to human life. 113 The mother who bowed in prayer, the father who assembled his children around the family altar, have added spiritual power to themselves and their posterity for all generations. 114 And it is the honest, home-loving, God-fearing and praying mothers and fathers of the past three centuries that have made the Anglo-Saxon race and the civilisation of to-day what it is.

115 The Bible says truly, "to be spiritually minded is life," and to be worldly minded is to lead us back to pagan selfishness, when cruelty was a pastime, and

poisoning and assassination were fine arts. 116 This book of God we call human is bound in imperishable atoms that dissolve into viewless ether, and are tied together with electric bands as pliable as silk and as invisible as thought, and the spirit they enwrap is as strong and enduring as omnipotence. 117 The statement is often made to the prejudice of religion that religion has been the cause of most of the wars and cruelties that have desolated the earth since the commencement of human history. This is unjust and misleading. 118 Until the formation of our government, church and state were united among all nations and politics and religion were blended, and a purely religious war was impossible. 119 As to the miracles of the New Testament, if they were all discredited the immaculate teachings of the gospel would remain. 120 The peculiar glory of Christianity is the regeneration it brings to human, putting one under the law of love; and without miracles we would still have vital, uplifting, heaven-inspiring Christianity.

121 As to the infallibility of science, it has nothing to boast of over religion. 122 Science has been groping its devious way from colossal blunder to blunder, and championing as many absurdities and superstitions through all the ages as ever the religious devotee dreamed or the religious concept propagated. 123 She is still teaching some of the grossest superstitions and incredible absurdities. 124 Science has received nearly every fundamental truth from religion, and is at last steadily developing and proving the true religious concept of the Universe, 125 in showing that all visible things are the product of invisible spirit, invisible law and invisible force; that the spiritual and invisible world is the supreme reality; 126 that its Creator and Ruler must be the Father of Spirits, and virtually re-echoes the words of Christ, "God is a Spirit, and they that worship Him must worship Him in spirit and in truth." 127 It teaches universal love, helpfulness and equality, which was demonstrated by Christ when He called for water and washed the feet of those who

worshiped Him. 128 This was His last object lesson, so little understood in Christian philosophy. 129 But ethical and psychic science have lifted it to be the glory of perfected civilisation, and endorsed the exalted truth, "Let him that is greatest among you be the servant of all."

130 All knowledge and truth are in a sense inspired revelation from God, whether written in Nature or the human soul. 131 There is scientific revelation written in physical facts and recognised by the senses; 132 there is God's revelation written in the secret conscience and reasoning power of human, and they naturally sustain and supplement each other and the revealed truths of the Scriptures. 133 It may be that the first chapter of Genesis was not intended so much as an infallible record of the divine order in the creation of the world 134 as to teach the vastly higher spiritual truth that creation is the work of God, thus leading people to His worship and away from the lower worship of sun, moon and heathen deities. 135 The mechanical conception as to the mode of inspiration and revelation tends to give way before a larger conception of the process-- that God speaks to human through the experience of the events of life. 136 Thus revelation becomes a living process, and all later history may become a commentary on sacred history, renewing and confirming the primal utterance of God to the soul of human.

137 The reign of law, which was little understood by the ancients, is now universally accepted and endows the human race with new powers. 138 It also gives new conceptions of the "intelligibility of Nature," which is but a modern scientific term for religion or the reliance on the will and wisdom of Creative Deity. 139 Herbert Spencer's "persistency of matter and force" is but another expression of the reign of law. 140 And as law is the result of an intelligent spiritual concept and impulse, the lawmaker of the Universe must be a supreme, intelligent, spiritual personality. 141 And the reasoning, intelligent soul of human, by discovering the immutable laws-of-Nature, which are the unchanging decrees of Deity, has learned the art of

controlling the great powers of Nature for the use and convenience of human. 142 But in the ultimate analysis it is God's spirit and will that control the Universe, and human's spirit and will which evolve the art of controlling, and masters the great powers of Nature. 143 Therefore, we must look to the powers of the mind to subdue all other powers. 144 This it does by constructive reason and vitalising faith. By constructive reason it builds bridges, tunnels mountains, operates engines, telegraphs and all the appliances of modern commerce. 145 By vitalising faith it renews and strengthens body and soul, and seems to work the miracles of God.

146 Prof. Osler says: "Faith is a most precious commodity. Faith is the great lever of life. Without Faith human can do nothing, with it all things are possible. 147 Galen says: 'Confidence and hope do more good than physic.' 148 Faith in the gods or the saints cures one, faith in little pills another, hypnotic suggestion a third, and faith in a plain, common doctor a fourth. 149 In all ages the prayer of faith has healed the sick, and the mental attitude of the suppliant seems to be of more consequence than the powers to which the prayer is addressed." 150 Miracles, says criticism, belong to an age of ignorance. With the dawn of knowledge they diminish. In its meridian light they disappear.

151 The Jews were eminently addicted to belief in miracles. With them there was satanic miracle as well as divine. 152 They believed in persons being possessed by devils, and all efforts to disentangle them from the demoniac miracles and to resolve them into cures of lunacy by moral influence was vain.

153 Comte totally discards belief in God, but, feeling the need of a religion, substituted the worship of humanity. 154 Humanity is an abstraction by itself, but combined with the Christianity and the monotheism of the New Testament, it is the perfection of ethics and religion. 155 They who preach the religion of humanity, morality and true socialism will find it more perfectly taught in the New Testament, with nobler incentives and higher inspiration

and spirituality, than elsewhere in human history. 156 And it accords more perfectly with the book of truth, written in the reason and conscience of human.

157 Prof. C. F. Kent of Yale, says: "There is no conflict between science and religion. 158 The Bible does not pretend to teach science, but does speak with authority with regard to questions of morality and religion. 159 "The pathetic fact is that the fundamental spiritual truths the Bible narratives seek to teach are lost sight of in the contention for historical accuracy, which was entirely secondary with the authors. 160 The prophets used ancient narratives, the same as Jesus used parables, to illustrate spiritual truths."

161 Dr. Beet, of Wesleyan College, England, denies that either "the endless suffering or the extinction of the wicked is taught in the Scriptures," and says: "Very few Wesleyans now adhere to Wesley's teachings concerning it."

162 The essential truths of the Bible are just as true without miracles as with them. 163 Christ said a wicked and perverse generation seeketh a sign or miracle. 164 Truth is inherently true and needs no miracle to confirm it. 165 And the tendency of all ancient writers, as well as those of the Bible, to exaggerate natural phenomena into wonders and miracles causes many to discard the great truths of revelation. 166 I undertook to show how Joshua might have mistaken a luminous aurora borealis for the sun standing still. 167 And I am inclined to think that a mistranslation is responsible for the story of Jonah and the big fish. 168 Somewhere in ancient history I got the idea that the pirate boats in ancient times were called, "the big fish." 169 If so Jonah might have been captured by the pirates after being thrown overboard, and put in the hole or belly of the boat, and after three days, seeing no prospect of a ransom, was thrown onto the land. 170 God may have prepared the pirates and boat for this purpose and a miracle would be unnecessary. 171 The writers of that day would say Jonah was swallowed by "the big fish," meaning the pirates captured him, and centuries afterwards the translators would make a great

miracle out of it. 172 Take many of our modern expressions, as, "the ship and sailors went to Davy Jones' locker;" if centuries hence our language should become obsolete, the translators would say, "the ship was in a great storm, and it and the sailors were all saved by running into David Jones' big chest." 173 That would be a literal translation, but would not state the facts. 174 Take another illustration. In the war, "a company was lost in the woods and was gobbled up by the enemy." A future translation would read, "a company of soldiers was lost in the woods and a ferocious turkey gobbled and eat them all up." 175 Either of these would make a greater miracle than Jonah and the whale. 176 I mention this to show how easy it is to mistranslate an obsolete language, especially an Oriental language, always so full of figures of speech, hyperbole and parables.

177 There is the wonderful capture of the city of Jericho. When the Israelites, under Joshua, marched round it seven times, and blew seven long blasts on their rams-horns, the walls fell. 178 Now, the spies may have reported to Joshua the weakness of the walls, and, by marching round them seven times, caused the people of the city to crowd onto the walls, and the vibrations of the horns caused them to fall.

179 We know that the vibrations of thunder or cannon or any loud noise has caused many a house to fall, and would endanger any weak building or wall. 180 I believe that if every miracle in the Bible was disapproved or shown to be a natural event it would not destroy or affect a single important truth it teaches. 181 While I believe the brave and honest person will refuse happiness at the expense of truth, I must partly agree with Luckey, the historian, who says we owe more to our illusions than to our knowledge; 182 that superstition appeals to our hopes as well as our fears, and often meets and gratifies the inmost longings of our heart. 183 Imagination, which is altogether constructive, contributes more to our happiness than reason, which is mainly critical and destructive. 184 He says: "The rude charm clasped by the savage, the sacred picture protecting the poor man's

cottage, can bestow a more real consolation in the darkest hour of human suffering than the grandest theories of philosophy." 185 This was more distinctly true in the early history of the human race, when ignorance and superstitious wonder dominated all minds and all important events were deemed supernatural or miraculous.

186 Take the superstitious worship of the Virgin Mary; its beneficence to the human race is beyond all human calculation. 187 It helped to elevate and spiritualise woman and lift her offspring and the generations of humans to a higher spiritual plane. 188 Romantic love between the sexes was never known, so history teaches us, until the worship of the Virgin Mary became universal throughout Christendom. 189 No such sentiment existed in Greece or Rome or any pagan country, and none exists now in any pagan or Mohammedan land. There women are still treated as chattels and denied a soul. 190 We should remember that for human all religions were instituted, all books written, all science formulated, all literature ennobled, all progress inspired, and all art made beautiful.

191 Human reason, the perfection of the Universe and the words of revelation all teach--

192 Human's soul is part of Deity,
and as immortal as its Creative God.
193 Death is but a shadow across its
path of destiny.
194 To the soul there is no grave; the
tomb cannot grasp its viewless form;
195 Earth is but its birthplace--the
cradle of its infancy--
196 Where it drops its cumbrous
wrappings for the wings of
immortality.
197 Time, the vestibule of eternity, is
where it points its course and takes
its leap
198 Into the vast unknown toward
the Infinite and Eternal, and sweeps
199 Out upon its endless progression
in knowledge and perfection
through immensity of worlds.

ORIGIN

LOVE IS THE ELECTRIC LAW OF LIFE: ALL THAT LIVE MUST COME FROM LOVING
George Woodward Warder

17 God is love, and love is the law of life and the creative force of the Universe. 2 The love of God in the soul is the substance and life of all religion. 3 The love of fellow-human in the heart is the foundation of all human kindness and social ethics. 4 As Dante followed his beloved Beatrice from world to world until he found her at the gates of Paradise, 5 so we must follow our loves and ideals through all the tragic incidents of existence until we find them as guardian angels at the gates of celestial glory and creative perfection.

6 A noble character, a worthy and useful life of service to others is the chief purpose and crowning glory of all earthly existence. 7 Wealth and fame are mere incidents in the fleeting drama of human experience. 8 All true greatness is in the beauty and grandeur of the soul. It must come from within; external manifestations may shadow it forth, but cannot produce it. 9 All true gentleness and kindness are a reflex of the inner life of love and willing service. 10 We live in the atmosphere that our thoughts and spirits breathe around us, and by opening the windows and doors of our soul to love we inhale the perfume from other souls, and the breath of life from Deity Himself.

11 Thoughts are forces, and through them we have creative power; but they must be winged with love to manifest divine energy. 12 Every act is preceded and given birth to by a thought, the act repeated forms the habit, the habit determines the character, and character determines the life and destiny.

13 Everything in the material Universe has its origin first in the spiritual concept or thought, and from this it takes its form. 14 The spoken word and the mighty deed spring from the potency of living thought, and life is a tireless swimmer in an ocean of thought. 15 Thought is the conscious energy of the soul, the subtle, invisible force of the reasoning, resistless mind, and, to be potent with life, must be winged with love.

ORIGIN

16 Thought is everywhere and surrounds us like the atmosphere we breathe. 17 When we want a thought we should reach up into the air for it with the caressing hand of love, and it will come like an invisible messenger from spirit land. 18 We should seek thought and wisdom in the intellectual zenith of our own minds, and not from mediums or clairvoyants, for they have never revealed any great truths.

19 Thus our great poets, sages and prophets have reached up into the spiritual altitudes and gathered wisdom and truth as the stars are gathered and sparkle in the glittering mirror of night's far off and measureless spaces. 20 They come with the speed of light from all suns and spheres in the jewelled crown of God's eternal expanse of love and life, 21 they whisper wonderful things to the listening spirit in the silent chambers of the dreaming soul, 22 and they come like angel faces in the visions of night and paint with the flaming finger of anticipated joy the glorious beatitudes of immortality and love. 23 There is the science of thought which brings wisdom and success, and the science of love that brings peace and joy. 24 It is a beautiful thing to live. Life is the fine art of the soul, the literature of the spirit, where it writes its hopes and achievements. 25 It is the theatre of all possibilities here and hereafter, but its atmosphere must be magnetic with love and faith where the spiritual forces may battle and exert their powers. 26 We must first love all the world if we would have the world love us. 27 Only what comes from the heart can reach the heart of the world, for humankind will care little for us unless we show we care for humankind. 28 But what human earnestly desires and persistently wills and strives to accomplish through love will finally be attained. 29 Love and goodness are all-powerful and will eventually conquer.

30 The first cause of all discontent, weariness, bitterness and vanity of life is selfishness. 31 It is the corrosive element that rusts away all the pure gold of energy and aspiration. 32 It is as amazing as sad that we burden ourselves with selfish strivings that are of no

consequence, and miss the gladness and exhilaration of living. 33 For no life is successful unless it is radiant with love and usefulness. 34 Emerson says: "Life is an ecstasy and nothing else is really worth living. 35 Happiness is not determined by a bank account or the flattering incense of praise, but is a mental and spiritual condition."

36 Ye who seek liberty know this; it can only be found in the liberty of your fellow humans. 37 Ye who seek happiness know this; ye can only find it in the happiness of others, and if you desire to be happy you must make others happy. 38 This is God's eternal law of compensation-- of altruism-- love to others; what you do unto others you do unto yourself. 39 Look upon thy fellow human with wisdom and thou shalt have love. 40 Feel for thy fellow human with love and thou shalt have wisdom, and, having wisdom and love, thou hast God and heaven in thy heart. 41 These are the golden rules of the New Testament, written in the reason, conscience and experience of humans, as God's living book of wisdom and truth.

42 Every action has its rebound or echo. Others will return your love or hate as the mountains return an echo, and by the same law. 43 "Whatsoever a human soweth, that shall one also reap." The hate you send forth will return to you, the love you gave will come back to you, for it is an immortal part of you and a part of Omnipotent Deity.

44 If you are sick, love! If you are envied, hated and slandered, love! If age and death steal upon you, love! 45 For God is love, and heaven is love, and love is life eternal. This is God's law, this is the law of human's nature, the law of the New Testament, the law of love and life, the law of the Universe.

46 Whatever may be person's misfortune, if one has a love of humanity, a love of literature, art or Nature, one has resources of happiness that nothing can remove. 47 With these the poor person is rich, and the rich person can never be poor. For each by love has overcome the world. 48 Therefore believe and love, and hold fast to the conviction that the forces of life are divine and

eternal, and their laws written in the reason and consciences of humans, and that death is only a transition from our world to another of greater beauty and perfection. 49 The inadequacy of earth-life to satisfy the soul's capabilities is evidence that its career must continue hereafter in brighter worlds of celestial love and destiny.

50 It is said the common epitaph of humanity is, "They mean well, try a little and fail much." 51 But if love is their guiding star and they obey the dictates of their reason and conscious duty, their lives cannot be failures. 52 Most of our troubles and cares, like echoes, do not exist until we call them forth. 53 But sweet, subdued sorrow, and the tears of love and sympathy that spring from the generous heart to the soulful eyes, are like heavenly dews, and promote the growth of the soul. 54 They should not be classed among the depressing trials. Neither should friendly rivalry, or laudable ambition to excel, be deemed trying aggressions, for they are beneficial phases of growth. 55 Humanity should emancipate itself by hitching its chariot to the star of love, and switching the current of human energy from the circuit of worry and anger, and connecting it with the motors of good thoughts and noble deeds.

56 All humans should realise the fact that anger turns the natural juices of the body into poison 83 as the vibrations of thunder sour the sweetest milk. 57 And every fit of anger is an electric trip-hammer that drives a nail into the coffin of life and shortens human existence. 58 All nature reveals the law of "natural selection and survival of the fittest," and demands in human the highest perfection of love, beauty and self-development. 59 The culture of the divine essence of the soul, love and ideality will eventually emancipate, exalt and ennoble human life. 60 Love is the beginning of life. Love is the creative agency of all human and animal existence. 61 Even the vegetable world, trees, shrubs and flowers have their dual, sexual amities, and their male and female blending in the love of unity and the unity of love, and thereby propagate and continue their

species in the ever changing cycles of life.

62 All that live must come from loving. 63 The positive and negative circles of electric and spiritual forces in man and woman must be broken and reunited in a combined circle of dual vitalising growth and power before God's first command, "be fruitful and multiply and replenish the earth," can be consummated. 64 God has so organised the Universe that love brings life and continues it, while hatred checks all the sweet gushing juices and joys of hope and life, and, brings death and darkness. 65 Love commands the electric creative forces of human life as God commands them in the boundless heavens. 66 Love is the elemental part of God, and the godly part of human. And one whose soul is diffused with love is enwrapt in the effulgent drapery of Divine goodness and joy.

67 Woman by Divine right and the Supreme decrees of destiny is the ministering angel of love and life, and is next to God the Creator and Preserver of the human race.

68 All that live must come from loving
69 In the hallowed name of wife,
God has set the bounds of being
And the joy of giving life.

70 Some very strong writers believe human's body is the product of the thought and mental force of own progenitors. 71 If so, the mental impulse of love, and even its lower form of animal passion, is the begetter of the human race. 72 Mrs. Josephine Barton, in "Mothers of the Living," declares, "The history of flesh has its beginning in the male atom, and exists as an unembodied idea in mental solution. 73 Thinking results in ideas and ideas crystallise into form. Thoughts are the blocks out of which children are made. 74 The physical gets its breath of life from the mental or spiritual. 75 The first avenue of development after its appearance in form in the male parent is the daily and hourly thinking, exercised in the mentality of the parent. 76 These atoms, though microscopic, are the brain and spinal cord of the atom human. 77 The product of the male element is

judgment and will, of the female love and intuition; so the atom man crystallises only the seat, brain and nerve faculties. 78 This structure-- temple of the soul-- like the acorn, has inherent within it growth and fruit possibilities." 79 She arouses useful thought and adds with force and eloquence, "All men are, by their daily thinking, moulding the brain and spinal cords of future men."

80 "O men of earth! what qualities are you weaving in your thread of thought? 81 Of what substance are you moulding the grand army of the future race? Are you endowing them with the intellect of true manhood, or crystallising into atoms all manner of distorted brains?

82 "Our bodies are bulletins of our thoughts, and the male atom is the microscopic beginning of childlife, and when expelled from the loins of their progenitors, become the 'living souls' that people the cities and the plains. 83 The human atom thus formed, when imparted into the custody of the mother, is ready for the breath of life which the mother mind, by love and intuition will breathe into it. 84 The temple for a human soul is thus constructed. The nourishment then given is as pliant to thought as the ocean to a raindrop, and prenatal education is most important.

85 O splendid fact! Be lifted up, thou expectant mother of the living! You are at liberty to take the helm of possibility and steer for the sunlit isles where all sons are gods. 86 The mother should be herself what she would have her child be. She should affirm and reiterate. 'I am the heir of all wisdom, the expression of all beauty, the revelation of love and truth, the life proclamation of the Eternal. 87 I am serene, radiant, valiant, loving, aspiring, knowing.' Then will all conceptions be immaculate and all human life glorious and divine."

88 I maintain that woman is the prototype of the godmother of the Universe, who is the third person of the Trinity, known as the Holy Ghost or Comforter. 89 The Trinity of the theologians-- three persons in one-- is contrary to all human reason and logic. 90 It contradicts every type of being in universal creation, and would be a monstrousity in natural law and

creative experience. It defies all analysis and subverts all law of animate and inanimate nature. 91 God never thus contradicts Himself, His own laws, and His created Universe, or the book of nature and human's reason; and no such doctrine is taught in the New Testament, when analyse by a true construction of language.

92 To deny the Trinity was a crime punished by death long ago in England; and ecclesiastical authority there and elsewhere prescribed what human should believe for centuries, or receive the punishment prescribed by law or the Inquisition. 93 Until recent times people were not allowed to think for themselves. But reason and truth, written in the soul of human by the finger of Deity, will assert its divine right to correct the blunders of ignorance and superstition. 94 And as it was many ages before the fatherhood of God and the brotherhood of human was discovered and recognised, so it required modern intelligence and reason to place woman in her true and God-given position; 95 and recognise in God the Father, God the Son and God the Mother, the same natural trinity in heaven as exists on earth in father, mother and child. 96 The book of Nature, and the book of human's reason asserts there can be no father or son without a mother. 97 They would be an anomaly in Nature, unthinkable and impossible, and if there is a Father and Son in heaven, there is a Divine Mother, who has always been there as the companion and counselor of Deity, and is also the Divine Comforter of all human souls. 98 And if there is sex in all nature, it is reasonable to believe there is sex in the family of Deity. 99 When Christ said, "I and my Father are one," he meant one in purpose and spirit.

100 Up to the recent centuries, woman was the chattel slave of man, kept in ignorance and degradation, and deemed inferior to man, and the past ages would not recognise her divinity, or her equality with man. 101 But now she stands on a level with man, heart to heart, and brain to brain, and every true man offers her the tribute of love and reverence, 102 and recognises that in all the realms of earth and stars there is no being so worthy of love and

worship, next to Deity, as the mothers of men. 103 They are the saviors of humankind, whose vicarious suffering has brought forth and redeemed the generations of humans. 104 They are the trees of life in God's earthly garden, whose branches, ladened with the fruits of love, have called forth the mysterious blossoms of being to bloom in the fields of time and people the land of immortal spirits.

105 The beginning of civilisation was when the mother bid the rude men of the forest and hill to build the needed shelter in grove or cave to protect her and her helpless offspring. 106 And from that simple shelter or thatched-roofed hut has sprung the vine-clad cottage, and the marble palace, and the family roof-tree of every house in every land. 107 It was the mothers of men who filled up the broken ranks of war, and brought peace, and wove garments, and refined and civilised man and taught him the arts and commerce of civilised life. 108 And could the mothers control the destinies of nations, their loving hearts would banish war, and peace would be universal. 109 And the most precious heritage of every nation on the green earth is the nobility of its mothers, for without noble mothers, it can have no worthy and manly men.

110 All nations should recognise this fact, and instead of giving pensions to those who destroy life, they should give them to those who multiply and replenish it, and make a nation worthy of existence and fame. 111 And God will surely bestow on the mothers of men a crown of eternal glory for every life added to His empire and domain of deathless eternities. 112 The momentous question arises in this busy age of travel and pleasure, when so many seek the luxurious ease of opulence and avoid as far as possible all cares and responsibility, 113 Will the emancipated womanhood of our land deny the law of love and life, written in the heart and conscience of all sentient beings, and decline the angelic ministrations of maternity? 114 Will they refuse to join in the economy of God and Nature, or leave this high and holy vocation to the ignorant and superstitious of our foreign

element? 115 If so, the citizenship of our beloved nation will degenerate with each succeeding generation. 116 Will the modern woman seek social pleasures and the flattery of passing admiration in lieu of home life and maternity, and be satisfied to flutter as a gaudy butterfly of fashion? 117 Will her womanly heart find the prattle of a baby voice and the pressure of its chubby hands upon her smiling face, as it crows in her loving arms, a truer, sweeter pleasure than the social triumphs of a few fleeting seasons? 118 A joyous child brings more pleasure to a household than a marble palace with mahogany furniture and an automobile.

119 This is the all-important woman question of the future-- the question of race suicide. 120 For the entrance of woman into all the vocations of business life, the tendency to avoid domestic cares, the laxity of the marriage vows, together with the elimination of homes for boarding houses, and the prevalence of divorces, makes it a serious question for the future. 121 Already this pressing vital question causes the wisest men of France to tremble for the future of their race and nation, for its shrinking population is forcing it from the rank of a first-class power to the humiliation of weakness and decay. 122 Will they listen to France's Macedonian call and the law of love and life written in their womanly natures?

123 Humanity of the past and present is not final. It shall not cease at the present development. 124 Human society was never static. We are at the beginning of the greatest changes in human history. 125 There will be no shock, but the transforming, silent touch of universal evolution, whose voice speaks thus: "We are the creatures of twilight, but out of our minds and the lineage of our minds will spring minds that will reach forward fearlessly. 126 A day will come-- one day in the unending succession of days-- when the beings now latent in our thoughts, hidden in our loins, 127 shall stand on this earth as on a footstool, and they shall laugh and reach out their hands among the stars." 128 It is said that the flower which opens and smiles upon the brink of an abyss is like love,

which lives also between two eternities. 129 It is the most human of the passions and at the same time the most divine. 130 It is the most intimate and the most ethereal; it guides the poet when he scales the skies and lifts the soul to celestial raptures.

131 The gifted and the common mind are alike troubled, agitated and exalted by this divinity who evokes their silent passions and stirs their slumbering fancy. 132 Many animals change their form and colour in the season of love, and human is similarly affected in own psychic nature. 133 Every human and divine element responds to the witchery of the god of love. 134 And new colours in thought and character appear, and the glowing eye glistens with changing smile or tear, like dewdrops on the jewelled face of morn. 135 The first touch of poetry lights up the prosy brain, the first ambitions, brilliant hopes, struggles, flashes of genius, and heroic resolves spring forth like living phantoms at the magic power of this matchless magician of the soul.

136 Woman, far more than man, is reared in the regions of love, and has more leisure to reflect on the secret movements of her heart, and to gather the wisdom and beauty of love and distill it as the rarest perfume of life. 137 Love is woman's crown of divinity. 138 Love lifts human to one highest capabilities, noblest enterprises and loftiest ideals, and makes one monarch of a larger and more beautiful world. 139 The history of man shows how gross and abject natures are transformed by love. 140 How dull and stolid minds have been guided by it to paths of honor and glory. 141 It is said that fame and science should guard themselves from love as from a dangerous enemy, and that to be a great person one must love their art alone and be wed only to their great ambitions.

142 Ah! but for one genius killed by love, a hundred owe to it all their greatness and inspiration and the moving force of life, and bless it as superior to fame and sweeter than all the laurels of victory or the plaudits of success. 143 All the glory of art and science, of thrones and crowns, is inspired by the love

of woman. 144 This was openly proclaimed in the heroic and chivalrous ages and should still be held in grateful remembrance. 145 If love does not always elevate and refine and work the miracles of its magic, it is because men lower their ideals of women and love. 146 Woman has a stronger thirst after the ideal, a more refined sensibility, exquisite fancy and poetic nature and aids man to mount to loftier actions and ideals. 147 In a beautiful picture, Dante is below, Beatrice above; he looks at her and is thus inspired, while her eyes, fixed upon him, seem to say: "Upward, upward; it is thither we must go together!" 148 It is said nothing is so irresistible as the enthusiasm of woman. 149 Without reason for believing, without strength for hope, sustained solely by love, she is always full of faith for the great and beautiful things, and with sublime imprudence cries, "Forward, forward!" and drags man to the most difficult summits of success.

150 A wise man says: "In the great and little things, after having consulted science and art, experience and imagination, after having read history and human hearts, also always consult the woman you love, 151 whether it be a question of a book or a law, or a work of art, or of business, industry or poetry. She will certainly have something new to tell you." 152 Ambition often fails to elevate men, they die without having attained their full measure of power. 153 Only the love of woman could have given them the energy which ambition and self-love were powerless to bestow.

154 In the past ages the world prated much about aristocracy. There have been four kinds of aristocracy in the world's history. 155 There has been the aristocracy of muscle-- the supremacy of brute force. This was followed by the aristocracy of blood or family pedigree, by which one claimed by inheritance superiority over others. 156 Then came the aristocracy of wealth, which prevails in our day, whereby those who obtain fortunes by birth, accident, parsimony, force or fraud, claim superiority over others less sordid or less fortunate. 157 But the true and only aristocracy that ever has or ever will exist in the human race is the

aristocracy of love and goodness. 158 There is nothing so kingly as kindness, nothing so royal as truth, and nothing so godlike as love.

159 The aristocracy of muscle has brought misery and distress and cursed the world with cruelty and oppression; the aristocracies of blood and wealth have often brought sorrow to their possessors, and proved a rope of sand, a broken reed, a Jonas' gourd that faded in a night. 160 But the aristocracy of love and goodness is God's aristocracy, and belongs to the society of heaven. 161 It is a part of the family of Deity, and possesses the wealth of the Universe. 162 It is the pride of celestial hosts, and the joy and blessing of transient mortality. 163 The humblest of earth may join this aristocracy of love and goodness and be a prince and king in his own right, by royal prerogative as eternal and enduring as the earth and stars. 164 Thus we find that love is the spiritual and electric law of life, and the crown-jewel of the Universe; 165 that love gives life and inspires it; that all the creations and forces of Nature are dual and sexual, with love as the supreme sovereign of all life and destiny.

166 Magnificent are the pyramids of Cheops, but while they and the groves of gods and pillars at Karnac were being reared for a tyrannous nobility and priesthood, twenty thousand common people agonised and died in the quarries. 167 Beautiful was Athens, "The City of the Violet Crown," when the sunlight flashed from the Parthenon; but Aristides was banished because he was just, and Socrates was murdered because he taught the oneness of God. 168 Rome sat on her seven hills and ruled the world; but men were butchered in the arena to make a Roman holiday, and at night Christians were burned for torches to light up Nero's golden house. 169 All this was because love had not exalted the ideals and energised the wills of humans.

170 In the middle-ages the sounds of the chisels carving the marble dreams of Michael Angelo was drowned by the shrieks of victims of the Inquisition; 171 and later in England, villains and serfs, even after Magna-Charta, were hanged

for stealing five shillings. 172 In our own land Cotton Mather tells us people were crushed by heavy stones upon their breast, as punishment for petty offences, and witches swung in the breezes of Salem; and sometime ago human slavery was sanctioned by law. 173 All these horrors and the cruelty of the world have been because humans have not let love illumine the soul and energise the heart of humanity. 174 To-day all this is changed. The ægis of the law protects the humblest citizen, and the fate of nations is decided not by a Hannibal or a Charlemagne, but in legislative halls and courts of justice. 175 And all people may work and hope, for fame is waiting with willing laurels for souls aglow with the fires of love and genius, who are destined to be torch bearers along the highways of heavenly harmonies.

176 The heaven of all the heavens above,
The god of all the gods is Love.

177 Carlisle, that rugged old thinker, declared that human should imitate own maker and "Create, create, create." 178 This is the chief object of life. Not alone in the propagation of one race, but to build houses and temples, erect monuments, write books, fertilize deserts, and cause the earth to blossom with new flowers of fragrance, and new thoughts of beauty. 179 In order to thus glorify life and make it a divine ecstasy and a stepping-stone to celestial worlds, love must be the guiding star, and will the creative-impulse. 180 These two are the sovereign forces of the Universe in human and Deity; and uphold and control all others. 181 Therefore human should make love and truth own ideals, and will his sceptre of power, and with each rising sun proclaim:

182 "These two things should no human forget or lose
Or sacrifice: your will and your ideals.
183 These two things are the human. In leaving them
Behind human in the dust of broken dreams
184 Human leaves oneself your nature is usurped.
The lesson of all greatness is to be

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That which we are-- out to our farthest bounds.
185 To lift the high within us higher still--
To delve our depths with a profounder depth--
To push the near horizon of our minds
Out past immediate things to ultimate."

JACOB'S LADDER
IS THE ELECTRIC PATHWAY
BETWEEN SUNS AND PLANETS

George Woodward Warder

18 I contend in my previous books that electricity and not gravity is the one fundamental form of energy from which all other forms, such as light, heat, vital force, physical life and gravitation are derived by transformation. 2 That electric energy is the one evolving creative force in the physical Universe, back of which is the directing, intelligent, spiritual power of Deity, who has made all visible things of one matter-- 3 the invisible atom, controlled by one invisible power, electricity, after one unchanging pattern-- the electro-magnet.

4 This necessarily teaches that the sun is not hot, that all heat, light and vital force is produced by the contact of positive and negative electricity in the dense atmospheric cushion of suns and planets, where alone it is needed for vegetable and animal life. 5 All of which is produced by the positive electric currents of the sun coming in contact with the negative electricity of the planets, 6 just as two wires oppositely electrified and brought together produce the arc and incandescent electric light.

7 I contend that the suns are the self-luminous, perfected worlds of the Universe; worlds like our world, only larger and more prolific in life and power than the planetary worlds. 8 That they are the headquarters of Deity, and the future abode of human. 9 This leads to the reasonable scientific hypothesis that our all-life-giving sun is where Christ ascended to, when the Disciples saw "a cloud receive him out of their sight;" 10 where Elias was translated; where

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Paul was "snatched up to the seventh heaven"; where Saint John in the Apochalyptic journey saw "the new Jerusalem-- the City of God." 11 This wonderful city, from scientific facts and analogy, exists in the sun and could be nowhere else, and seems to be so represented in Revelations, and its description is grandeur than all the romances of earth. 12 This gives the most reasonable scientific explanation of Revelations and the eternal beatitudes of the Christian's life everlasting, while at the same time it recognises the law of evolution, and proclaims there is nothing supernatural in the Universe.

13 I contend that the sun's photosphere is a brilliant, globe-encircling aurora; that the planets are the hatcheries of human souls, and the suns the place of their maturity and perfection; 14 that all things are composed of atoms and electricity, which are as invisible as the soul. 15 That the soul is an invisible atom of Deity, and, like invisible atoms and electricity, may pass to and from the sun.

16 In showing the terraced mountain on which the city in Revelations was built accorded with the proportions of the sun as compared with the earth and moon, a simpler illustration would be this: 17 The sun's diameter is 110-times that of the earth, and as the earth has mountains six miles high, the sun should have them 110-times higher, which would be about 700-miles in perpendicular height, making about 1,200-miles measuring the slope from the base to the apex. 18 Or, if the mountains in the sun are as high in proportion to diameter as those on the moon, the mountains of the moon being three miles high, and the sun's diameter being 400-times greater than the moon; the mountains of the sun should be 1200-miles in perpendicular height.

19 Up to the last few centuries all standards of measurement were indefinite. The cubit, fathom, and foot all depended on the size of the person. A furlong was originally a furrow in an English field, and might be 300 or 800-feet in length. 20 All these measures have been made definite by law or custom since the Bible was written. 21 But the word translated ‘furlong’ was the Greek word ‘stadium’, which

was the length of a Greek foot race which was 520-feet (except in two instances); 22 while a present furlong, the eighth of a mile, is 660-feet, making in 12,000 furlongs a difference of about 320-miles, 38 making John's wonderful city 1,180-miles square. 23 The ancient furlong was about what I put it-- the tenth of a mile. 24 Critics should inform themselves before displaying their colossal lack of information.

25 I contend that over ninety percent of the Universe is invisible matter. This invisible matter floats in all space and permeates all visible matter as water permeates a sponge. 26 All matter in its primary and elementary form is invisible, 44 and, being invisible, it partakes of the characteristics in this respect of invisible force and invisible spirit. 27 These three invisible entities constitute the Universe, its center and circumference, its invisible realities, its eternal foundation and limitless boundaries. 28 Only one of these-- matter-- by a vast aggregation of atoms, is converted from the invisible to the visible. 29 This Universe was made from nothing-- nothing visible, nothing tangible, nothing the human eye could see or the human finger could touch. 30 There was a time when the stars and planets, suns and worlds were transparent ether, as impalpable as the viewless air, and scattered as star dust in the measureless void of space along the forgotten highways of the past eternities. 31 Silence reigned profound in the pulseless regions of the air, where, motionless and dumb, the atoms hung in dark and lifeless space. 32 There was nothing in all this Universe-- nothing but cold, darkness and silence. 33 But these are the home of atoms, the star-dust which Deity had scattered by the breath of His power through the highways of space in the beginning of primeval creation. 34 While these were nothing to human, they were the foundation stones of all created things. 35 This nothingness of space was the fallow ground of the Universe and the formless shadow of suns and worlds. 36 It was a Universe in solution as viewless as ether, and as intangible as mind. 37 The electric energy of space was yet unstirred by the divine fiat or

shook into vibrating force by the word of Creative Power. 38 Other suns and worlds and a Universe of Universes shone forth in the realms of space when the Creative Word was spoken that lit this newer Universe into being.

39 "Let there be light," and from His lips that spoke no word but love and truth and power, the lightning of electric life and glory thrilled every atom with vibrating cosmic energy, and life-evolving force. 40 Then the electric clothing of light and life leaped into power and enwrapt as in swaddling clothes a new born Universe. 41 And wherever the breath of Deity was blown there was the glowing nucleus of a sun, or the revolving center of a world. 42 Then atoms and electricity met in fond and unending embrace, substance and energy clasped hands, and matter and persistent force were woven into each other's arms and saturated with electric, life-giving energy.

43 The first starting point of the Universe was the intellectual volition of Deity. 44 The second was the law-of-Nature impressed upon matter by electricity, the right hand of Deity and the tongue and word of His power. 45 Spirit cannot act directly upon matter; it must have a medium controlled by spirit at one end and working on matter at the other. 46 This medium is electricity. Matter is held together by the electric attraction of the molecules of which it is composed. 47 The molecules are composed of invisible magnets called atoms. This electric attraction acts continuously. 48 Were it to stop its action for a second, solid body would instantly crumble to invisible atoms, our material forms would vanish into thin air, and the Universe disappears in viewless ether. 49 The electro-magnetic force holds firmly the molecules of solid bodies and gives them their strength and solidity. 50 It is more feeble in its cohesive grasp on liquid bodies and is very feeble in gaseous bodies. 51 Molecules are in a ceaseless state of activity and motion, forever vibrating to the touch of electric energy.

52 The ever-restless and varying motions of the invisible molecules constituting all matter is like a cluster of bees at their hive, or of

ants at their nests, hurrying and scrambling over and around each other in constant and curious motions. 53 And if our eyes were powerful enough to see the molecules of which a block of wood or a human body is composed, they would witness such a scene of activity as the crowded bees and ants exhibit, only still more curious and constant. 54 When water is changed into steam it goes into the air as widely separated and invisible particles which disappear entirely, but every particle is still in existence and may be converted again into water. 55 When wood is burned, it changes into ashes, smoke and vapour. Not a single particle is ever destroyed. 56 It is so with our bodies, they dissolve into their natural elements, which pass into tree and shrub and air and water and other bodies; they never return to their organic form. 57 There is no resurrection of the physical body. What goes down into the grave never comes forth again. 58 The spirit-body never enters the grave, but soars to the celestial cities of the sun in a new and endless life. 59 Nature and Deity would not do so nugatory a thing as to resurrect three or four bucketsful of water and a handful of bone-dust. Fresher and better material is at hand in abundance all the time.

60 There are bodies all around us so small that we cannot see them. They are in the air we breathe and in the water we drink. Some of them are alive and some are not. 61 Many of them are so small we need the most powerful microscope to detect their presence. Yet everyone is made up of parts much smaller than itself. 62 The fine dust which clings to our fingers when we hold a butterfly or a moth, scarce visible to the naked eye, is found under the microscope to be made up of a thousand or more still smaller particles. 63 There are living creatures so small it would take a million of them to equal the size of a mustard seed. Millions of them float unseen in the air around us, and swim in the drops of water we drink. 64 Millions more float through the blood in our veins, which to them are vast, surging seas of life. 65 They are so very small, a thousand of them might

fly side by side through the eye of a needle. 66 Yet each little creature must be made of still smaller parts, else they could not move or devour their food; they are too infinitesimal for the grasp of our imagination.

67 If we keep on dividing a body into smaller and smaller pieces, we at last get a piece so very small it cannot be divided again without changing into some other kind of matter. 68 These smaller pieces are called molecules, which are particles of matter which cannot be divided without changing their nature. 69 All bodies are porous and have spaces between their molecules. 70 This was proven of gold a long time ago at Florence, where a hollow globe of gold was filled with water and shut up tight, then put under immense pressure. 71 The water was forced by the pressure through the pores of the gold as a fine dewy moisture or perspiration. 72 The same result would have occurred had it been iron, copper or any other metal, as there is a space between all molecules in all bodies. 73 All molecules in all bodies revolve around each other without touching.

74 You can stand a man before the Crookes tube or Roentgen rays and look through him and take pictures of his bones, and look through his bones and take pictures of objects on the other side of them, and also look through four-foot walls. And photographs are now taken through six-inch brick walls.

75 All spaces between the molecules of all visible substances, all pores and cavities in all organic bodies and inorganic matter, including the earth, and all animal and vegetable life is, I contend, permeated and occupied by invisible electro-magnetic ether. 76 This ether is the life-giving and life-preservative force and essence of the Universe and that from which all things have been evolved. 77 All suns and worlds and all their complex creations and everything that exists floats in this boundless, vibrating sea of magnetic ether. 78 And there are vast and mighty currents of electric force and power reaching from every sun and planet to every other sun and planet in the Universe. 79 These are enduring

bands of strength, invisible ligaments of magnetic power that bind the Universe together as one complete, harmonious electric organism. 80 They constitute the unity and strength of all creation and promulgate and enforce the laws-of-Nature.

81 They are vast highways of space, the boulevards of the Universe. We cannot see them, neither can we see elemental matter, or electricity, or life, but we know they exist, and are the foundations of the Universe. 82 Human spirits, at death, when they drop their visible vesture of atoms, can step onto this electric tide, this current of swift-speeding light and power, and in eight minutes or less time enter the heaven of their dreams in the celestial cities of the sun. 83 They have but to step on this flowing tide of electric power, as they step on a moving stairway or platform in our cities here on earth, to be borne with scarcely a sense of motion to their bright and heavenly abode. 84 It is a swift and continuous band, an endless chain, a mighty ligament of light and life and power constantly passing between heaven and earth, and earth and heaven, between sun and planet and planet and sun. 85 These are the countless pathways between suns and stars, the mighty and everlasting highways of eternity which God hath built to span the silent ether of space between suns and worlds, and bind the Universe in one harmonious whole. 86 On these mighty currents, as on a moving bridge of golden light, angels and humans and ministering spirits may pass and repass to the gateway of eternal life. 87 Moses and Elias, Christ and John, and all the departed saints of earth have trod this Jacob's ladder on which the angels ascend and descend between heaven and earth, and all the departed denizens of earth have trod its golden stairs to their celestial, sun-bright home.

88 Dr. Minot J. Savage, the eminent New York divine, says he objects to my putting eight minutes of time between the earth and the spiritual world. 89 He thinks Christ taught that they were in immediate connection with each other. 90 And so they are, by the coming and going tides of spirits between the two worlds. 91 But

now that the speed of light seems to be discovered to be instantaneous, it may be the communication between them is instantaneous.

92 When the deathless spirit has dropped its "mortal coil," and visited with electric wing the luminous, life-giving sun and the mighty cities on its spacious bosom, and graduated in the universities of heaven, it will discover that eternity is scarcely long enough to study and enjoy the marvelous creations of the Universe. 93 It will find our world is but a floating island in the great solar sea of electro-magnetism, and the solar sea or empire of our sun is but a small province in the boundless ocean of space, hid in the infinite abyss of starry depths; that measureless immensity and countless variety reigns in the Universe. 94 Human souls will then be free as air and untrammeled as ether, and may explore the vast highways of eternity with wonder-seeking minds, and visit Jupiter with its enormous moons, Saturn with its gigantic rings, and traverse the out-lying orbs of distant Uranus and Neptune. 95 They may then pass to other solar realms, and wander over the varied bosom of Andromeda's triple suns of blue and green and sapphire tints that whirl like globes of rainbow beauty in the azure sky, 96 and see the double stars and multiple suns, and fiery comets with their glowing spooms, and blood-red meteors, all following harmonious orbits through the pulsing voids of space, vibrating to the rhythmic cadence of electric law. 97 All moving with tranquil majesty in the trackless seas of immensity obedient to the Omnipotent Will.

98 Here blooms infinite, varied life and ever-changing beauty to thrill and bless the wonder-loving soul and make melodious harmony with every pulsing vibration of their imperishable life. 99 The Universe of myriads of suns is separated by trillions of miles and scattered like lighthouses along the realms of space, as dynamos of heat and light and life, 100 shooting with measureless speed and bound together by mutual ties as delicate and invisible as the ties of love that bind two souls together at the hymeneal altar.

101 Such is God's Universe. She is as a bride to her lover in every floating atom of space, in every circling world and glowing sphere, in every human soul and angel spirit.

102 As light is the great painter of the skies, and photographs all things that occur in the atmosphere of suns and planets, 103 the aspect of the earth and the sun and the events that occurred on their surface thousands of years ago are now winging their flight through space millions of millions of miles distant. 104 To the eye of Deity or an observer on some distant orb these events of centuries past would seem to be actually occurring or in progress. 105 With powers commensurate with the photographic powers of light, a human soul could stand upon a distant star and follow this wonderful vision and gaze on a succession of events from the beginning of time to the present moment, and read the history of every sun and planet in the rays of light from its own atmosphere. 106 And with poised wing in limitless space or on some far-off sun, read the mighty events transpiring on this little earth in the distant rays of light from its own atmosphere. 107 And in the cities of the sun, the denizens of heaven may, by some marvelous appliance, so magnify the picture in each ray of light from earth and sun and planet that they may view with microscopic eye and telescopic vision all the historic scenes of every sphere, and learn the life and history of every rolling orb.

108 They need not visit them to see and know the panoramic history of their glowing life. And thus they may view the varied scenes of earth. 109 Could we transport ourselves to Alpha Lyra, Sirius or some more distant sun and could see, like them, the photographic pictures in the rays of light from earth we could view scenes that transpired on the earth thousands of years ago. 110 Thus human souls may see and thus Deity sees the end from the beginning at all times in all spheres. 111 And a ray of light, a drop of dew, a grain of sand or a blade of grass conveys to him a history of the world of which it is a part. 112 Thus God preserves in every ray of light a constant picture of the changing

panorama of the Universe; 113 and in human's mind, through human's imperishable memory, God keeps a perfect record of human's thoughts and deeds, which He can unravel as a written scroll at any moment.

114 The future is ever present in its germs, precisely as the past is present in its fruits. 115 And God's knowledge of the past and future is as much the subject of His consciousness as the present action of His creatures, or the primary laws He has established. 116 He has assigned to the Universe certain material and spiritual laws, 185 and the whole scheme of the Universe is so perfect it needs no direct intervention. 117 His perfect control of matter under electric law produces the evolutions of Nature that accord with His divine purpose, 118 and God’s spiritual impulse directs the spiritual development of the human soul to the ultimate goal of truth and perfection to be attained in His self-luminous, perfected worlds. 119 Thus we perceive that to the Omnipotent Ruler of the Universe the infinite past and the infinite future would at all times be present, 120 that each atom and event would exhibit to Him at each instant the limitless past and future, giving him perfect and omnipotent consciousness and control of His spiritual and electric Universe.

121 And even on this earth, the time may come when we can so magnify the picture in a ray of light that we may see the cities in the sun, and read the inscriptions on their walls and temples, 122 and view the gates of pearl and the sapphire dome and diamond coronet above the Acropolis of the terraced city of the sun described in Revelations.

123 The soul is an invisible atom of Deity and, like invisible atoms and electricity, may pass to and from the sun in eight minutes and perhaps only a few seconds. 124 I reason scientifically that if invisible matter and electricity go everywhere and pass to and from the sun continually and exert their power and do not lose their natural properties or identity, 125 it is clear and overwhelming proof that human's soul, when it steps out of the body, maintains its power and identity, and can fly with the speed

of light to the throne of light and life in the luminous bosom of the all-life-giving sun.

126 Is it not right, by the eternal law of cause and sequence and unanswerable logic, that life should return to the fountain of life? 127 That life, soul life and material life, which the sun nurtures, builds and vitalises here, when its usefulness here is ended that it should return to the luminous bosom of its great mother-- 128 the source of all life, light and power; and that there it should find the great Spiritual Father, who planned and constructed this mighty machinery of worlds, or His immaculate Son and representative.

129 Then, by all the laws of reason, intelligence, and "the eternal fitness of things," God, the eternal, creative Spirit, should have His abode and center of life and light and power at the central abode of all life and light and power in the physical Universe,-- the all-sustaining, creative sun. 130 Such accords with the eternal laws-of-Nature and the one unchanging mode and pattern of the Universe. 131 For by the universal law of all created things, the center of physical and electric power and life is also the center of spiritual and intellectual power, and there should be the home of Deity and the promised heaven of the human soul.

132 The question may often arise, Does God perfect humanity and then destroy it? 133 Does God make humans of us with all the trouble and care that comes inside of seventy years, and then throw us away? 134 I do not believe He does anything so wasteful and unjust. He has prepared a pathway to the skies and takes us to Himself. This is more rational.

135 Jacob saw the heavenly ladder and angels ascending and descending between heaven and earth, and Stephen saw the heavens open and Christ sitting on the right hand of God. 136 These were not miracles in the supernatural sense; they were simply a larger vision, an expansion of electric and spiritual power under the rapid evolution of natural law. 137 All great seers and prophets have had the same clairvoyant power. 138 At the birth of our planet, the stars sang

together and all the Sons of God shouted for joy. 139 At the birth of Christ the angels sang for the shepherds on the plains of Bethlehem, and they visited Abraham and Lot, and Joseph and Mary, and ministered to Christ when he was weary and famished in the wilderness. 140 They carried John in the spirit to the great and high mountain in the sun which was to him a new heaven and a new earth and showed him the great city of God, and they have borne millions of bright human spirits along the electric highways of the skies to the celestial mansions of the blest. 141 So will they wait and guide us through the dusky borders of mortality, along the shining pathway to the sun, and welcome us to the delights of its celestial cities. 142 And we shall see in the hour of dissolution the ladder Jacob saw reaching from earth to heaven on which the angels ascend and descend, and we shall see the vision martyred Stephen saw when the heavens opened, and the vision St. John saw when he gazed on the New Jerusalem. 143 And this electric stairway between heaven and earth is so real, sure and strong, that the weakest spirit cannot lose its way or stumble or fall. 144 It has the lightness of air and the strength of adamant and is as eternal as the stars. 145 Millions of millions have trod its pathway of viewless power that no steel or adamant could break, and none have failed to reach the heaven that it links to earth.

146 The creature whose intelligence measures the pulsations of molecules and unravels the secret of the whirling nebulæ is no creature of a day, but the child of the Universe, the heir of all the ages, in whose making and perfection is found the consummation of God's creative work. 147 God is a spirit and human is a spirit, and spirit power is the supreme sovereignty of the Universe. 148 And the soul of human can command electric energy to bear it with swift wings and tireless feet along the electric pathway to the luminous bosom of the sun, to the celestial cities of his future heaven. 149 And the angels will be our guides and direct our faltering spirits along the electric pathways to the stars, and light the

shining boulevards of eternity, and lead us to the golden streets and crystal palaces of heaven. 150 And they will escort us into the diamond banqueting hall of the King of Kings, and we shall feast on angels' food, and sip nectar and ambrosia from the table of the God of Gods. 151 And the angel choir shall take down their celestial harps from their panels of amethyst, and with deft fingers and entrancing voices sing us the old, loved melodies of heaven, and put a new song in our mouths, and we shall join the heavenly jubilee of eternal life and glory.

152 "When the daylight trembles into shade,
When falls the silence of mortality,
And all is done, we shall not be afraid
153 But pass from light to light; from what doth seem
248 Into the heart and heaven of our dream."

THIS ELECTRIC UNIVERSE
IS SELF-SUSTAINING AND ETERNAL
George Woodward Warder

19 The natural beauty and utility of the world is vast and varied. 2 The grandeur and strength of the Universe is boundless and enduring. 3 Nature is Deity, thinking in visible thoughts of beauty and power, and speaking in visible tones of life, motion and harmony.

4 All things in Nature combine beauty with utility and while full of change are constant and enduring. 5 The same electric laws, force and substance which gives luminous brilliancy to countless suns, and paints the aurora and the rainbow the rosy hues of dawn and the crimson glories of sunset, 6 give colour to the ruddy cheeks of youth, and red corpuscle to the arterial blood that brings health and strength to human forms. 7 These same electric laws, force and substance hold their sceptre of power through all the Universe. 8 Under electric law atoms and molecules embrace each other and evolve visible forms of life; and suns

glow with warmth and light, and keep their appointed distances in the circling mazes of the sky. 9 And by the grasp of electric energy these life-giving suns carry their family of life-bearing worlds upon their mysterious voyage through the realms of measureless space. 10 All nature is a visible expression of Omnipotent Deity, all the Universe is a symbol of creative power and wisdom which is boundless and enduring, and proclaims that our world, the sun and the Universe are eternal and enduring.

11 The question of the continued existence of our solar system is a fascinating subject to most of our astronomers; 12 they seem never to be weary of looking forward to a time when the light of the sun will expire with age, or it will be destroyed by some great catastrophe. 13 I have no such apprehensions. First, because in the six or eight thousand years of human history on this planet there is no record of any sun or star being blotted out, or any planet being destroyed. 14 The sun, stars and planets are substantially the same as they were when Babylon flourished, when Abraham was a sun worshiper, and when the angels sang on the plains of Bethlehem. 15 As far as human knowledge and science goes, not a single star has faded from the glittering hosts of night's jewelled crown.

16 Second, because the same electric force that started suns and planets on their grand velocities and fixed their orbits is not only an attracting force, but also a repelling force of marvelous power. 17 And while suns and planets attract each other they also repel each other, and make each keep their respective distance under the law of electro-magnetism by which opposite poles attract and like poles repel each other. 18 If you place the opposite poles of a horseshoe magnet together they will attract each other and cling together until a superior force overcomes their mutual attraction; 19 but if you reverse them and put their like poles together, they will not cling together, but will repulse each other.

20 In chemistry molecules of opposite polarity unite, and this is

called chemical affinity; 31 molecules of like polarity will not unite, and this is called chemical repulsion. 21 Magnets attract only when their poles are reversed, or when they are oppositely electrified, and suns and planets do the same. 22 The sun as the great central magnet, or electric generator, has the power both to attract and to repel. 23 The planets are kept in their orbits by both the sun's attraction and its repulsion. 24 In the summer, when the earth gets four millions of miles nearer the sun, there is a repelling force from the sun that sends it off again, or it would continue to approach the sun until it would fall into his spacious bosom. 25 No law of gravitation or balancing force of planets could do this. 26 The centrifugal force of electric repulsion in the sun does for the earth what all the balancing force of the planets could not do if they were all swung in the circling orbit of Mars. 27 The sun, by this electric propelling force, throws off the comets which approach it. This is proven by scientific records in many instances for centuries. 28 By this same propelling force the sun holds off the swift leaden planet Mercury. 29 By this same electric repulsion the planets prevent their moons from falling back onto their surfaces.

30 These moons are the same material and electric composition as the worlds from which they come, and, as like polarity repels, they are thus kept in their orbits. 31 There are estimated to be eighteen to one hundred millions of suns in this Universe. Can anyone believe they are kept in their places by a mere balancing force? They are held by electrical repulsion as well as by electrical attraction. 32 There may also be belts or zones of ether with the proper electrical vibration or condition in the orbit of each planet and satellite which hold them with giant grasp in their allotted places. 33 And every sun system may have its own peculiar electricity, which has a repulsion for all other systems and holds each in its proper place. 34 All these things are possible and probable under the theory of electrical creation. 35 As twenty-eight currents of electricity can pass over the same wire at the same time, fourteen each way,

how many kinds of electric currents may the Universe possess? 36 May not each planet have its own peculiar current, and its own peculiar attracting power, and the sun give each a different electricity?

37 While each sun system, with its revolving planets, is held together by mutual electric attraction, the eighteen millions of sun systems are prevented from coming in collision with each other by the law of electric repulsion. 38 This would prevent any one system from trespassing upon the domain or territory of another, and permit each and all to move freely among themselves and change places without danger of trespass or collision. 39 In case of too near an approach to each other the law of repulsion would drive them off. This would avoid the necessity of a central sun, which probably does not exist or it would be visible. 40 If all these systems were positively magnetised or all negatively magnetised they would repel each other. 41 This law of electrical repulsion would increase the nearer these systems approached each other, and this increasing power would send them further away, and forever prevent discord and collision. 42 This is why there is no discord in the fields of heaven and harmony reigns triumphant.

43 Electric repulsion is all that prevents these almost infinite sun systems from coming into conflict with one another, and ending in aggregate and ruinous collision, and reducing the Universe to a heterogeneous mass of discordant spheres. 44 No law of gravitation could prevent such a wreck and ruin of the Universe. 45 On the contrary, the size and weight of every sun and star that floats in the broad expanse of ether would under the law of gravity tend to bring about just such a universal catastrophe. 46 If the boasted law of gravitation prevailed to-day, or ever did prevail, such would be the disastrous results. The law of gravitation tends to aggregate all bodies into one. 47 If the Universe was under the dominion of gravity there would be but one vast globe in all the Universe, and if there was a human on it there would be but one enormous giant. 48 Newton's law of gravitation is

"large bodies attract small ones." 49 If that is true, then all small bodies would fly into the arms of the larger ones, and the process would continue until the largest body had them all, and there would be no smaller ones to attract. This is a fair analysis of the law of gravitation.

50 As to the rule that matter and worlds "attract each other inversely to the square of the distance," that rule could not exist but for the law of electric repulsion. 51 That rule is very near the law by which matter falls towards the sun by electric attraction. But it is not the law of orbital energy by which planets are kept out of the sun. 52 Neither is it the law by which satellites is kept from falling into the planets around which they revolve. 53 The weight that falls to the earth by attraction may be lifted by dynamic repulsion. Therefore the law of repulsion is as necessary as the law of attraction. 54 Gravitation ignores the laws of repulsion. With gravity only all spheres would fall together in a common ruin; with repulsion only they would dissolve into ether; and both of these forces, normally active and balanced, are necessary to preserve the Universe. 55 Therefore, I contend that our earth, the solar system and the Universe is self-sustaining and eternal in duration, because of the ever-active omnipotent force of electrical repulsion in sun systems, in suns and planets and their satellites.

56 Our wise astronomers for two centuries have bestowed upon gravitation all the divine attributes, and thrown around it the halo of a worshiped divinity; and ignored its twin brother and dual force, repulsion. 57 This was excusable before the discovery of electricity and its marvelous forces as a new causation. 58 But since then it seems the blind folly of stupid conservativism that would cling to old traditions and antiquated authority. 59 They recognised the law of repulsion in matter, in gases, in gunpowder, in volcanoes, in steam, in dynamite, in perfumery, in everything in the earth, but denied its operation in the sun and planets, and sidereal space. 60 This ever-active omnipotent force of electric

repulsion keeps all sun systems from coming together or trespassing upon each other's vast domains. 61 There is electrical repulsion as a great barrier between them to hold them apart. Why? Because they have like polarities or become alike electrified as they approach each other. 62 This without any other reason is sufficient to forever prevent collisions between the sun systems of the Universe. 63 Electrical repulsion keeps our earth and the planets from falling into the sun. 64 Why? Because our earth and the planets, when they approach within a certain distance of the sun, may become similarly electrified to the sun, and are thrown back to their proper and balanced orbit. 65 Electrical repulsion keeps all satellites from falling into their primary planets. Why? Because they have like polarities, and are positive or negative like their primaries, and repulse each other. 66 Thus each and all the suns, planets and satellites continue in their orbits of balanced forces, and will always continue and are as eternal as the laws of electro-magnetism that created and upholds the Universe. 67 The same law applies to comets. Why does the comet, when it approaches just so near to the sun, dart away so quickly? 68 Because it becomes alike electrified as the sun, 106 and the law of repulsion strikes it like the blow of a mammoth trip-hammer and hurls it in the opposite direction. 69 This is one reason; there may be others, for the laws of repulsion are as many and various as the laws of attraction.

70 The scientists in all ages have been fascinated with fearful, grim and dismal pictures of the end of the world. 71 Like the theologians who delighted to paint the tortures of the fiery prophet of their imagination, the scientists have exhausted their wildest fancy in picturing the sun consumed with fire, the earth melting with fervent heat and the final "wreck of matter and the crush of worlds." 72 The latest display of dismal and excessive fancy on this subject is from the prolific pen of our most eminent and worthy astronomer, Prof. Simon Newcomb. 73 It is to be found in McClure's Magazine of May, 1903, which I have just

read, entitled "The End of the World." 74 It is a well written, imaginative story or article, embracing his theory or hypothesis of the cause and manner of the world's destruction.

75 I admire his scholarly style, his great learning, and splendid fancy, and if I believed in the scientific theories and traditions which he champions with such an able pen, I should say it was a masterly presentation of what would occur in sun and earth at some indefinite future time. 76 But as I have discarded the old scientific traditions I cannot accept his theories or his fancy picture. It is too dismal for my optimistic conception of what has occurred or what will occur in this vast and mighty Universe. 77 He is a worthy successor of Newton and La Place, for he has a vigourous imagination, which easily scans the future and presents what I deem antiquated theories, sustained by traditional facts. 78 Each person lives in a different world and sees a different Universe, according to one own knowledge and imagination.

79 The Universe Ptolemy saw was different from that of Copernicus, and Newton's different from both, so my conception of the Universe is different from that of Prof. Newcomb's. 80 Imagination is a creature of education and converts knowledge into utility, and reasons from the known to the unknown, and is the telescope of futurity and the microscope of past centuries. 81 I am a great believer in imagination or ideality as the highest gift of Deity, and accept Napoleon's statement that "imagination rules the world." 82 I believe no person can be a great astronomer without it, and the tallest and broadest enlightened imagination will naturally have the best conception of the complicated motion and grandeur of the Universe. 83 Tyndall in an address at Liverpool in 1870, said, "There are tories even in science who regard imagination as a faculty to be feared and avoided rather than to be employed. 84 In fact, without this power our knowledge of Nature would be a mere tabulation of coexistence and sequences; the soul of force would be dislodged from our Universe; casual

relations would disappear, and with them that science which binds the facts of Nature to an organic whole." 85 This is nobly and truly said, for all progress is heralded by theorisation; which is an intelligible explanation of things, and serves to relate cause and effect. 86 It distinguishes the human being from the animal, the civilised from the savage, the wise and learned from the ignorant and foolish. 87 Herbert Spencer said, "In the formation of a theory we have the highest condition of the human mind." 88 And Holder, in his life of Darwin, says, "Darwin was greater than others, because he had the genius of scientific hypothesis." 89 Therefore I am proud of Prof. Newcomb's hypothesis of the cause and manner of the death of the solar system, though I do not accept his theory or his conclusions. 90 I am glad he is not one of those scientists, who said in the New York Journal not long ago, that the only thing of value to science was the tabulation of facts. 91 The mere tabulation of facts would be of as little value to the world without causation, theory and hypothesis, as the Egyptian hieroglyphics before the discovery of the Rosetta Stone.

92 Let us see what the learned astronomer, Prof. Newcomb, says. He projects himself into the future and starts out by imagining that from the central observatory in the Himalayas, "Mars is signalling a dark star." This, he says, was after "the world had long been dull and stagnant." 93 Now, I protest that this world will never become dull and stagnant, nor any part of this electric Universe, but all will go on steadily progressing to more perfect conditions. Here is where our theories clash on the first sentence. 94 Then he proceeds to tell the kind of dullness and stagnation that existed. 95 He says almost every scientific discovery had been made thousands of years before, and all inventions had been perfected, and everything went on as by machinery. 96 The peace of the world was settled and the time when people fought and killed each other in war lay far back in the mists of antiquity, and the newspapers chronicled little but births, marriages, deaths and the weather reports. 97 "Only one

language was spoken the world over, and all gentlemen dined in blue coats with gilt buttons and wore white neckties with red borders."

98 Now I cannot accept this as a true picture of our earth at any time in its future, or the hypothesis of human stagnation as possible or probable. 99 I do not regard the world's peace, and perfected machinery, and "blue coats with gilt buttons and white neckties with red borders," as evidence of dullness and stagnation. 100 And I cannot believe the newspapers, whose proverbial energy is perennial, will ever get to the low ebb of stagnation he describes. 101 But to the more important points. Three thousand years before this time messages had been successfully interchanged with the inhabitants of Mars, 102 and now this message of "a dark star" arrives from Mars, which excites the astronomers, and later the people, until the whole world is in a frenzy of terror, apprehension and despair, watching this terrible star, which continued to increase. 103 The people of Mars are also "in a state of extraordinary excitement," and our astronomers are much puzzled about the orbit of this dark star, many times the size of our earth. 104 Then the Himalaya observatory sends out the startling announcement that, "the dark star has no orbit; but is falling toward the sun with great speed."

105 Then a professor in physics sees the dangerous possibility of its collision with the sun, and has an immense vault, which had been previously built for scientific experiments, a hundred feet underground, stored with provisions, etc. 106 In this safe retreat he hides himself and his assistants when the dark star strikes the sun, and the fearful conflagration of the sun and earth occurs. 107 And when the sun and earth were burned up by the collision of the dark star with the sun, they, like Noah and his family, were saved from the general destruction.

108 The description of the melting of the houses, stones and all combustible material on the surface of the earth, the anguish and despair of the thronging multitudes, and the destruction of

the great city of Hatten, built on the ruins of the old city of Neeork, would duplicate the horrors of Dante's "Inferno." 109 The illustrations are equally horrible and terrific, and both are calculated to shock the mind of the reader and retard mental composure and æsthetic culture. 110 He states, in the words of the professor, his theory, thus: "My theory is that if one of these dark objects chances to strike a star it bursts through its outer envelope and sets free the enormous fires pent up within." 111 These pent-up fires within the sun, he claims, are going to blaze up more furious and be the cause of this dread catastrophe of ruin and death to the sun and planets. 112 With all respect to this eminent astronomer, I insist, first, there are no pent-up fires in the sun. 113 Second, no dark or light star, planet or globe can ever fall into the sun, because the law of electric repulsion in the sun will send it off, as it does the comets, in an opposite direction; 114 besides this same law of electric repulsion will forbid any such object from coming into the solar system. 115 He says this dark star, many times the size of our earth, striking the sun, would destroy it and our earth and planetary system by fire. 116 All life and combustible material, including stones and the surface of the sun and planets, he insists, would be utterly consumed by the heat engendered by such a collision. 117 Now, I contend, in the first place, that such an event is virtually impossible; 118 and if it were possible, a star of many times the size of our earth, coming in collision with the sun, would make little more impression on it than a dozen hogsheads of dynamite thrown against the surface of the moon. 119 Both would do great local damage to the spot and vicinity where they struck, but neither would produce any great general disturbance and injury to these orbs.

120 Many times the size of the earth would mean naturally something like a dozen times the size of the earth. 121 Let us estimate the general result by comparison. The sun is one million three hundred thousand times larger than the earth. 122 It is so large that if we could drop our

earth into the center of the sun, our moon, which is two hundred and forty thousand miles from us, would only be about half way to the circumference or outer rim of the sun. 123 Now, a star many times the size of our earth, striking the surface of the sun, would create great heat by the compact, and great distraction in the locality where it struck; 124 and would likely imbed itself in the sun, like large meteors do on the earth, and become a good sized mountain on the sun's surface. 125 It would not increase the electric currents or radiation, of the sun sufficient to melt the snow on the mountains of the tropics or set fire to a haystack on the earth. 126 Its effect on the earth would not be excessive in temperature, and would be very temporary. 127 For my theory is that the sun sends only such currents of electricity to the earth as the earth draws and demands by its opposite polarity. 128 Only a great sun a thousand or a million times larger than our earth would make any great impression on the sun in case of a collision; and then it would not result in its destruction, or that of the earth and planets. 129 Its size and power would be increased, but that would not necessarily increase the heat of the planets, if, as I contend, the sun could only send them the electric currents the planets draw by reason of their opposite polarity; 130 just as a receiving station of wireless telegraphy receives only the electric currents intended for it because of the peculiar attracting power it possesses.

131 I am aware that the recent flaring out in light, and increase in size of the star Nova Persei in the constellation of Perseus, has given plausibility to the conjecture of some astronomers that it was caused by a collision between two suns. 132 But I think the better opinion is that this star is a new sun, partly nebulous and in its formative state; 133 and that it was visited by a great cloud or swarm of meteors, which produced the great illumination which flared out into space for a few days and then subsided. 134 Its former small size, to which it has returned, and its present nebulous condition, or the nebulæ that surrounds it, seems to fully justify this conclusion. 135 I do not believe there ever has been

or ever will be a collision among the suns or planets. The wisdom of the Creator, as manifested in the great universal laws of electro-magnetism, forbid it. 136 If such a catastrophe was likely ever to occur, it would have happened many times since the history of the race began, 137 and we would have had many undoubted demonstrations of the direful uncertainty of the life of the suns and planets and the varying chances and unstable condition of the Universe.

138 Let us hear the conclusion of Prof. Newcomb's hypothesis in the last words of the last human on the earth, in the person of the professor of physics: "Such is the course of evolution. 139 The sun, which for millions of years gave light and heat to our system and supported life on the earth, was about to sink into exhaustion and become a cold and inert mass. 140 Its energy could not be revived except by such a catastrophe as has occurred. 141 The sun is restored to what it was before there was any earth on which it could shed its rays, and will in time be ready to run its course anew. 142 In order that a race may be renewed, it must die like an individual. Untold ages must once more elapse while life is reappearing on earth and developing in higher forms." 143 This is the present accepted scientific theory. But is it right?

144 According to my conception, it is not. The sun is not growing old, or cold, or feeble, nor can it "sink into exhaustion." Nature, on this earth, under electric law and process, is ever renewing Herself. 145 And it is the same in all suns and planets. Nature's curriculum of eternal processes is continuous change and evolution. 146 Her processes of renewal and purification are so perfect here on earth, that our most luscious fruits and vegetables, and our most beautiful and fragrant flowers come from the rank manure of the farmer's stable. 147 The fertilisers of our soil are the decayed excrement of bird and beast and the most loathsome decaying elements; 148 yet, through Nature's evolving and purifying process they become wheat and corn, plant, vegetable and flower, and our most wholesome, acceptable

and nutritious food; 149 and if we live many years in the same neighborhood we eat the same food over and over many times, and the cattle and all living creatures do the same thing. 150 The atoms that compose our bodies have been used over and over again many times. 151 They have been in the bodies of millions of humans and animals, plants and vegetables before we used them, and will be in millions of bodies yet uncreated. 152 They have been tossed by winds, hurled and threshed about by tornadoes and cyclones, drowned in the sea, and buried in the earth and often digested by other animals before they came to rest under balanced electric forces in our bodies.

153 Every atom in our bodies have been to the sun and back billions of times and will be again. 154 They have been renewed by the electric currents of the sun, by the energy of the soil, by the electro-magnetic ether of space, and are as eternal as law and destiny. 155 In like manner, the elements of the sun are constantly being renewed and invigorated, and it has an area of six billions of miles in diameter from which to draw virgin atoms, 156 and like a great sea of inexhaustible force, it is the fountain from which it receives its measureless power and indestructible life and energy. 157 For it is the central dynamo and electric heart of the solar system, and with its family of planets is floating in a boundless sea of electro-magnetism that has no limit of life and energy. 158 The sun may send a different kind of wireless electricity to each of the planets, and each of the planets may return a different kind of electricity to the sun. 159 Thus these electric currents may pass and repass between sun and planets and be re-energised and used over and over again, just as the atoms of our bodies and all earthly molecules are used over and over again. 160 Thus the sun constantly renews and invigorates itself and all the elements of the solar system, and can never come into "a state of exhaustion," as so graphically described. 161 But this vast electric Universe is stable, enduring, self-sustaining and eternal; 162 and no law or act of conflict among its millions of suns

and planets has ever been discovered, or is likely ever to be, the conjectures and sophisticated prognostications of pessimistic scientists to the contrary notwithstanding. 163 Can any reasoning, common thinker, aside from the scientists, after viewing our moon swinging around our earth, as it has done for thousands of years, only 240,000-miles from us, without approaching a mile nearer the earth in all that time, believe there is any danger of a collision between them? 164 The law that holds them apart thousands and millions of years will continue to do so; and their collision is virtually a matter of impossibility until the electric laws of the Universe are abrogated. 165 Can anyone believe that the little leaden planet Mercury that has been swinging so close around our enormous sun-- only thirty millions of miles from it-- for millions of years could keep its constant orbit unless there was an irresistible law, 166 as omnipotent and changeless as Deity, that has and will forever keep it from falling into the sun.

167 Look at the planet of Mars with two satellites, of Jupiter with six, and Saturn with eight, flying swiftly around their primaries, all only a few thousand miles from their surface, and some of them going in different directions-- 168 could any balancing force, any law of gravitation, keep them from falling into their primaries? 169 Every one of them is a contradiction of the law of gravity, and puts the stamp of falsity on all its claims. 170 But they all show there is a law which defies gravity and is a correlative force, and that is the law of electric repulsion; 171 and it is the cosmic force which, with electric attraction, has built the Universe as a vast electric machine, and they will forever preserve its integrity and existence, and the sun, earth and Universe are eternal.

172 The world moves; knowledge increases, and science is gradually broadening its conception of the harmony and endurance of the Universe. 173 The theory of dead matter and blind force has been relegated to the obsolete and discarded past, and been replaced by the recognition of ever-present

life and infinite grades of consciousness. 174 The vast and varied factors in Nature's problems of eternal destiny point to our sun and earth as a present existing and unending reality. 175 Nature builds up, tears down, and reproduces Her organic forms on the surface of planetary globes, but She does not destroy Her great sun magnets and world magnets in the same manner, as many of our scientists think. 176 There is a great difference in the powers and functions of suns and planets and the creeping things on their surfaces. 177 Suns and planets, after they have attained their matured and balanced powers, are immortal, and creating, enduring and perfected organisms; 178 and, like human in own immortal spirit, they have attained to eternal life, and neither death nor ruin can ever come near them. 179 Suns and worlds in their electric energy have the powers of creation, and as the creator is always superior to the created, they should not be judged alike.

180 Therefore the changing and transitory nature of many things on the earth's surface is no proof that such will be the earth's destiny. 181 On the contrary, every ligament of force and power in this electric Universe is pledged to secure the continued and endless duration of our sun and solar system, including our earth. 182 And timorous humanity should no longer shrink in horror at its prospective wreck and ruin. 183 May the truth prevail and human's mind be freed from the horrors, of an anticipated destruction of the sun and earth, and the optimistic joy of imperishable life and love here, and in the all-glorious sun hereafter brighten the terrestrial existence of humanity.

184 All hail! Thou life-giving sun!
Sweep on and ever while the cycles roll
Thou wandering orb of luminous sod!
Thou blazing banner of the mighty God!
185 From Creation's center to its farthest pole,
Speed on and on in thy unknown track;
But the hand that sends thee can draw thee back,
And teach thee the way when thy footsteps stray,
As He doth the wanderer.

ORIGIN

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186 Like a silent thought from Creation wrought,
Thou speakest a language weird and strange
Of the breadth of space and the speed of change,
And the wondrous dream that the ages taught;
That from star to star and from sun to sun
187 The soul shall pass while the cycles run
Renewed in its youth, gleaning wisdom and truth,
God's wisest wanderer.

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188 The living shall die, and the dead shall live,
And the mystery deepens on every hand,
And the worlds shall stay, and the soul shall stand,
And a lesson of truth shall all things give.
189 And a mystic touch hath a world to a world
And the banners of God are ever unfurled
In creation's face teaching truth and grace
To the wanderer

ARE ALL SUNS AND WORLDS INHABITED?
George Woodward Warder

20 Are all suns and worlds inhabited? 2 This has been a puzzling question to the astronomers, who have had various opinions on the subject. 3 From the laws of electric creation, as I understand them, the affirmative answer seems reasonable and natural. 4 But as we cannot visit these suns and worlds in the flesh, my answer must be formed from the operations of the laws of electricity as applied to this planet. 5 Prof. Newcomb says astronomers have no means of knowing as to the inhabitability of distant orbs any more than other persons, and that we can only reason cosmologically on the subject, and, reasoning thus, he thinks only the earth and possibly Mars are inhabited.

6 Prof. H. H. Turner, professor of astronomy at Oxford, England, in the Fortnightly Review of April, 1903, in combating Alfred Russell Wallace's theory that our earth is in the center of the Universe, and

the only inhabited world, says: 7 "Why should not any one of the suns possess planets as well adapted as we are to develop high forms of organic life?" 8 He seems to think no valid reason can be given why there are not many inhabited worlds as favorably situated as ours to produce and maintain organic life. 9 And I fully agree with him, and go a step further and say there are many reasons why nearly all suns and worlds are inhabited. 10 Reasoning from electric law and cosmological facts, our world, and its laws, forces and creations, should be a fair sample of the laws, forces, and creations of all worlds and planets. 11 This is in accord with universal chemistry, which teaches that the same laws and substances exist throughout all the realms of space. 12 In reasoning on the formative period of our world, we found the electric current to be the first form of matter and force, or the first form of creative manifestations in space. 13 These currents antedate all suns, worlds and visible objects. 14 We also found that all visible forms of matter were the aggregation of billions of invisible atoms, and all visible matter and forms were simply the outer garment and scaffolding of these invisible electric forces; 15 that force follows the law of motion, and atoms the law of form obedient to the lines of motion. 16 The second step in planetary construction was the arrangement of the atoms into crystalline formation, due to opposite currents of electrical motion, and to atomic balance. 17 This produced the rock-ribbed foundations of the earth and solidified it into a vast magnet of marvelous force and power. 18 Then when the crystalline rocks and metals were settled into a crystalline globe throbbing with electric power, vegetation came and the electric life-cell was formed as the first step towards organic life. 19 Then came the formation of nerve tissue as the basis of form structure and the evolution of microscopic life which developed under electric energy into all forms of animal existence which now inhabit the earth. 20 These were all formed and perfected through ages of response to the varying electric currents of life-giving power.

ORIGIN

21 Then the animal form evolved a brain, and acquired the sense of feeling and sight and hearing by reason of the electric currents that impinged on the sensitive tissues of the brain, 22 and animal instinct was slowly and gradually developed and the animal organism raised to the highest grade of the perfected mammal. All this was done under electric law by magnetic energy. 23 Then the Creative Deity said, "Let us make human." 24 And it is likely He took a perfected mammal, enlarged its brain-pan, stood it erect to front the stars, and breathed into it an atom of its own spirit, "and human became a living soul." 25 The psychic power of glowing thought and reasoning mind, inspiring hope and heaven-bound love, and truth, and language, music, poetry, and dreams of heaven, were implanted as a celestial fire in his deathless spirit. 26 This is human,-- the soul, the spirit, the divine, eternal spark of Deity itself-- not the body; that is merely the overcoat of atoms for the spirit, the temple for the soul, the house in which it dwells.

27 It will be seen from the foregoing that electricity is the creative, evolving force of the Universe, the word of omnipotent power, the creative machinery of suns and worlds. 28 That electricity creates suns and worlds and all animal and vegetable organisms, that it can evolve all forms, and give animal instinct as the result of balancing the experience of one sense with another through long ages of experience. 29 But it cannot create mind, soul or the spirit of Deity. It could not create human as a psychic being. It could organise human body, but it could not confer on human a soul. 30 Electricity does not rob God of power; it is God’s creative machinery, and the right hand of His power, 31 and, guided by His omnipotent will as the law-of-Nature, it can and does evolve suns and worlds and all organic life. But not spirit-life-- not human.

32 Moses and the Bible were inspired or they could never have shown so clearly the nobler creation of human, and His inherent sovereignty over the world, and dominion over all the

animal creation. 33 I like that statement, "And God said let us make human." Electricity was the word of His power, the creative agent of His will, which is the law-of-Nature. 34 It could create a sun, a world, a Universe; it could give sense and feeling to insensate dust, and evolve and fashion human's body as a house suited for his earthly habitation, but it could not furnish a tenant or evolve a soul. 35 The God-father and the God-mother alone could do this, and make human a spiritual and eternal being.

36 Now, I argue that if electricity created this earth with all its complex elements and organic forms, it also created all suns and worlds and all the machinery of the Universe by the same process, 37 and has endowed every rolling sphere in space of sufficient size and power with vegetation, and all the varied forms of animal organism. 38 Is not this a rational conclusion, since it has been demonstrated by universal chemistry and spectroscopic analysis that all laws, force and substance are the same in all suns and worlds and throughout the Universe? 39 Is it reasonable to believe that the electric currents and magnetic energy of our earth could evolve billions of billions of little living creatures which float in the air thicker than motes in a sunbeam, 40 that swim in the waters so abundant that there are millions in a raindrop, that penetrate all vegetable and animal substance and organisms, 41 that course through the veins of our bodies by the billion, and eat our food for us that we may digest it better; yet in other suns and worlds produce no such results? I cannot think so.

42 The animalculæ are so small that Ehrenburg estimates that five hundred million of them exist in one drop of water one twelfth of an inch in diameter; 43 that not only the blood, but the flesh and muscles are also composed of infinitesimal lives, each cell possessing a distinct life of its own. 44 Binet describes human as a colony of protozoans; and according to these two biologists human is a walking Chinese Empire, when you consider the microscopic beings in human body. 45 Besides our bodies and

those of vegetable and animal organism that are thus honeycombed and flooded with animalculine life, there are countless millions floating in the air, swimming in the water, and buried in the dust of the earth. 46 So that organic life is everywhere present on the earth, in invisible or visible form. 47 And the invisible forms of life of the earth everywhere surpass the visible forms millions of millions of times. 48 Just as the invisible matter in the world and the Universe surpass the visible countless billions of times. 49 Thus the natural, spontaneous production of life and life forms in myriads everywhere on this earth emphasises the reasonable hypothesis that they are evolved on all suns and planets. 50 This shows the unity of matter and life. Wherever there is matter there is electric energy and life-force, which evolves infinite grades of life-forms. 51 Prof. Buchner asserts that "spectrum analysis has brought about the highly important conviction of the unity of what is to us the visible Universe." 52 And Prof. Shaler of Harvard declares, "the unity of life is the greatest discovery of the nineteenth century." 53 The infinite diversity in Nature first fixed the attention of investigators; now its infinite unity is the marvel which excites their wonder and admiration.

54 Now the unity of matter, force and physical life are accepted by the ablest thinkers. This all tends to prove the inhabitability of all suns and worlds. 55 Prof. Huxley put himself on record as believing in intelligent organic life in other worlds, in the following vigorous language: 56 "Looking at the matter from the most rigidly scientific point of view, the assumption that amid the myriads of worlds scattered through endless space there can be no intelligence as much greater than human's as is greater than a black beetle's, is not merely baseless but impertinent. 57 Without stepping beyond the analogy of that which is known, it is easy to people the cosmos with entities in ascending scale, until we reach something practicably indistinguishable from omnipotence, omnipresence, omniscience.

58 "If our intelligence can in some matters surely reproduce the past of thousands of years ago, and

anticipate the future thousands of years hence, 59 it is clearly within the limit of possibility that some greater intellect even of the same order may be able to mirror the whole of the past and future." 60 This is a masterly statement that demolishes Alfred Russell Wallace's little arguments like a trip-hammer would an eggshell. 61 Ruskin also saw much good in the idea of life in other worlds above us, "in creatures as much nobler than ours as ours is nobler than that of the dust."

62 When once the unity and universality of force and electric life are made clear, and spirit and psychic life in their immortal destiny are made manifest, 63 as thinking creatures we are led upward to a larger development of life and power, dominated by a supreme intelligence we call Deity, Infinite Goodness and Spiritual Father. 64 Then we remember that he has assured us in the sacred oracles, that "we shall be with Him and shall be like Him," and that there are many mansions in the skies. 65 Our scientists tell us there are living creatures so small and so numerous that it would take millions of worlds like ours to support a human population equal to the number of these creatures that can live and move in one cubic inch of space. 66 Some of these multiply at the rate of one hundred and seventy thousand millions in a hundred hours. And I say every one is a tiny electric machine.

67 The electric currents that built our world from invisible atoms and evolved the complex substances of which it is composed, and the myriad forms of organic life that exist on its surface will fill other worlds with countless forms of organic life. 68 For in the great electro-magnetic sea we call ether and space, in which all things float or exist, and which permeates all form and substance, 69 there is a boundless reservoir of electric life which will blossom into infinite grades of physical organisms wherever the surface of suns, planets and satellites have living environments of soil, light and electric currents. 70 Even the soil of our earth maintains life because it is living matter itself. And some forms of

life will exist without light or soil. 71 This is the electric Universe in solution, the life-giving sea of all form and substance.

72 Oh, what a miracle of wonders! From this marvelous reservoir of life, force and substance each created thing draws the elements of its growth and existence. And each draws from the same source that which its nature requires. 73 The oak draws from the same soil and air as the hickory, the rose, the apple tree and the poison ivy. 74 But the oak converts all the substance it gathers into the natural fibre of the oak, the hickory into the natural fibre of the hickory, 75 the apple tree converts it into the luscious fruit of the apple, the rose into the delightful perfume which regales our senses, and the poison ivy converts the same air and soil into deadly poison. 76 This is the marvel of electric law and energy. How does it do it? It does it, I contend, by the law of magnetic currents under the control of organic affinity. 77 The Bible states this law in a little different form when it says God caused every tree and shrub and created thing to bring forth seed of its kind. 78 Human, like all nature, also draws from one common intellectual and moral reservoir. 79 And while some draw inspiration and goodness, others draw poisonous evil, or, rather, convert the good they draw into evils. And each brings forth of its kind.

80 I do not believe with Prof. Newcomb that, "in order that a race may be renewed it must die like an individual." 81 Or that the Creative Power, after destroying our earth, "will await with sublime patience the evolution of a new earth and a new order of animated nature." 82 The Creative Power has surely as much sense as an ordinary human, and no human builds and perfects a fine piece of machinery, or a magnificent mansion to tear it down, that one may "wait in sublime patience" the building of another to take its place. 83 We should give God credit for ordinary business sense in the construction and preservation of the Universe, which generally seems to be denied Him by His thinking creatures.

84 If Creative Wisdom has the power to build worlds, He has also

the power to preserve them; 85 and, having that power, to allow them to go to decay or be destroyed would be the perverse folly of a malignant demon, not a beneficent Creator. 86 The same is true of the destruction of a race. To create, build up, enlighten and perfect a human race, and then destroy them and their perfected world, would be a greater crime than it is possible for human or devils to perpetrate. 87 I have a better opinion of Deity, a nobler conception of His justice and goodness than that. 88 I believe in a God who cares, not the modern God of the atheistic majority, as Mr. Walker says, "who does not care." 89 A God who does not care means anarchy and chaos. It means the obliteration of all law, all moral forces, all religious conceptions, all stability and consistency in the government of the Universe. 90 Why, the very air we breathe, the sunshine that gives life, the regular and constant return of day and night, of seasons, years and months, proclaim a God who cares. 91 Every smiling human face, every generous impulse and noble thought, every worthy deed, every fragrant flower, waving field, and golden harvest testify to a God who cares.

92 But what of the "red claw" of the tiger. What of the big fish that eat the little ones, or the destruction of life by flood and storm, or human trials, sickness and death? Are these things consistent with a God who cares? They may be. 93 The tiger devours to appease own hunger, the big fish eat the little ones for the same purpose, and both obey the law of self-preservation and the survival of the fittest. 94 These two laws are necessary to preserve the life of their kind, and perfect their species for the benefit of humankind. 95 It seems a sad spectacle to see the strong destroying the weak, but it is in the earlier stages of existence the only way under the law of evolution to preserve and improve the best of each species, and is a kindness and a blessing in the end.

96 As to the destruction of life by flood and storms, these are Nature's efforts to preserve the equilibrium of Her mighty forces, and where a few are injured, millions are benefited and blessed.

97 And as to human's sickness and

tribulations, they are one-half imaginary, and a half of the other half are the result of their own folly in the violation of the laws of health, and the remaining one fourth are disciplinary for the purpose of developing character, which is an ample reward and compensation.

98 As to death, it is as painless as going to sleep; it is the dread of death that hurts. 99 And if it is the transition process, as millions believe, by which souls drop their brief tenement of atoms, and soar on tireless wings to celestial realms, then it is not a curse but a blessing, especially to the aged and decrepit, for whom life has no charms.

100 Will human never cease slandering the good Deity, and libeling the beneficent Creator of all good? 101 With most people the fault is not with the world or controlling providence and Deity, but in themselves. 102 They make their own world in their own mind and then find fault with it as if it was a reality.

103 Albert Russell Wallace, in the Fortnightly Review of March, 1903, in a laboured article of great length, undertakes to carry the world back a thousand years to the time when human thought the earth was the center of the Universe, and the stars were little openings or golden nails in the crystal vault of heaven. 104 He says we are at the center of the Universe; that our sun system belongs to a constellation situated near the center of the Milky Way. 105 This may be true, and it is not worth disputing, for if we are at the center now-- as our system travels 420,000-miles a day-- we were not there a thousand years ago, and in a few decades will be far away from it. 106 As we keep moving all the time, and do not get off at this central station which he makes so much of, I see nothing gained or lost if it is true.

107 But in order to show that it is central, he must limit the Universe and give its circumference, metes and bounds. This is an immense undertaking. 108 If our Universe is limited-- and Prof. Newcomb thought so a few years ago, and held it was in the shape of a circle or disk, which was about thirty thousand light years in circumference if true, 109 then the

light from the distant stars have been traveling thirty thousand years in order to reach us, and they must be millions of miles from where they seem to be. 110 Thus the center of the Universe is constantly changing, and it would take omniscient wisdom to tell where the center is, and then it would not remain the center many hours. This would be true whether the Universe is limited or unlimited.

111 Mr. Wallace says, "The supreme end and purpose of this vast Universe is the production and development of the living soul in the perishable body of human." 112 If he had said that was the supreme purpose of the earth, I would have agreed with him. But since he makes human's development the supreme purpose of the Universe and says all other worlds are uninhabited, I am forced to disagree with him. 113 He says there are one hundred millions of stars and planets in the Universe, yet he depopulates them all for human's benefit, and then fails to show how human can be benefitted, or for what purpose the almost countless orbs were created. 114 In my judgment he proves himself a million of times wrong, and reaches the climax of unreasonable conjecture. 115 I believe no astronomer will agree with him. None has yet appeared, though several of the most eminent have already expressed their dissent and surprise at his position. 116 His reasons, to my mind, do not justify his conclusions, but prove the very opposite hypothesis.

117 He estimates there are one hundred millions of stars and worlds, and says they "are all composed of the same elements as the planets and solar system. 118 Wherever organised life may have developed, it must be built up out of the same fundamental elements as here on earth." 119 Now, I fully agree with him in that statement, which I contend shows clearly that these worlds are inhabited. 120 For if they possess the same elements and are controlled by the same laws, they must produce the same results of organic life as appear on our earth; and his arguments about temperature, proportion of land and water, etc., do not affect the question. 121 His conclusions

brand the Great Architect of the Universe as an incompetent and wasteful profligate, and are contrary to all analogy in human reason, to all law of proportion and compensation, and to "the eternal fitness of things."

122 The fact that our earth has the same laws, forces, and substances as other worlds and is swarming with its countless myriad forms of organic life; 123 and that all the manifestations of Nature's creative forces are prolific in the production of sentient beings, is conclusive evidence that abundant life exists on other spheres, and other worlds are not dreary wastes of burning plains and sandy deserts. 124 The fact that the Creative Spirit built up human's body through ages of animal growth and perfecting bodily development, or modelled it after such perfected animal forms, and then breathed His own life and spirit into it, and made human a spiritual, eternal being like Deity Himself, 125 is strong evidence that in other suns and worlds He has done likewise; and that they are the theatres of spiritual as well as of vegetable and animal life.

126 God creates because He is Love and must have spiritual children as the objects of His affection.

127 This reason would cause him to people other worlds with the highest order of intelligent creatures similar to human. 128 And the great planets, and great suns, like Sirius, Alpha Lyra, Vega and Alcyone, which are a thousand times larger than our sun, should possess beings of greater intellectual and spiritual faculties than our earth in proportion to their superior grandeur and power.

129 Thus the infinite wisdom and power of Creative Deity, and the laws and creations He has evolved on this earth, 195 teach us that in other worlds and suns He has created other and numerous types of intelligent beings; 130 and that living organic creatures of His bounty in all suns and spheres honour and adore His infinite goodness, power and love.

131 His suns and worlds are
countless as the stars--
His jeweled finger-prints.
Through chequered bars
Of light and shade all life is
shadow of His breath--

ORIGIN

An uttered thought.
And law and change and death
His angel messengers.
His spirit truth
Preserves the Universe in fadeless youth.
132 The palpable Infinite! who can know?
Mind from a mustard seed to world, must grow.
The past, the emblems of His power hath wrought
Whose thought created first creating thought,
And veiled in mists above Olympian throne
We know the unknown God is God alone.

THE ELECTRICAL THEORY OF CREATION WILL SAVE MODERN SCIENCE FROM PANTHEISM

George Woodward Warder

21 It is marvelous the number of scientists who question the fact as to whether there is a personal God, 2 and who look upon the Universe and its laws and operations as the manifestation of a universal intelligence that has no existence except as it is infused as an invisible force through all Nature. 3 In other words, agnostic-pantheism, or belief in a world-God, has been taking the place of the materialism of the past centuries. 4 And a vast array of distinguished agnostics, from Darwin, Spinoza, Huxley and Haeckel to Ingersoll, were really believers in agnostic-pantheism.
5 Haeckel says he adheres to the Monism of Spinoza which, he says, is "matter, or infinitely extended substance; and spirit or energy, which is sensitive and thinking substance. 6 These are the two fundamental attributes or principal properties of the all-embracing, divine essence of the world-- the universal substance." 7 What is this but pantheism of the rankest old, obsolete, pagan kind? 8 What is "the all-embracing divine essence of the world-- the universal substance," but a substitute for God,-- a God which is simply the substance of the world-- a world-God.
9 According to this, all the elements of the Universe are parts of Deity. 10 The crystalline rocks and metals of the earth, the dust we kick from our feet, the manure

of the stable, and the odour of decaying vegetation are all a part of the body of God. 11 And this, they claim, is the God of the Universe, and the only God there is. This is a fair analysis of agnostic-pantheism, of Haeckelism, Darwin and Huxleyism, Ingersoll and agnosticism. 12 What a shame on human reason! Yet these great thinkers, seeing the intelligibility of Nature, its uniformity of laws and operations, without a knowledge of electricity were forced to this conclusion.

13 A recent pamphlet by F. E. Titus, a barrister of Toronto, entitled "*The Pantheism of Modern Science*," says: 14 "A summary of recent investigations into life, force and substance and the opinions based by scientists thereon leads up to the conclusion that there is in Nature a universal mind controlling and permeating Nature's manifestations."

15 In this I agree, but it is the universal mind of Deity as manifested through the marvelous creative forces of electricity. 16 But this writer sums up his facts and theories, and concludes that the pantheism of the Universe is the only explanation of all the countless and complicated forces and organisms of life which are to be found everywhere. 17 And he contends the modern tendency of science is back to the old discarded pagan belief of pantheism. 18 Even Flammarion seems imbued with that idea, and Haeckel championed it in his monistic theories. 19 But as a knowledge of electricity has killed materialism, so will it defeat and destroy agnostic-pantheism. 20 This lawyer-scientist thinks nothing can prevent science from falling into the arms of orthodox-pantheism, and he champions it vigourously.

21 But for the discovery of electricity this would have been an age of scientific materialism and orthodox-pantheism. 22 But the marvelous powers of this invisible force appeals the stolid thinkers on "solid matter." 23 They have found there is no solid matter, and that all matter in its primary form, and all force is as invisible as spirit, and that the Universe swings on invisible forces as intangible as

mind and as potent and inscrutable as destiny.

24 The conflict in the future between religion and Atheism will be chiefly a belief in a God that cares, or a God that does not care; 25 and in science between an electric Universe controlled by spirit and an orthodox-pantheistic Universe that thinks and feels in all its parts, and is itself the God of all. 26 This last is virtually the position of Darwin, Huxley and all the agnostics from them to Ingersoll, and embraces Haeckel's monism in its definition.

27 Let us see from whence they get their facts on which they base their theories. 28 They say: "The evolution going on in the inorganic world is an evolution of intelligent life." 29 I say that what they call intelligence is the result of electric laws and affinity; 30 that the selection of atoms and their repulsion and the building of matter into substance and form is the intelligent operation of these electric laws, which originated in the infinite intelligence and power of the Creator. 31 They say: "The soil maintains life because it is living matter itself." 32 And I agree with them, and say all matter is living matter because it is permeated with electric life and energy and governed by electric law. 33 They say: "Metals in fact are sensitive things, like living organisms." 34 I say they are "sensitive" because they are easily electrified, and respond quickly to magnetic energy. 35 They say, with Dr. Thomas Young, "There are all gradations of substance stretching all the way from the solid material to the spiritual, and gradations of consciousness from the inert mineral to the highest manifesting God." 36 And I agree with them in a sense, for the consciousness in matter is electric energy, and in God and human it is spirit.

37 That these electric laws are intelligent, constant and wonderful we have abundant proof every day of our existence. 38 Prof. Japp of the British Association says: "No fortuitous concourse of atoms, even with all eternity for them to clash and combine in, could compass the feat of the formation of the first optically organic compound." 39 This is true, for only the infinite wisdom of creative law and electric energy could do it. It is not

fortuitous or accidental; it is in accord with Nature's perfect laws of electric combinations.

40 I am willing to admit that "inherent selective and directive force" is exhibited in organic and inorganic matter. And I explain it by the laws of electro-magnetism. 41 Agnostic-pantheism has no explanation. They say that Nature shows some sense and intelligence; therefore Nature, the world, this great globe, is God. 42 They quote from their great authority, Huxley, who said that "Life was present potentially in matter when in the nebulous form and was unfolded from it by the way of natural development." 43 I am willing to admit it, and to go one step further, and say it was there before the nebulæ was formed in the electric currents of life and power, which are the first manifestations of creative force. 44 The potentiality of all physical life was there in those electric currents, but not the spirit or soul-life of human. That came long after, when the animal organism had been evolved and perfected.

45 Yes, truly, in a natural sense, as Kingsley says: "Water hates the oil with which it refuses to mix; 46 and lime loves the acid which it receives into itself, and like a lover grows warm with the rapture of its affection." 47 This refusal of water and oil to mix is caused by electric repulsion, and lime and acid is a simple form of electric attraction. 48 Then the agnostic-pantheists dwell on what they call the "soul-life of plants," the intelligence of birds and beasts, and the regularity of seasons, years, and earth and sun revolutions, and all natural phenomena, which they say proves the world is God. 49 All of which I have endeavoured to explain by electrical law and processes; and they conclude all these things prove the pantheism of the Universe.

50 Let us notice some of the wonderful workings and transmutations in Nature on which the advocates of pantheism rely. 51 Mr. Titus, as one of its champions, says: "There is a common bond of unity between the different kingdoms of Nature-- the mineral, vegetable and animal. 52 That there is some primal atomic or common condition, some homogeneous substance in Nature, some elemental

essence from the aggregations and combinations of which all forms are built up." 53 This is undoubtedly true, and proves that in the atoms and electric laws-of-Nature there are ample means for the creation of infinite substances and countless organic beings. 54 This does not prove agnostic-pantheism. It only proves progressive, wise electric, natural laws and forces. 55 This "elemental essence from which all forms are built" I have shown elsewhere to be the ocean of electro-magnetism permeating all space and all life forms.

56 He says: "The processes of digestion and assimilation in human furnish evidence" of these things. 57 That "the vegetable kingdom has power to assimilate earth and mineral and change it into vegetable, and in turn is digested and assimilated by the animal, and converted into an entirely different kingdom of nature." 58 This is true, and I have shown how this is purely an electric process. 59 The dream of the alchemist, of the transmutation of metals, is mere child's-play compared with the processes of Nature occurring every day in the human body. 60 These are all electric transmutations by means of respiration, by digestion and assimilation of food, whereby a great variety of substance is converted into blood and bone, tissue and muscle, and all the functions of life preserved. 61 It is also a correct statement that "all forms of matter have as their basis one common element, denominated primordial matter, protoplasm and homogeneous substance, all intended to designate the first form of matter." 62 This is true, and we found the first form of matter to be the electric currents of space, and the second form of matter to be the atom or molecule, and afterwards came the primordial cell or protoplasm. 63 We also found that there was and is a common reservoir of life which stands back of its myriad manifestations upon the physical plane; 64 a great ocean of vitality, which each organised being absorbs and gives out as we inhale and exhale the air we breathe. 65 And that reservoir of life is the vast ocean of electro-magnetism in which all things

float and exist as in a sea of magnetic life-giving power.

66 The old hypothetical atom and stolid or solid matter was dead, according to the scientists of a few decades ago. 67 But the electrician, dealing with a higher grade of matter, found that the old idea of matter as dead and inert was untrue, and would not accord with the facts. 68 So that a new definition of an atom had to be formulated, defining it as an electric center of force and motion. 69 And some physicists deem life to be co-eternal with matter. Which is not an unreasonable hypothesis as applied to physical life and substance.

70 Prof. Tyndall in 1872 said: "Life was present potentially in matter when in the nebulous form, and was unfolded from it by the way of natural development." 71 In this I agree with Prof. Tyndall as to all life, except the spiritual or psychic life of human. 72 And I have elsewhere tried to show how physical life came from the electric currents which formed the nebula, and which was afterwards woven into the earth by electric and atomic assimilation.

73 Ah! now we come to the gist of all this scientific trouble--pessimistic, agnostic and pantheistic. 74 It is this: "Modern science is firmly rooted in the conviction that inherent powers and qualities gradually unfolded under the operation of natural laws, rather than in a supernatural, extra-cosmic volition introducing arbitrarily new forces." 75 And modern science is partly right. She is right in her facts and her conclusions on this vital and basic point as to all physical creations and natural forces and powers. 76 But I insist that the creation of the soul or psychic life and powers of human are an exception, and do not come within the domain of physical creations. 77 They are on a higher plane and as much above the realm of material forms and substances as our sun is above the earth. 78 They belong to the spiritual world, to the realms of Deity, to the kingdom of God and the hosts of heaven. 79 They are a part of the great natural forces of the Universe. 80 Theologians call them supernatural forces, but they are the natural creative and controlling forces that have sovereignty over

all the vast and complicated forms of the visible, material Universe.

81 Therefore on the physical facts of organic creation I agree generally with the scientists. 82 And if they had been informed in some of the vital and intelligent processes of electrical creation, they would never have believed in agnostic-pantheism, or been pessimistic sceptics or hopeless agnostics. 83 And in my judgment the only thing that will redeem modern science from agnostic-pantheism is the prevalent belief in and acceptance of the theory of electrical creation. 84 This will explain the harmony, intelligence, continuity and perfection of the physical Universe, and relieve their minds of all grounds for scepticism.

85 There is "an intelligence or selective power" in matter. 86 There is a great "Chemist-Physicist" superintending Nature's operations, sorting out two parts of hydrogen and one of oxygen to compose the raindrop and the waters of the ocean. 87 It is no "fortuitous concourse of atoms," which accomplishes these results and preserves the life of the world. 88 It is the omniscient wisdom embraced in the laws and forces of electric energy, which is the right hand of Deity and the word of Creative power. 89 To show the possibility and ease with which many of the Bible miracles could have been performed by natural processes at the volition of Divine power, 90 Dr. Albert G. Geyser of New York City, on May 14, 1903, according to the New York World, elucidated many of the miracles by the use of electricity and the X-ray. 91 This he did before the members of the priesthood of the Holy Name Society of St. Anselm's Church, to whom he said he felt he would be able to demonstrate that the miracles were in no way inconsistent with science. 92 After setting up his apparatus, he said: "For centuries those who thought deeply on the matter have been puzzled with grave doubts as to the possibility of God being all-seeing and all-hearing. 93 What did the telephone reveal thirty years ago? Did it not reveal forces in Nature that would allow humans to hear voices at great distances? 94 And now, thanks to the great Roentgen

invention, we are able to see through a four-foot wall simply by means of this puny apparatus." 95 Then he set the great glass wheels of his battery in action and allowed his audience to look through pieces of thick timber, and other solid bodies. 96 He showed how simple it was to produce a halo of electric fire about his head though he remained a distance of ten feet from the apparatus. 97 As he raised the two negative and positive poles to his head the electricity passed through and out of the crown of his head in a circle of flame. 98 Then he compelled his machine to shoot jagged flashes of lightning. Then, referring to the Bible account of the descent of the Holy Ghost in a pillar of fire, he called for volunteers, and Thomas MacKaye came forward onto the platform. 99 He then placed two steel rods on each side of him, and started his apparatus, when tiny sparks began to jet off of Mr. MacKaye's clothing. 100 Soon the sparks grew to curling flames, and the man's entire body became as a mass of writhing blue and white flame. Yet afterwards when he stepped from the platform not a thread of his clothing was singed. 101 Rev. Father Ruppert, at the close, said: "Nothing I have ever seen has brought me to so fully understand God's miracles."

102 These agnostic-pantheistic devotees are even trying to make waves of ether, air and water intelligible things, and seem to think they are in the nature of a circulating medium for this world-God, like blood is the circulating medium of human's body. 103 Even so orthodox a scientist as Prof. Serviss, in the New York American of May 16th, 1903, goes into panegyrics over waves and wave motion as follows: "The undulatory theory of energy is carrying everything before it. 104 It is not saying too much to aver that wave motion is concerned in nearly all the phenomena of physical life.... 105 Think for a moment of what is included in the science of waves. In the air all sounds, all musical harmonies are waves; in the solid globe, all earthquakes are waves; in the ether light, electricity and heat are waves. 106 It is waves that make the stars visible, and yet more mysterious oscillations picture for

us on photographic plates marvelous nebulous objects. 107 Lord Kelvin has been credited with the statement that the fluttering of a butterfly's wing sets up vibrations that shake the Universe." This is superficial science, for it explains nothing. 108 Waves are simply a form of motion, and a form of motion creates nothing. Vibrations of what? Wave motions of what? Our learned friend does not inform us. 109 Vibrations and wave motions are like heat sensations, they are not realities; the force that creates them is the reality, and they are but the mode or law of operation. 110 The reality-- the force creating these vibrations and wave motions-- is electricity. 111 Yet he does not mention this fact or any cause, but gives all the credit to the motion or manner of motion, and ignores the cause, which is the most important of all.

112 Mr. Titus seems to think motion has consciousness, for he states that, "the consciousness which is wrapped up in motion" becomes more or less active in matter, and that God sleeps in the atom, and human is a potential deity. 113 These wonderful manifestations of electricity are used by these agnostic-pantheists to bolster up their theory of these being manifestations of intelligence in Nature. 114 And so they are, but they should remember that Nature is the art of God, not God Himself and God's art is wise and perfect. 115 We have a new definition of life given us which shows wonderful intelligence in the various parts of human's body. 116 It is by Prof. Justus Gaule of Zurich. In the American Journal of Behavioural-science, January, 1903. He says: "The whole organism resembles a chemical laboratory with as many apartments as there are organs or glands." 117 As all chemical changes are electric changes, a chemical laboratory is the same as an electric laboratory. 118 He continues: "The substances produced in each apartment are those needed in others either for their construction or for their work." 119 According to him life consists partly in a continual process of interchange and reconstruction, at times sufficiently violent to tear muscles, mutilate nerves and cause

stoppage of blood-- a process that goes on "in the interior of the organism without external excitement." 120 Herbert Spencer defines life as "the continuous adjustment of internal relations to external relations," but Gaule's definition of life lays stress on the vital interplay between the parts of the organism, which makes it a machine transforming external energy.

121 He asserts that the living organism is more than a machine, because it does not create energy directly from combustible materials, but only after building up its own tissues. 122 He says a machine does work, but it does not create and repair itself like living organisms. 123 He would therefore modify the prevailing definition of organic life, and make it not only a machine, but more than a machine, and emphasised the fact that life is as much an interaction between various parts of the organism as between the organism and the world of exterior matter. 124 He says one organ of the body may lose in bulk, in order that others may increase. 125 This he has studied experimentally in the frog, and finds that at one time the organs of sex grow at the expense of the muscles and liver, and at another time the reverse is true, and he insists that "life is a continuous process of reconstruction within the vital organism." 126 This is an important addition to the definition of life and tends to support the electric theory, for every function of the body is adapted to generate the electric energy needed for itself and other parts of its organism.

127 It is true that solid metals, wood and stones are in a constant state of molecular motion. 128 According to Sir Norman Lockyer, "the stones of which St. Paul's Cathedral is built consist of millions of millions of small particles called molecules, 129 and although the structure seems absolutely at rest, as if it would last forever; yet, when you get down into the intimate structure of each stone and every part of the fabric, you get nothing but a multitudinous ocean of motion." 130 Now, Mr. Titus says, "there is some inner hidden power which marshals and controls the innumerable host of molecules in

all matter and keeps them whirling with tireless energy." 131 This is true, and I fully agree with him. But he thinks it is the world-God in the atoms; and I think it is electric energy-- working under the intelligent laws of the world-God, the sun-God and the God of the Universe.

132 All these agnostic-pantheistic scientists have never considered the wonderful powers and utilities of electric currents and electric energy which permeates all matter, from atoms to worlds. 133 When they do so, they will see in electricity an intelligent and powerful causality which will satisfy their minds and lead them away from agnostic-pantheism and its follies. 134 They are great believers in evolution, and so am I, and what they require in evolution is, "the inherent power of the evolving entity to respond to external influences." 135 This being the requisite, they have all they ask in the magnetic currents and electric energy pervading all Nature. 136 It is a fact that the human body contains millions of microscopic organisms working under the dominion of one human life, 137 and, in other words, human is in own body a vast colony of microbes or protozoans supposed to be endowed with consciousness and volition.

138 A battle in germland is described by Dr. Donald Ross in investigating the microbes of malaria. This was a fight between a malaria microbe, and three phagocytes which are said to protect the purity of the blood. 139 He says: "While observing a malaria germ I saw a phagocyte make its way to the malaria germ with the intent of devouring it. 140 Ordinarily this would be easy, but the germ, instead of allowing itself to be attacked, attacked the phagocyte in a battle royal that lasted over fifteen minutes. 141 Finally the germ drew off, and hurried to where another phagocyte was wandering aimlessly. 142 "It hurled itself on the second phagocyte, pushing hard against it with its arms, while the phagocyte tried to rear up and get around and envelope the germ, but finally gave up and flattened itself against an air bubble, while the germ still kept on pummeling it. 143 After fifteen minutes another phagocyte appeared coming rapidly across the field. The

germ then left its fallen foe and attacked the newcomer. 144 The third phagocyte got enough of it in about one minute and turned squarely around, fleeing across the whole field, the germ hanging on like a snake on a dog. After five minutes the germ let go and the phagocyte slunk away. 145 The malaria germ had by this time reached the limits of its endurance in the rapidly weakening blood and finally attached itself to the glass of the slide and died."

146 Few people can believe that such scenes as these may take place in the life-giving blood currents of their own bodies. 147 Yet, if we believe those who have studied the millions of microscopic life forms which live in our bodies, such scenes may occur there. 148 According to biologists, billions of microbes are generated in our bodies too infinitesimal to be observed by a microscope. 149 And they say their fermentation in countless numbers produces a poison which creates irritation, the decrepitude of age and finally death. 150 They say visible microbes show intelligence. Engleman seems to hold that such facts as these and those connected with molecular organisms, "point to the presence of some psychic powers in the protoplasm." 151 But I do not think so. They only show the wonderful and diversified powers of electric energy under divine law to evolve myriads of microscopic life that acts under intelligent electric impulses, which in its matured form we call animal instinct.

152 Thus we have traced conscious life from the dust out of which human's body was formed up through all the intervening kingdoms of Nature until we reach human itself, who is the only creature that possesses a spiritual nature, a psychic soul, and an immortal destiny. 153 From the grossest materialism human and human science is rising at last to the truth and conception of a spiritual world of so exalted an order, and so sublime a reality, that it has been said, "to connect the mind of human with the Spirit of God." 154 All nature affirms that there is a Supreme intelligence working through electric law within the manifest Universe, which is its living electric

organism. 155 That all physical law and life are bound together in an all-embracing whole, whose myriad aspects serve to mark the path of evolution, and to spur each individual member on to progress and perfection. 156 That through the whole realm of Nature the one electric life pulsates and stirs the smallest atom and the mightiest star. 157 But above all is the eternal power of Deity and the deathless spirit of human, blended in a stronger unity than that of Nature, linked in a joyous and an eternal destiny, sovereigns of worlds, rulers of suns and masters of the Universe. 158 Because of the perfect unity and harmony of the Universe, the wisdom and regularity of all its movements and functions, and the apparent intelligence of its lower living organisms, the agnostics embrace monism and pantheism. 159 But these are not good reasons. They are better explained by the electrical theory of creation than by any other hypothesis ever offered in human history. 160 They show how and why this vast Universe is a perfect, harmonious organism, in accordance with natural law. This has never been attempted before.

161 Nikola Tesla asserts most truly that "of all the views of Nature, the one which assumes one matter and one force, and a perfect uniformity throughout, is the most scientific and the most liable to be true." Electrical creation seems to fully comply with these requirements. 162 And Prof. Crookes affirms that, "the seventy elements of our text books are not the pillars of Hercules which we must never hope to pass." 163 While Langley says there is only one force, and light and heat are merely sensations. 164 And Sir Wm. Grove refers the causation of all forms of force to one omnipresent influence. 165 And all agree there is only one matter, so they all seem to be approaching a universal belief in electrical creation. 166 And every argument made for pantheism and monism is an argument made for a stronger and better theory-- the electric theory of creation. 167 And the champion of pantheism as well as the electric theory affirms: "Since we are all bound together in one common enterprise in which progress is hastened through the

harmony of its parts, 168 altruism becomes profound wisdom, selfishness a mark of ignorance, and the highest codes of ethics are the most scientific expression of Nature's laws."

169 The superior power of this age consists in its superior ability to deal ingeniously and wisely with the tremendous forces concealed in matter, and held subject to Nature's law. 170 A knowledge and application of these forces and laws have been the means of marvelous progress, untold blessings to humanity, and have lifted life from its narrow bounds to a joyous, ecstatic sense of the glory, beauty and divineness of this world. 171 As the ancients saw this Universe it was but a small flat island in a large ocean. 172 The vast expanse above it of space and stars was a crystal vaulted roof, to keep the waters above from the waters below. 173 When it rained they said "the windows of heaven were opened." This little, flat earth then rested on the shoulders of Atlas, or the back of four elephants, who stood on a huge tortoise. 174 What a vastly different Universe the people of modern times behold! 175 This little, flat earth has expanded into a great globe, spinning through space fifty times faster than a bullet from a rifle; 176 and the blue vault of heaven that to them was the end of the Universe and a crystal wall to keep back the waters, has opened out, lifted up, and broadened to an infinity of space containing countless suns and worlds. 177 Where their narrow view saw only wonders, miracles, and innumerable myth-gods of superstition, we see the orderly processes of Nature proceeding under uniform laws, propelled by one fundamental force-- invisible electricity, and formed from one matter or substance-- the invisible atom. 178 And this vast and complex Universe is the unveiling of the eternal thought of one Almighty Deity, and the manifestations of His creative wisdom and power. 179 Thus our earth becomes a divine revelation and human a spiritual wonder. 180 Then there is a vast and mystic meaning in sea and land, in valley and mountain, in human and all living creatures; and the day uttereth speech and the

night showeth knowledge. 181 And all tell us God is in His heaven and in His earth, and in human and in all His wonderful works, and is ever present in spirit and electric power.

182 That He clothes the valleys with the verdure of prairie and forest, the hills and mountains with beauty and grandeur, and peoples the land and the sea with living creatures. 183 He gives fragrance to the flowers, songs to the birds, gladness to the sunshine and life and joy to all living. 184 In His infinite goodness He gives human vastly larger life and loftier powers than all other earthly beings, so that they may not only wonder and adore; but become co-workers with the Infinite, and understand and execute His eternal purpose, and Omnipotent Will.

185 At last all thoughtful people are being brought face to face with that creative electric energy controlled by Omniscient Spirit, which is felt in the magnetic sunshine, seen in the falling rain, the dew-drops, the white-robed lily, the blushing rose, and the joy and gladness of life itself. 186 But above all things else there is bestowed on humanity the spiritual power and loving benediction of the Great Spiritual Father, who spread out the heavens as a curtain, lifted up the mountains and started suns and worlds on the eternal pathway of their inscrutable destiny. 187 We of this generation were born into a little narrow world, soon to be destroyed by fervent heat; 188 a world cursed by its maker, where the vast majority of its inhabitants were doomed to eternal punishment. 189 Where human slavery was practiced and approved, where the divine right of kings, the degradation of the masses, wars, dueling, ox teams and slow coaches predominated.

190 We now live in a world of electrical wonders, marvelous luxuries and personal freedom, that has millions of years behind it and eternity before it. 191 Time enough to solve all problems, dispel all ignorance and discover all truth. 192 Recent experiments by Prof. Goodspeed of the Pennsylvania University prove that human is a magnet and electric organism which gives out an aurora or light from own body so

that cats, mice and other animals may see humans in the dark. 193 He has also taken photographs from the electric light or rays from the human hand. This was also done by French scientists six years ago and is mentioned in "Invisible Light."

194 On May 26th, 1903, Prof. Percy Lowell, of Flagstaff Observatory, Arizona, announced that a brilliant projection has been discovered on the planet Mars, and was seen for thirty-five minutes. 195 Some think it is Mars signalling to us; others that it is a snow-capped mountain, or a luminous cloud; but all agree that it shows Mars to be inhabited.

196 Prof. J. A. Fleming of the London University, seems to agree with my conception of electricity. 197 He also considers it as a refined matter and the electron as the atom of electricity, in the "*Popular Science Monthly*" of June, 1903. 198 He asserts that: "The electron isolated presents itself as electricity of the negative kind; and in combination with co-electrons and other electrons it forms the atoms of ponderable matter. 199 At rest the electrons or co-electrons constitute an electric charge, and when in motion it is an electric current.

200 "A steady flux or drift of electrons in one direction, and co-electrons in an opposite direction, is a continuous electric current, while their mere oscillation about a mean position is an alternating current. 201 The vibration of an electron, if sufficiently rapid, enables it to establish electric waves in the ether; this is the cause or foundation of wireless telegraphy. 202 The electrons or atoms of electricity can, in some cases, make their way, freely, between the atoms of ponderable matter. 203 Where this can take place easily, we call the material a good conductor. 204 Electrons in their free condition constitute electricity, and the electrons are atoms of electricity." 205 These electrons and their currents of electricity, I contend, are the creative cosmic force of the Universe, evolving all visible form and substance, and producing all light, heat, vital force and so called gravitation.

206 Radium is one form of electricity or electrons in marvelous combination and are

said to have the power, first, of giving out light perpetually without any exciting cause; 207 second, to emit rays that penetrate solids like X-rays; third, the property of acting on sensitised plates; fourth, of causing air to conduct electricity; and fifth, the emission of heat.

208 Sir Oliver Lodge, in a May, 1893, London periodical, shows the advance of science in recognising the forces of Nature and the dominion of mind and spirit over the material world. 209 He affirms that: "the whole effort of civilisation would be futile if we could not guide the powers of Nature. 210 The powers are there, else we should be helpless; but life and mind are outside of these powers and can direct them along an organised course. 211 And this same life or mind, as we know it, is accessible to petition, to affection, to pity, to a multitude of non-physical influences; and hence, indirectly the little plot of physical Universe which is now our temporary home has become amenable to truly spiritual control." 212 This sustains my contention that the spirit life of human is outside of matter and material powers and can control and direct them. 213 This is truth, well spoken, and illustrates the electric theory, for the powers of Nature is the electric energy in Nature, and this is guided, and under the control of mind and spirit-- the mind or spirit of human and the omnipotent spirit of Deity. 214 And the future will reveal the wonderful controlling power of mind over matter through electric energy.

215 As the sun may send to each planet a different vibration or current of wireless electricity, and each planet will receive only such current as it attracts and to which it is attuned; 216 so the message of Deity to the souls of humans will only reach and affect those souls which are attuned to receive them. 217 This in the vast realms of Nature is the law of electric or mutual attraction, and in the invisible realms of spirit the same universal law applies. 218 This great principle of mutual attraction, receptivity and mutual adjustment governs everywhere in the universal realms of Nature and truth.

219 Rev. David J. Burrell, in his sermon on "*Wireless Messages of God*," sets forth some strong scientific reasons why the natural man cannot discern spiritual things. 220 Under this universal law of mutual adjustment he says: "If you strike a tuning fork keyed to middle C it will awaken a response in another fork, provided the latter is keyed to the same pitch, but not otherwise." 221 And he applies it to people who respond to spiritual influences and those who are spiritual non-conductors.

222 This is the basic fact in wireless telegraphy. At Cape Cod there is a transmitting station consisting of four steel towers with a bunch of wires suspended from the top and meeting at a common point like an inverted cone. 223 If the power be applied to the apex of this cone the wires begin to tremble; 224 and the current, oscillating at a rate say of nine hundred thousand vibrations per second, creates a series of corresponding vibrations in the ether, just as a stone cast into a lake sends out concentric circles. 225 This ether wave or message speeds outward with incalculable rapidity in search of its receiver; and it will cross the ocean to find it.

226 Now, there is such a receiver at Poldhu, in Cornwall, where the wires are precisely attuned to the transmitter at Cape Cod; that is, their vibrations are the same, say nine hundred thousand per second; 227 so that the message sent from Cape Cod meets no response until it finds its sympathetic station at Poldhu, and this attracts and welcomes it. 228 Marconi's system of wireless telegraphy is not an invention, but a discovery of a natural law or process which has been going on continuously through all the realms of space since time began.

229 The sun as the great source and center of energy in our solar system is constantly sending out messages of light and life to its family of planets. 230 It is a scientific fact clearly proven that a ray of light is an electric wireless message from the sun to the earth, and it could not be received unless the earth attracted it, and was attuned to it. 231 For here the same law prevails between sun and earth that no message can be received

except by some object which is sympathetically attuned to it.

232 Prof. Pupin suggests that a beam of light representing a certain number of vibrations per second, intended to convey the colour red, is sent forth from the sun. 233 It speeds through space until it reaches the earth; where intent upon its eager quest it passes unresting through all the meadows, since no grass-blade is adjusted to receive it; 234 no daisy or buttercup, no lily or heliotrope being disposed to welcome it; it passes over all gardens until it finds a rose; and here it pauses and finds welcome. 235 Why? Because the rose has a natural affinity for it, and like two lovers in mutual affection they meet and embrace each other, and are blended in the harmonious union of nature's electric law of life, growth and beauty. 236 The same law of mutual attraction and wireless telegraphy creates the lofty elm, the towering oak, the blade of grass and the waving fields of golden grain in the Autumnal harvest.

237 Dr. Burrell makes an apt and beautiful illustration of these truths of Nature in their analogy to spiritual laws. 238 He says: "This process which has been discovered to be so prevalent in Nature has infinite field and scope of operation in the province of spiritual things. 239 God as the great transmitter of truth bears to the spiritual world a relation corresponding to that of the sun in the natural world. 240 Assuming that there is a God, and that we are created in His image and after His likeness, it follows as an inevitable conclusion that He will somehow reveal Himself to His children and hold converse with them. 241 But here is the application of the principal referred to: The person who would hear the wireless messages of God must Himself be attuned or adjusted to the character of God."

242 This is superlative truth that all wise people should consider and not have occasion to lament, like Charles Darwin, at the close of his long life of physical investigation, that he had starved his spiritual nature. 243 For our thoughts depend on our receptive natures and our lives are just what we make them, and our future is according to our character and the

inscrutable laws of life and destiny.

244 O! the wisdom of the wisest;
O! the goodness of the good!
245 Gleaning through the sweep of ages where Divinity hath stood,
246 Shining footprints of celestials, through the mystic gleaming bars,
247 Of the ever past and present speaking in the earth and stars.
248 How they teach the lofty spirit of the beautiful Beyond,
249 Of God's uttered truth and goodness, if but yearning souls respond.

SENSE AND IMAGINATION

George Stuart Fullerton

22 Every one distinguishes between things perceived and things only imagined. With open eyes I see the desk before me; with eyes closed, I can imagine it. 2 I lay my hand on it and feel it; I can, without laying my hand on it, imagine that I feel it. 3 I raise my eyes, and see the pictures on the wall opposite me; I can sit here and call before my mind the image of the door by which the house is entered.

4 What is the difference between sense and imagination? 5 It must be a difference of which we are all somehow conscious, for we unhesitatingly distinguish between the things we perceive and the things we merely imagine. 6 It is well to remember at the outset that the two classes of experiences are not wholly different. 7 The blue colour that I imagine seems blue. It does not lose this quality because it is only imaginary. The horse that I imagine seems to have four legs, like a horse perceived. 8 As I call it before my mind, it seems as large as the real horse. Neither the colour, nor the size, nor the distribution of parts, nor any other attribute of the sort appears to be different in the imaginary object from what it is in the object as given in sensation. 9 The two experiences are, nevertheless, not the same; and everyone knows that they are not the same. 10 One difference that roughly marks out the two classes of experiences from one another is that, as a rule, our sense-experiences are more vivid than

are the images that exist in the imagination.

11 I say, as a rule, for we cannot always remark this difference. Sensations may be very clear and unmistakable, but they may also be very faint and indefinite. 12 When a person lays his hand firmly on my shoulder, I may be in little doubt whether I feel a sensation or do not; 13 but when one touches my back very lightly, I may easily be in doubt, and may ask myself in perplexity whether I have really been touched or whether I have merely imagined it. 14 As a vessel recedes and becomes a mere speck upon the horizon, I may well wonder, before I feel sure that it is really quite out of sight, whether I still see the dim little point, or whether I merely imagine that I see it.

15 On the other hand, things merely imagined may sometimes be very vivid and insistent. 16 To some persons, what exists in the imagination is dim and indefinite in the extreme. 17 Others imagine things vividly, and can describe what is present only to the imagination almost as though it were something seen. 18 Finally, we know that an image may become so vivid and insistent as to be mistaken for an external thing. 19 That is to say, there are such things as hallucinations. 20 The criterion of vividness will not, therefore, always serve to distinguish between what is given in the sense and what is only imagined. 21 And, indeed, it becomes evident, upon reflection, that we do not actually make it our ultimate test. 22 We may be quite willing to admit that faint sensations may come to be confused with what is imagined, with "ideas," but we always regard such a confusion as somebody's error. 23 We are not ready to admit that things perceived faintly are things imagined, or that vivid "ideas" are things perceived by sense.

24 Let us come back to the illustrations with which we started. How do I know that I perceive the desk before me; and how do I know that, sitting here, I imagine, and do not see, the front door of the house? 25 My criterion is this: when I have the experience I call "seeing my desk," the bit of experience which presents itself as

my desk is in a certain setting. 26 That is to say, the desk seen must be in a certain relation to my body, 48 and this body, as I know it, also consists of experiences. 27 Thus, if I am to know that I see the desk, I must realise that my eyes are open, that the object is in front of me and not behind me, etc. 28 The desk as seen varies with the relation to the body in certain ways that we regard as natural and explicable. 29 When I am near it, the visual experience is not just what it is when I recede from it. 30 But how can I know that I am near the desk or far from it? What do these expressions mean? 31 Here I may say that nearness and remoteness must be measured for me in experiences of some sort, or I would never know anything as near to or far from my body. 32 Thus, all our sensory experiences are experiences that fall into a certain system or order. 33 It is a system which we all recognise implicitly, for we all reject as merely imaginary those experiences which lack this setting. 34 If my eyes are shut-- I am speaking now of the eyes as experienced, as felt or perceived, as given in sensation-- I never say; "I see my desk," no matter how vivid the image of the object.

35 Those who believe in "second sight" sometimes talk of seeing things not in this setting, but the very name they give to the supposed experience indicates that there is something abnormal about it. 36 No one thinks it remarkable that I see the desk before which I perceive myself to be sitting with open eyes. 37 Every one would think it strange if I could see and describe the table in the next room, now shut away from me. 38 When a person thinks to hears own name pronounced, and, turning the head, seeks in vain for the speaker, and sets own experience down as a hallucination. 39 One says: I did not really hear that; I merely imagined it. 40 May one not, with open eyes, have a hallucination of vision, just as one may seem to hear own name pronounced when no one is by? 41 Certainly. But in each case the experience may be proved to be a hallucination, nevertheless. It may be recognised that the sensory setting is incomplete, though it may not, at first, seem so. 42 Thus the unreal

object which seems to be seen may be found to be a thing that cannot be touched. 43 Or, when one has attained to a relatively complete knowledge of the system of experiences recognised as sensory, one may make use of roundabout methods of ascertaining that the experience in question does not really have the right setting. 44 Thus, the ghost which is seen by the terrified peasant at midnight, but which cannot be photographed, we may unhesitatingly set down as something imagined and not really seen.

45 All our sensations are, therefore, experiences which take their place in a certain setting. This is our ultimate criterion. 46 We need not take the word of the philosopher for it. We need only reflect, and ask ourselves how we know that, in a given case, we are seeing or hearing or touching something, and are not merely imagining it. 47 In every case, we shall find that we come back to the same test. 48 In common life, we apply the test instinctively, and with little realisation of what we are doing. 49 And if we turn to the behavioural scientists, whose business it is to be more exact and scientific, we find that they gives us only a refinement of this same criterion. 50 It is important to them to distinguish between what is given in sensation and what is furnished by memory or imagination, and they tells us that sensation is the result of a message conducted along a sensory nerve to the brain. 51 If we ask behavioural scientists how they know that the body they are talking about are a real body, and not merely an imagined one, they have to fall back upon the test which is common to us all. 52 A real hand is one which we see with the eyes open, and which we touch with the other hand. 53 If our experiences of our own body had not the setting which marks all sensory experiences, we could never say: 'I perceive that my body is near the desk.' 54 When we call our body real, as contrasted with things imaginary, we recognise that this group of experiences belongs to the class described; it is given in sensation, and is not merely thought of.

55 It will be observed that, in distinguishing between sensations

and things imaginary, we never go beyond the circle of our experiences. 56 We do not reach out to a something beyond or behind experiences, and say: ‘When such a reality is present, we may affirm that we have a sensation, and when it is not, we may call the experience imaginary.’ 57 If there were such a reality as this, it would do us little good, for since it is not supposed to be perceived directly, we should have to depend upon the sensations to prove the presence of the reality, and could not turn to the reality’ and ask it whether we were or were not experiencing a sensation. 58 The distinction between sensations and what is imaginary is an observed distinction. It can be proved that some experiences are sensory and that some are not. 59 This means that, in drawing the distinction, we remain within the circle of our experiences. 60 There has been much unnecessary mystification touching this supposed reality behind experiences. 61 But in what sense is the word "reality" may properly be used, and in what sense it may not. There is a danger in using it loosely and vaguely.

MAY WE CALL "THINGS" GROUPS OF SENSATIONS?

George Stuart Fullerton

23 Now, the external world seems to the plain person to be directly given in own sense experiences. 2 One is willing to admit that the table in the next room, of which one is merely thinking, is known at one remove, so to speak. 3 But this desk here before you: is it not known directly? 4 Not the mental image, the mere representative, but the desk itself, a something that is physical and not mental? 5 And the behaviourists, whatever their theory of the relation between the mind and the world, seems to support this, at least, 6 in so far as to maintain that in sensation the external world is known as directly as it is possible for the external world to be known, and that one can get no more of it than is presented in sensation. 7 If a sense is lacking, an aspect of the world

as given is also lacking; if a sense is defective, as in the colour-blind, the defect is reflected in the world upon which one gazes. 8 Such considerations, especially when taken together with what has been said at the close of the last section about the futility of looking for a reality behind our sensations, may easily suggest rather a startling possibility. 9 May it not be, if we really are shut up to the circle of our experiences, that the physical things, which we have been accustomed to look upon as non-mental, are nothing more than complexes of sensations? 10 Granted that there seems to be presented in our experience a material world as well as a mind, may it not be that this material world is a mental thing of a certain kind-- a mental thing contrasted with other mental things, such as imaginary things? 11 This question has always been answered in the affirmative by the idealists, who claim that all existence must be regarded as psychical existence.

12 In the first place, I remark that even the plain person distinguishes somehow between own sensations and external things. 13 One thinks that one has reason to believe that things do not cease to exist when one no longer has sensations. 14 Moreover, one believes that things do not always appear to own senses as they really are. 15 If we tell you that own sensations are the things, it shocks your common sense. 16 You answer: Do you mean to tell me that complexes of sensation can be on a shelf or in a drawer? Can be cut with a knife or broken with the hands? 17 One feels that there must be some real distinction between sensations and the things without one.

18 Now, the notions of the plain person on such matters as these are not very clear, and what one says about sensations and things is not always edifying. 19 But it is clear that one feels strongly that the person who would identify them is obliterating a distinction to which own experience testifies unequivocally. 20 We must not hastily disregard one protest. We are sometimes right in our feeling that things are not identical, even when we cannot prove it. 21 In the second place, I remark that, in this instance, the plain person is in the right, and can be shown to be in

the right. 22 "Things" are not groups of sensations.

THE DISTINCTION BETWEEN SENSATIONS AND "THINGS"

George Stuart Fullerton

24 Suppose that I stand in my study and look at the fire in the grate. I am experiencing sensations, and am not busied merely with an imaginary fire. 2 But may my whole experience of the fire be summed up as an experience of sensations and their changes? 3 Let us see. If I shut my eyes, the fire disappears. Does anyone suppose that the fire has been annihilated? No. We say, I no longer see it, but nothing has happened to the fire.

4 Again, I may keep my eyes open, and simply turn my head. The fire disappears once more. 5 Does anyone suppose that my turning my head has done anything to the fire? We say unhesitatingly, my sensations have changed, but the fire has remained as it was. 6 Still, again, I may withdraw from the fire. Its heat seems to be diminished. Has the fire really grown less hot? 7 And if I could withdraw to a sufficient distance, I know that the fire would appear to me smaller and less bright. 8 Could I get far enough away to make it seem the faintest speck in the field of vision, would I be tempted to claim that the fire shrunk and grew faint merely because I walked away from it? Surely not. 9 Now, suppose that I stand on the same spot and look at the fire without turning my head. 10 The stick at which I am gazing catches the flame, blazes up, turns red, and finally falls together, a little mass of gray ashes. 11 Shall I describe this by saying that my sensations have changed, or may I say that the fire itself has changed? 12 The plain person and the philosopher alike use the latter expression in such a case as this.

13 Let us take another illustration. I walk towards the distant house on the plain before me. What I see as my goal seems to grow larger and brighter. It does not occur to me to maintain that the house changes as I advance. 14 But, at a given instant, changes of a different sort make their

appearance. Smoke arises, and flames burst from the roof. 15 Now I have no hesitation in saying that changes are taking place in the house. It would seem foolish to describe the occurrence as a mere change in my sensations. Before it was my sensations that changed; now it is the house itself.

16 We are drawing this distinction between changes in our sensations and changes in things at every hour in the day. 17 I cannot move without making things appear and disappear. If I wag my head, the furniture seems to dance, and I regard it as a mere seeming. I count on the clock's going when I no longer look upon its face. 18 It would be absurd to hold that the distinction is a mere blunder, and has no foundation in our experience. 19 The role it plays is too important for that. If we obliterate it, the real world of material things which seems to be revealed in our experience melts into a chaos of fantastic experiences, whose appearances and disappearances seem to be subject to no law. 20 And it is worthy of remark that it is not merely in common life that the distinction is drawn. Every person of science must give heed to it. 21 The behaviourists does, it is true, pay much attention to sensations; but even they distinguishes between the sensations which they are studying and the material things to which they relates them, such as brains and sense-organs. 22 And those who cultivate the physical sciences strive, when they give an account of things and their behaviour, to lay before us a history of changes analogous to the burning of the stick and of the house, excluding mere changes in sensations.

23 There is no physicist or botanist or zoölogist who has not our common experience that things as perceived by us our experiences of things-- appear or disappear or change their character when we open or shut our eyes or move about. 24 But nothing of all this appears in their books. What they are concerned with is things and their changes, and they do not consider such matters as these as falling within their province. 25 If a botanist could not distinguish between the changes which take place in a plant, and the changes

which take place in his sensations as he is occupied in studying the plant, but should tell us that the plant grows smaller as one recedes from it, we should set him down as weak-minded.

26 That the distinction is everywhere drawn, and that we must not obliterate it, is very evident. 27 But we are in the presence of what has seemed to many people a grave difficulty. 48 Are not things presented in our experience only as we have sensations? 28 What is it to perceive a thing? Is it not to have sensations? How, then, can we distinguish between sensations and things? 29 We certainly do so all the time, in spite of the protest of the philosopher; but many of us do so with a haunting sense that our behaviour can scarcely be justified by the reason. 30 Our difficulty, however, springs out of an error of our own. Grasping imperfectly the full significance of the word "sensation," we extend its use beyond what is legitimate, and we call by that name experiences which are not sensations at all. 31 Thus the external world comes to seem to us to be not really a something contrasted with the mental, but a part of the mental world. 32 We accord to it the attributes of the latter, and rob it of those distinguishing attributes which belong to it by right. 33 When we have done this, we may feel impelled to say, that things are not really "outside" of us, as they seem to be, but are merely "projected" outside-- thought of as if they were "outside."

34 Let us come back to the first of the illustrations given above, the case of the fire in my study. As I stand and look at it, what shall I call the red glow which I observe? 35 Shall I call it a ‘quality’ of a thing, or shall I call it a ‘sensation’? To this I answer: I may call it either the one or the other, according to its setting among other experiences. 36 We have seen that sensations and things merely imaginary are distinguished from one another by their setting. 37 With open eyes we see things; with our eyes closed we can imagine them: we see what is before us; we imagine what lies behind our backs. 38 If we confine our attention to the bit of experience itself, we have no

means of determining whether it is sensory or imaginary. Only its setting can decide that point. 39 Here, we have come to another distinction of much the same sort. 40 That red glow, that bit of experience, taken by itself and abstracted from all other experiences, cannot be called either a sensation or the quality of a thing. 41 Only its context can give us the right to call it the one or the other. This ought to become clear when we reflect upon the illustration of the fire. 42 We have seen that one whole series of changes has been unhesitatingly described as a series of changes in my sensations. Why was this? 43 Because it was observed to depend upon changes in the relations of my body, my senses (a certain group of experiences), to the bit of experience I call the fire. 44 Another series was described as a series of changes in the fire. Why? Because, the relation to my senses remaining unchanged, changes still took place, and had to be accounted for in other ways. 45 It is a matter of common knowledge that they can be accounted for in other ways. 46 This is not a discovery of the philosopher. He can only invite us to think over the matter and see what the unlearned and the learned are doing at every moment. 47 Sometimes they are noticing that experiences change as they turn their heads or walk toward or away from objects; sometimes they abstract from this, and consider the series of changes that take place independently of this. 48 That bit of experience, that red glow, is not related only to my body. 49 Such experiences are related also to each other; they stand in a vast independent system of relations, which, as we have seen, the person of science can study without troubling oneself to consider sensations at all. 50 This system is the external world-- the external world as known or as knowable, the only external world that it means anything for us to talk about. 51 As having its place in this system, a bit of experience is not a sensation, but is a quality or aspect of a thing.

52 Sensations, then, to be sensations, must be bits of experience considered in their relation to some organ of sense.

53 They should never be confused with qualities of things, which are experiences in a different setting. 54 It is as unpardonable to confound the two as it is to confound sensations with things imaginary. 55 We may not, therefore, say that "things" are groups of sensations. We may, if we please, describe them as complexes of qualities. 56 And we may not say that the "things" we perceive are really "inside" of us and are merely "projected outside."

57 What can "inside" and "outside" mean? Only this. 58 We recognise in our experience two distinct orders, the objective order, the system of phenomena which constitutes the material world, and the subjective order, the order of things mental, to which belong sensations and "ideas." 59 That is "outside" which belongs to the objective order. The word has no other meaning when used in this connection. 60 That is "inside" which belongs to the subjective order, and is contrasted with the former. 61 If we deny that there is an objective order, an external world, and say that everything is "inside," we lose our distinction, and even the word "inside" becomes meaningless. It indicates no contrast. 62 When people fall into the error of talking in this way, what they do is to keep the external world and gain the distinction, and at the same time to deny the existence of the world which has furnished it. 63 In other words, they put the clerk into a telephone exchange, and then tell us that the exchange does not really exist. 64 The clerk is inside--of what? The clerk is inside of nothing. Then, can the clerk really be inside? 65 We see, thus, that the plain person and the person of science are quite right in accepting the external world. 66 The objective order is known as directly as is the subjective order. Both are orders of experiences; they are open to observation, and we have, in general, little difficulty in distinguishing between them.

ORIGIN

THE EXISTENCE OF MATERIAL THINGS

George Stuart Fullerton

25 One difficulty seems to remain and to call for a solution. 2 We all believe that material things exist when we no longer perceive them. We believe that they existed before they came within the field of our observation. 3 In these positions the person of science supports us. 4 The astronomer has no hesitation in saying that the comet, which has sailed away through space, exists, and will return. 5 The geologist describes for us the world as it was in past ages, when no eye was opened upon it. 6 But has it not been stated above that the material world is an order of experiences? 7 And can there be such a thing as an experience that is not experienced by somebody? 8 In other words, can the world exist, except as it is perceived to exist?

9 This seeming difficulty has occasioned much trouble to philosophers in the past. 10 Bishop Berkeley (1684-1753) said, "To exist is to be perceived." There are those who agree with him at the present day. 11 Their difficulty would have disappeared had they examined with sufficient care the meaning of the word "exist." 12 We have no right to pass over the actual uses of such words, and to give them a meaning of our own. 13 If one thing seems as certain as any other, it is that material things exist when we do not perceive them. 14 On what ground may the philosopher combat the universal opinion, the dictum of common sense and of science? 15 When we look into his reasonings, we find that he is influenced by the error discussed at length in the last section-- he has confused the phenomena of the two orders of experience.

16 I have said that, when we concern ourselves with the objective order, we abstract or should abstract, from the relations which things bear to our senses. 17 We account for phenomena by referring to other phenomena which we have reason to accept as their physical conditions or causes. 18 We do not consider that a physical cause is effective only while we perceive it. 19 When we come back to this notion of our

perceiving a thing or not perceiving it, we have left the objective order and passed over to the subjective. 20 We have left the consideration of "things" and have turned to sensations. There is no reason why we should do this. The physical order is an independent order, as we have seen. 21 The person of science, when one is endeavouring to discover whether something or quality of a thing really existed at some time in the past, is not in the least concerned to establish the fact that someone saw it. 22 No one ever saw the primitive fire-mist from which, as we are told, the world came into being. But the scientist cares little for that. They are concerned only to prove that the phenomena they are investigating really have a place in the objective order. 23 If one decides that they have, one is satisfied; one has proved something to exist. 24 To belong to the objective order is to exist as physical thing or quality.

25 When the plain person and the person of science maintain that a physical thing exists, they use the word in precisely the same sense. 26 The meaning they give to it is the proper meaning of the word. It is justified by immemorial usage, and it marks a real distinction. 27 Shall we allow the philosopher to tell us that we must not use it in this sense, but must say that only sensations and ideas exist? Surely not. 28 This would mean that we permit the philosopher to obliterate for us the distinction between the external world and what is mental. 29 But is it right to use the word "experience" to indicate the phenomena which have a place in the objective order? 30 Can an experience be anything but mental?

31 There can be no doubt that the suggestions of the word are unfortunate-- it has what we may call a subjective flavour. 32 It suggests that, after all, the things we perceive are sensations or percepts, and must, to exist at all, exist in a mind. 33 As we have seen, this is an error, and an error which we all avoid in actual practice. 34 We do not take sensations for things, and we recognise clearly enough that it is one thing for a material object to

exist and another for it to be perceived. Why, then, use the word "experience"?
35 Simply because we have no better word. We must use it, and not be misled by the associations which cling to it. 36 The word has this great advantage: it brings out clearly the fact that all our knowledge of the external world rests ultimately upon those phenomena which, when we consider them in relation to our senses, we recognise as sensations. 37 We cannot start out from mere imaginings to discover what the world was like in the ages past. 38 It is this truth that is recognised by the plain person, when one maintains that, in the last resort, we can know things only in so far as we see, touch, hear, taste, and smell them; 39 and by the behaviourists, when they tells us that, in sensation, the external world is revealed as directly as it is possible that it could be revealed. 40 But it is a travesty on this truth to say that we do not know things, but know only our sensations of sight, touch, taste, hearing, and the like.

COMMON THOUGHT
George Stuart Fullerton

26 Those who have given little attention to the study of the human mind are apt to suppose that, when the infant opens its eyes upon the new world of objects surrounding own small body; the newborn sees things much as they do themselves. 2 They are ready to admit that the newborn does not know much about things, but it strikes them as absurd for anyone to go so far as to say that the newborn does not see things --the things out there in space before own eyes. 3 Nevertheless, the behaviourists tells us that it requires quite a course of education to enable us to see things-- 4 not to have vague and unmeaning sensations, but to see things, things that are known to be touchable as well as seeable, things that are recognised as having size and shape and position in space. 5 And he aims a still severe blow at our respect for the infant when he goes on to inform us that the little creature is as ignorant of ownself as it is of things; 6 that in own small world

of as yet unorganised experiences there is no self that is distinguished from other things; 7 that the newborn may cry vociferously without knowing who is uncomfortable, and may stop own noise without knowing who has been taken up into the nurse's arms and has experienced an agreeable change.

8 This chaotic little world of the dawning life is not our world, the world of common thought, the world in which we all live and move in maturer years; nor can we go back to it on the wings of memory. 9 We seem to ourselves to have always lived in a world of things,-- things in time and space, material things. 10 Among these things there is one of peculiar interest, and which we have not placed upon a par with the rest, our own body, which sees, tastes, touches, other things. 11 We cannot remember a time when we did not know that with this body are somehow bound up many experiences which interest us acutely; for example, experiences of pleasure and pain. 12 Moreover, we seem always to have known that certain of the bodies which surround our own rather resemble our own, and are in important particulars to be distinguished from the general mass of bodies.

13 Thus, we seem always to have been living in a world of things and to have recognised in that world the existence of ourselves and of other people. 14 When we now think of "ourselves" and of "other people," we think of each of the objects referred to as possessing a ‘mind’. 15 May we say that, as far back as we can remember, we have thought of ourselves and of other persons as possessing minds? Hardly. 16 The young child does not seem to distinguish between mind and body, and, in the vague and fragmentary pictures which come back to us from our early life, certainly this distinction does not stand out.

17 The child may be the completest of egoists, it may be absorbed in itself and all that directly concerns this particular self, and yet it may make no conscious distinction between a bodily self and a mental, between mind and body. 18 It does not explicitly recognise its world as a

world that contains minds as well as bodies. 19 But, however it may be with the child in the earlier stages of its development, we must all admit that the mature person does consciously recognise that the world in which one finds own-self is a world that contains minds as well as bodies. 20 It never occurs to one to doubt that there are bodies, and it never occurs to one to doubt that there are minds.

21 Do you not perceive that you have a body and a mind? 22 Have you not abundant evidence that your mind is intimately related to your body? 23 When you shuts your eyes, you no longer sees, and when you stops your ears, you no longer hears; when your body is bruised, you feels pain; when you wills to raise your hand, your body carries out the mental decree. 24 Other people act very much as you does; they walk and they talk, they laugh and they cry, they work and they play, just as you does. In short, they act precisely as though they have minds like your own. 25 What more natural than to assume that, as you yourself gives expression, by the actions of your body, to the thoughts and emotions in your mind, so your neighbor does the same?

26 We must not allow ourselves to underrate the plain person's knowledge either of bodies or of minds. 27 It seems, when one reflects upon it, a sufficiently wonderful thing that a few fragmentary sensations should automatically receive an interpretation which conjures up before the mind a world of real things; 28 that, for example, the little patch of colour sensation which I experience when I turn my eyes toward the window should seem to introduce me at once to a world of material objects lying in space, clearly defined in magnitude, distance, and direction; 29 that an experience no more complex should be the key which should unlock for me the secret storehouse of another mind, and lay before me a wealth of thoughts and emotions not my own. 30 From the poor, bare, meaningless world of the dawning intelligence to the world of common thought, a world in which real things with their manifold properties, things material and things mental, bear their part, is indeed a long step.

31 And we should never forget that one who would go farther, one who would strive to gain a better knowledge of matter and of mind by the aid of science and of philosophical reflection, must begin own labours on this foundation which is common to us all. 32 How else can one begin than by accepting and more critically examining the world as it seems revealed in the experience of the race?

SCIENTIFIC KNOWLEDGE
George Stuart Fullerton

27 Still, the knowledge of the world which we have been discussing is rather indefinite, inaccurate, and unsystematic. 2 It is a sufficient guide for common life, but its deficiencies may be made apparent. 3 He who wishes to know matter and mind better cannot afford to neglect the sciences.

4 Now, it is important to observe that although, when the plain person grows scientific, great changes take place in one knowledge of things, yet the way of looking at the mind and the world remains in general much what it was before. 5 To prevent this statement from being misunderstood, I must explain it at some length. 6 Let us suppose that the person in question takes up the study of botany. Need he do anything very different from what is done more imperfectly by every intelligent person who interests oneself in plants? 7 There in the real material world before him are the same plants that he observed somewhat carelessly before. 8 He must collect his information more systematically and must arrange it more critically, but his task is not so much to do something different as it is to do the same thing much better. 9 The same is evidently true of various other sciences, such as geology, zoölogy, physiology, sociology.

10 Some people have much accurate information regarding rocks, animals, the functions of the bodily organs, the development of a given form of society, and other things of the sort, and other people have but little; 11 and yet it is usually not difficult for the person

who knows much to make the person who knows little understand, at least, what one is talking about. 12 He is busying himself with things-- the same things that interest the plain person, and of which the plain person knows something. 13 He has collected information touching their properties, their changes, their relationships; but to him, as to his less scientific neighbour, they are the same things they always were,-- things that he has known from the days of childhood. 14 Perhaps it will be admitted that this is true of such sciences as those above indicated, but doubted whether it is true of all the sciences, even of all the sciences which are directly concerned with 'things' of some sort. 15 For example, to the plain person the world of material things consists of things that can be seen and touched. Many of these seem to fill space continuously. 16 They may be divided, but the parts into which they may be divided are conceived as fragments of the things, and as of the same general nature as the wholes of which they are parts. 17 Yet the chemist and the physicist tell us that these same extended things are not really continuous, as they seem to us to be, 18 but consist of swarms of imperceptible atoms, in rapid motion, at considerable distances from one another in space, and grouped in various ways.

19 What has now become of the world of realities to which the plain person pinned own faith? 20 It has come to be looked upon as a world of appearances, of phenomena, of manifestations, under which the real things, themselves imperceptible, make their presence evident to our senses. 21 Is this new, real world the world of things in which the plain person finds own-self, and in which one has felt so much at home? 22 A closer scrutiny reveals that the world of atoms and molecules into which the person of science resolves the system of material things is not, after all, so very different in kind from the world to which the plain person is accustomed. 23 One can understand without difficulty the language in which it is described, and one can readily see how a

person may be led to assume its existence.

24 The atom is not, it is true, directly perceivable by sense, but it is conceived as though it is and its motions were thus perceivable. 25 The plain person has long known that things consist of parts which remain, under some circumstances, invisible. 26 When one approaches an object from a distance, one sees parts which one could not see before; 27 and what appears to the naked eye a mere speck without perceptible parts is found under the microscope to be an insect with its full complement of members. 28 Moreover, one has often observed that objects which appear continuous when seen from a distance are evidently far from continuous when seen close at hand. 29 As we walk toward a tree we can see the indefinite mass of colour break up into discontinuous patches; 30 a fabric, which presents the appearance of an unbroken surface when viewed in certain ways may be seen to be riddled with holes when held between the eye and the light. 31 There is no person who has not some acquaintance with the distinction between appearance and reality, and who does not make use of the distinction in common life.

32 Nor can it seem a surprising fact that different combinations of atoms should exhibit different properties. 33 Have we not always known that things in combination are apt to have different properties from the same things taken separately? 34 One who does not know so much as this is not fit even to be a cook.

35 No, the imperceptible world of atoms and molecules is not by any means totally different from the world of things in which the plain person lives. 36 These little objects and groups of objects are discussed very much as we discuss the larger objects and groups of objects to which we are accustomed. 37 We are still concerned with ‘things’ which exist in space and move about in space; 38 and even if these things are small and are not very familiarly known, no intellectual revolution is demanded to enable a person to understand the words of the scientist who is talking about them, and to understand as well

the sort of reasonings upon which the doctrine is based.

OF SPACE: WHAT ARE WE SUPPOSED TO KNOW ABOUT IT?

George Stuart Fullerton

28 The plain person may admit that he is not ready to hazard a definition of space, but he is certainly not willing to admit that he is wholly ignorant of space and of its attributes. 2 He knows that it is something in which material objects have position and in which they move about; 3 He knows that it has not merely length, like a line, nor length and breadth, like a surface, but has the three dimensions of length, breadth, and depth; 4 He knows that, except in the one circumstance of its position, every part of space is exactly like every other part, and that, although objects may move about in space, it is incredible that the spaces themselves should be shifted about.

5 Those who are familiar with the literature of the subject know that it has long been customary to make regarding space certain of other statements to which the plain person does not usually make serious objection when one is introduced to them. 6 Thus it is said:- (1) The idea of space is necessary. We can think of objects in space as annihilated, but we cannot conceive space to be annihilated. 7 We can clear space of things, but we cannot clear away space itself, even in thought. 8 (2) Space must be infinite. We cannot conceive that we should come to the end of space. 9 (3) Every space, however small, is infinitely divisible. 10 That is to say, even the minutest space must be composed of spaces. We cannot, even theoretically, split a solid into mere surfaces, a surface into mere lines, or a line into mere points.

11 Against such statements the plain person is not impelled to rise in rebellion, for one can see that there seems to be some ground for making them. 12 One can conceive of any particular material object as annihilated, and of the place which it occupied as standing empty; 13 but one cannot go on and conceive

of the annihilation of this bit of empty space. Its annihilation would not leave a gap, for a gap means a bit of empty space; 14 nor could it bring the surrounding spaces into juxtaposition, for one cannot shift spaces, and, in any case, a shifting that is not a shifting through space is an absurdity. 15 Again, one cannot conceive of any journey that would bring oneself to the end of space. 16 There is no more reason for stopping at one point than at another; why not go on? What could end space?

17 As to the infinite divisibility of space, have we not, in addition to the seeming reasonableness of the doctrine, the testimony of all the mathematicians? 18 Does any one of them ever dream of a line so short that it cannot be divided into two shorter lines, or of an angle so small that it cannot be bisected?

SPACE AS NECESSARY
AND SPACE AS INFINITE
George Stuart Fullerton

29 That these statements about space contain truth one should not be in haste to deny. 2 It seems silly to say that space can be annihilated, or that one can travel "over the mountains of the moon" in the hope of reaching the end of it.

3 And certainly no prudent person wishes to quarrel with that coldly rational creature the mathematician. 4 But it is well worthwhile to examine the statements carefully, and to see whether there is not some danger that they may be understood in such a way as to lead to error. 5 Let us begin with the doctrine that space is necessary and cannot be "thought away."

6 As we have seen above, it is manifestly impossible to annihilate in thought a certain portion of space and leave the other portions intact. 7 There are many things in the same case. We cannot annihilate in thought one side of a door and leave the other side; we cannot rob a person of the outside

of own hat and leave the person the inside. 8 But we can conceive of a whole door as annihilated, and of a person as losing a whole hat. May we or may we not conceive of space as a whole as nonexistent?

9 I do not say, be it observed, can we conceive of something as attacking and annihilating space? 10 Whatever space may be, we none of us think of it as a something that may be threatened and demolished. 11 I only say, may we not think of a system of things-- not a world such as ours, of course, but still a system of things of some sort-- in which space relations have no part? May we not conceive such to be possible?

12 It should be remarked that space relations are by no means the only ones in which we think of things as existing. 13 We attribute to them time relations as well. 14 Now, when we think of occurrences as related to each other in time, we do, in so far as we concentrate our attention upon these relations, turn our attention away from space and contemplate another aspect of the system of things. 15 Space is not such a necessity of thought that we must keep thinking of space when we have turned our attention to something else. 16 And is it, indeed, inconceivable that there should be a system of things not extended things in space, of course, characterised by time relations and perhaps other relations, but not by space relations?

17 It goes without saying that we cannot go on thinking of space and at the same time not think of space. 18 Those who keep insisting upon space as a necessity of thought seem to set us such a task as this, and to found their conclusion upon our failure to accomplish it. 19 "We can never represent to ourselves the nonexistence of space," says the German philosopher Immanuel Kant (1724-1804), "although we can easily conceive that there are no objects in space."

20 It would, perhaps, be fairer to translate the first half of this sentence as follows: "We can never picture to ourselves the nonexistence of space." 21 Immanuel Kant says we cannot make of it a ‘Vorstellung’,-- a

representation. 22 This we may freely admit, for what does one try to do when one makes the effort to imagine the nonexistence of space? 23 Does not one first clear space of objects, and then try to clear space of space in much the same way? 24 We try to "think space away," i.e. to remove it from the place where it was and yet keep that place.

25 What does it mean to imagine or represent to oneself the nonexistence of material objects? 26 Is it not to represent to oneself the objects as no longer in space, i.e. to imagine the space as empty, as cleared of the objects? 27 It means something in this case to speak of a ‘Vorstellung’, or representation. We can call before our minds the empty space. 28 But if we are to think of space as nonexistent, what shall we call before our minds? 29 Our procedure must not be analogous to what it was before; we must not try to picture to our minds the absence of space, as though that were in itself a something that could be pictured; 30 we must turn our attention to other relations, such as time relations, and ask whether it is not conceivable that such should be the only relations obtaining within a given system.

31 Those who insist upon the fact that we cannot but conceive space as infinite employ a very similar argument to prove their point. 32 They set us a self-contradictory task, and regard our failure to accomplish it as proof of their position. 33 Thus, Sir William Hamilton (1788-1856) argues: "We are altogether unable to conceive space as bounded -- as finite; that is, as a whole beyond which there is no further space." 34 And Herbert Spencer echoes approvingly: "We find ourselves totally unable to imagine bounds beyond which there is no space."

35 Now, whatever one may be inclined to think about the infinity of space, it is clear that this argument is an absurd one. 36 Let me write it out more at length: "We are altogether unable to conceive space as bounded-- as finite; that is, as a whole ‘in the space’ beyond which there is no further space." 37 "We find ourselves totally unable to imagine bounds, in the space beyond which there is no further space." 38 The

words which I have added were already present implicitly. What can the word "beyond" mean if it does not signify space beyond? 39 What Sir William and Mr. Spencer have asked us to do is to imagine a limited space with a beyond and yet no beyond.

40 There is undoubtedly some reason why people are so ready to affirm that space is infinite, even while they admit that they do not know that the world of material things is infinite. 41 But if one wishes to affirm it, it is better to do so without giving a reason than it is to present such arguments as the above.

SPACE AS INFINITELY DIVISIBLE

George Stuart Fullerton

30 For more than two thousand years humans have been aware that certain very grave difficulties seem to attach to the idea of motion, when we once admit that space is infinitely divisible. 2 To maintain that we can divide any portion of space up into ultimate elements which are not themselves spaces, and which have no extension, seems repugnant to the idea we all have of space. 3 And if we refuse to admit this possibility there seems to be nothing left to us, but to hold that every space, however small, may theoretically be divided up into smaller spaces, and that there is no limit whatever to the possible subdivision of spaces. 4 Nevertheless, if we take this most natural position, we appear to find ourselves plunged into the most hopeless of labyrinths, every turn of which brings us face to face with a flat self-contradiction.

5 To bring the difficulties referred to clearly before our minds, let us suppose a point to move uniformly over a line an inch long, and to accomplish its journey in a second. 6 At first glance, there appears to be nothing abnormal about this proceeding. 7 But if we admit that this line is infinitely divisible, and reflect upon this property of the line, the ground seems to sink from beneath our feet at once. 8 For it is possible to argue that, under the conditions given, the point must move over one half of

the line in half a second; over one half of the remainder, or one fourth of the line, in one fourth of a second; over one eighth of the line, in one eighth of a second, etc. 9 Thus the portions of line moved over successively by the point may be represented by the descending series: 1/2, 1/4, 1/8, 1/16, . . .

10 Now, it is quite true that the motion of the point can be described in a number of different ways; 11 but the important thing to remark here is that, if the motion really is uniform, and if the line really is infinitely divisible, this series must, as satisfactorily as any other, describe the motion of the point. 12 And it would be absurd to maintain that 'a part' of the series can describe the whole motion. 13 We cannot say, for example, that, when the point has moved over one half, one fourth, and one eighth of the line, it has completed its motion. 14 If even a single member of the series is left out, the whole line has not been passed over; and this is equally true whether the omitted member represent a large bit of line or a small one.

15 The whole series, then, represents the whole line, as definite parts of the series represent definite parts of the line. 16 The line can only be completed when the series is completed. But when and how can this series be completed? 17 In general, a series is completed when we reach the final term, but here there appears to be no final term. 18 We cannot make zero the final term, for it does not belong to the series at all. 19 It does not obey the law of the series, for it is not one half as large as the term preceding it-- what space is so small that dividing it by two gives us [omicron]? 20 On the other hand, some term just before zero cannot be the final term; for if it really represents a little bit of the line, however small, it must, by hypothesis, be made up of lesser bits, and a smaller term must be conceivable. 21 There can, then, be no last term to the series; i.e. what the point is doing at the very last is absolutely indescribable; it is inconceivable that there should be a very last.

22 It was pointed out many centuries ago that it is equally inconceivable that there should be

a ‘very first’. 23 How can a point even begin to move along an infinitely divisible line? 24 Must it not before it can move over any distance, however short, first move over half that distance? 25 And before it can move over that half, must it not move over the half of that? 26 Can it find something to move over that has no halves? And if not, how shall it even start to move? 27 To move at all, it must begin somewhere; it cannot begin with what has no halves, for then it is not moving over any part of the line, as all parts have halves; 28 and it cannot begin with what has halves, for that is not the beginning. What does the point do first?-- that is the question.

29 Those who tell us about points and lines usually leave us to call upon gentle echo for an answer. 30 The perplexities of this moving point seem to grow worse and worse the longer one reflects upon them. 31 They do not harass it merely at the beginning and at the end of its journey. 32 This is admirably brought out by Professor W. K. Clifford (1845-1879), an excellent mathematician, who never had the faintest intention of denying the possibility of motion, and who did not desire to magnify the perplexities in the path of a moving point. 33 He writes:-- "When a point moves along a line, we know that between any two positions of it there is an infinite number . . . of intermediate positions. 34 That is because the motion is continuous. Each of those positions is where the point was at some instant or other. 35 Between the two end positions on the line, the point where the motion began and the point where it stopped, there is no point of the line which does not belong to that series. 36 We have thus an infinite series of successive positions of a continuously moving point, and in that series are included all the points of a certain piece of line-room."

37 Thus, we are told that, when a point moves along a line, between any two positions of it there is an infinite number of intermediate positions. 38 Clifford does not play with the word "infinite"; he takes it seriously and tells us that it means without any end: "Infinite; it is a dreadful word, I know, until you find out that you are familiar with

the thing which it expresses. 39 In this place it means that between any two positions there is some intermediate position; between that and either of the others, again, there is some other intermediate; and so on without any end. Infinite means without any end."

40 But really, if the case is as stated, the point in question must be at a desperate pass. 41 I beg the reader to consider the following, and ask yourself whether you would like to change places with it:-- 42 (1) If the series of positions is really endless, the point must complete one by one the members of an endless series, and reach a nonexistent final term, for a really endless series cannot have a final term. 43 (2) The series of positions is supposed to be "an infinite series of successive positions." 44 The moving point must take them one after another. But how can it? 45 Between any two positions of the point there is an infinite number of intermediate positions. 46 That is to say, no two of these successive positions must be regarded as next to each other; every position is separated from every other by an infinite number of intermediate ones. 47 How, then, shall the point move? It cannot possibly move from one position to the next, for there is no next. 48 Shall it move first to some position that is not the next? Or shall it in despair refuse to move at all?

49 Evidently there is either something wrong with this doctrine of the infinite divisibility of space, or there is something wrong with our understanding of it, 50 if such absurdities as these refuse to be cleared away. Let us see where the trouble lies.

WHAT IS REAL SPACE?

George Stuart Fullerton

31 It is plain that people are willing to make a number of statements about space, the ground for making which is not at once apparent. 2 It is a bold person who will undertake to say that the Universe of matter is infinite in extent. 3 We feel that we have the right to ask anyone how they know that it is. 4 But most people are ready enough to affirm that space

is and must be infinite. 5 How do they know that it is? They certainly do not directly perceive all space.

6 People are equally ready to affirm that space is infinitely divisible. 7 Has any person ever looked upon a line and perceived directly that it has an infinite number of parts? 8 Did anyone ever succeed in dividing a space up infinitely? 9 When we try to make clear to ourselves how a point moves along an infinitely divisible line, do we not seem to land in sheer absurdities? 10 On what sort of evidence does a person base own statements regarding space?

11 A careful reflection reveals the fact that people do not speak as they do about space for no reason at all. 12 When they are properly understood, their statements can be seen to be justified, and it can be seen also that the difficulties which we have been considering can be avoided. 13 How do we come to a knowledge of space, and what do we mean by space? 14 This is the problem to solve; and if we can solve this, we have the key which will unlock many doors.

15 Now, we saw in the last chapter that we have reason to believe that we know what the real external world is. 16 It is a world of things which we perceive, or can perceive, 17 or, not arbitrarily but as a result of careful observation and deductions there from, conceive as though we did perceive it-- a world, say, of atoms and molecules. 18 It is not an Unknowable behind or beyond everything that we perceive, or can perceive, or conceive in the manner stated. 19 And the space with which we are concerned is real space, the space in which real things exist and move about, the real things which we can directly know or of which we can definitely know something. 20 In some sense it must be given in our experience, if the things which are in it, and are known to be in it, are given in our experience. 21 How must we think of this real space?

22 Suppose we look at a tree at a distance. We are conscious of a certain complex of colour. We can distinguish the kind of colour; in this case, we call it blue. 23 But the quality of the colour is not the only thing that we can distinguish in the

experience. In two experiences of colour the quality may be the same, and yet the experiences may be different from each other. 24 In the one case we may have more of the same colour-- we may, so to speak, be conscious of a larger patch; 25 but even if there is not actually more of it, there may be such a difference that we can know from the visual experience alone that the touch object before us is, in the one case, of the one shape, and, in the other case, of another. 26 Thus we may distinguish between the ‘stuff’ given in our experience and the ‘arrangement’ of that stuff. 27 This is the distinction which philosophers have marked as that between "matter" and "form." 28 It is, of course, understood that both of these words, so used, have a special sense not to be confounded with their usual one.

29 This distinction between "matter" and "form" obtains in all our experiences. 30 I have spoken just above of the shape of the touch object for which our visual experiences stand as signs. What do we mean by its shape? 31 To the plain person, real things are the touch things of which one has experience, 32 and these touch things are very clearly distinguishable from one another in shape, in size, in position, nor are the different parts of the things to be confounded with each other. 33 Suppose that, as we pass our hand over a table, all the sensations of touch and movement which we experience fused into an undistinguishable mass. 34 Would we have any notion of size or shape? 35 It is because our experiences of touch and movement do not fuse, but remain distinguishable from each other, 36 and we are conscious of them as arranged, as constituting a system, that we can distinguish between this part of a thing and that, this thing and that. 37 This arrangement, this order, of what is revealed by touch and movement; we may call the "form" of the touch world. 38 Leaving out of consideration, for the present, time relations, we may say that the "form" of the touch world is the whole system of actual and possible relations of arrangement between the elements which make it up. 39 It is because there is such

a system of relations that we can speak of things as of this shape or of that, as great or small, as near or far, and as here or there.

40 Now, I ask, is there any reason to believe that, when the plain persons speaks of space, the word means to them anything more than this system of actual and possible relations of arrangement among the touch things that constitute their real world? 41 One may talk sometimes as though space were some kind of a thing, but one does not really think of it as a thing. 42 This is evident from the mere fact that one is so ready to make about it affirmations that one would not venture to make about things. 43 It does not strike one as inconceivable that a given material object should be annihilated; it does strike one as inconceivable that a portion of space should be blotted out of existence. Why this difference? 44 Is it not explained when we recognise that space is but a name for all the actual and possible relations of arrangement in which things in the touch world may stand? 45 We cannot drop out some of these relations and yet keep space, i.e. the system of relations which we had before. 46 That this is what space means, the plain person may not recognise explicitly, but one certainly seems to recognise it implicitly in what one says about space. 47 People are rarely inclined to admit that space is a 'thing' of any kind, nor are they much more inclined to regard it as a quality of a thing. Of what could it be the quality?

48 And if space really were a thing of any sort, would it not be the height of presumption for a person, in the absence of any direct evidence from observation, to say how much there is of it-- to declare it infinite? 49 People do not hesitate to say that space must be infinite. 50 But when we realise that we do not mean by space merely the actual relations which exist between the touch things that make up the world, but also the possible relations, i.e. that we mean the whole plan of the world system, we can see that it is not unreasonable to speak of space as infinite.

51 The material Universe may, for aught we know, be limited in extent. The actual space relations in which things stand to each other

may not be limitless. But these actual space relations taken alone do not constitute space. 52 People have often asked themselves whether they should conceive of the Universe as limited and surrounded by void space. 53 It is not nonsense to speak of such a state of things. It would, indeed, appear to be nonsense to say that, if the Universe is limited, it does not lie in void space. 54 What can we mean by void space but the system of possible relations in which things, if they exist, must stand? 55 To say that, beyond a certain point, no further relations are possible, seems absurd. 56 Hence, when a person has come to understand what we have a right to mean by space, it does not imply a boundless conceit on own part to hazard the statement that space is infinite. 57 When one has said this, one has said very little. What shall we say to the statement that space is infinitely divisible?

58 To understand the significance of this statement we must come back to the distinction between appearances and the real things for which they stand as signs. 59 When I see a tree from a distance, the visual experience which I have is, as we have seen, not an indivisible unit, but is a complex experience; it has parts, and these parts are related to each other; in other words, it has both "matter" and "form." 60 It is, however, one thing to say that this experience has parts, and it is another to say that it has an infinite number of parts. 61 No person is conscious of perceiving an infinite number of parts in the patch of colour which represents to one a tree at a distance; 62 to say that it is constituted of such, strikes us in our moments of sober reflection as a monstrous statement.

63 Now, this visual experience is to us the sign of the reality, the real tree; it is not taken as the tree itself. 64 When we speak of the size, the shape, the number of parts, of the tree, we do not have in mind the size, the shape, the number of parts, of just this experience. 65 We pass from the sign to the thing signified, and we may lay our hand upon this thing, thus gaining a direct experience of the size and shape of the touch object.

66 We must recognise, however, that just as no person is conscious of an infinite number of parts in what one sees, so no person is conscious of an infinite number of parts in what one touches. 67 One who tells me that, when I pass my finger along my paper cutter, what I perceive has an infinite number of parts, tells me what seems palpably untrue. 68 When an object is very small, I can see it, and I cannot see that it is composed of parts; 69 similarly, when an object is very small, I can feel it with my finger, but I cannot distinguish its parts by the sense of touch. 70 There seem to be limits beyond which I cannot go in either case.

71 Nevertheless, people often speak of thousandths of an inch, or of millionths of an inch, or of distances even shorter. 72 Have such fractions of the magnitudes that we do know and can perceive any real existence? 73 The touch world of real things as it is revealed in our experience does not appear to be divisible into such; it does not appear to be divisible even so far, and much less does it appear to be infinitely divisible.

74 But have we not seen that the touch world given in our experience must be taken by the thoughtful person as itself the sign or appearance of a reality more ultimate? 75 The speck which appears to the naked eye to have no parts is seen under the microscope to have parts; 75 that is to say, an experience apparently not extended has become the sign of something that is seen to have part out of part. 76 We have as yet invented no instrument that will make directly perceptible to the finger tip an atom of hydrogen or of oxygen, but the person of science conceives of these little things as though they could be perceived. 77 They and the space in which they move-- the system of actual and possible relations between them-- seem to be related to the world revealed in touch very much as the space revealed in the field of the microscope is related to the space of the speck looked at with the naked eye.

78 Thus, when the thoughtful person speaks of ‘real space’, one cannot mean by the word only the

actual and possible relations of arrangement among the things and the parts of things directly revealed to own sense of touch. 79 One may speak of real things too small to be thus perceived, and of their motion as through spaces too small to be perceptible at all. 80 What limit shall one set to the possible subdivision of 'real' things? 81 Unless one can find an ultimate reality which cannot in its turn become the appearance or sign of a further reality, it seems absurd to speak of a limit at all.

82 We may, then, say that real space is infinitely divisible. 83 By this statement we should mean that certain experiences may be represented by others, and that we may carry on our division in the case of the latter, when a further subdivision of the former seems out of the question. 84 But it should not mean that any single experience furnished us by any sense, or anything that we can represent in the imagination, is composed of an infinite number of parts.

85 When we realise this, do we not free ourselves from the difficulties which seemed to make the motion of a point over a line an impossible absurdity? 86 The line as revealed in a single experience either of sight or of touch is not composed of an infinite number of parts. 87 It is composed of points seen or touched-- least experiences of sight or touch, 'minima sensibilia'. 88 These are next to each other, and the point, in moving, takes them one by one.

89 But such a single experience is not what we call a line. It is but one experience of a line. Though the experience is not infinitely divisible, the line may be. 90 This only means that the visual or tactual point of the single experience may stand for, may represent, what is not a mere point but has parts, and is, hence, divisible. 91 Who can set a limit to such possible substitutions? In other words, who can set a limit to the divisibility of a real line?

92 It is only when we confuse the single experience with the real line that we fall into absurdities. 93 What the mathematician tells us about real points and real lines has no bearing on the constitution of the single experience and its parts. 94 Thus, when he tells us that

between any two points on a line there are an infinite number of other points, he only means that we may expand the line indefinitely by the system of substitutions described above. 95 We do this for ourselves within limits every time that we approach from a distance a line drawn on a blackboard. 96 The mathematician has generalised our experience for us, and that is all he has done. We should try to get at his real meaning, and not quote him as supporting an absurdity.

OF TIME: TIME AS NECESSARY, INFINITE, AND INFINITELY DIVISIBLE

George Stuart Fullerton

32 Of course, we all know something about time; we know it has past, present, and future; we know it is divisible into parts, all of which are successive; we know that whatever happens must happen in time. 2 Those who have thought a good deal about the matter are apt to tell us that time is a necessity of thought, we cannot but think it; that time is and must be infinite; and that it is infinitely divisible. 3 These are the same statements that were made regarding space, and, as they have to be criticised in just the same way, it is not necessary to dwell upon them at great length. However, we must not pass them over altogether.

4 As to the statement that time is a necessary idea, we may freely admit that we cannot in thought annihilate time, or think it away. 5 It does not seem to mean anything to attempt such a task. Whatever time may be, it does not appear to be a something of such a nature that we can demolish it or clear it away from something else. 6 But is it necessarily absurd to speak of a system of things-- not, of course, a system of things in which there is change, succession, an earlier and a later, but still a system of things of some sort-- in which there obtain no time relations?

7 The problem is, to be sure, one of theoretical interest merely, for such a system of things is not the world we know. 8 And as for the infinity of time, may we not ask on

what ground any one ventures to assert that time is infinite? 9 No person can say that infinite time is directly given in own experience. If one does not directly perceive it to be infinite, must one not seek for some proof of the fact? 10 The only proof which appears to be offered us is contained in the statement that we cannot conceive of a time before which there was no time, nor of a time after which there will be no time; 11 a proof which is no proof, for written out at length it reads as follows: we cannot conceive of a time 'in the time' before which there was no time, nor of a time 'in the time' after which there will be no time. 12 As well say: We cannot conceive of a number the number before which was no number, nor of a number the number after which will be no number. 13 Whatever may be said for the conclusion arrived at, the argument is a very poor one.

14 When we turn to the consideration of time as infinitely divisible, we seem to find ourselves confronted with the same difficulties which presented themselves when we thought of space as infinitely divisible. 15 Certainly no one person was immediately conscious of an infinite number of parts in the minute which just slipped by. Shall he assert that it did, nevertheless, contain an infinite number of parts? 16 Then how did it succeed in passing? How did it even begin to pass away? 17 It is infinitely divisible, that is, there is no end to the number of parts into which it may be divided; 18 those parts and parts of parts are all successive, no two can pass at once, they must all do it in a certain order, one after the other. Thus, something must pass first. What can it be?

19 If that something has parts, is divisible, the whole of it cannot pass first. 20 It must itself pass bit by bit, as must the whole minute; and if it is infinitely divisible we have precisely the problem that we had at the outset. 21 Whatever passes first cannot, then, have parts. Let us assume that it has no parts, and bid it Godspeed! Has the minute begun? 22 Our minute is, by hypothesis, infinitely divisible; it is composed of parts, and those parts of other parts, and

so on without end. 23 We cannot by subdivision come to any part which is itself not composed of smaller parts. 24 The partless thing that passed, then, is no part of the minute. That is, all still waiting at the gate and no member of its troop can prove that it has a right to lead the rest. 25 In the same outer darkness is waiting the point on the line that misbehaved itself in the last chapter.

THE PROBLEM OF PAST, PRESENT, AND FUTURE

George Stuart Fullerton

33 It seems bad enough to have on our hands a minute which must pass away in successive bits, and to discover that no bit of it can possibly pass first. 2 But if we follow with approval the reflections of certain thinkers, we may find ourselves at such a pass that we would be glad to be able to prove that we may have on our hands a minute of any sort. 3 People sometimes are so bold as to maintain that they know time to be infinite; would it not be well for them to prove first that they can know time at all?

4 The trouble is this; as was pointed out long ago by Saint Augustine (354-430) in his famous "*Confessions*," 5 [1] the parts of time are successive, and of the three divisions, past, present, and future, only one can be regarded as existing: 6 "Those two times, past and future, how can they be, when the past is not now, and the future is not yet?" The present is, it seems, the only existent; how long is the present?

7 "Even a single hour passes in fleeting moments; as much of it as has taken flight is past, what remains is future. 8 If we can comprehend any time that is divisible into no parts at all, or perhaps into the minutest parts of moments, this alone let us call present; 9 yet this speeds so hurriedly from the future to the past that it does not endure even for a little space. 10 If it has duration, it is divided into a past and a future; but the present has no duration.

11 "Where, then, is the time that we may call long? Is it future?

ORIGIN

12 We do not say of the future: it is long; for as yet there exists nothing to be long. We say: it will be long. But when? 13 If while yet future it will not be long, for nothing will yet exist to be long. 14 And if it will be long, when, from a future as yet nonexistent, it has become a present, and has begun to be, that it may be something that is long, then present time cries out in the words of the preceding paragraph that it cannot be long."

15 Augustine's way of presenting the difficulty is a quaint one, but the problem is as real at the beginning of the twentieth century as it was at the beginning of the fifth. 16 Past time does not exist now, future time does not exist yet, and present time, it seems, has no duration. 17 Can a person be said to be conscious of time as past, present, and future? 18 Who can be conscious of the nonexistent? 19 And the existent is not ‘time’, it has no duration, there is no before and after in a mere limiting point. 20 Augustine's way out of the difficulty is the suggestion that, although we cannot, strictly speaking, measure time, but we can measure ‘memory’ and ‘expectation’. 21 Before he begins to repeat a psalm, his expectation extends over the whole of it. 22 After a little a part of it must be referred to expectation and a part of it to memory. 23 Finally, the whole psalm is "extended along" the memory. We can measure this, at least.

24 But how is the psalm in question "extended along" the memory or the expectation? Are the parts of it successive, or do they thus exist simultaneously? 25 If everything in the memory image exists at once, if all belongs to the punctual present, to the mere point that divides past from future, how can a person get from it a consciousness of time, of a something whose parts cannot exist together but must follow each other?

26 Augustine appears to overlook the fact that on his own hypothesis, the present, the only existent, the only thing a person can be conscious of, is an indivisible instant. 27 In such there can be no change; the person who is shut up to such cannot be aware

that the past is growing and the future diminishing. 28 Any such change as this implies at least two instants, an earlier and a later. 29 Those who have never experienced a change of any sort, who have never been conscious of the relation of earlier and later, of succession, cannot think of the varied content of memory as of that which has been present. 30 It cannot mean to them what memory certainly means to us; they cannot be conscious of a past, a present, and a future. 31 To extract the notion of time, of past, present, and future, from an experience which contains no element of succession, from an indivisible instant, is as hopeless a task as to extract a line from a mathematical point.

32 It appears, then, that, if we are to be conscious of time at all, if we are to have the least conception of it, we must have some direct experience of change. 33 We cannot really be shut up to that punctual present, that mere point or limit between past and future, that the present has been described as being. 34 But does this not imply that we can be directly conscious of what is not present, that we can now perceive what does not now exist? How is this possible?

35 It is not easy for one whose reading has been somewhat limited in any given field to see the full significance of the problems which present themselves in that field. 36 Those who read much in the history of modern philosophy will see that this ancient difficulty touching our consciousness of time has given rise to some exceedingly curious speculations, and some strange conclusions touching the nature of the mind.

37 Thus, it has been argued that, since the experience of each moment is something quite distinct from the experience of the next, a something that passes away to give place to its successor, 38 we cannot explain the consciousness of time, of a whole in which successive moments are recognised as having their appropriate place, unless we assume a something that knows each moment and knits it, so to speak, to its successor. 39 This something is the self or consciousness, which is

independent of time, and does not exist in time, as do the various experiences that fill the successive moments. 40 It is assumed to be timelessly present at all times, and thus to connect the nonexistent past with the existent present.

41 I do not ask the reader to try to make clear to themselves how anything can be timelessly present at all times, for I do not believe that the words can be made to represent any clear thought whatever. 42 Nor do I ask you to try to conceive how this timeless something can join past and present. 43 I merely wish to point out that these modern speculations, which still influence the minds of many distinguished people, have their origin in a difficulty which suggested itself early in the history of reflective thought, and are by no means to be regarded as a gratuitous and useless exercise of the ingenuity. 44 They are serious attempts to solve a real problem, though they may be unsuccessful ones, and they are worthy of attention even from those who incline to a different solution.

WHAT IS REAL TIME?
George Stuart Fullerton

34 From the thin air of such speculations as we have been discussing let us come back to the world of the plain person, the world in which we all habitually live. 2 It is from this that we must start out upon all our journeys, and it is good to come back to it from time to time to make sure of our bearings.

3 We have seen that we distinguish between the real and the apparent, and that we recognise as the real world the objects revealed to the sense of touch. 4 These objects stand to each other in certain relations of arrangement; that is to say, they exist in space. 5 And just as we may distinguish between the object as it appears and the object as it is, so we may distinguish between apparent space and real space, i.e. 6 between the relations of arrangement, actual and possible, which obtain among the parts of the object as it appears, and those which obtain among the parts of the object as it really is.

7 But our experience does not present us only with objects in

space relations; it presents us with a succession of changes in those objects. 8 And if we will reason about those changes as we have reasoned about space relations, many of our difficulties regarding the nature of time may, as it seems, be made to disappear.

9 Thus we may recognise that we are directly conscious of duration, of succession, and may yet hold that this crude and immediate experience of duration is not what we mean by real time. 10 Every one distinguishes between apparent time and real time now and then. 11 We all know that a sermon may seem long and not be long; that the ten years that we live over in a dream are not ten real years; 12 that the swallowing of certain drugs may be followed by the illusion of the lapse of vast spaces of time, when really very little time has elapsed. 13 What is this real time?

14 It is nothing else than the order of the changes which take place or may take place in real things. 15 I spoke of space as the "form" of the real world; it would be better to call it a "form" of the real world, and to give the same name also to time. 16 It is very clear that, when we inquire concerning the real time of any occurrence, or ask how long a series of such lasted, we always look for our answer to something that has happened in the external world. 17 The passage of a star over the meridian and the position of the sun above the horizon, the arc which the moon has described since our last observation and the movement of the hands of a clock, the amount of sand which has fallen in the hourglass, these things and such as these are the indicators of real time. 18 There may be indicators of a different sort; we may decide that it is noon because we are hungry, or midnight because we are tired; 19 we may argue that the preacher must have spoken more than an hour because he quite wore out the patience of the congregation. 20 These are more or less uncertain signs of the lapse of time, but they cannot be regarded as experiences of the passing of time either apparent or real.

21 Thus, we see that real space and real time are the plan of the world system. They are not ‘things’ of any sort, and they should not be

mistaken for things. 22 They are not known independently of things, though, when we have once had an experience of things and their changes, we can by abstraction from the things themselves fix our attention upon their arrangement and upon the order of their changes. 23 We can divide and subdivide spaces and times without much reference to the things. 24 But we should never forget that it would never have occurred to us to do this, indeed, that the whole procedure would be absolutely meaningless to us, were not a real world revealed in our experience as it is.

25 One who has attained to this insight into the nature of time is in a position to offer what seem to be satisfactory solutions to the problems which have been brought forward above. 26 (1) He can see, thus, why it is absurd to speak of any portion of time as becoming nonexistent. 27 Time is nothing else than an order, a great system of relations. 28 One cannot drop out certain of these and leave the rest unchanged, for the latter imply the former. 29 Day-after-to-morrow would not be day-after-to-morrow, if to-morrow did not lie between it and to-day. 30 To speak of dropping out to-morrow and leaving it the time it was conceived to be, is mere nonsense.

31 (2) One can see why it does not indicate a measureless conceit for a person to be willing to say that time is infinite. 32 One who says this need not be supposed to be acquainted with the whole past and future history of the real world, of which time is an aspect. 33 We constantly abstract from things, and consider only the order of their changes, and in this order itself there is no reason why one should set a limit at some point; indeed, to set such a limit seems a gratuitous absurdity. 34 One who says that time is infinite does not say much; one is not affirming the existence of some sort of a thing; one is merely affirming a theoretical possibility, 35 and is it not a theoretical possibility that there may be an endless succession of real changes in a real world?

36 (3) It is evident, furthermore, that, when one has grasped firmly the significance of the distinction between apparent time and real time, one may with a clear

conscience speak of time as infinitely divisible. 37 Of course, the time directly given in any single experience, the minute or the second of which we are conscious as it passes, cannot be regarded as composed of an infinite number of parts. 38 We are not directly conscious of these subdivisions, and it is a monstrous assumption to maintain that they must be present in the minute or second as perceived. 39 But no such single experience of duration constitutes what we mean by real time. 40 We have seen that real time is the time occupied by the changes in real things, and the question is: How far can one go in the subdivision of this time?

41 Now, the touch thing which usually is for us in common life the real thing is not the real thing for science; it is the appearance under which the real world of atoms and molecules reveals itself. 42 The atom is not directly perceivable, and we may assign to its motions a space so small that no one could possibly perceive it as space, as a something with part out of part, a something with a here and a there. 43 But, as has been before pointed out, this does not prevent us from believing the atom and the space in which it moves to be real, and we can represent them to ourselves as we can the things and the spaces with which we have to do in common life.

44 It is with time just as it is with space. 45 We can perceive an inch to have parts; we cannot perceive a thousandth of an inch to have parts, if we can perceive it at all; 46 but we can represent it to ourselves as extended, that is, we can let an experience which is extended stand for it, and can dwell upon the parts of that. 47 We can perceive a second to have duration; we cannot perceive a thousandth of a second to have duration; 48 but we can conceive it as having duration, i.e. we can let some experience of duration stand for it and serve as its representative.

49 It is, then, reasonable to speak of the space covered by the vibration of an atom, and it is equally reasonable to speak of the time taken up by its vibration. 50 It is not necessary to believe that the duration that we actually

experience as a second must itself be capable of being divided up into the number of parts indicated by the denominator of the fraction that we use in indicating such a time, and that each of these parts must be perceived as duration.

51 There is, then, a sense in which we may affirm that time is infinitely divisible. 52 But we must remember that apparent time-- the time presented in any single experience of duration-- is never infinitely divisible; 53 and that real time, in any save a relative sense of the word, is not a single experience of duration at all. 54 It is a recognition of the fact that experiences of duration may be substituted for each other without assignable limit.

55 (4) But what shall we say to the last problem -- to the question how we can be conscious of time at all, when the parts of time are all successive? 56 How can we even have a consciousness of "crude" time, of apparent time, of duration in any sense of the word, when duration must be made up of moments no two of which can exist together and no one of which alone can constitute time? 57 The past is not now, the future is not yet, the present is a mere point, as we are told, and cannot have parts. 58 If we are conscious of time as past, present, and future, must we not be conscious of a series as a series when every member of it save one is nonexistent? 59 Can a person be conscious of the nonexistent?

60 The difficulty does seem a serious one, and yet I venture to affirm that, if we examine it carefully, we shall see that it is a difficulty of our own devising. 61 The argument quietly makes an assumption-- and makes it gratuitously-- with which any consciousness of duration is incompatible, and then asks us how there can be such a thing as a consciousness of duration. 62 The assumption is that we can be conscious only of the existent, and this, written out a little more at length, reads as follows: we can be conscious only of the now existent, or, in other words of the present. 63 Of course, this determines from the outset that we cannot be conscious of the past and the future, of duration.

64 The past and the future are, to be sure, nonexistent from the point of view of the present; 65 but it should be remarked as well that the present is nonexistent from the point of view of the past or the future. 66 If we are talking of time at all we are talking of that no two parts of which are simultaneous; 67 it would be absurd to speak of a past that existed simultaneously with the present, just as it would be absurd to speak of a present existing simultaneously with the past. 68 But we should not deny the past, present, and future, respectively, their appropriate existence; nor is it by any means self-evident that there cannot be a consciousness of past, present, and future as such.

69 We fall in with the assumption, it seems, because we know very well that we are not directly conscious of a remote past and a remote future. 70 We represent these to ourselves by means of some proxy-- we have present memories of times long past and present anticipations of what will be in the time to come. 71 Moreover, we use the word "present" very loosely; we say the present year, the present day, the present hour, the present minute, or the present second. 72 When we use the word thus loosely, there seems no reason for believing that there should be such a thing as a direct consciousness that extends beyond the present. 73 It appears reasonable to say: No one can be conscious save of the present.

74 It should be remembered, however, that the generous present of common discourse is by no means identical with the ideal point between past and future dealt with in the argument under discussion. 75 We all say: I now see that the cloud is moving; I now see that the snow is falling. But there can be no moving, no falling, no change, in the timeless "now" with which we have been concerned. 76 Is there any evidence whatever that we are shut up, for all our immediate knowledge, to such a "now"? There is none whatever.

77 The fact is that this timeless "now" is a product of reflective thought and not a something of which we are directly conscious. 78 It is an ideal point in the real time of which the time that is in a

certain sense infinitely divisible. 79 It is first cousin to the ideal mathematical point, the mere limit between two lines, a something not perceptible to any sense. 80 We have a tendency to carry over to it what we recognise to be true of the very different present of common discourse, 81 a present which we distinguish from past and future in a somewhat loose way, but a present in which there certainly is the consciousness of change, of duration. 82 And when we do this, we dig for ourselves a pit into which we proceed to fall. 83 We may, then, conclude that we are directly conscious of more than the present, in the sense in which Augustine used the word. 84 We are conscious of ‘time’, of "crude" time, and from this we can pass to a knowledge of real time, and can determine its parts with precision.

The Second Book of Divine Panagogue Called
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PANTHEISM NOT SECTARIAN OR EVEN RACIAL

J. Allanson Picton

1 Pantheism differs from the systems of belief constituting the main religions of the world in being comparatively free from any limits of period, climate, or race. 2 For while what we roughly call the Egyptian Religion, the Vedic Religion, the Greek Religion, Buddhism, and others of similar fame have been necessarily local and temporary, 3 Pantheism has been, for the most part, a dimly discerned background, an esoteric significance of many or all religions, rather than a "denomination" by itself. 4 The best illustration of this characteristic of Pantheism is the catholicity of its great prophet Spinoza. 5 For he felt so little antagonism to any Christian sect, that he never urged any member of a church to leave it, 6 but rather encouraged his humbler friends, who sought his advice, to make full use of such spiritual privileges as they appreciated most. 7 He could not, indeed, content himself with the fragmentary forms of any sectarian creed. 8 But in the few writings which he made some effort to adapt to the popular understanding, he seems to think it possible that the faith of Pantheism might someday leaven all religions alike. 9 I shall endeavour briefly to sketch the story of that faith, and to suggest its significance for the future. But first we must know what it means.

10 Pantheism, then, being a term derived from two Greek words signifying "all" and "God," suggests to a certain extent its own meaning. 11 Thus, if Atheism be taken to mean a denial of the being of God, Pantheism is its extreme opposite; because Pantheism declares that there is nothing but God. 12 This, however, needs explanation. For no Pantheist has ever held that ‘everything’ is God, 13 any more than a teacher of physiology, in enforcing on his students the unity of the human organism, would insist that every toe and finger is the human. 14 But such a teacher, at least in these

days, would almost certainly warn the pupils against the notion that the human can be really divided into limbs, or organs, or faculties, or even into soul and body. 15 Indeed, he might without affectation adopt the language of a much controverted creed, 16 so far as to pronounce that "the reasonable soul and flesh is one human"--"one altogether." 17 In this view, the human is the unity of all organs and faculties. 18 But it does not in the least follow that any of these organs or faculties, or even a selection of them, is the human.

19 If I apply this analogy to an explanation of the above definition of Pantheism as the theory that there is nothing but God, 20 it must not be supposed that I regard the parallelism as perfect. 21 In fact, one purpose of the following exposition will be to show why and where all such analogies fail. 22 For Pantheism does not regard human, or any organism, as a true unity. 23 In the view of Pantheism the only real unity is God. 24 But without any inconsistency I may avail myself of common impressions to correct a common mis-impression. Thus: 25 those who hold that the reasonable soul and flesh is one human --one altogether -- 26 but at the same time deny that the toe or the finger, or the stomach or the heart, is the human, 27 are bound in consistency to recognise that if Pantheism affirms God to be All in All, 28 it does not follow that Pantheism must hold a human, or a tree, or a tiger to be God.

29 Excluding, then, such an apparently plausible, but really fallacious inversion of the Pantheistic view of the Universe, 30 I repeat that the latter is the precise opposite of Atheism. 31 So far from tolerating any doubt as to the being of God, it denies that there is anything else. 32 For all objects of sense and thought, including individual consciousness, whether directly observed in ourselves, or inferred as existing in others, are, 33 according to Pantheism, only facets of an infinite Unity, 34 which is "altogether one" in a sense inapplicable to anything else.

35 Because that Unity is not merely the aggregate of all the

finite objects which we observe or infer, 36 but is a living whole, expressing itself in infinite variety. 37 Of that infinite variety our gleams of consciousness are infinitesimal parts, but not parts in a sense involving any real division. 38 All that I am trying to secure in these preliminary observations is a general idea of the Pantheistic view of the Universe as distinguished from that of Polytheism, Monotheism, or Atheism.

39 Of course, there have been different forms of Pantheism, as there have been also various phases of Monotheism; 40 and in the brief historical review which will follow this introductory explanation of the name, I shall note at least the most important of those forms. 41 But any which fail to conform, to the general definition here given, will not be recognised as Pantheism at all, though they may be worth some attention as approximations thereto. 42 For any view of the Universe, allowing the existence of anything outside the divine Unity, denies that God is All in All, 43 and, therefore, is obviously not Pantheism. 44 Whether we should recognise as true Pantheism any theory involving the evolution of a finite world 45 or worlds out of the divine substance at some definite epoch or epochs, 46 may be a debatable question, provided that the eternity and inviolability of the divine oneness is absolutely guarded in thought. 47 Yet I will anticipate so far as to say that, in my view, the question must be negatived. 48 At any rate, we must exclude all creeds which tolerate the idea of a creation in the popular sense of the word, or of a final catastrophe. 49 True, the individual objects, great or small, from a galaxy to a moth, which have to us apparently a separate existence, 50 have all been evolved out of preceding modes of being, 51 by a process which seems to us to involve a beginning, and to ensure an end.

52 But in the view of Pantheism, properly so-called, the transference of such a process to the whole Universe is the result of an illusion suggested by false analogy. 53 For the processes called evolution, though everywhere operative, affect, each

of them, only parts of the infinite whole of things; 54 and experience cannot possibly afford any justification for supposing that they affect the Universe itself. 55 Thus, the matter or energy of which we think we consist, was in existence, 56 every atom of it, and every element of force, before we were born, and will survive our apparent death. 57 And the same thing, at least on the Pantheistic view, is true of every other mode of apparently separate or finite existence.

58 Therefore no birth of a new nebula ever added a grain of matter or an impulse of new energy to the Universe. 59 And the final decease of our solar system, if such an event be in prospect, cannot make any difference whatever to the infinite balance of forces, 60 of which, speaking in anthropomorphic and inadequate language, we suppose the Eternal All to consist.

61 These observations are not intended to be controversial, but only to make clear the general sense in which the term Pantheism is here used.

62 Not that it would be possible at the outset to indicate all that is implicit in the definition. 63 I only wish to premise plainly that I am not concerned with any view of the world such as implies or admits that, 64 whether by process of creation, or emanation, or self-division, or evolution, the oneness of the Eternal has ever been marred, or anything 65 other than the being of God has been or can be produced.

66 But before passing on to the promised historical review, it is, perhaps, necessary to refer again to a remark previously made, 67 that Pantheism may be considered either from the point of view of philosophy, or from that of religion. 68 Not that the two points of view are mutually exclusive.

69 But, as a matter of fact, Pantheism as a religion is, with certain exceptions among Indian saints and later Neoplatonists, almost entirely a modern development, 70 of which Spinoza was the first distinct and devout teacher. 71 For this statement justification will be given hereafter.

72 Meantime, to deprecate adverse prejudice, I may suggest that a careful study of the most ancient forms of Pantheism seems to show that they were purely philosophical; 73 an endeavour to reach in thought the ultimate reality which polytheism travestied, and which the senses disguised. 74 But little or no attempt was made to substitute the contemplation of the Eternal for the worship of mediator divinities. 75 Thus, in the same spirit in which Socrates ordered the sacrifice of a cock to Aesculapius for his recovery from the disease of mortal life, 76 philosophical Pantheists, whether Egyptian or Greek, or even Indian, satisfied their religious instincts by hearty communion with the popular worship of traditional gods. 77 Or, if it is thought that the mediaeval mystics were religious.

78 Pantheists, a closer examination of their devout utterances will show that, though they approximated to Pantheism, 79 and even used language such as, if interpreted logically, must have implied it, 80 yet they carefully reserved articles of the ecclesiastical creed, entirely inconsistent with the fundamental position that there is nothing but God. 81 Indeed, their favourite comparison of creature life to the ray of a candle is not really a Pantheistic conception; 82 because to the true Pantheist the creature is not an emanation external to God, but a finite mode of infinite Being. 83 Still the mystics did much to prepare the devout for an acceptance of Spinoza's teaching. 84 And although so amazing a transfiguration of religion rather dazzled than convinced the world at first; 85 nay, though it must be acknowledged that one, and perhaps more of Spinoza's fundamental conceptions have increasingly repelled rather than attracted religious people, 86 yet it can hardly be disputed that he gave an impulse to contemplative religion, 87 of which the effect is only now beginning to be fully realised.

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PRE-CHRISTIAN PANTHEISM

J. Allanson Picton

2 It has been the customary and perhaps inevitable methods of writers on Pantheism to trace its main idea back to the dreams of Vedic poets, 2 the musings of Egyptian priests, and the speculations of the Greeks. 3 But though it is undeniable that the divine unity of all Being was an almost necessary issue of earliest human thought upon the many and the one, 4 yet the above method of treating Pantheism is to some extent misleading; and therefore caution is needed in using it. 5 For the revival of Pantheism at the present day is much more a tangible resultant of action and reaction 6 between Science and Religion than a ghost conjured up by speculation. 7 Thus, religious belief, driven out from "the darkness and the cloud" of Sinai, takes refuge in the mystery of matter; 8 and if the glory passes from the Mount of Transfiguration, it is because it expands to etherialise the whole world as the garment of God. 9 Again, the evanescence of the atom into galaxies of "electrons" destroys the only physical theory that ever threatened us with Atheism; 10 and the infinitesimal electrons themselves open up an immeasurable perspective 11 into the abyss of an Unknowable in which all things "live and move and have their being." 12 Therefore it matters little to us, except as a matter of antiquarian interest, to know what the Vedic singers may have dreamed; 13 or what Thales or Xenophanes or Parmenides may have thought about the first principle of things, 14 or about the many and the one. 15 For our spiritual genealogy is not from them, but from a nearer and double line of begetters, 16 including seers-- in the true sense of the word-- and saints, 17 for both are represented by Kepler and Hooker, Newton and Jeremy Taylor, Descartes and Spinoza, Leibnitz and Wesley, Spencer and Newman.

18 And even these have authority not through any divine right of genius or acquired claim of learning, 19 but because they illumine and interpret obscure suggestions of our own thoughts.

20 Indeed, to the sacrament of historic communion with the past, as well as to the chief rite of the Church, 21 the apostolic injunction is applicable: "Let a man examine himself; and so let him eat of that bread."

22 Obeying that injunction, any person possessing ordinary powers of observation and reflection may, 23 in the course of a summer day's walk, find abundant reason for interest in the speculations of historic Pantheism. 24 For the aspect of Nature then presented to him is one both of movement and repose, 25 of variety and harmony, of multiplicity and unity.

26 Thus the slight breeze, scarcely stirring the drowsy flowery the monotonous cadences of the stony brook, 27 and the gliding of feathery flecks of cloud across the blue, create a peace far deeper than absolute stillness, 28 and suggest an infinite life in which activity and repose are one. 29 Besides, there is evident everywhere an interplay of forces acting and reacting so as mutually to help and fulfill one another. 30 For instance, the falling leaves give back the carbon they gathered from the air, 31 and so repay the soil with interest for the subtler essences derived there-from and dissolved in the sap. 32 The bees, again, humming among the flowers, 33 while actuated only by instincts of appetite and thrift, fructify the blooms, and become a connecting link between one vegetable generation and another. 34 The heat of the sun draws up water from ocean and river and lake, while chilly currents of higher air return it here and there in rain. 35 So earth, sea, and air are forever trafficking together; 36 and their interchange of riches and force is complicated ten thousand-fold by the activities of innumerable living things, 37 all adapting themselves by some internal energy to the ever varying balance of heat and cold, 38 moisture and drought, light and darkness, chemical action and reaction. 39 And all this has been going on for untold millions of years; nor is there any sign of weariness now.

40 In the mood engendered by such familiar experiences of a holiday saunter, 41 it may well occur to anyone to think with interest and sympathy of the poets

and seers 42 who, thousands of years ago, first dared to discern in this maze of existence the varied expression of one all-embracing and eternal Life, or Power. 43 Such contemplations and speculations were entirely uninfluenced by anything which the Christian Church, recognises as revelation. 44 Yet we must not on that account suppose that they were without religion, 45 or pretended to explain anything without reference to superhuman beings called gods and demons.

46 On the contrary, they, for the most part, shared, subject to such modifications as were imperatively required by cultivated common sense, the beliefs of their native land. 47 But the difference between these men and their unthinking contemporaries lay in this; 48 that the former conceived of one supreme and comprehensive divinity beyond the reach of common thought, 49 an ultimate and eternal Being which included gods as well as Nature within its unity. 50 So, for them, Indra, Zeus, or Jove were mere modes of the one Being also manifest in human and bird and tree.

51 Every race possessing even the rudiments of culture has been impelled by a happy instinct, 52 which, if we like, we may call inspiration, to record in more or less permanent form its experience of Nature, of life, and of what seemed the mysteries of both. 53 To this inspiration we owe the sacred books of the Jews. 54 But it is now generally recognised that an impulse not wholly dissimilar also moved prophetic or poetic minds among other races, 55 such, for instance, as the Egyptians, the Chaldaeans, and the Aryan conquerors of India, 56 to inscribe on papyrus or stone, or brick or palm-leaf, the results of experience as interpreted by free imagination, traditional habits of thought, and limited knowledge. 57 Of this ancient literature a considerable part is taken up by the mysteries apparently involved in life, conduct, and death. 58 Most notably is this the case with the ancient Indian literature called the Vedas, and such sequels as the Upanishads, Sutras, and--much later--the Bhagavad Gîtâ.

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59 This collection, like our Bible, forms a library of writings issued at various dates extending over much more than a thousand years. 60 The forgotten singers and preachers of this prehistoric wisdom were as much haunted as we ourselves are 61 with the harassing questions suggested by sin and sorrow, by life and death, and by aspirations after a higher state. 62 And many, perhaps we may say most of them, found comfort in the thought that essentially they belonged to an all comprehensive and infinite Life, 63 in which, if they acted purely and nobly, their seeming personality might be merged and find peace. 64 Their frame of mind was religious rather than philosophical. But their philosophy was naturally conformed to it; 65 and in their contrast of the bewildering variety of finite visible things with the unity of the Eternal Being of which all are phases, 66 those ancients were in close sympathy with the thoughts of the modern meditative saunterer by field and river and wood.

67 But the enormous interval of time separating us from those early Indian thinkers necessarily involves very great differences in conditions of thought. 68 And we should not be surprised if amidst much in their writings that stir our sympathy, 69 there is also a great deal which is to us incongruous and absurd. 70 Therefore, it may be well before quoting these writings to note one or two points 71 marking an almost incommensurable difference between their mode and ours of regarding the world.

72 (1) First, they were much less removed than we are from the influence of fetishistic and animistic traditions. 73 Even in the Greek and Roman classics the casual reader is often revolted by the grossly absurd stories told of gods and heroes. 74 And, indeed, it is impossible to conceive of the amours of Zeus (or Jove), for instance, with Leda,

75 Europa or Danaë as having been first conceived during an age marked by the poetic genius and comparative culture evinced in the most ancient epics. 76 But the most probable solution of the puzzle is

that the earliest civilisation inherited a number of animal stories, 77 such as are characteristic of savagery in all parts of the world, 78 and that the first literary generations into whose poetic myths those stories were transferred, 79 being as much accustomed to them as to other surroundings of their childhood, 80 such as bloody sacrifices, mystic expiations, and fantastic initiations, saw no incongruity in anything told them of the gods. 81 Besides, as those wild myths were associated with sacred rites, the inveterate conservatism of religion, 82 which insisted on stone knives in sacrifices long after bronze and iron came in, 83 was likely enough to maintain the divine importance of those fables, 84 just as the historicity of Balaam's ass and Jonah's whale is in some churches piously upheld still.

85 (2) In the times from which the first known Pantheistic teaching dates, ideas of Nature's order were incongruous and indeed incommensurable with ours. 86 Not that the world was then regarded as a chaos. 87 But such order as existed was considered to be a kind of "balance of power" between various unseen beings, 88 some good, some evil, some indifferent. 89 True, some Indian prophets projected an idea of One Eternal Being including all such veiled Principalities and Powers. 90 But their Pantheism was necessarily conditioned by their ignorance of natural phenomena. 91 In fact, an irreducible inconsistency marred their view of the world. 92 For while their Pantheism should have taught them to think of a universal life or energy as working within all things, 93 their theological habit of mind bound them to the incongruous notion of devils or deities moulding, 94 or at least ruling, matter from without. 95 And, indeed, the nearest approach they made to the more genuine Pantheism of modern times was the conception of a world 96 emanating from and projected outside Brahma, to be re-merged in him after the lapse of ages. 97 Now, if I am right in my definition of Pantheism as absolutely identifying God with the Universe, 98 so that, in fact, there cannot be

anything but God, 99 the inconsistency here noted must be regarded as fatal to the genuineness of the Indian or indeed of any other ancient Pantheism. 100 For the defect proved during many centuries to be incurable, and was not indeed fully removed until Spinoza's time. 101 (3) Another difference between ancient Pantheists and ourselves was the absence in their case of any religious creed, 102 sanctioned by supernatural authority and embodied in a definite form, 103 like that of the three Anglican creeds, or the Westminster Confession of Faith. 104 Not that those ancients supposed themselves to be without a revelation. 105 For the Vedas, at least, were considered to be of divine authority, 106 and their words, metres, and grammar were regarded with a superstitious awe, 107 such as reminds us of what has been called the "bibliolatry" of the Jewish Rabbis. 108 But subject to this verbal veneration, the Rishis, or learned divines, used the utmost freedom in regard to the forced and fanciful interpretations extorted from the sacred text, 109 a freedom which again reminds us of the paradoxical caprice 110 shown by some schools of Jewish Rabbis in their treatment of the volume they professed to regard with awe. 111 The various finite gods, such as Vishnu, Indra, Krishna, Marut, or Varuna, were not the subjects of any church creed 112 chanted every day, and carefully stereotyped in the tender minds of children. 113 On the contrary, various rôles were assigned by successive generations to these divinities. 114 So that, for instance, Varuna was at one time the god of the ocean, and at another of the sky. 115 But the uniform tendency of all poets and Rishis alike was to seek, beyond all these gods, one unbeginning, unending, and all comprehensive Being, 116 from whom these "devas" emerged, and into whom they must return. 117 Not only so, but it is clearly suggested in many passages, of which an instance will presently be quoted, 118 that the Eternal, called Brahma who was the true Self of all gods, was also the true Self of human and bird and beast. 119 So that, in fact, notwithstanding the illogical

emanation theory, He was the only real Being, the All in All.

120 Thus, one section of the Khandogya Upanishad consists entirely of instructions given by a father, Uddâlaka, to his son, 121 Svetaketu, who had gone through the ordinary courses of study in the Vedas, 122 but who, in the father's view, had failed to reach the true significance of life. 123 Accordingly, Uddâlaka inquires: "Have you ever asked for that instruction by which we hear what cannot be heard, 124 by which we perceive what cannot be perceived, by which we know what cannot be known?" 125 The youth, more accustomed than we are to teaching by paradox, expresses no surprise at this mode of putting things, 126 but simply asks: "What is that instruction, sir?" 127 The father then proceeds to give an explanation of what in these days is called "Monism," 128 that is, the absolute singleness of ultimate Being, and traces all that is, or seems to be, up to one ultimate Essence. 129 Now, whether in the form given by Uddâlaka to his exposition, his theory can properly be called Pantheism, 130 according to the definition of it assumed above, is perhaps questionable. 131 But that it was intended to be Pantheism there can be no doubt. 132 "In the beginning," says Uddâlaka, "there was that only which is [Greek: to hon]; one only, without a second. 133 Others say, in the beginning there was that only which is not ([Greek: to mae hon]); one only, without a second; 134 and from that which is not, that which is was born." 135 But Uddâlaka rejects this latter doctrine as unthinkable-- 136 which, indeed, many explorers of Hegel have found with pain and anguish of mind. 137 And then the father traces all the multi-formity of the Universe to the desire or will of the original One, "that which is." 138 "It thought, 'may I be many; may I grow forth.' It sent forth fire." 139 My limits do not allow me to quote further the fantastic account 140 given of the farther process by which water and earth, plants, animals, and humans sprang out of that desire of the One: 141 "May I become many; may I grow forth." 142 For our purpose it is more important to show that in the view of

Uddâlaka--however inconsistently he may express himself-- 143 the original One was never really divided, but remains the true Self of every finite being, however apparently separate. 144 Thus, consider the following dialogue, the first words being a direction of the father, Uddâlaka:-- 145 "Fetch me from thence a fruit of the Nyagrodha tree." "Here is one, sir." 146 "Break it." "It is broken, sir." "What do you see there?" "These seeds, almost infinitesimal." "Break one of them." "It is broken, sir." 147 "What do you see there?" "Not anything, sir." 148 The father said: "My son, that subtile essence which you do not perceive there, of that very essence this great Nyagrodha tree exists. 149 Believe it, my son. That which is the subtile essence, in it all that exists has itself. 150 It is the True. It is the Self; and thou, O Svetaketu, art it."

151 Here we are clearly taught that the "self," or inmost reality of every person and thing is the Eternal One, or Brahma, or God. 152 The same doctrine is taught in a more advanced form by the poem called the "Bhagavad Gîtâ," 153 the date of which is probably more than a thousand years later than that of the Upanishad just quoted. 154 In this poem, Krishna, incarnate for the nonce as Arjuna's charioteer, reveals for a special purpose his identity with Brahma, the Eternal All; 155 and Arjuna, when sufficiently instructed adores him thus:--

156 "O infinite Lord of Gods! the world's abode,
157 Thou undivided art, over all supreme.
158 Thou art the first of Gods, the ancient Sire,
159 The treasure-house supreme of all the worlds.
160 The Knowing and the Known, the highest seat.
161 From Thee the All has sprung, O boundless Form!
162 Varuna, Vayu, Agni, Yama thou,
163 The Moon; the Sire and Grandsire too of humans.
164 The Infinite in power, of boundless force,
165 The All thou dost embrace; the Thou art All."

166 These illustrations must suffice for Indian Pantheism. Because, with Buddhism we have nothing to do. 167 For, according to its ablest European exponent (Professor T.W. Rhys Davids), that system of religion simply ignored the conception of an All in All. 168 And this not at all on philosophical grounds, but because its aims were entirely practical. 169 For the aim of its founder was to show humans how by a virtuous life, or lives, they might at last attain annihilation-- 170 or, at any rate, the extinction of the individual self, the apparent separateness of which was, in his view, the source of all misery. 171 And if he could teach his followers to attain that salvation, he was entirely indifferent as to the opinions they might hold about the ultimate nature of the world, 172 provided only that they did not fall into any heresy which proclaimed an immortal soul.

173 The accounts given to us by the best authorities on Zoroaster and Parseeism scarcely justify us in thinking the religion of the Zendavesta to be Pantheistic in our sense of the term. 174 For though it would appear that Ormuzd (or Ahuramazda), the God of light and goodness, originated in, or was born from and one with a nameless impersonal Unity, 175 such as may answer to Herbert Spencer's "Unknowable," it cannot be accurately said that, according to the Persian view of the world, there is nothing but God. 176 For, to say nothing of the apparently independent existence of the principle of darkness and evil called Ahriman, 177 the relation of the Amshaspands, or supreme spirits, and of the Izeds, or secondary spirits, as well as of the Fereurs, 178 or divine ideas to the impersonal Unity, seems to be rather that of emanations, than parts of a Whole. 179 Again, if it be true that, according to the Zend Avesta, the conflict of light and darkness will ultimately cease, and Ahriman with his demons be annihilated, 180 it is obvious that this implies a beginning and an end, with a process originating in the one, and consummated in the other. 181 But such a process, though most actual on the finite scale, and joyfully or painfully real to us, 182 contemplating, as we do

only infinitesimal parts of the Universe, and always under the forms of time and space, is yet incongruous 183 and incommensurate with the thought of one All in All, unlimited by time or space, and whose lifetime is an Eternal Now. 184 Thus true Pantheism takes the Universe, as it is, in its infinity; 185 regards it as without beginning or end; and worships it. 186 Not that Pantheism denies the existence of evil or is unmoved by the struggle between evil and good, 187 or is uninspired by faith in the reiterated triumph of good wherever the local conflict arises. 188 But it insists that evil is relative to the finite parts of the Universe in their supposed isolation, and cannot possibly affect the Eternal All. 189 It allows of no creation or emanation 190 which would put any part of the "wondrous Whole" in opposition to, or separation from, the Eternal. 191 But from its point of view all change, evolution, progress retrogression, sin, pain, or any other good or evil is local, finite, partial; 192 while the infinite coordination of such infinitesimal movements make one eternal peace.

193 Egyptian Religion need not detain us. For though, there are clear traces of Pantheistic speculation among the Priests, 194 it can scarcely be contended that such speculations had the same influence on the cultured laity as the teaching of the Rishis had in ancient India. 195 But the truth seems to be that the oldest popular theology of Egypt was only a variety of Negro animism and fetishism. 196 Yet these grovelling superstitions, as is often the case, evolved in unbroken continuity a higher faith. 197 For, in the attempt made to adapt this savage cult to the religious needs of various districts, all alike gradually advancing in culture, 198 the number and variety of divinities became so bewildering to the priests, 199 that the latter almost inevitably adopted the device of recognising in parochial gods only so many hints of one all-comprehensive divine energy. 200 Not that they ever embraced monotheism--or the belief in one personal God distinct from the Universe. 201 But if Plutarch be

accurate-- as there seems no reason to doubt, in his record of an inscription in a temple of Isis-- 202 they, or at least the most spiritual of them, found refuge in Pantheism. 203 For the transfigured and glorified goddess was not regarded as the maker of the Universe, 204 but as identical with it, and therefore unknowable, 205 "I am all that hath been, is, or shall be; and no mortal has lifted my veil." 206 The prevalence of such Pantheism, at least among the learned and spiritual of ancient Egypt, 207 is, to a considerable extent, confirmed by other Greek writers besides Plutarch. 208 But the inscription noted by Plutarch gives the sum and substance of what they tell us.

209 Before considering the classical and Neo-platonic Greek speculations commonly regarded as Pantheistic, 210 we may do well to recall to mind the immense difference between the established habit of theological thought in our day, 211 and the vague, or at best, poetically vivid ideas of the ancients. 212 For the long tradition of nearly two thousand years, 213 which has made monotheism to us almost as fixed an assumption as that of our own individuality, was entirely wanting in this case. 214 Not that the idea of one supreme God had never been suggested. 215 But it was not the Hebrew or Christian idea that was occasionally propounded; 216 for in the ethnic mind it was rarely, if ever, regarded as inconsistent with polytheism; and consequently it verged on Pantheism. 217 "Consequently," I say, because such monotheism as existed had necessarily to explain the innumerable minor deities 218 as emanations from, or manifestations of the supreme God. 219 And though such conscious attempts at reconciliation of beliefs in many gods and in one Supreme were confined to a small minority of meditative priests and speculative philosophers, 220 yet really, the combination was implicit in the sort of polytheistic religion which possessed the family affections and patriotic associations of the early Greek world.

221 For though we may find a difficulty in ridding ourselves of a prejudice wrought into the tissue

of our early faith [222] by the nursery lessons of childhood, it was not the graven or molten image which was really worshipped by the devout, [223] but that form of superhuman power which, by local accident, had been identified with the "idol." [224] If, indeed, we supposed every "idolator" to have received definite religious teaching, [225] analogous to that with which we ourselves were imbued in youth, we might well find his attitude inconceivable. [226] But he had nothing of the kind. He only knew that in war, in hunting, in fishing, in farming, [227] he was confronted with powers which passed his comprehension; [228] and tradition permeated him with the expectation that such powers would be propitiated by his worship of the images set up in their names. [229] There was therefore no reasoned creed, such as those of the Catholic and Reformed Churches, [230] but only a vague sentiment brought to a focus by the associations of the shrine. [231] From such a view of polytheism it is easy to understand how most, if not all, of the old speculative philosophers could allow the existence of the traditional gods, [232] even while in reasoned contemplation they saw that all deities were subordinate to and merged in one universal God. [233] How far this unstable religious position was subject to the influence of the oriental mysticism [234] at which we have glanced already, is, at any rate, so far as concerns the classical age of Greek philosophy, a matter of conjecture. [235] But the resurrection of a prehistoric and almost forgotten civilisation from the buried cities of Crete [236] has brought to light many evidences of frequent intercourse, two or three thousand years before the Christian era, [237] between European and Egyptian, or Asiatic, centres of life. [238] Therefore, we may well believe that during the earliest stages of the evolution of thought in East and West, [239] it was as impossible as at the present time for any local school of thinkers to be absolutely original or independent. [240] Thus, later Greek philosophers, whether themselves within sound of the echoes of Hindu teaching or not, [241] may very well have grown up

in an atmosphere impregnated with mythic germs, whose origin they did not know. 242 But however that may be, Greek Pantheism, while it had many points of contact with Eastern speculation, was more purely intellectual 243 and less essentially religious than the Pantheism of the Vedas, or the solemn dream that haunted Egyptian temples. 244 For while the aspiration of Hindu Pantheists was to find and assume the right attitude toward "the glory of the sum of things," 245 the Greeks, as St. Paul long afterward said, "sought after wisdom," 246 and were fascinated by the idea of tracing all the bewildering variety of Nature up to some one "principle" ([Greek: archê]), beginning, origin.

247 Thus Thales of Miletus, during the late seventh and early sixth century B.C., is said to have been satisfied when he found in water-- or moisture-- the ultimate principle 248 out of which all things and all life, including gods and humans, were evolved. 249 With such a speculation of infant philosophy we are here not concerned, 250 except to say that it was not Pantheism as understood in modern times. 251 For while his ablest exponents admit that no sufficient evidence is left to show very clearly what he meant, 252 there seems no reason for supposing that to him the Universe was a Living God.

253 It would be fruitless to relate how successors of Thales varied his theory of an ultimate "principle," by substituting air or fire for water. 254 But it is worthwhile to note that another citizen of Miletus, Anaximander, 255 after an interval of some forty years, pronounced that the beginning, the first principle, the origin of all things, was neither water, nor air, nor fire, but the Infinite [Greek: to apeae on]. 256 And though the best authorities confess that they cannot be sure of his meaning, 257 this may very well be because he anticipated Herbert Spencer by two and a half millenniums, 258 in acknowledging that all things merge in one and the same Unknowable. 259 But, so far as our evidence goes, he made no such attempt as the modern philosopher did, 260 to persuade the religious instinct that this

Unknowable could supply the place of all the gods.

261 The position of Xenophanes, who, toward the latter part of the sixth century B.C. migrated, 262 apparently for political reasons, in fear of Persian imperialism, from Colophon in Asia Minor to Elea in Italy, was a little different, and, for our purpose, more interesting. 263 For the few fragments which are unfortunately all that is left to us of his philosophical poetry, are strongly suggestive of Pantheism, 264 and the interpretation put upon them by later classical and sub-classical writers, who had his works before them, would appear decisive. 265 True, the distinguished and enlightened scholar, Simon Karsten, 266 who, in the first quarter of the nineteenth century, found a labour of love in collecting and editing the remains of early Greek philosophers, deprecated such a judgment. 267 Yet, while the motives for his special pleading were honourable, 268 seeing the odious misrepresentations of Pantheism still prevalent in the Dutch scholar's native land,-- 269 misrepresentations undissipated even by the splendour of Spinoza,-- his protest remains special pleading still. 270 And he himself candidly quotes at large from an alleged work of Aristotle-- 271 possibly, only a student's notes of the latter's lectures-- 272 and also from Simplicius, as reported by Theophrastus in a comment on Aristotle's Physics, 273 sentences which describe the system of Xenophanos as unquestionably Pantheistic. 274 From, which description I gather that the devout philosopher regarded God as the only real Being, 275 including all that in human language has been, is, and will be, without beginning or end, 276 living and perceiving equally everywhere throughout His infinite essence. 277 And if that essence is compared by Xenophanes to a sphere, neither bounded nor boundless, neither moving nor immovable, 278 this is only because few, if any, in that age of the world, could content themselves with loyally accepting the limits imposed on human by the very nature of things, 279 limits which now compel us to own that, while the Eternal is more real than ourselves, yet, in the strict sense of

knowing, 280 He is, from an intellectual standpoint, the Unknowable.

281 This Pantheism did not generate in Xenophanes any arrogant disdain for the religion of his time. 282 For, though he condemned, in words often quoted, the folly which supposed the gods to have the human form, senses, passions and appetites, 283 he was yet glad to worship the divine All as partially manifested in finite beings-- 284 perhaps personified powers of Nature. 285 Thus among the fragments of his poetry fortunately preserved, is one exquisite gem, a description of a festive repast in the open air.

286 There purity comes first, symbolised by clear floor, clean hands, and spotless dishes. 287 Upon purity waits beauty, not in the forms desired by sensuous passion, but in garlands of flowers and in delicate scents. 288 The wine is unstinted, yet tempered with sparkling water. 289 But, lest the plentifulness of bread and honey and cheese upon the lordly table should eclipse the highest sanctions of human joy, 290 an altar prominent in the festive scene is heaped with offerings of flowers. 291 Then the first note of music is the praise of God, a praise taking form in blameless poetic myths and holy thoughts. 292 In such a feast the minds of the guests are kindled with a desire to be capable of doing right. 293 "There is no harm in drinking with reasonable moderation; 294 and we may honour the guest who, warmed by wine, talks of such noble deeds and instances of virtue as his memory may suggest. 295 But let him not tell of Titan battles, or those of the giants or centaurs, the fictions of bygone days, 296 nor yet of factious quarrels, nor gossip, that can serve no good end. 297 Rather let us ever keep a good conscience towards the gods."

298 Having given so much space to an ancient who seems to me specially interesting as a prophet of the ultimate apotheosis of earthly religions, 299 I must be content to indicate, in a very few lines, the course of the Pantheistic tradition among the Greeks after his day. 300 The arithmetical mysticism of Pythagoras has no bearing upon our subject.

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301 Empedocles of Agrigentum, living about the middle of the fifth century B.C., 302 and thus, perhaps, in the second generation after Xenophanes, was, in many respects, a much more imposing figure-- 303 clothed in purple, wielding political power, possessing medical skill, and even working miraculous cures, 304 such as are apparently easy to men of personal impressiveness, sympathy, and "magnetism." 305 But he does not appear to have so nearly anticipated modern Pantheism as did his humbler predecessor. 306 For though the fragments of Empedocles, much larger in volume than those of Xenophanes, 307 certainly hint at some kind of everlasting oneness in things, 308 and expressly tell us that there is no creation nor annihilation, but only perpetual changes of arrangement, 309 yet they present other phases of thought, apparently irreconcilable with the doctrine that there is nothing other than God. 310 Thus he teaches that there are four elements-- earth, air, water and fire-- out of which all things are generated. 311 He also anticipates Lucretius in his pessimistic view of humanity's lot; 312 and insists on the apparently independent existence of a principle of discord or strife in the Universe. 313 It would be a forced interpretation to suppose him to have set forth precociously the Darwinian theory of the struggle for life. 314 For his notion seems much more akin to the Zoroastrian imagination of Ahriman. 315 Again, he sings melodiously, but most unphilosophically, of a former golden-age, 316 in which the lion and the lamb would seem to have lain down together in peace; and trees yielded fruit all the year round.

317 At that time the only deity was Venus, who was worshipped with bloodless offerings alone. 318 Still, it must be remembered that, whether consistently or not, Empedocles produced an elaborate work on the Nature of Things, 319 to which Lucretius makes eloquent and earnest acknowledgments. 320 But that very approval of Lucretius forbids us to regard the older poet as a Pantheist in our sense of the term. 321 For certainly to him the

Universe cannot have been a living God.

322 Between this philosophical idea of a Oneness, not thought of as God, 323 and the spiritual contemplation of a universal Life of which all things are modes, 324 the highest thoughts of humans hovered during the process by which, in some measure under extraneous influences, Greek speculation finally produced Neo-platonism-- 325 or, as we might say in the current phraseology of our time-- a restatement of Plato's teaching. 326 Of this school, arising in the early Christian centuries, some leaders were undoubtedly Pantheists. 327 But we cannot say this of Plato himself, nor of his master Socrates. 328 For though these great men were more profoundly interested in the moral order of the world 329 than in any questions of physical Nature, or even of metaphysical subtleties, 330 they were never given to the kind of contemplation suggested above in extracts from the Classical Books of the East, 331 the contemplation which reduces the moral ideal from unreserved subordination of self to the Universe as of the part to the Whole. 332 Doubtless the inspiration imparted by Socrates to a disciple in mere intellect his superior, 333 and the resulting moral and religious suggestions abounding in the Dialogues, 334 did much to impel the current of religious evolution toward that spiritual aspect of the Infinite All 335 which fascinated some of the Neo-Platonists, and received its most splendid exposition from Spinoza. 336 But the conditions imposed by necessary brevity compel me to pass by those classic names with this acknowledgment, 337 and to hasten toward the fuller revelation of Pantheism as a religion.

POST-CHRISTIAN PANTHEISM

J. Allanson Picton

3 In speaking of Neo-Platonism I incidentally mentioned its apparent subjection to "extraneous influences." 2 These, of course, included the rising power of Christianity and its Jewish traditions. 3 Even before the advent of the new revelation, the

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Jewish settlements existing in all great cities of the Graeco-Roman world excited interest at any rate 4 among sentimentalists touched by the fascination at that time beginning to be exerted by oriental religions. 5 And this influence of Jewish traditions was much facilitated by the existence of a Greek translation of the Hebrew scriptures.

6 Now, what the Hebrew tradition did for Greek philosophy was, of course, not to favour its Pantheistic trend, where that existed, 7 but much more to convert such semi-Pantheism from a mere intellectual speculation to contemplative devotion. 8 For Hebraism itself had become almost as intensely monotheistic as the later Islam. 9 And, though monotheism may be a stage in the progress of religion from Animism to Pantheism, 10 it may, also, by the peculiar intensity of the personal devotion it sometimes inspires, 11 cause the very idea of any farther expansion of faith to be counted a sin.

12 Perhaps the influence of Hebraism on Hellenism may be illustrated by the Alexandrian Philo's pathetic endeavour 13 not only to trace the wisdom of the Greeks to Moses, but to show that this derived lore is much mightier for good 14 when re-invested with the spiritual power and ardent devotion of the Jewish faith. 15 "If anyone will speak plainly," he writes, "he might say that the intelligible world is nothing other than the word [Greek: logos], reason of the world-making God. 16 For neither is the intelligible city anything other than the thought [Greek: logismos] of the architect already intending to build the city. 17 This is the teaching of Moses, not mine. 18 At any rate in what follows, when he records the origin of human, he declares outright that human was made in the image of God. 19 But if a part (of creation) reflects the type, so also must the entire manifestation, this intelligible ordered world, 20 which is a reproduction of the divine image on a larger scale than that of human."

21 How Philo managed to extort this out of the Pentateuch is a question of interest, but one on which I cannot delay. 22 Suffice it, that while he thus showed his

reverence for the traditions of his race, his whole aim is to fire philosophy with religious devotion. 23 But he was not, in any strict sense of the word, a Pantheist, 24 though he regarded the Logos as an emanation from the Eternal, and the kosmos, the ordered world, as in some way emanating from the Logos. 25 Perhaps, indeed, if we could exclude from emanation the idea of time, as Christians are supposed to do 26 when they speak of the "eternal generation" of the Divine Son or the "procession" of the Holy Ghost, 27 we might regard Philo, with the succeeding Neo-Platonists and some of the Gnostics, as approximately Pantheistic. 28 But his vagueness and uncertainty about matter forbid such a conclusion. 29 For whether he regarded matter as eternally existing apart from the divine substance, 30 or whether he looked upon it as the opposite of Being, as a sort of positive nothing, 31 in either case, it cannot be said that for him the whole Universe was God, and nothing but God.

32 If I have given more space to the great Alexandrian Jew than my narrow limits ought to afford, 33 it is because I think I may thus avoid the necessity of saying much about the philosophic schemes of the Neo-Platonists, 34 the phantasies of the Gnostics, or the occasionally daring speculations of the Christian Fathers. 35 For whether the works of Philo were much studied by the Greeks or not, they certainly described the spiritual resultant-- so to speak-- 36 emerging from the mutual impact of Western and Oriental, especially Jewish, ideas. 37 Which resultant was "in the air" from the first century of the Christian age; 38 and the later epistles ascribed to St. Paul, as well as the Fourth Gospel, show clear traces of it.

39 But the inspiration of the time-spirit was not confined to the Christian Church. 40 For the city of Alexandria, where that spirit seems to have been peculiarly potent 41 as shown in the transfigured Judaism of Philo, was the birthplace of the Neo-Platonic school already mentioned above. 42 And among its greatest members, such as Plotinus,

Porphyry, Proclus, the religious influence of the East was distinctly apparent. 43 True, they followed Socrates and Plato in reverence for knowledge as the unfailing begetter of virtue. 44 But their speculations about the divine Being were touched by Oriental emotion. 45 And we may with some confidence believe that their development of the Platonic Trinity owed a good deal to the rapid spread of Christianity. 46 Thus the sentiment, the fervour, the yearning for "salvation," the worship and devotion taught by the best of the Neo-Platonists were not so much, from Athens as from Sinai and Galilee.

47 Yet, though there were in their world-conception many anticipations of the gospel of the "God-intoxicated human," 48 whom the counsels of the Eternal reserved for the fullness of times, 49 it would scarcely be accurate to describe the system of any of them as strictly Pantheistic. 50 For they were always troubled about "matter" as an anomalous thing in a divine Universe, 51 and in treating of it they hesitated between the notion of an eternal nuisance which the Demiurges, or acting God, could only modify, not destroy, 52 and, on the other hand, a strained theory of an evil nothing, which is yet something.

53 Again, so far from realising Spinoza's faith in God as so literally All in All that there is nothing else but He, 54 they would not tolerate the contact of the Infinite with the finite, of God with the world. 55 Consistently with such prepossessions, they held obstinately to the notion of some beginning, and therefore some ending of the ordered world. 56 And this beginning was effected by emanations such as the Logos, 57 or, as others had it, the world-soul and other divine energies, between the Eternal and creation; 58 a phantasy which, however poetically wrought out, is not really consistent with Pantheism. 59 Such ideas of a hierarchy of subordinate emanations to fill the supposed abyss between the Infinite and the Finite were eagerly adopted 60 and developed by the pseudo-philosophers called Gnostics, on both sides of the boundary between the Church and the World. 61 Suffice it that, like

most, though by no means all of their predecessors, they regarded the world of earth, sun, planet, stars, and animated nature with human at its head, as the whole Universe; 62 and, assuming that it must have had a beginning, they vexed their souls with futile attempts to frame some gradual transition 63 from the uncreated to the created, from the eternal to the mortal. 64 The grotesque chimaeras engendered thus are remembered now 65 only as illustrations of the facile transition from the sublime to the ridiculous and from philosophy to folly.

66 The orthodox Christian fathers were not less conscious than the Neo-Platonists or Gnostics of the perennial problem of the Many and the One. 67 But they were restrained, perhaps, by the "faith that comes of self-control," 68 perhaps by mere common sense, from indulging in attempts to connect the Infinite with the Finite by "vain genealogies." 69 Indeed, for the most part they confessed that whatever light the Gospel might shed on moral issues, it left untouched the ultimate question of the relation of the Infinite to the Finite. 70 And the only aspect of their most venturesome speculations which I need recall is their insistence, 71 even when apparently verging toward Pantheism, on a transcendent as well as an immanent God, 72 that is on a Creator existing, so to speak, outside the Universe and apart from it as well as permeating every part. 73 Thus, for example, Augustine would seem to deny to the world any separate creature existence 74 when he says, that but for the divinity everywhere in it, creation would cease to be. 75 But in his insistence on the creation of the world from nothing, he directly contradicts Pantheism, 76 because he must necessarily be taken to mean that there is now something other than God.

77 That there have been devout Christians whose mystic speculations on the relations of the soul to the Eternal logically involved Pantheism-- 78 if logic in such a case had any function--there can be no doubt. 79 But for most of them "God's word written" seemed to confirm God's word in heaven and earth as known to them, 80 proclaiming that there had

been a beginning and there must be an end. 81 Therefore, whatever might be the immanence of the Creator in His works, 82 God could not, in their minds, be identified with "the fashion of this world" which "passeth away." 83 Yet the time was coming when the Divine word both in Scripture and in Nature was to be otherwise read. 84 For humans began to learn that the Bible was other than they had supposed and the Universe immeasurably greater than they had conceived.

MODERN PANTHEISM

J. Allanson Picton

4 Modern Pantheism as a religion begins with Spinoza. Whether it ended with him is a question which the future will have to decide. 2 But the signs of the times are, at least in my view, very clearly against such a conclusion. 3 And amongst the omens which portend immortality, not necessarily for the philosophical scheme, but for the "God-intoxicated" devoutness of his Pantheism, 4 is the desire, or rather the imperious need increasingly realised, for a religion emancipated from theories of creation or teleology, intolerant of any miracle, 5 save indeed the wonders of the spiritual life, and satisfying the heart with an ever present God. 6 For it is to be remembered that Spinoza was the first Pantheist who was also a prophet, 7 in the sense of speaking out the divine voice of the infinite Universe to its human constituent parts.

8 Not that I would minimise the religious fervour of the Neo-Platonists: it is their Pantheism that seems to have been imperfect. 9 But in Spinoza we have a man who, inheriting by birth the tradition--I might even say the apostolic succession-- 10 of the Jewish prophets, and gifted with an insight into the consummation of that tradition in Jesus Christ, 11 was driven by a commanding intellect to divorce the spiritual life he prized from creeds that had become to him Impossible, 12 and to enshrine it in the worthier temple of an eternal Universe identical with God. 13 It is not, then, with his philosophy that I am

so much concerned as with his religion.

14 It is given to no human to be absolutely original in the sense of creating ideas of which no germs existed before his day. 15 But short of such an impossible independence of the past, Benedict de Spinoza had perhaps as much originality as any man who ever lived. 16 Yet with a modesty ever characteristic of moral greatness, he himself was disposed, 17 at any rate during his earlier philosophical development, to exaggerate his indebtedness to the philosopher Descartes, 18 whose system he labouriously abridged in the inappropriate form of a series of propositions supposed to be demonstrated after the fashion of Euclid.

19 But whatever may have been the esoteric belief of Descartes about creation out of nothing and the theological dogmas connected therewith, 20 he attached too much importance to the social and political functions of established ecclesiastical institutions to declare himself independent of them. 21 And though his submission, signalised on his death-bed, did not interfere with the freest working of his brilliant intellect within limits permitted to the former ecclesiastical "schoolmen," 22 it did prevent his frank realisation of the eternal oneness of all being. 23 For it compelled him to retain belief in a Creator distinct in essence from Creation. 24 Such a belief Spinoza entirely rejected. For though his "Natura Naturans," or Nature Active, may in a manner be called the Creator of his "Natura Naturata," or Nature Passive, 25 these are consubstantial and co-eternal, neither being before or after the other.

26 Thus for him there was no beginning of the Universe and there could be no end. 27 There was no creation out of nothing, nor any omen of weariness, decay, or death in the eternal order. 28 He teaches us in effect to take the Universe as it is, and to pry into no supposed secrets of origin or end, 29 an entirely gratuitous labour, imposed by illusions arising out of the continuous redistribution of parts of the Whole. 30 Instead of thus spending our mental energy for nought, he would have us

regard the whole of Being as one Substance characterized by innumerable attributes, 31 of which Extension and Thought alone come within our human cognisance; while each Attribute is subject to infinite Modes or modifications, 32 which, in their effect on the two attributes known to us--extension and thought--constitute the Universe of our experience. 33 That infinite and eternal Substance revealed by Attributes and their Modes is God, 34 absolute in His perfections if He could be fully conceived and known in all His activities. 35 And even to our ignorance He is entrancing in His gradual self-revelation, 36 as with our inadequate ideas we pursue the unattainable from glory to glory.

37 This, then, is the first note we make of the gospel of Spinoza. 38 But if anyone thinks that the sacred word "gospel" is here misused, and that such teaching is fatal to piety, 39 let him turn to the 104th Psalm and read, from Spinoza's point of view, the cosmic vision of the Hebrew seer. 40 True, we can think no longer of the supernatural carpenter who works on "the beams of his chambers" above, 41 or of the mythical engineer who digs deep in the darkness to "lay the foundations of the earth." 42 For that is poetry, appealing by concrete images to the emotions. 43 But it does not bind the intellect to a literal interpretation; 44 and we are no longer tormented by vain efforts to reconcile with infinite impossibilities the half-human personality presented in poetic guise. 45 So that the vision of the seer is now the suggestion to us of an infinite and eternal Being, 46 whose attributes by modification take the innumerable shapes of sun, moon, and stars, 47 and mountains and river, and tree and flower, and bird and beast, and human. 48 And the winds that sweep and the floods that roll, and the rocky barriers that stand fast, 49 and the rivers that wind among the hills, and the trees that flourish and the living societies that gather in fruitful places, 50 the labourer in his vineyard, the sailor in his ship, all are in and of the one Eternal Being. 51 Yet we echo not with less, but perhaps with more reverence, than the believers in a

divine artisan, 52 the words of the Psalmist: "O Lord, how manifold are Thy works! 53 in wisdom hast Thou made them all: the earth is full of Thy riches." 54 But if the thunder and the flaming fire and the sweeping flood seem discordant, 55 they existed for the Psalmist as well as for us, and they do not seem to have troubled him. 56 At this point, therefore, we need only say that Spinoza's religion of one divine Substance, whose unity in variety is holy, 57 ought to stir within us with not less fervour, 58 at least the spirit of the Psalmist's concluding prayer: "Let the sinners be consumed out of the earth and let the wicked be no more."

59 Spinoza's maintenance of extension as one of the two infinite divine attributes cognisable by us has, with a certain amount of plausibility, been urged as a note of materialism. 60 And this reproach has been supported by reference to his insistence that in human the body and the soul are only two different aspects of the same thing; 61 for to him the body is a finite Mode of God's infinite attribute of extension 62 and the soul a finite Mode of God's infinite attribute of thought, 63 while both are manifestations of the one eternal divine Substance. 64 Still, if in any way we are to regard God as extended, it seems impossible to avoid the inference that we regard Him as identified with matter, or at least the possibility of matter. 65 Sir Frederick Pollock has admitted that this is a weak point in Spinoza's philosophy, and mars its symmetry. 66 But, being more concerned with, his religion, I am content to point out that such an objection was much more effective in Spinoza's time than it is to-day. 67 For the whole trend of philosophy during the nineteenth century was towards a view of Extension itself as a mode of Thought, 68 and therefore toward the absorption of one of Spinoza's theoretical divine attributes in the other.

69 Now if this should prove to be the permanent tendency of the most influential thinkers--as indeed seems most likely-- 70 it will probably be held that Spinoza was wrong in attributing extension to the Eternal as one of the qualities of His substance, 71 except in so far as extension is, if

not a necessary, at any rate an actual, and so far as we know, a universal mode of thought. 72 But though, as Sir Frederick Pollock has pointed out, Spinoza has in a manner "counted thought twice over" 73 while treating of the only two infinite attributes cognisable to us, we need not, on that account, surrender his luminous idea of God as a Being absolutely infinite, 74 that is, "Substance consisting of infinite Attributes, whereof each one expresses eternal and infinite being." 75 Nor need we abandon his supplementary but essential idea of "Modes" 76 or "modifications" which mould the attributes into the varieties of finite worlds, known and unknown. 77 Thus it may be that, in Spinoza's sense of the word "Attribute," we shall have to confess that only one comes within our human ken, 78 that of Thought in a sense which includes feeling.

79 But if the late Herbert Spencer, apart from his synthetic philosophy of phenomena, has left any permanent mark on the religions consciousness, 80 it has been by a consecration of the mystery of the ultimate Unknowable. 81 And in the spirit of reverence thus taught by him we may still hold with Spinoza 82 that the Eternal has an infinity of other attributes with their infinite modifications not within our cognisance. 83 This would only be an enlarged application of Hamlet's words: "There are more things in Heaven and Earth, Horatio, Than are dreamt of in your philosophy." 84 Or, to put it in another way, the Universe perceptible to us is only one of an infinity of Universes. 85 By which is not meant an infinite extension of galaxies in space, but the co-existence 86 and, so to speak, inter-penetration of an infinity of modes of existence imperceptible to us.

87 To Spinoza, then, God is the totality of Being. 88 But it is not to be inferred that he identified God with the visible, or with any conceivable Universe. 89 For either of these must fall far short of infinity, and the Being of God is infinite. 90 All I mean, when I say that Spinoza identifies God with the totality of existence, 91 is that he regards the deity as that Perfect Being without beginning or end, 92 whose essence it is to be, and of

whom all that exists, 93 whether known to us or not, is separately a partial, and comprehensively a perfect expression.

94 Of more practical interest to us perhaps is Spinoza's doctrine of human, 95 though it would have been impossible to explain that without first indicating his idea of God. 96 In his view, then, human is a finite mode of the two divine attributes, extension and thought. 97 Thus both the extended body and the conscious mind have their substance and reality in God. 98 But the essence of human does not necessarily involve his separate existence as the essence of God implies Being. 99 Of course the substance of human is imperishable because it is of God's substance. 100 Nay, there is a sense in which each human, being an eternal thought of God, has an aspect towards eternity or exists "sub specie eternitatis." 101 But that is a truth transcending the finite practical world with which we have to do.

102 According to Spinoza, what constitutes the real essence of the human mind is the (divine) idea of a certain individual creature actually existing. 103 Here, perhaps, modern speculations about the constitution of matter may help us-- 104 if we use them with due reserve-- to grasp Spinoza's notion of a "res singularis in actu"-- 105 or as it might be rendered freely, "a creature of individual functions," for what is called the "vortex theory," 106 though as old as Cartesian philosophy, has recently flashed into sudden prominence. 107 And whether or not the speculation be only a passing phase of human thought about the Unknowable, it equally answers the purpose of illustration. 108 Thus the "ether" is supposed to fill all space; 109 and within it there are imagined or inferred innumerable "tourbillons" or "vortices," 110 which, though parts of the indefinitely extended ether, form by their self-contained motion little worlds in themselves. 111 These little worlds are by some regarded as the atoms which, by composition, and differentiation, build up our palpable Universe. 112 With the possibilities of such a theory I have nothing to do. But the notion of the vortex in the

ether may perhaps help us to a glimpse of Spinoza's notion 113 when he speaks of a "res singularis in actu" a creature of individual functions.

114 For to him human was, as it were, an infinitesimal vortex in a phase or attribute of the divine Substance. 115 The analogy, like all other analogies, would not bear being pressed. 116 But it does suggest to us a picture of finite individuality in action or function, subordinated to unity with infinite Substance. 117 If it be said that such an explanation would necessarily include the conscious life of beasts and birds, 118 the answer would seem to be, that admitting this to be the case, yet in human the divine idea of individuality is more fully expressed and has more of reality than in any lower creature.

119 Human, then, according to Spinoza, is in God and of God. 120 But what are we to say of bad people, the vile, the base, the liar, the murderer? Are they also in God and of God? 121 Spinoza does not blench. Yes, they are. 122 But here comes in his doctrine of "adequate" and "inadequate ideas." Thus, if you see the colour red it completely expresses itself. 123 It cannot be defined and needs no explanation. As it is in the Infinite Thought so it is in ours. 124 We have an "adequate idea" of it. But now if you see on an artist's canvas a splotch of red and blue and yellow, part of a work only begun, it gives you no adequate idea. 125 True, you have an adequate idea of each several colour, but not of their relations to the work conceived. 126 To get that you would have to enter into the mind of the artist and see as he sees. 127 Then the splotch of colour would take its place as part of a harmonious whole; 128 and would give you an adequate idea just as it does to the artist.

129 Now, according to Spinoza, when we see things as they appear in Infinite Thought we have an adequate idea. 130 But if we see only a component element in an idea-- let us say-- of the divine Artist, then our idea is inadequate. 131 Hence we misjudge things. And of the part played by bad people in the divine Whole we certainly have no adequate idea. 132 But here again we must be on

our guard against the abuse of illustrations. 133 For it is not to be inferred that Spinoza regards the Universe as an unfinished picture, of which, the completion will justify the beginning. 134 On the contrary, the Universe is to him eternal, the necessary expression of the infinite attributes of eternal Being. Still the analogy may help us.

135 For the concentration of attention on a single part of an ordered whole may, quite as certainly as a glance at an unfinished work, be the occasion of an inadequate idea. 136 In effect, the suggestion is that if we, like God, could contemplate the infinite Universe all at once, 137 and have an adequate idea thereof, in other words if we could ascend to the self contemplation of the Eternal, 138 we should have the bliss associated by long habit with the words of the Psalmist: 139 "I shall be satisfied when I awake, with thy likeness." 140 Such bliss, however, is only approximately attainable in moments of mystic transport. 141 And when, as in so many experiences, we see only in part, 142 and have inadequate ideas, faith in the Eternal Whole is needed to keep us from blasphemy.

143 With such necessarily brief hints as to Spinoza's attitude towards evil, I resume his doctrine of human-- the individual creature as a centre of action. 144 Of final causes Spinoza will not hear. But if instead of asking "what is the chief end of human," we ask what is the idea of human, 145 Spinoza answers that it is the realisation of a mode of the divine attributes, extension and thought. 146 And if this should seem unsatisfying, let it be remembered that to this devout Pantheist the divine attributes and their modes were the expression of the very substance and life of God.

147 Now with "extension," for reasons already given, we need not trouble ourselves 148 except to say that at least Spinoza's teaching would suggest the idea of ‘mens sana in corpore sano’. 149 Because to him the mind was the "idea" of the body, and the body the "object"-- 150 not quite in the modern sense-- of the mind. 151 But as regards the human mode of the divine attribute of thought, 152

Spinoza makes its ideal to be a life absorbed in such contemplation of "the Blessed God," the infinite Whole, 153 as shall react on the creature in inspirations of freedom, purity and love.

154 And first as to freedom, Spinoza means by this not caprice, nor the monstrous miracle of causeless action, 155 but independence of external force or of any disproportionate and illegitimate passion. 156 The freedom to which he aspires is the freedom of God, 157 who eternally acts in accordance with the mutual harmony of the whole attributes of His nature, not one of which clashes with another. 158 So Spinoza's free human is one in whom all aspirations and energies, converging in one resultant, the expression of the divine idea, move him in harmony with the Universe. 159 From such a point of view the quibbles about "free will," in the sense of causeless action, cease to have any meaning. 160 For if the good human says "I could have done otherwise if I had liked," the obvious reply is, "Yes, but you would not have liked." 161 Because the will is not a separate faculty, but the expression of the whole nature, as that exists at the moment of "willing." 162 And the only real freedom is the unimpeded conglomerate impulse to do right. 163 But should it be asked what if the resultant impulse of the whole nature is toward wrong? 164 The answer is, in that case there is no freedom, but a slavery to some external influence or to a disturbed balance of the passions. 165 Or if it be asked what is right? 166 That is a far reaching question to the solution of which Spinoza bends all his splendid powers. 167 But limits of space preclude me from saying more than, 168 that his ideal of right will be found conformable to the highest standards of the most spiritual religions.

169 This ideal I ventured to symbolise rather than define as "purity." 170 For after all the philosophic reasoning with which it is no less lucidly than labouriously worked out in the final book of his Ethica, "Concerning Human. 171 Freedom"-- the moral result of all this intellectual effort is that same cleansing of the soul 172 from vain

desire and that subordination of the earthly self to its divine idea which we are taught in the Sermon on the Mount. 173 And while surely everyone but a fanatical anti-Christian must allow the greater prophetic worth of the Galilean, 174 who could teach these sublime lessons so that "the common people heard him gladly," 175 it seems difficult to deny to the heretic Jew of the Hague the second rank among the teachers given to the world by that strangely gifted race. 176 For though he could not speak to "the common people," he left as his legacy to humankind, 177 not so much a system of philosophy, as an impregnable foundation for morals and religion, 178 available for the time now coming upon us--such a time as that suggested by the writer of the Epistle to the Hebrews, 179 when he spoke of "the removing of those things that are shaken, as of things that are made, that those things which cannot be shaken may remain." 180 No doubt Sir Frederic Pollock is quite right in declaring that Spinoza would have been the very last man to desire any one to become a Spinozist. 181 But that is quite consistent with the inspired Pantheist's infinite longing to see all humans blessed by that inward peace which he proved, by his own heroic experience, 182 to be identical with the self-control conferred and maintained by devout contemplation of God's all-comprehensive Being and our place therein. 183 If, then, I regard purity as the best symbol of such a moral ideal, it is because the word connotes, 184 together with freedom from discordant passion, a frankly unconstrained recognition of the simplicity of our relation to God. 185 For surely when once the self has made the great surrender, and becomes content to be nothing, 186 that in St. Paul's words, "God may be All in All," the whole problem of life is infinitely simplified, in the sense that no farther degree of simplification is possible. 187 Because all contradictions of pain and evil and sorrow are dissolved in that act of surrender. 188 We must, indeed, recognise that to our "inadequate ideas" the time often seems "out of joint." 189 But we need not, with Hamlet, cry out on

an impossible "spite." 190 For when once it is heartily and loyally realised that not our partial likings, but the eternal harmony of the Whole, is the glory of God, 191 we already anticipate the peace of absorption in the Infinite.

192 Nor is this moral ideal without a sacred passion; at least to ordinary people; 193 though it must be confessed that Spinoza, in the stillness of his sacred peace, ignored the word. 194 But he still held that the larger our view of the Universe and of our communion therewith, 195 the more we have of God in us and the more do we realise an "intellectual love" towards Him. 196 That this in his case was no barren sentiment, but a genuine moral inspiration, was proved by his life; 197 for truly "he endured as seeing Him who is invisible." 198 And it was not by faculties wholly wanting to smaller people that he did this. 199 For though his intellect was in some respects almost beyond compare, 200 it was rather by his self-subordinating contemplation that he was kept at peace. 201 Indeed, he knew far less of the extended Universe than our people of science do, 202 and his doctrines of mind and thought are, by indisputable authorities, regarded as imperfect. 203 But imagining what God must be, could we have an adequate idea not only of His Being-- which Spinoza thought he had-- 204 but of His infinite attributes and their modes-- which Spinoza recognised that he had not-- 205 he declared that love toward God was the very highest good. 206 And it was supremely blessed in this, that it could engender no jealousy nor selfishness, nor sectarian zeal, 207 but rather a large-hearted charity which would gather all humankind into the present heaven of that love.

LIFE OF SPINOZA

J. Allanson Picton

5 It is not within the scope of the present essay to give a life of Baruch (or Benedict) de Spinoza. 2 But for the sake of those to whom the work of Sir Frederick Pollock is not easily accessible, the following particulars may be given. 3 Spinoza was born in

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Amsterdam, November, 1632, of a fairly prosperous Jewish family, originally from Portugal. 4 He received thorough instruction in the language and literature of the Hebrews, 5 and in addition became a good Latin scholar, so far as to write and correspond in that language. 6 He was early interested in philosophy, and especially attracted for a time by the writings of Descartes. 7 By the time he was twenty-three years old he was suspected of heresy, 8 and in his twenty-fourth year (1655) was cut off from the Synagogue with a frightful curse. 9 His family disowned him, and for his maintenance he turned to the polishing of lenses, 10 a trade already learned in accordance with the Jewish custom that every boy must have a handicraft. 11 What he earned would hardly be considered a "living wage" in these days. 12 But according to Colerus, his first biographer, who enquired of the householders with whom Spinoza lodged, his day's maintenance of often cost no more than 4-1/2d. 13 Various incidents proved his total indifference to money, except as far as needed to "provide things honest in the sight of all people." 14 Though of an amiable and sociable disposition he lived a solitary life, while not indisposed to kindly talk with his humbler neighbours. 15 He had some of the greatest scholars of the day among his correspondents. 16 He published but little during his life, leaving his greatest work as a legacy to the world on his early death, at the Hague, from consumption, in 1677.

17 "It is to be observed that, inasmuch as Attribute is defined by reference to intellect, 18 and Thought itself is an attribute, Thought appears to be in a manner, counted twice over."-- 19 Spinoza: His Life and Philosophy, by Sir Frederick Pollock. Second edition, 1899, p. 153.

20 It is of course true that Spinoza considered himself to have a clear and adequate conception of God. 21 But by this he meant only that, as a philosopher, he had an intuitive certainty of eternal and infinite Being. 22 So have all of us humbler mortals, though we should not have been able to express it for ourselves. 23 No one supposes that for an indefinite

space of time or eternity there was nothing, and then suddenly there was something. 24 But, if not, then everyone recognises with Spinoza the fact of eternal Being, 25 though, of course, he saw what this recognition meant, as the many do not. 26 But when it comes to the facts of mortal imperfections and ignorance, 27 Spinoza, with his theory of "inadequate ideas," is as ready as Spencer to acknowledge the Unknowable.

28 I do not think it necessary in an essay of this kind to discuss Spinoza's theory of the body as object of the mind, 29 and the mind as "idea" of the body, both being different aspects of the same thing.

30 "Rei alicujus singularis actu existentis." The word "divine" does not occur in *Proposition xi. Ethices II.*, from which I quote. 31 But it is implied; because the mind is only a mode or modification of the infinite attribute of thought, 32 which again expresses the eternal Substance in God. 33 I venture a doubt whether "actually existing," though adopted by such authorities as Sir F. Pollock gives, with any distinctness, Spinoza's meaning. 34 I may be wrong, but I suspect that one of the later uses of "actus," as quoted in Ducange, affected Spinoza's Latinity. 35 Thus several ecclesiastical writers are quoted as using the word in the sense of office, or function. 36 Surely this would suit Spinoza's definition of the mind. 37 For he treats it as a centre of phenomenal activity amidst the infinite modes of the divine attribute. 38 Its apparent individuality is a consequence of its spontaneity as a centre of action-- 39 always understood that the spontaneity is consistent with the absolute eternal order assumed throughout the work.

40 Of course the professor of optics can tell us how many vibrations in a second go to produce the particular shade of colour. 41 But these cannot by any means be identified with conscious perception; and it is with this only that we are concerned.

42 Ethices *Pars II., Prop. xi. Corollarium*. "Hence it follows that the human mind is part of the infinite intellect (thought) of God; 43 and accordingly, when we say that the human mind perceives this or that, 44 we only say that God-- not in His infinity, but so far as He

is expressed by the nature of the human mind, 45 or, so far as He constitutes the essence of the human mind-- has this or that idea. 46 And when, we say that God has this or that idea, not only so far as He constitutes the nature of the human mind, 47 but so far as He has the idea also of some other thing together with the human mind, 48 then we say that the human mind perceives the thing in part, or inadequately." 49 E.G. all races have naturally supposed earthquakes and storm, battle, murder and sudden death to present ideas identical in the minds of their gods and of themselves. 50 But Spinoza's suggestion, as I interpret it, is that the true God has the idea of such things, 51 not only so far as He constitutes the human mind, but as He includes the ideas of some correlated things to us inconceivable. 52 Our idea is therefore "inadequate."

SPINOZA AND HIS WORK
J. Allanson Picton

6 Notwithstanding the admiration, and even reverence, with, which Spinoza was regarded by a few scholars during his life-time, 2 it cannot be said that during the century following his death, in 1677, there was any wide acceptance of his ideas. 3 The times were not favourable. For the political and social power of ecclesiasticism, whether established, or un-established, 4 compelled people of science and philosophers to treat dominant creeds as consecrated ground, 5 on which ordinary methods of research, reasoning or criticism could not be pursued. 6 In saying this, I am far from accusing those illustrious people of insincerity. 7 Some few of them, indeed, used a sort of cryptic satire to excuse to themselves an unwilling conformity. 8 But, for the most part, the moral pressure of tradition and education compelled enlightened people to identify the doctrines of a personal God, 9 Creation, Fall, Redemption and Immortality with moral interests

vitally essential to human welfare. 10 Under such circumstances a prudent conservatism was inevitable.

11 Yet, notwithstanding these restraining influences, the thoughts breathed forth by the lonely thinker were as living seed wafted abroad, 12 and falling here and there on good ground, germinated and brought forth fruit. 13 Sometimes his influence was acknowledged, sometimes it was repudiated; but it was there, nevertheless. 14 It is doubtful whether Fichte's idealism could have taken the form it did had not Spinoza preceded him. 15 Hegel, setting out on his great intellectual career with a resolve to defend the faith once delivered to the saints, 16 yet traces its roots to a philosophy of Being which, at any rate, looks very like Pantheism. 17 This is perhaps delicate ground to tread. For if one is asked whether one understands Hegel, 18 one is tempted to answer, like the pious Scotch lady when her friends enquired whether she had understood the minister's sermon, "Hech, sirs, d'ye think I'd presume?" 19 Still, not my own reading of him only, but Mr. Haldane's profoundly interesting interpretations given in his Gifford Lectures, 20 make the impression that Hegel's eternal process is always a projection of subject as object and re-integration of the two. 21 And this goes on, not only on the infinite, but on the finite scale, 22 amidst the infinite number of processes which constitute the Whole of Being. 23 But this seems to leave no room for creation out of nothing, and it is to that extent pantheistic. 24 There are doubtless saving interpretations, but it is difficult to follow them; 25 and they cannot cancel the initial postulate of one eternal process, consisting in the relations of infinite subject, object and reunion. 26 On such a system I do not see how there can be anything but God, 27 and, therefore, notwithstanding his aversion to the name, count Hegel a Pantheist.

28 Goethe and Wordsworth, in many inspired passages of their poetry, echo the faith of Spinoza. 29 Wordsworth, of course, in the reaction from his first expectations of the new order that he hoped to

see arise out of the French Revolution, 30 was Inclined to magnify the Importance of established religious ceremonies and creeds. 31 But we cannot suppose that he ever repented of his reverence for Nature as a divine revelation. 32 And we may believe that he continued to regard his practically pantheistic visions as an insight into the eternal reality 33 from which the detailed schemes of orthodox theology were projected.

34 That Schleiermacher was much indebted to Spinoza is abundantly evident from his own words. 35 He spoke of "the holy repudiated Spinoza." 36 He declared that "the high world-spirit penetrated him; the Infinite was his beginning and his end; 37 the Universe his only and eternal love. 38 In holy innocence and lowliness, he mirrored himself in the eternal world, and saw himself as its most love-worthy image. 39 He was full of religion and of the Holy Spirit; and therefore he stands alone and unreachable, 40 master in his art above the profane multitude, without disciples and without citizenship."

41 Coming down to Anglican Broad Churchmen, it would scarcely be fair to quote isolated utterances as proofs of their Pantheism. 42 And yet when Frederick Robertson asked, "What is this world itself but the form of Deity whereby the manifoldness and beauty of His mind manifests itself?" 43 and still farther, when he quotes with approval Channing's word, that "perhaps matter is but a mode of thought," 44 the most earnest Pantheist would hardly desire more. 45 For the conception of the Universe involved must surely exclude the real being, or even the real existence, of anything but God. 46 Matthew Arnold never committed himself to Pantheism, nor, indeed, to any other theory of the Universe. 47 For his delicate humour and lambent satire always had in view simply the practical object of clearing a plain way for the good life through the "Aberglaube" of theology. 48 His description of God as "the Power not ourselves which makes for righteousness," might seem, in fact, the negation of Pantheism, 49 because, if God is not ourselves,

there is something other than God. 50 But the person who deliberately justified the loose phraseology of the Bible about infinite Being, 51 by the plea that it was language "thrown out" at an object infinitely transcending linguistic expression, 52 ought not himself to be pinned to the implications logically deducible from his own words "thrown out" at the same transcendent object. 53 And, though Matthew Arnold was too literary to be a Pantheist, 54 that is, though he thought more of forms of expression than of ultimate reality, 55 his satirical disintegration of the creeds, wherever it is effective, makes Pantheism the only religious alternative. 56 "Secular" and godless alternatives may be offered; but their incongruity with the whole evolution of humanity from prehistoric animism to the higher Pantheism will make their doom short and sure.

57 In the earlier part of this essay I made the remark that Pantheism as a religion is almost entirely modern. 58 The context, however, clearly showed what was meant; for several pages have been occupied with indications 59 of the ideas and teaching of individual Pantheists from Xenophanes to Spinoza. 60 But we do not usually take much note of a religion that is confined to one or two people in an age. 61 If it dies out we treat it merely as a curiosity, or an intellectual puzzle, 62 like the dreams of Jacob Boehme, or the atheistic ecclesiasticism of Comte. 63 But, if it afterwards shows symptoms of unexpected adaptation to the mental and moral conditions of a newer world, 64 and if, on account of this adaptation, it gains a hold on people who are neither philosophers nor metaphysicians, but only religious, 65 it demands our consideration on far other grounds than those of intellectual curiosity.

66 Now it has only been during the second half of the last century that Pantheism has been able to claim attention as a religion in such a sense as this. 67 As to the fact there can hardly be any dispute. 68 For not only has it become ever a more prominent motive in the music of the poets, 69 and not only are all rationalisations of Christianity

more or less transparent disguises of Pantheism, 70 but I may safely appeal to those ordinary members of intelligent society who are neither poets, nor divines, nor philosophers, 71 whether the freest and most confidential interchange of religious thought does not continually verge on a faith which merges everything in God.

72 Nor are the reasons of this tendency far to seek. Indeed, they are palpable and conspicuous in the mutual pressure of science and faith. 73 For, on the one hand science has made unthinkable the old-world conception of a three-storeyed Universe, constructed by an artificer God, 74 who suddenly awoke from an eternity of idleness to make Heaven, Earth, and Hell-- 75 a conception involving a King of kings, enthroned like an eastern monarch, 76 and sending forth His ministering spirits, or appointing His angel deputies to direct and govern at His beck. 77 Or if it be said that never, except in the ages of primeval simplicity, or amongst later generations living under primeval conditions? 78 Has such a conception been entertained, it would be difficult for the "broadest" Church-person to say what has been, put in its place. 79 It is vain to remind us how later Christianity has patronised nebular hypotheses and the doctrine of evolution. 80 For these give no definite substitute whatever for the old story, that Elohim "spoke, and it was done-- he commanded, and it stood fast." 81 Whence the fiery mists by the rotation and cooling of which the worlds were slowly evolved? 82 We are told that the same process is going on now within the ken of astronomers. 83 But does anyone suppose that in those realms of space God is evoking something out of nothing, or saying "be," and "there is"? 84 No; we are assured that these fiery mists are formed by the collision of misguided orbs; 85 and we are even asked-- or, at least we were asked-- to believe that this process must go on until all systems are agglomerated in one orb, to be ultimately congealed into stone. 86 What, then, is the office of the Creator according to this scheme, as repulsive as it is absurd? 87 It would appear that, at some moment in a vacuous eternity, He calls matter out of nothing, 88

whirls it into fiery vortices, and then lets it cool down to the absolute zero wherein death reigns forever.

89 But, after all, "there is a spirit in human," and "the inspiration of the Almighty," 90 of the Eternal, of the glorious Whole to which we belong, stirs in us a protest against this blasphemy of ignorance. 91 Ignorance, I say, for it was not the knowledge of our wise people that whispered such things, 92 but their sense of the vacuity beyond their knowledge. 93 Up to certain bounds, their grasp of facts, their insight into physical order, their mathematical skill, were beyond all praise. 94 But beyond that bound, aye, and within it, in every inconceivable mode of the action of force, as, for example, in gravitation, brooded the Unknowable. 95 And it was not their knowledge, but their ignorance that entailed absurd issues. 96 Already there are signs that even celestial physics and mathematics will refuse to endorse as final so revolting a scheme of material evolution and devolution, ending only in universal death. 97 And when once the re-birth of new order out of the old is seen to be everywhere and eternally taking place, 98 then all the hints given us by science of the ultimate oneness of all things, converge in the faith that All is God, and God is All. 99 For certainly, the latest observations on Matter suggest that all forms of it are variations of one ultimate Substance. 100 And the convertibility of forces, as well as the conservation of force, point to one eternal energy. 101 Nor is the duality thus suggested any final conclusion. 102 For few, I imagine, would now contend that, in the last result Matter and Force are fundamentally different things. 103 In fact, Monism holds the field; and though the evolution of human opinion is very slow, 104 it appears safe to predict that the triumph of that world theory is assured.

105 This result Is additionally secured by the increasing incongruity felt between the immeasurable vastness of the Universe, 106 even as known, and the idea of creation out of nothing. 107 When the Almighty could be seriously pictured as constructing chambers for Himself and His

heavenly host above, 108 the middle floor of earth for the children of humans, and the abyss for ghosts and devils, 109 the notion that His word evoked that puny structure from nothing might be invested by poets and prophets with a certain grandeur. 110 Each part of the work had an object as conceivable as that of each floor in a house; 111 and, according to petty human notions of utility, nothing was wasted. 112 But now, when our astronomers confront us with countless millions of orbs, to whose extension in space no bound can be proved, 113 while some of them tell us that the whole immensity is a desert of alternate fire and darkness, with no spark of finite intellect except in our tiny earth, 114 some of us, at least, cannot help feeling that the notion of a personal divine worker calling this huge enigma out of blank eternal nothing, 115 is enormously and utterly incongruous both with reverence and common sense.

116 And if the Pantheist in these days be asked, "What interpretation then do you propose?" the answer is, "I propose none. 117 I take things as they are. 118 In their totality they are unknowable, as, indeed, even science finds they are in their infinitesimal parts." 119 But we need not on this account lose "the divinity that shapes our ends."

120 For, between the infinite and the infinitesimal the human experience realises itself in surroundings which, 121 when observed and reflected on, make the impression of ordered relations of parts. 122 By a necessity of our finite and individual existence as centres of action-- a necessity of which we can give no account-- 123 we present those relations to ourselves in forms of time and space. 124 Then, when our experience is large enough and ripe enough, 125 being enriched and stimulated by the stored-up experience of humanity, as recorded in tradition, custom, Bibles, and Epics, 126 we attain to the moral sense, and realise that we are bound to be loyal to something greater than self. 127 That "greater" may be the tribe, the nation, humanity or God. 128 But in far the larger number of cases in which this sense of willing loyalty is aroused, 129 its

cause is the appeal to us of some whole of which we form a part. 130 Certainly this is so with the patriot and the philanthropist. 131 Indeed, it would be difficult, or impossible, to find any human relationship, from the family upwards, through the wider circles of school, club, municipality, nationality, 132 in which this sense of loyalty or devotion to the law of the whole is not the best incentive to devotion.

133 Yet, when we come to contemplate the final and supreme object of devotion, the Eternal Himself, 134 it has been almost the universal custom to make a surprising exception, 135 and to regard religion as maintainable only by recognition of a tremendous outward authority, 136 to which only such loyalty is possible as in barbarous times was fostered towards a personal chieftain, or feudal king. 137 Now Pantheism holds this to be an error, and regards obedience and devotion to God as the ultimate 138 and most inspiring application of that principle of the loyalty of the part to the whole which runs through all morality.

139 Why should we be supposed to be without God because we acknowledge Him to be super-personal, and "past finding out"? 140 Or why should we be suspected of denying the divinity of evolution because we do not believe the Eternal All to be subject to it? 141 This instinct of loyalty, in the sense of self-subordination to any greater Whole of which we are part, 142 the distinction of right and wrong thence arising, and the aspiration after a moral ideal, are not of human's invention. 143 Speaking, as we cannot help doing, in terms of time, I hold that the germs of this higher creature-life were always in the divine unity out of which human is evolved. 144 And in pursuing the inspirations of that higher life, as experience suggests them, humanity has always had a guide and a saviour in the Living God, 145 of whom the race life-time of human is an infinitesimal phase. 146 In such an interpretation of human's relations to God there is nothing necessarily hostile to any form of genuine religion. 147 True, there are in the creeds many statements which we cannot accept

in the letter. 148 But there are few which have not some spiritual suggestion for us. 149 And if we can attain to that intellectual love of God in which Spinoza was absorbed, we have no quarrel with any mode of sincere devotion. 150 Pious Catholic, Protestant, Vedantist, Mohammedan-- all, by the implicit, though unrecognised necessities of their faith, worship the same God as ourselves. 151 But the wrangles of sectarian zeal no longer concern us: for we have passed "To where beyond those voices there is peace."

THEOLOGY IS SHOWN NOT TO BE SUBSERVIENT TO REASON, NOR REASON TO THEOLOGY: A DEFINITION OF THE REASON WHICH ENABLES US TO ACCEPT THE AUTHORITY OF THE BIBLE

Benedict of Spinoza

7 Those who know not that philosophy and reason are distinct, dispute whether Scripture should be made subservient to reason, or reason to Scripture: 2 that is, whether the meaning of Scripture should be made to agreed with reason; or whether reason should be made to agree with Scripture: 3 the latter position is assumed by the sceptics who deny the certitude of reason, the former by the dogmatists.

4 Both parties are, as I have shown, utterly in the wrong, for either doctrine would require us to tamper with reason or with Scripture. 5 We have shown that Scripture does not teach philosophy, but merely obedience, 6 and that all it contains has been adapted to the understanding and established opinions of the multitude. 7 Those, therefore, who wish to adapt it to philosophy, must needs ascribe to the prophets many ideas which they never even dreamed of, 8 and give an extremely forced interpretation to their words: 9 those on the other hand, who would make reason and philosophy subservient to theology, 10 will be forced to accept as Divine utterances the prejudices of the ancient Jews, and to fill and confuse their mind therewith.

11 In short, one party will run wild with the aid of reason, and the other will run wild without the aid

of reason. 12 The first among the Pharisees who openly maintained that Scripture should be made to agree with reason, was Maimonides, 13 whose opinion we reviewed, and abundantly refuted,: now, although this writer had much authority among his contemporaries, 14 he was deserted on this question by almost all, and the majority went straight over to the opinion of a certain R. Jehuda Alpakhar, 15 who, in his anxiety to avoid the error of Maimonides, fell into another, which was its exact contrary. 16 He held that reason should be made subservient, and entirely give way to Scripture. 17 He thought that a passage should not be interpreted metaphorically, simply because it was repugnant to reason, 18 but only in the cases when it is inconsistent with Scripture itself - that is, with its clear doctrines. 19 Therefore he laid down the universal rule, that whatsoever Scripture teaches dogmatically, and affirms expressly, must on its own sole authority be admitted as absolutely true: 20 that there is no doctrine in the Bible which directly contradicts the general tenour of the whole: 21 but only some which appear to involve a difference, for the phrases of Scripture often seem to imply something contrary to what has been expressly taught. 22 Such phrases, and such phrases only, we may interpret metaphorically.

23 Scripture clearly teaches the unity of God (see Deuteronomv, chapter-1, verse:4), nor is there any text distinctly asserting a plurality of gods; 24 but in several passages God speaks of Himself, and the prophets speak of Him, in the plural number; 25 such phrases are simply a manner of speaking, and do not mean that there actually are several gods: 26 they are to be explained metaphorically, not because a plurality of gods is repugnant to reason, but because Scripture distinctly asserts that there is only one. 27 So, again, as Scripture asserts (as Alpakhar thinks) in Deuteronomy. Chapter-4, verse:15, that God is incorporeal, 28 we are bound, solely by the authority of this text, and not by reason, to believe that God has no body: 29 consequently we must explain metaphorically, on the sole authority of Scripture,

all those passages which attribute to God's hands, feet, and take them merely as figures of speech. 30 Such is the opinion of Alpakhar. In so far as he seeks to explain Scripture by Scripture, I praise him, 31 but I marvel that a man gifted with reason should wish to debase that faculty. 32 It is true that Scripture should be explained by Scripture, so long as we are in difficulties about the meaning and intention of the prophets, 33 but when we have elicited the true meaning, we must of necessity make use of our judgment and reason in order to assent thereto. 34 If reason, however, much as she rebels, is to be entirely subjected to Scripture, I ask, are we to effect her submission by her own aid, or without her, and blindly? 35 If the latter, we shall surely act foolishly and injudiciously; if the former, we assent to Scripture under the dominion of reason, and should not assent to it without her. 36 Moreover, I may ask now, is a person to assent to anything against his reason? 37 What is denial if it be not reason's refusal to assent? 38 In short, I am astonished that anyone should wish to subject reason, the greatest of gifts and a light from on high, to the dead letter which may have been corrupted by human malice; 39 that it should be thought no crime to speak with contempt of mind, the true handwriting of God's Word, calling it corrupt, blind, and lost, 40 while it is considered the greatest of crimes to say the same of the letter, which is merely the reflection and image of God's Word. 41 People think it pious to trust nothing to reason and their own judgment, and impious to doubt the faith of those who have transmitted to us the sacred books. 42 Such conduct is not piety, but mere folly. 43 And, after all, why are they so anxious? What are they afraid of? 44 Do they think that faith and religion cannot be upheld unless people purposely keep themselves in ignorance, and turn their backs on reason? 45 If this be so, they have but a timid trust in Scripture. 46 However, be it far from me to say that religion should seek to enslave reason, or reason religion, 47 or that both should not be able to keep their sovereignity in perfect harmony. 48 I will revert to this

question presently, for I wish now to discuss Alpakhar's rule.

49 He requires, as we have stated, that we should accept as true, or reject as false, everything asserted or denied by Scripture, 50 and he further states that Scripture never expressly asserts or denies anything which contradicts its assertions or negations elsewhere. 51 The rashness of such a requirement and statement can escape no one. 52 For-- passing over the fact that he does not notice that Scripture consists of different books, written at different times, for different people, by different authors: 53 and also that his requirement is made on his own authority without any corroboration from reason or Scripture-- 54 he would be bound to show that all passages which are indirectly contradictory of the rest, can be satisfactorily explained metaphorically through the nature of the language and the context: 55 further, that Scripture has come down to us untampered with.

56 Firstly, I ask what shall we do if reason prove recalcitrant? 57 Shall we still be bound to affirm whatever Scripture affirms, and to deny whatever Scripture denies? 58 Perhaps it will be answered that Scripture contains nothing repugnant to reason. 59 But I insist that it expressly affirms and teaches that God is jealous 60 (namely, in the decalogue itself, and in Exodus, chapter-34, verse:14, and in Deuteronomy, chapter-4, verse:24, and in many other places), 61 and I assert that such a doctrine is repugnant to reason. 62 It must, I suppose, in spite of all, be accepted as true. 63 If there are any passages in Scripture which imply that God is not jealous, they must be taken metaphorically as meaning nothing of the kind. 64 So, also, Scripture expressly states (Exodus, chapter-19, verse:20) that God came down to Mount Sinai, and it attributes to Him other movements from place to place, 65 nowhere directly stating that God does not so move. 66 Wherefore, we must take the passage literally, and Solomon's words (I Kings, chapter-8, verse:27), "But will God dwell on the earth? 67 Behold the heavens and earth cannot contain thee," 68 inasmuch as they do not expressly state that God does not move from place to

place, but only imply it, 69 must be explained away till they have no further semblance of denying locomotion to the Deity.

70 So also we must believe that the sky is the habitation and throne of God, for Scripture expressly says so; 71 and similarly many passages expressing the opinions of the prophets or the multitude, which reason and philosophy, but not Scripture, tell us to be false, 72 must be taken as true if we are to follow the guidance of our author, for according to him, reason has nothing to do with the matter. 73 Further, it is untrue that Scripture never contradicts itself directly, but only by implication. 74 For Moses says, in so many words (Deuteronomy, chapter-4, verse:24), "The Lord thy God is a consuming fire," and elsewhere expressly denies that God has any likeness to visible things. (Deuteronomy, chapter-4, verse:12.) 75 If it be decided that the latter passage only contradicts the former by implication, and must be adapted thereto, lest it seem to negative it, 76 let us grant that God is a fire; or rather, lest we should seem to have taken leave of our senses, 77 let us pass the matter over and take another example.

78 Samuel expressly denies that God ever repents, "for He is not a human that He should repent" (I Samuel, chapter-15, verse:29). 79 Jeremiah, on the other hand, asserts that God does repent, both of the evil and of the good which He had intended to do (Jeremiah, chapter-18, verse:8-10). 80 What? Are not these two texts directly contradictory? Which of the two, then, would our author want to explain metaphorically? 81 Both statements are general, and each is the opposite of the other - what one flatly affirms, the other flatly, denies. 82 So, by his own rule, he would be obliged at once to reject them as false, and to accept them as true. 83 Again, what is the point of one passage, not being contradicted by another directly, but only by implication, 84 if the implication is clear, and the nature and context of the passage preclude metaphorical interpretation?

85 There are many such instances in the Bible, where we pointed out that the prophets held different and contradictory opinions, and where

we drew attention to the contradictions in the historical narratives. 86 There is no need for me to go through them all again, for what I have said sufficiently exposes the absurdities 87 which would follow from an opinion and rule such as we are discussing, and shows the hastiness of its propounder.

88 We may, therefore, put this theory, as well as that of Maimonides, entirely out of court; 89 and we may take it for indisputable that theology is not bound to serve reason, nor reason theology, but that each has its own domain. 90 The sphere of reason is, as we have said, truth and wisdom; the sphere of theology, is piety and obedience. 91 The power of reason does not extend so far as to determine for us that people may be blessed through simple obedience, without understanding. 92 Theology, tells us nothing else, enjoins on us no command save obedience, and has neither the will nor the power to oppose reason: 93 Theology defines the dogmas of faith only in so far as they may be necessary for obedience, and leaves reason to determine their precise truth: 94 for reason is the light of the mind, and without reason all things are dreams and phantoms.

95 By theology, I here mean, strictly speaking, revelation, 96 in so far as it indicates the object aimed at by Scripture namely, the scheme and manner of obedience, or the true dogmas of piety and faith. 97 This may truly be called the Word of God, which does not consist in a certain number of books. 98 Theology thus understood, if we regard its precepts or rules of life, will be found in accordance with reason; 99 and, if we look to its aim and object, will be seen to be in nowise repugnant thereto, wherefore it is universal to all people. 100 As for its bearing on Scripture, we have shown that the meaning of Scripture should be gathered from its own history, 101 and not from the history of Nature in general, which is the basis of philosophy. 102 We ought not to be hindered if we find that our investigation of the meaning of Scripture thus conducted shows us that it is here and there repugnant to reason; 103 for whatever we may find of this

sort in the Bible, which people may be in ignorance of, without injury to their charity, 104 has, we may be sure, no bearing on theology or the Word of God, 105 and may, therefore, without blame, be viewed by everyone as he pleases. 106 To sum up, we may draw the absolute conclusion that the Bible must not be accommodated to reason, nor reason to the Bible.

107 Now, inasmuch as the basis of theology - the doctrine that human may be saved by obedience alone - cannot be proved by reason whether it be true or false, 108 we may be asked, Why, then, should we believe it? 109 If we do so without the aid of reason, we accept it blindly, and act foolishly and injudiciously; 110 if, on the other hand, we settle that it can be proved by reason, theology becomes a part of philosophy, and inseparable there from. 111 But I make answer that I have absolutely established that this basis of theology cannot be investigated by the natural light of reason, 112 or, at any rate, that no one ever has proved it by such means, and, therefore, revelation was necessary. 113 We should, however, make use of our reason, in order to grasp with moral certainty what is revealed-- 114 I say, with moral certainty, for we cannot hope to attain greater certainty than the prophets: yet their certainty was only, moral. 115 Those, therefore, who attempt to set forth the authority of Scripture with mathematical demonstrations are wholly in error: 116 for the authority of the Bible is dependent on the authority of the prophets, 117 and can be supported by no stronger arguments than those employed in old time by the prophets for convincing the people of their own authority. 118 Our certainty on the same subject can be founded on no other basis than that which served as foundation for the certainty of the prophets. 119 Now the certainty of the prophets consisted-- as we pointed out-- in these elements:- (I.) A distinct and vivid imagination; (II.) A sign; (III.) Lastly, and chiefly, a mind turned to what is just and good. 120 It was based on no other reasons than these, and consequently they cannot prove their authority by any other

reasons, 121 either to the multitude whom they addressed orally, nor to us whom they address in writing.

122 The first of these reasons, namely, the vivid imagination, could be valid only for the prophets; 123 therefore, our certainty concerning revelation must, and ought to be, based on the remaining two - namely, the sign and the teaching. 124 Such is the express doctrine of Moses, for (in Deuteronomy, chapter-18) he bids the people obey the prophet who should give a true sign in the name of the Lord, 125 but if he should predict falsely, even though it were in the name of the Lord, he should be put to death, 126 as should also he who strives to lead away the people from the true religion, 127 though he confirm his authority with signs and portents. We may compare with the above Deuteronomy. Chapter-13. 128 Whence it follows that a true prophet could be distinguished from a false one, both by their doctrine and by the miracles they wrought, 129 for Moses declares such an one to be a true prophet, and bids the people trust him without fear of deceit. 130 He condemns as false, and worthy of death, those who predict anything falsely even in the name of the Lord, 131 or who preach false gods, even though their miracles be real.

132 The only reason, then, which we have for belief in Scripture or the writings of the prophets, is the doctrine we find therein, and the signs by which it is confirmed. 133 For as we see that the prophets extol charity and justice above all things, and have no other object, we conclude that they did not write from unworthy motives, 134 but because they really thought that people might become blessed through obedience and faith: 135 further, as we see that they confirmed their teaching with signs and wonders, we become persuaded that they did not speak at random, nor run riot in their prophecies. 136 We are further strengthened in our conclusion by the fact that the morality they teach is in evident agreement with reason, 137 for it is no accidental coincidence that the Word of God which we find in the prophets coincides with the Word of God

written in our hearts. 138 We may, I say, conclude this from the sacred books as certainly as did the Jews of old from the living voice of the prophets: 139 that Scripture has come down to us intact in respect to its doctrine and main narratives.

140 Therefore this whole basis of theology and Scripture, though it does not admit of mathematical proof, may yet be accepted with the approval of our judgment. 141 It would be folly to refuse to accept what is confirmed by such ample prophetic testimony, 142 and what has proved such a comfort to those whose reason is comparatively weak, 143 and such a benefit to the state; a doctrine, moreover, which we may believe in without the slightest peril or hurt, 144 and should reject simply because it cannot be mathematically proved: 145 it is as though we should admit nothing as true, or as a wise rule of life, which could ever, in any possible way, be called in question; 146 or as though most of our actions were not full of uncertainty and hazards. 147 I admit that those who believe that theology and philosophy are mutually contradictory, 148 and that therefore either one or the other must be thrust from its throne-- 149 I admit, I say, that such persons are not unreasonable in attempting to put theology on a firm basis, and to demonstrate its truth mathematically.

150 Who, unless he were desperate or mad, would wish to bid an incontinent farewell to reason, or to despise the arts and sciences, or to deny reason's certitude? 151 But, in the meanwhile, we cannot wholly absolve them from blame, inasmuch as they invoke the aid of reason for her own defeat, and attempt infallibly to prove her fallible. 152 While they are trying to prove mathematically the authority and truth of theology, and to take away the authority of natural reason, they are in reality only bringing theology under reason's dominion, 153 and proving that her authority has no weight unless natural reason be at the back of it. 154 If they boast that they themselves assent because of the inward testimony of the Holy Spirit, 155 and that they only invoke the aid of reason because of unbelievers, in order to

convince them, 156 not even so can this meet with our approval, for we can easily show that they have spoken either from emotion or vain-glory. 157 It most clearly follows from the last chapter that the Holy Spirit only gives its testimony in favour of works, 158 called by Paul (in Galatians, chapter-5, verse:22) the fruits of the Spirit, and is in itself really nothing but the mental acquiescence which follows a good action in our souls. 159 No spirit gives testimony concerning the certitude of matters within the sphere of speculation, 160 save only reason, who is mistress, as we have shown, of the whole realm of truth. 161 If then they assert that they possess this Spirit which makes them certain of truth, they speak falsely, and according to the prejudices of the emotions, 162 or else they are in great dread lest they should be vanquished by philosophers and exposed to public ridicule, 163 and therefore they flee, as it were, to the altar; but their refuge is vain, for what altar will shelter a person who has outraged reason? 164 However, I pass such persons over, for I think I have fulfilled my purpose, and shown how philosophy should be separated from theology, 165 and wherein each consists; that neither should be subservient to the other, but that each should keep her unopposed dominion.

166 Lastly, as occasion offered, I have pointed out the absurdities, the inconveniences, and the evils following from the extraordinary confusion, 167 which has hitherto prevailed between the two subjects, owing to their not being properly distinguished and separated. 168 Before I go further I would expressly state that I consider the utility and the need for Holy Scripture or Revelation to be very great. 169 For as we cannot perceive by the natural light of reason that simple obedience is the path of salvation, 170 and are taught by revelation only that it is so by the special grace of God, which our reason cannot attain, 171 it follows that the Bible has brought a very great consolation to humankind. 172 All are able to obey, whereas there are but very few, compared with the aggregate of humanity, who can acquire the habit of virtue under the unaided

guidance of reason. 173 Thus if we had not the testimony of Scripture, we should doubt of the salvation of nearly all people.

RELIGION AND REFLECTION

George Stuart Fullerton

8 A person may be through and through ethical in his thought and feeling, and yet know nothing of the science of ethics. 2 He may be possessed of the finest aesthetic taste, and yet may know nothing of the science of aesthetics. 3 It is one thing to be good, and another to know clearly what goodness means; 4 it is one thing to love the beautiful, and another to know how to define it.

5 Just so a person may be thoroughly religious, and may, nevertheless, have reflected very little upon own religious belief and the foundations upon which it rests. 6 This does not mean that a person's belief is without foundation. It may have a firm basis or it may not. 7 But whatever the case may be, one is not in a position to say much about it. One feels that one is right, but one cannot prove it. 8 The person is, I think we must admit, rather blind as to the full significance of own position, and one is, in consequence, rather helpless. 9 Such a person is menaced by certain dangers. 10 We have seen in the chapter on ethics that people are by no means at one in their judgments as to the rightness or wrongness of given actions. 11 And it requires a very little reflection to teach us that people are not at one in their religious notions. 12 God and His nature, the relation of God to human, what the religious life should be, these things are the subject of much dispute; 13 and some people hold opinions regarded by others as not merely erroneous but highly pernicious in their influence.

14 Shall a person simply assume that the opinions which one happens to hold are correct, and that all who differ with them are in error? 15 One has not framed own opinions quite independently for oneself. We are all influenced by what we have inherited from the past, 16 and what we inherit may be partly erroneous, even if we be right in the main. 17 Moreover, we

are all liable to prejudices, and those who has no means of distinguishing such from sober truths may admit into own creed many errors. 18 The lesson of history is very instructive upon this point. 19 The fact is that a human's religious notions reflect the position which one occupies in the development of civilisation very much as do one ethical notions.

20 Again. Even supposing that a person has enlightened notions and is living a religious life that the most instructed must approve; 21 if a person has never reflected, and has never tried to make clear to oneself just what one really does believe and upon what grounds one believes it, 22 how will it be with such a person when their position is attacked by another? 23 People are, as I have said, not at one in these matters, 24 and there are few or none of the doctrines put forward as religions that have not been attacked again and again.

25 Now, those who depend only upon an instinctive feeling may be placed in the very painful position of seeing no answer to the objections brought against them. 26 What is said may seem plausible; it may even seem true, and is it right for a person to oppose what appears to be the truth? 27 One may be shocked and pained, and may feel that one who makes the assault cannot be right, 28 and yet may be forced to admit that a relentless logic, or what presents itself as such, has every appearance of establishing the repellent truth that robs one of one's dearest possession. 29 The situation is an unendurable one; it is that of the person who guards a treasure and recognises that there is no lock on the door.

30 Surely, if there is error mixed with truth in our religious beliefs, it is desirable that we should have some way of distinguishing between the truth and the error. 31 And if our beliefs really have a foundation, it is desirable that we should know what that foundation is, 32 and should not be at the mercy of every passer-by who takes the notion to throw a stone at us. 33 But these desirable ends, it seems clear, cannot be attained without reflection.

THEOSOPHY

THE PHILOSOPHY OF RELIGION
George Stuart Fullerton

9 The reflection that busies itself with these things results in what is called the philosophy of religion. 2 To show that the name is an appropriate one and that we are concerned with a philosophical discipline, 3 I shall take up for a moment the idea of God, which most people will admit has a very important place in our conception of religion.

4 Does God exist? 5 We may feel very sure that He does, and yet be forced to admit that the evidence of His existence is not so clear and undeniable as to compel the assent of everyone. 6 We do not try to prove the existence of the people we meet and who talk to us. No one thinks of denying their existence; it is taken for granted. 7 Even the metaphysician, when he takes up and discusses the question whether we can prove the existence of any mind beyond our own, 8 does not seriously doubt whether there are other minds or not. 9 It is not so much what we know, as how we know it, that interests him.

10 But with the existence of God it is different. 11 That people do not think that an examination of the evidence can be dispensed with is evident from the books that are written and lectures that are delivered year after year. 12 There seem to be honest differences of opinion, and we feel compelled to offer people proofs-- to show that belief is reasonable.

13 How shall we determine whether this world in which we live is such a world that we may take it as a revelation of God? 14 And of what sort of a Being are we speaking when we use the word "God"? 15 The question is not an idle one, for people's conceptions have differed widely. 16 There is the savage, with a conception that strikes the modern civilised person as altogether inadequate; 17 there is the thoughtful person of our day, who has inherited the reflections of those who have lived in the ages gone by. 18 And there is the philosopher, or, perhaps, I should rather say, there are the philosophers. 19 Have they not conceived of God as a group of abstract notions, 20 or as a something that may best be

described as the Unknowable, 21 or as the Substance which is the identity of thought and extension, or as the external world itself? 22 All have not sinned in this way, but some have, and they are not people whom we can ignore.

23 If we turn from all such notions and, in harmony with the faith of the great body of religious people in the ages past, 24 some of whom were philosophers but most of whom were not, cling close to the notion that God is a mind or spirit, 25 and must be conceived according to the analogy, atleast, of the human mind, the mind we most directly know-- 26 if we do this, we are still confronted by problems to which the thoughtful person cannot refuse attention.

27 What do we mean by a mind? 28 This is a question to which one can scarcely give an intelligent answer unless one has exercised one's faculty of philosophic reflection. 29 And upon what sort of evidence does one depend in establishing the existence of minds other than one's own? 30 This has been discussed at length and the problem is certainly a metaphysical one. 31 And if we believe that the Divine Mind is not subject to the limitations which confine the human, how shall we conceive it? 32 The question is an important one. 33 Some of the philosophers and theologians who have tried to free the Divine Mind from such limitations have taken away every positive mark by which we recognise a mind to be such, 34 and have left us a naked "Absolute" which is no better than a labeled vacuum. 35 Moreover, we cannot refuse to consider the question of God's relation to the world. 36 This seems to lead back to the broader question: How are we to conceive of any mind as related to the world?

37 What is the relation between mind and matter? 38 If any subject of inquiry may properly be called metaphysical, surely this may be. 39 We see, then, that there is little wonder that the thoughtful consideration of the facts and doctrines of religion has taken its place among the philosophical sciences. 40 Aesthetics has been called applied behavioural-science; and I think it is scarcely too much to say that we are here concerned with applied

metaphysics, 41 with the attempt to obtain a clear understanding of the significance of the facts of religion 42 in the light of those ultimate analyses which reveal to us the real nature of the world of matter and of minds.

PHILOSOPHY AS A GUIDE TO LIFE

George Stuart Fullerton

10 At the close of the fourth century before Christ there arose the schools of the Stoics, the Epicureans, and the Sceptics. 2 In them we seem to find a somewhat new conception of philosophy--philosophy appears as chiefly a guide to life. 3 The Stoic emphasises the necessity of living "according to Nature," and dwells upon the character of the wise people; 4 the Epicurean furnishes certain selfish maxims for getting through life as pleasantly as possible; the Sceptic counsels apathy, an indifference to all things,-- 5 blessed are those who expects nothing, for they shall not be disappointed. 6 And yet, when we examine more closely these systems, we find a conception of philosophy not really so very different from that which had obtained before. 7 We do not find, it is true, that disinterested passion for the attainment of truth which is the glory of science. 8 Humankind seems quite too much concerned with the problem of one own happiness or unhappiness; one has grown morbid.

9 Nevertheless, the practical maxims which obtain in each of these systems are based upon a certain view of the system of things as a whole. 10 The Stoic tells us of what the world consists; what was the beginning and what will be the end of things; what is the relation of the system of things to God. 11 They develops a physics and a logic as well as a system of ethics. 12 The Epicurean informs us that the world originated in a rain of atoms through space; 13 they examines into the foundations of human knowledge; and they proceeds to make oneself comfortable in a world from which one has removed those disturbing elements, the gods. 14 The Sceptic

decides that there is no such thing as truth, before one enunciates the dogma that it is not worthwhile to worry about anything. 15 The philosophy of each school includes a view of the system of things as a whole. 16 The philosophers still regarded the Universe of knowledge as their province.

PHILOSOPHY
IN THE MIDDLE AGES
George Stuart Fullerton

11 I cannot do more than mention Neo-Platonism, that half Greek and half Oriental system of doctrine 2 which arose in the third century after Christ, the first system of importance after the schools mentioned above. 3 But I must not pass it by without pointing out that the Neo-Platonic philosopher undertook to give an account of the origin, development, and end of the whole system of things.

4 In the Middle-Ages there gradually grew up rather a sharp distinction between those things that can be known through the unaided reason, 5 and those things that can only be known through a supernatural revelation. 6 The term "philosophy" came to be synonymous with knowledge attained by the natural light of reason. 7 This seems to imply some sort of a limitation to the task of the philosopher. Philosophy is not synonymous with all knowledge.

8 But we must not forget to take note of the fact that philosophy, even with this limitation, constitutes a pretty wide field. 9 It covers both the physical and the moral sciences. 10 Nor should we omit to notice that the scholastic philosopher was at the same time a theologian. 11 Albert the Great and St. Thomas Aquinas, the famous scholastics of the 13th-century, had to write a "Summa Theologiae," or system of theology, 12 as well as to treat of the other departments of human knowledge.

13 Why were these people not overwhelmed with the task set them by the tradition of their time? 14 It was because the task was not, after all, so great as a modern person might conceive it to be. 15 Gil Blas, in Le Sage's famous

romance, finds it possible to become a skilled physician in the twinkling of an eye, 16 when Dr. Sangrado has imparted to him the secret that the remedy for all diseases is to be found in bleeding the patient and in making them drink copiously of hot water. 17 When little is known about things, it does not seem impossible for one person to learn that little. 18 During the Middle-Ages and the centuries preceding, the physical sciences had a long sleep. 19 People were much more concerned in the 13th-century to find out what Aristotle had said than they were to address questions to Nature. 20 The special sciences, as we now know them, had not been called into existence.

THE MODERN PHILOSOPHY
George Stuart Fullerton

12 The submission of people's minds to the authority of Aristotle and of the church gradually gave way. 2 A revival of learning set in. People turned first of all to a more independent choice of authorities, 3 and then rose to the conception of a philosophy independent of authority, of a science based upon an observation of Nature, 4 of a science at first hand. The special sciences came into being. 5 But the old tradition of philosophy as universal knowledge remained. 6 If we pass over the people of the transition period and turn our attention to Francis Bacon (1561-1626) and Rene Descartes (1596-1650), 7 the two who are commonly regarded as heading the list of the modern philosophers, we find both of them assigning to the philosopher an almost unlimited field.

8 Bacon holds that philosophy has for its objects God, human, and Nature, 9 and he regards it as within his province to treat of "philosophia prima" --a sort of metaphysics, though he does not call it by this name--, 10 of logic, of physics and astronomy, of anthropology, in which he includes behavioural-science, of ethics, and of politics. 11 In short, he attempts to map out the whole field of human knowledge, and to tell those who work in this corner of it or in that how they should set about their task. 12 As for

Descartes, he writes of the trustworthiness of human knowledge, 13 of the existence of God, of the existence of an external world, of the human soul and its nature, of mathematics, physics, cosmology, physiology, and, in short, of nearly everything discussed by the people of his day. 14 No person can accuse this extraordinary Frenchman of a lack of appreciation of the special sciences which were growing up. 15 No one in his time had a better right to be called a scientist in the modern sense of the term. 16 But it was not enough for him to be a mere mathematician, or even a worker in the physical sciences generally. 17 He must be all that has been mentioned above.

18 The conception of philosophy as of a something that embraces all departments of human knowledge has not wholly passed away even in our day. 19 I shall not dwell upon Spinoza (1632-1677), who believed it possible to deduce a world a-priori with mathematical precision; 20 upon Christian Wolff (1679-1754), who defined philosophy as the knowledge of the causes of what is or comes into being; 21 upon Fichte (1762-1814), who believed that the philosopher, by mere thinking, could lay down the laws of all possible future experience; 22 upon Schelling (1775-1854), who, without knowing anything worth mentioning about natural science, had the courage to develop a system of natural philosophy, and to condemn such investigators as Boyle and Newton; 23 upon Hegel (1770-1831), who undertakes to construct the whole system of reality out of concepts, 24 and who, with his immediate predecessors, brought philosophy for a while into more or less disrepute with people of a scientific turn of mind. 25 I shall come down quite to our own times, and consider a person whose conception of philosophy has had and still has a good deal of influence, 26 especially with the general public-- with those to whom philosophy is a thing to be taken up in moments of leisure, 27 and cannot be the serious pursuit of a life.

28 "Knowledge of the lowest kind," says Herbert Spencer, "is un-unified knowledge; 29 Science is partially-unified knowledge;

Philosophy is completely unified knowledge." 30 Science, he argues, means merely the family of the Sciences-- stands for nothing more than the sum of knowledge formed of their contributions. 31 Philosophy is the fusion of these contributions into a whole; it is knowledge of the greatest generality. 32 In harmony with this notion Spencer produced a system of philosophy which includes the following: A volume entitled "First Principles," 33 which undertakes to show what human can and what human cannot know; 34 a treatise on the principles of biology; another on the principles of behavioural-science; still another on the principles of sociology; and finally one on the principles of morality. 35 To complete the scheme it would have been necessary to give an account of inorganic Nature before going on to the phenomena of life, 36 but our philosopher found the task too great and left this out.

37 Now, Spencer was a man of genius, and one finds in his works many illuminating thoughts. 38 But it is worthy of remark that those who praise his work in this or in that field are almost always people who have themselves worked in some other field 39 and have an imperfect acquaintance with the particular field that they happen to be praising. 40 The metaphysician finds the reasonings of the "First Principles" rather loose and inconclusive; 41 the biologist pays little heed to the "Principles of Biology"; 42 the sociologist finds Spencer not particularly accurate or careful in the field of his predilection. 43 He has tried to be a professor of all the sciences, and it is too late in the world's history for him or for any person to cope with such a task. 44 In the days of Plato a person might have hoped to accomplish it.

WHAT PHILOSOPHY MEANS IN OUR TIME

George Stuart Fullerton

13 It savours of temerity to write down such a title as that which heads the present section. 2 There are people philosophy means little else than the doctrine of Kant, or of Hegel, or of the brothers Caird,

or of Herbert Spencer, or even of St. Thomas Aquinas, 3 for we must not forget that many of the seminaries of learning in Europe and some in America still hold to the mediaeval church philosophy.

4 But let me gather up in a few words the purport of what has been said above. 5 Philosophy once meant the whole body of scientific knowledge. 6 Afterward it came to mean the whole body of knowledge which could be attained by the mere light of human reason, unaided by revelation. 7 The several special sciences sprang up, and a multitude of people have for a long time past devoted themselves to definite limited fields of investigation with little attention to what has been done in other fields. 8 Nevertheless, there has persisted the notion of a discipline which somehow concerns itself with the whole system of things, 9 rather than with any limited division of that broad field. 10 It is a notion not peculiar to the disciples of Spencer. 11 There are many to whom philosophy is a "Weltweisheit," a world-wisdom. 12 Shall we say that this is the meaning of the word philosophy now? 13 And if we do, how shall we draw a line between philosophy and the body of the special sciences?

14 Perhaps the most just way to get a preliminary idea of what philosophy means to the people of our time is to turn away for the time being from the definition of any one person or group of people, 15 and to ask ourselves what a professor of philosophy in an American or European university or any other place is actually supposed to teach. 16 It is quite clear that professor of philosophy is not supposed to be an Aristotle. 17 Philosophers does not represent all the sciences, 18 and no one expects philosophers to lecture on mathematics, mechanics, physics, chemistry, zoölogy, botany, economics, politics, and various other disciplines. 19 There was a time when philosopher might have been expected to teach all that people could know, but that time is long past.

20 Nevertheless, there is quite a group of sciences which are regarded as belonging especially to philosophical province; 21 and

although a person may devote a large part of own attention to some one portion of the field, 22 and would certainly be thought remiss if wholly neglected the rest. 23 This group of sciences includes logic, behavioural-science, ethics and aesthetics, metaphysics, and the history of philosophy. 24 I have not included epistemology or the "theory of knowledge" as a separate discipline, for reasons which will appear later; 25 and I have included the history of philosophy, because, whether we care to call this a special science or not, it constitutes a very important part of the work of the teacher of philosophy in our day.

26 Of this group of subjects the student who goes to the university to study philosophy is supposed to know something before leaving its walls, 27 whatever else one may or may not know. 28 It should be remarked, again, that there is commonly supposed to be a peculiarly close relation between philosophy and religion. 29 Certainly, if anyone about a university undertakes to give a course of lectures on theism, it is much more apt to be the professor of philosophy than the professor of mathematics or of chemistry. 30 The person who has written an "Introduction to Philosophy," a "Behavioural-science," a "Logic," and an "Outlines of Metaphysics" is very apt to regard it as own duty to add to the list a "Philosophy of Religion." 31 The students in the theological seminaries of Europe and America are usually encouraged, if not compelled, to attend courses in philosophy.

32 Finally, it appears to be definitely accepted that even the disciplines that we never think of classing among the philosophical sciences are not wholly cut off from a connection with philosophy. 33 When we are occupied, not with adding to the stock of knowledge embraced within the sphere of any special science, 34 but with an examination of the methods of the science, with, so to speak, a criticism of the foundations upon which the science rests, 35 our work is generally recognised as philosophical. 36 It strikes no one as odd in our day that there should be established a "Journal of Philosophy, Behavioural-science,

and Scientific Methods," 37 but we should think it strange if someone announced the intention to publish a "Journal of Philosophy and Comparative Anatomy."

38 It is not without its significance that, when Mach, who had been professor of physics at Prague, was called (in 1895) to the University of Vienna 39 to lecture on the history and theory of the inductive sciences, 40 he was made, not professor of physics, but professor of philosophy.

41 The case, then, stands thus: a certain group of disciplines is regarded as falling peculiarly within the province of the professor of philosophy, 42 and the sciences which constitute it are frequently called the philosophical sciences; 43 moreover, it is regarded as quite proper that the teacher of philosophy should concern oneself with the problems of religion, 44 and should pry into the methods and fundamental assumptions of special sciences in all of which it is impossible that one should be an adept. 45 The question naturally arises: Why has one task come to be circumscribed as it is? Why should one teach just these things and no others?

46 To this question certain persons are at once ready to give an answer. 47 There was a time, they argue, when it seemed possible for one person to embrace the whole field of human knowledge. 48 But human knowledge grew; the special sciences were born; each concerned itself with a definite class of facts and developed its own methods. 49 It became possible and necessary for a person to be, not a scientist at large, but a chemist, a physicist, a biologist, an economist. 50 But in certain portions of the great field people have met with peculiar difficulties; 51 here it cannot be said that we have sciences, but rather that we have attempts at science. 52 The philosopher is the person to whom is committed what is left when we have taken away what has been definitely established 53 or is undergoing investigation according to approved scientific methods. 54 The philosopher is Lord of the Uncleared Ground, and may wander through it in own compassless, irresponsible way, 55

never feeling that one is lost, for one has never had any definite bearings to lose.

56 Those who argue in this way support their case by pointing to the lack of a general consensus of opinion 57 which obtains in many parts of the field which the philosopher regards as one own; 58 and also by pointing out that, even within this field, there is a growing tendency on the part of certain sciences to separate themselves from philosophy and become independent. 59 Thus the psychologist and the logician are sometimes very anxious to have it understood that they belong among the scientists and not among the philosophers. 60 Now, this answer to the question that we have raised undoubtedly contains some truth. 61 As we have seen from the sketch contained in the preceding pages, 62 the word philosophy was once a synonym for the whole sum of the sciences or what stood for such; 63 gradually the several sciences have become independent and the field of the philosopher has been circumscribed. 64 We must admit, moreover, that there is to be found in a number of the special sciences a body of accepted facts which is without its analogue in philosophy.

65 In much of their work the philosophers certainly seems to be walking upon more uncertain ground than their neighbors; 66 and if one is unaware of that fact, it must be either because one has not a very nice sense of what constitutes scientific evidence, 67 or because one is carried away by own enthusiasm for some particular form of doctrine.

68 Nevertheless, it is just to maintain that the answer we are discussing is not a satisfactory one. 69 For one thing, we find in it no indication of the reason why the particular group of disciplines with which the philosopher occupies themselves has been left to them, 70 when so many sciences have announced their independence. 71 Why have not these, also, separated off and set up for themselves? 72 Is it more difficult to work in these fields than in others? 73 And, if so, what reason can be assigned for the fact?

74 Take behavioural-science as an instance. How does it happen that

the physicist calmly develops own doctrine without finding it necessary to make own bow to philosophy at all, 75 while the psychologist is at pains to explain that own book is to treat behavioural-science as "a natural science," 76 and will avoid metaphysics as much as possible? 77 For centuries people have been interested in the phenomena of the human mind. 78 Can anything be more open to observation than what passes in a human's own consciousness? 79 Why, then, should the science of behavioural-science lag behind? 80 And why these endless disputes as to whether it can really be treated as a "natural science" at all?

81 Again. May we assume that, because certain disciplines have taken a position of relative independence, 82 therefore all the rest of the field will surely come to be divided up in the same way, 83 and that there will be many special sciences, but no such thing as philosophy? 84 It is hasty to assume this on no better evidence than that which has so far been presented. 85 Before making up one's mind upon this point, one should take a careful look at the problems with which the philosopher occupies themselves. 86 A complete answer to the questions raised above can only be given in the course of the book, where the main problems of philosophy are discussed, 87 and the several philosophical sciences are taken up and examined. But I may say, in anticipation, as much as this:-- 88 (1) Philosophy is reflective knowledge. What is meant by reflective knowledge will be explained at length in the next chapter. 89 (2) The sciences which are grouped together as philosophical are those in which we are forced back upon the problems of reflective thought, and cannot simply put them aside. 90 (3) The peculiar difficulties of reflective thought may account for the fact that these sciences are, more than others, a field in which we may expect to find disputes and differences of opinion. 91 (4) We need not be afraid that the whole field of human knowledge will come to be so divided up into special sciences that philosophy will disappear. 92 The problems with which the philosophers

occupies themselves are real problems, 93 which present themselves unavoidably to the thoughtful mind, and it is not convenient to divide these up among the several sciences. This will become clearer as we proceed.

HOW THE PLAIN HUMAN THINKS THEY KNOWS THE WORLD

George Stuart Fullerton

14 As schoolboys we enjoyed Cicero's joke at the expense of the "minute philosophers." 2 They denied the immortality of the soul; he affirmed it; 3 and he congratulated himself upon the fact that, if they were right, they would not survive to discover it and to triumph over him.

4 At the close of the seventeenth century the philosopher John Locke was guilty of a joke of somewhat the same kind. 5 "I think," said he, “nobody can, in earnest, be so sceptical as to be uncertain of the existence of those things which he sees and feels. 6 At least, those that can doubt so far-- whatever they may have with their own thoughts-- will never have any controversy with me; 7 since they can never be sure I say anything contrary to their own opinion."

8 Now, in this chapter and in certain chapters to follow, I am going to take up and turn over, so that we may get a good look at them, 9 some of the problems that have presented themselves to those who have reflected upon the world and the mind as they seem given in our experience. 10 I shall begin by asking whether it is not possible to doubt that there is an external world at all.

11 The question cannot best be answered by a jest. 12 It may, of course, be absurd to maintain that there is no external world; 13 but surely they, too, is in an absurd position who maintains dogmatically that there is one, 14 and is yet quite unable to find any flaw in the reasonings of the person who seems to be able to show that this belief has no solid foundation. 15 And we must not forget that the people who have thought it worthwhile to raise just such questions as this, 16 during the last twenty centuries, have been among the most brilliant

intellects of the race. 17 We must not assume too hastily that they have occupied themselves with mere trivialities. 18 Since, therefore, so many thoughtful people have found it worthwhile to ask themselves seriously whether there is an external world, 19 or, at least, how we can know that there is an external world, 20 it is not unreasonable to expect that, by looking for it, we may find in our common experience or in science some difficulty 21 sufficient to suggest the doubt which at first strikes the average person as preposterous. 22 In what can such a doubt take its rise? Let us see.

23 I think it is scarcely too much to say that the plain person believes that one does not directly perceive an external world, 24 and that they, at the same time, believes that one does directly perceive one. 25 It is quite possible to believe contradictory things, when one's thought of them is somewhat vague, and when one does not consciously bring them together.

26 As to the first-mentioned belief. Does not the plain person distinguish between own ideas of things and the things themselves? 27 Does one not believe that own ideas come to oneself through the avenues of the senses? 28 Is one not aware of the fact that, when a sense is disordered, the thing as one perceives it is not like the thing "as it is"? 29 A blind person does not see things when they are there; a colour-blind person sees them as others do not see them; a person suffering under certain abnormal conditions of the nervous system sees things when they are not there at all, 30 one has hallucinations. 31 The thing itself, as it seems, is not in the person's mind; it is the idea that is in the person's mind, and that represents the thing. 32 Sometimes it appears to give a true account of it; sometimes it seems to give a garbled account; sometimes it is a false representative throughout--there is no reality behind it. 33 It is, then, the idea that is immediately known, and not the thing; the thing is merely inferred to exist.

34 I do not mean to say that the plain person is conscious of drawing this conclusion. 35 I only maintain that it seems a natural conclusion to draw from the facts

which one recognises, 36 and that sometimes one seems to draw the conclusion half-consciously. 37 On the other hand, we must all admit that when the plain person is not thinking about the distinction between ideas and things, 38 but is looking at some material object before own eyes, is touching it with own fingers and turning it about to get a good look at it, 39 it never occurs to a person that one is not directly conscious of the thing itself. 40 One seems to oneself to perceive the thing immediately; to perceive it as it is and where it is; 41 to perceive it as a really extended thing, out there in space before own body. 42 One does not think of oneself as occupied with mere images, representations of the object. 43 One may be willing to admit that own mind is in own head, but one cannot think that what one sees is in own head. 44 Is not the object there? Does one not see and feel it? Why doubt such evidence as this? 45 Anyone who tells you that the external world does not exist seems to be denying what is immediately given in own experience.

46 The person who looks at things in this way assumes, of course, that the external object is known directly, 47 and is not a something merely inferred to exist from the presence of a representative image. 48 May one embrace this belief and abandon the other one? 49 If we elect to do this, we appear to be in difficulties at once. 50 All the considerations which made us distinguish so carefully between our ideas of things and the things themselves crowd in upon us. 51 Can it be that we know things independently of the avenues of the senses? 52 Would a person with different senses know things just as we do? 53 How can any person suffer from an hallucination, if things are not inferred from images, but are known independently?

54 The difficulties encountered appear sufficiently serious even if we keep to that knowledge of things which seems to be given in common experience. 55 But even the plain person has heard of atoms and molecules; 56 and if one accepts the extension of knowledge offered by the person of science, 57 one must admit that,

whatever this apparently immediately perceived external thing may be, 58 it cannot be the external thing that science assures us is out there in space beyond own body, 59 and which must be a very different sort of thing from the thing one seems to perceive. 60 The things we perceive must, then, be appearance; and where can that appearance be if not in our own mind?

61 The person who has made no study of philosophy at all does not usually think these things out; 62 but surely there are interrogation marks written up all over our experiences, and one misses them only because one does not see clearly. 63 By judiciously asking questions one may often lead another either to affirm or to deny that they have an immediate knowledge of the external world, pretty much as one pleases. 64 If one affirms it, one position does not seem to be a wholly satisfactory one, as we have seen; 65 and if one denies it, one makes the existence of the external world wholly a matter of inference from the presence of ideas in the mind, and one must stand ready to justify this inference.

66 To many people it has seemed that the inference is not an easy one to justify. 67 One may say: We could have no ideas of things, 68 no sensations, if real things did not exist and make an impression upon our senses. 69 But to this it may be answered: How is that statement to be proved? 70 Is it to be proved by observing that, when things are present and affect the senses, there come into being ideas which represent the things? 71 Evidently such a proof as this is out of the question, 72 for, if it is true that we know external things only by inference and never immediately, then we can never prove by observation that ideas and things are thus connected. 73 And if it is not to be proved by observation, how shall it be proved? Shall we just assume it dogmatically and pass on to something else? 74 Surely there is enough in the experience of the plain person to justify one in raising the question whether one can certainly know that there is an external world.

THE BEHAVIOURIST
AND THE EXTERNAL WORLD
George Stuart Fullerton

15 We have seen just above that the doubt regarding the existence of the world seems to have its root in the familiar distinction between ideas and things, 2 appearances and the realities which they are supposed to represent. 3 The psychologist has much to say about ideas; and if sharpening and making clear this distinction has anything to do with stirring up doubts, 4 it is natural to suppose that they should become more insistent when one has exchanged the ignorance of everyday life for the knowledge of the psychologist. 5 Now, when the psychologist asks how a given mind comes to have a knowledge of any external thing, 6 they finds their answer in the messages which have been brought to the mind by means of the bodily senses. 7 They describes the sense-organs and the nervous connections between these and the brain, 8 and tells us that when certain nervous impulses have travelled, let us say, from the eye or the ear to the brain, one has sensations of sight or sound. 9 They describes for us in detail how, out of such sensations and the memories of such sensations, we frame mental images of external things. 10 Between the mental image and the thing that it represents they distinguishes sharply, 11 and they informs us that the mind knows no more about the external thing than is contained in such images. 12 That a thing is present can be known only by the fact that a message from the thing is sent along the nerves, 13 and what the thing is must be determined from the character of the message. 14 Given the image in the absence of the thing,-- that is to say, an hallucination,-- the mind will naturally suppose that the thing is present. 15 This false supposition cannot be corrected by a direct inspection of the thing, for such a direct inspection of things is out of the question. 16 The only way in which the mind concerned can discover that the thing is absent is by referring to its other experiences. 17 This image is compared with other images and is discovered to be in some way

abnormal. 18 We decide that it is a false representative and has no corresponding reality behind it.

19 This doctrine taken as it stands seems to cut the mind off from the external world very completely; 20 and the most curious thing about it is that it seems to be built up on the assumption that it is not really true. 21 How can one know certainly that there is a world of material things, 22 including human bodies with their sense-organs and nerves, if no mind has ever been able to inspect directly anything of the sort? 23 How can we tell that a sensation arises when a nervous impulse has been carried along a sensory nerve 24 and has reached the brain, if every mind is shut up to the charmed circle of its own ideas? 25 The anatomist and the behavioural-scientists give us very detailed accounts of the sense-organs and of the brain; 26 the behaviourists even undertakes to measure the speed with which the impulse passes along a nerve; 27 the psychologists accepts and uses the results of their labours. 28 But can all this be done in the absence of any first-hand knowledge of the things of which one is talking?

29 Remember that, if the psychologist is right, any external object, eye, ear, nerve, or brain, which we can perceive directly, is a mental complex, a something in the mind and not external at all. 30 How shall we prove that there are objects, ears, eyes, nerves, and brains,--in short, all the requisite mechanism for the calling into existence of sensations,-- 31 in an outer world which is not immediately perceived but is only inferred to exist?

32 I do not wish to be regarded as impugning the right of the psychologist to make the assumptions which they do, and to work as they do. 33 They have a right to assume, with the plain person, that there is an external world and that we know it. 34 But a very little reflection must make it manifest that they seems, at least, to be guilty of an inconsistency, 35 and that anyone who wishes to think clearly should strive to see just where the trouble lies.

36 So much, at least, is evident: the person who is inclined to doubt whether there is, after all, any real

external world, 37 appears to find in the psychologist's distinction between ideas and things something like an excuse for own doubt. 38 To get to the bottom of the matter and to dissipate their doubt one has to go rather deeply into metaphysics. 39 I merely wish to show just here that the doubt is not a gratuitous one, 40 but is really suggested to the thoughtful mind by a reflection upon our experience of things. 41 And, as we are all apt to think that the person of science is less given to busying themselves with useless subtleties than is the philosopher, 42 I shall, before closing this chapter, present some paragraphs upon the subject from the pen of a professor of mathematics and mechanics.

THE "TELEPHONE EXCHANGE
George Stuart Fullerton

16 “We are accustomed to talk," writes Professor Karl Pearson, "of the 'external world,' of the 'reality' outside us. 2 We speak of individual objects having an existence independent of our own. 3 The store of past sense-impressions, our thoughts and memories, although most probably they have beside their psychical element a close correspondence 4 with some physical change or impress in the brain, are yet spoken of as inside ourselves. 5 On the other hand, although if a sensory nerve be divided anywhere short of the brain, we lose the corresponding class of sense impression, 6 we yet speak of many sense-impressions, such as form and texture, as existing outside ourselves. 7 How close then can we actually get to this supposed world outside ourselves? 8 Just as near but no nearer than the brain terminals of the sensory nerves. 9 We are like the clerk in the central telephone exchange who cannot get nearer to own customers than own end of the telephone wires. 10 We are indeed worse off than the clerk, for to carry out the analogy properly we must suppose the clerk - never to have been outside the telephone exchange, 11 never to have seen a customer or any one like a customer-- in short, never, except through the telephone wire, to

have come in contact with the outside Universe -. 12 Of that 'real' Universe outside ownself one would be able to form no direct impression; 13 the real Universe for one would be the aggregate of one's constructs from the messages which were caused by the telephone wires in own office. 14 About those messages and the ideas raised in own mind by them one might reason and draw own inferences; 15 and own conclusions would be correct-- for what? For the world of telephonic messages, for the type of messages that go through the telephone. 16 Something definite and valuable one might know with regard to the spheres of action and of thought of own telephonic subscribers, 17 but outside those spheres one could have no experience. 18 Pent up in own office one could never have seen or touched even a telephonic subscriber in ownself. 19 Very much in the position of such a telephone clerk is the conscious ego of each one of us seated at the brain terminals of the sensory nerves. 20 Not a step nearer than those terminals can the ego get to the 'outer world,' 21 and what in and for themselves are the subscribers to its nerve exchange it has no means of ascertaining. 22 Messages in the form of sense-impressions come flowing in from that 'outside world,' and these we analyse, classify, store up, and reason about. 23 But of the nature of 'things-in-themselves,' of what may exist at the other end of our system of telephone wires, we know nothing at all.

24 "But the reader, perhaps, remarks, 'I not only see an object, but I can touch it. I can trace the nerve from the tip of my finger to the brain. 25 I am not like the telephone clerk, I can follow my network of wires to their terminals and find what is at the other end of them.' 26 Can you, reader? Think for a moment whether your ego has for one moment got away from your brain exchange. 27 The sense-impression that you call touch was just as much as sight felt only at the brain end of a sensory nerve. 28 What has told you also of the nerve from the tip of your finger to your brain? 29 Why, sense-impressions also, messages conveyed along optic or tactile sensory nerves. 30 In truth, all you

have been doing is to employ one subscriber to your telephone exchange to tell you about the wire that goes to a second, 31 but you are just as far as ever from tracing out for yourself the telephone wires to the individual subscriber and ascertaining what your nature is in and for yourself. 32 The immediate sense-impression is just as far removed from what you term the 'outside world' as the store of impresses. 33 If our telephone clerk had recorded by aid of a phonograph certain of the messages from the outside world on past occasions, 34 then if any telephonic message on its receipt set several phonographs repeating past messages, we have an image analogous to what goes on in the brain. 35 Both telephone and phonograph are equally removed from what the clerk might call the 'real outside world,' 36 but they enable one through their sounds to construct a Universe; to projects those sounds, which are really inside own office, outside own office, and speaks of them as the external Universe. 37 This outside world is constructed by one from the contents of the inside sounds, 38 which differ as widely from things-in-themselves as language, the symbol, must always differ from the thing it symbolises. 39 For our telephone clerk sounds would be the real world, 40 and yet we can see how conditioned and limited it would be by the range of own particular telephone subscribers and by the contents of their messages.

41 "So it is with our brain; the sounds from telephone and phonograph correspond to immediate and stored sense-impressions. 42 These sense-impressions we project as it were outwards and term the real world outside ourselves. 43 But the things-in-themselves which the sense-impressions symbolise, the 'reality,' as the metaphysicians wish to call it, at the other end of the nerve, remain unknown and is unknowable. 44 Reality of the external world lies for science and for us in combinations of form and colour and touch-- 45 sense-impressions as widely divergent from the thing 'at the other end of the nerve' as the sound of the telephone from the subscriber at the other end of the wire. 46 We

are cribbed and confined in this world of sense-impressions like the exchange clerk in own world of sounds, and not a step beyond can we get. 47 As a person's world is conditioned and limited by their particular network of wires, so ours is conditioned by our nervous system, by our organs of sense. 48 Their peculiarities determine what is the nature of the outside world which we construct. 49 It is the similarity in the organs of sense and in the perceptive faculty of all normal human beings which makes the outside world the same, or practically the same, for them all. 50 To return to the old analogy, it is as if two telephone exchanges had very nearly identical groups of subscribers. 51 In this case a wire between the two exchanges would soon convince the imprisoned clerks that they had something in common and peculiar to themselves. 52 That conviction corresponds in our comparison to the recognition of other consciousness." 53 I suggest that this extract be read over carefully, not once but several times, and that the reader try to make quite clear to themselves the position of the clerk in the telephone exchange, 54 the position of the mind in the body, as depicted by Professor Pearson, before recourse is had to the criticisms of anyone else. 55 One cannot find anywhere better material for critical philosophical reflection.

56 As has been seen, our author accepts without question, the psychological doctrine that the mind is shut up within the circle of the messages that are conducted to it along the sensory nerves, 57 and that it cannot directly perceive anything truly external. 58 He carries own doctrine out to the bitter end in the conclusion that, since we have never had experience of anything beyond sense-impressions, and have no ground for an inference to anything beyond, 59 we must recognise that the only external world of which we know anything is an external world built up out of sense-impressions. 60 It is, thus, in the mind, and is not external at all; it is only "projected outwards," thought of as though it were beyond us. 61 Shall we leave the inconsistent position of the plain

person and of the psychologists and take our refuge in this world of projected mental constructs?

62 Before the reader makes up own mind to do this, I beg you to consider the following:-- 63 (1) If the only external world of which we have a right to speak at all is a construct in the mind or ego, 64 we may certainly affirm that the world is in the ego, but does it sound sensible to say that the ego is somewhere in the world? 65 (2) If all external things are really inside the mind, and are only "projected" outwards, of course our own bodies, sense-organs, nerves, and brains, are really inside and are merely projected outwards. 66 Now, do the sense-impressions of which everything is to be constructed "come flowing in" along these nerves that are really inside? 67 (3) Can we say, when a nerve lies entirely within the mind or ego, that this same mind or ego is nearer to one end of the nerve than it is to the other? 68 How shall we picture to ourselves "the conscious ego of each one of us seated at the brain terminals of the sensory nerves"? 69 How can the ego place the whole of itself at the end of a nerve which it has constructed within itself? 70 And why is it more difficult for it to get to one end of a nerve like this than it is to get to the other? 71 (4) Why should the thing "at the other end of the nerve" remain unknown and unknowable? 72 Since the nerve is entirely in the mind, is purely a mental construct, can anything whatever be at the end of it without being in the mind? 73 And if the thing in question is not in the mind, how are we going to prove that it is any nearer to one end of a nerve which is inside the mind than it is to the other? 74 If it may really be said to be at the end of the nerve, why may we not know it quite as well as we do the end of the nerve, or any other mental construct?

75 It must be clear to the careful reader of Professor Pearson's paragraphs, that he does not confine himself strictly to the world of mere "projections," to an outer world which is really inner. 76 If he did this, the distinction between inner and outer would disappear. 77 Let us consider for a moment the imprisoned clerk. He is in a telephone exchange, about

him are wires and subscribers. 78 He gets only sounds and must build up his whole Universe of things out of sounds. 79 Now we are supposing him to be in a telephone exchange, to be receiving messages, to be building up a world out of these messages. 80 Do we for a moment think of him as building up, out of the messages which came along the wires, 81 those identical wires which carried the messages and the subscribers which sent them? Never! 82 We distinguish between the exchange, with its wires and subscribers, and the messages received and worked up into a world. 83 In picturing to ourselves the telephone exchange, we are doing what the plain person and the psychologists do when they distinguish between mind and body,-- 84 they never suppose that the messages which come through the senses are identical with the senses through which they come.

85 But suppose we maintain that there is no such thing as a telephone exchange, with its wires and subscribers, which is not to be found within some clerk. 86 Suppose the real external world is something inner and only "projected" without, mistakenly supposed by the unthinking to be without. 87 Suppose it is nonsense to speak of a wire which is not in the mind of a clerk. 88 May we under such circumstances describe any clerk as in a telephone exchange? as receiving messages? as no nearer to own subscribers than own end of the wire? 89 May we say that sense-impressions come flowing in to the clerk? 90 The whole figure of the telephone exchange becomes an absurdity when we have once placed the exchange within the clerk. 91 Nor can we think of two clerks as connected by a wire, when it is affirmed that every wire must "really" be in some clerk.

92 The truth is, that, in the extracts which I have given above and in many other passages in the same volume, 93 the real external world, the world which does not exist in the mind but without it, is much discredited, and is yet not actually discarded. 94 The ego is placed at the brain terminals of the sensory nerves, 95 and it receives messages which flow in; i.e. the clerk is actually placed in an exchange. 96

That the existence of the exchange is afterward denied in so many words does not mean that it has not played 97 and does not continue to play an unimportant part in the thought of the author.

98 It is interesting to see how a person of science, whose reflections compel them to deny the existence of the external world that we all seem to perceive 99 and that we somehow recognise as distinct from anything in our minds, is nevertheless compelled to admit the existence of this world at every turn. 100 But if we do admit it, what shall we make of it? 101 Shall we deny the truth of what the psychologist has to tell us about a knowledge of things only through the sensations to which they give rise? 102 We cannot, surely, do that. 103 Shall we affirm that we know the external world directly, and at the same time that we do not know it directly, but only indirectly, and through the images which arise in our minds? 104 That seems inconsistent. Certainly there is material for reflection here.

105 Nevertheless the more we reflect on that material, the more evident does it become that the plain person cannot be wrong in believing in the external world which seems revealed in one experiences. 106 We find that all attempts to discredit it rest upon the implicit assumption of its existence, 107 and fall to the ground when that existence is honestly denied. 108 So our problem changes its form. We no longer ask: Is there an external world? 109 but rather: What is the external world, and how does it differ from the world of mere ideas?

THE POSSIBILITY OF DEFINING RELIGION

Ralph Barton Perry

17 The least religious experience is so mysterious and so complex that a moderate degree of reflection upon it tends to a sense of intellectual impotence. 2 "If I speak," says Emerson, "I define and confine, and am less." 3 One would gladly set down religion among the unspeakable things and

avoid the imputation of degrading it. 4 It is certain that the enterprise of defining religion is at present in disrepute. 5 It has been undertaken so often and so unsuccessfully that contemporary students for the most part prefer to supply a list of historical definitions of religion, 6 and let their variety demonstrate their futility. 7 Metaphysicians and psychologists agree that in view of the differences of creed, ritual, organisation, conduct, and temperament that have been true of different religions in different times and places, 8 one may as well abandon the idea that there is a constant element.

9 But on the other hand we have the testimony afforded by the name religion; 10 and the ordinary judgments of people to the effect that it signifies something to be religious, and to be more or less religious. 11 There is an elementary logical principle to the effect that a group name implies certain common group characters. 12 Impatience with abstract or euphemistic definitions should not blind us to the truth. 13 Even the psychologists tends in their description of religious phenomena to single out and emphasise what they calls a typical religious experience. 14 And the same applies to the idealist's treatment of the matter. 15 Religion, they reasons, is essentially a development of which the true meaning can be seen only in the higher stages. 16 The primitive religion is therefore only implicit religion. 17 But lower stages cannot be regarded as belonging to a single development with higher stages, 18 if there be not some actual promise of the later in the earlier, or some element which endures throughout. 19 It is unavoidable, then, to assume that in dealing with religion we are dealing with a specific and definable experience.

THE PROFITABLENESS OF DEFINING RELIGION

Ralph Barton Perry

18 The profitableness of undertaking such a definition is another matter. 2 It may well be that in so human and practical an affair as religion, definition is peculiarly inappropriate. 3 But is

there not a human and practical value in the very defining of religion? 4 Is there not a demand for it in the peculiar relation that exists between religion and the progress of enlightenment? 5 Religion associates itself with the habits of society. 6 The progress of enlightenment means that more or less all the time, and very profoundly at certain critical times, society must change its habits. 7 The consequence is that religion is likely to be abandoned with the old habits. The need of a new religion is therefore a chronic one. 8 The reformer in religion, or the person who wishes to be both enlightened and religious, 9 is chiefly occupied with the problem of disentangling religion pure and undefiled from definite discredited practices and opinions. 10 And the solution of the problem turns upon some apprehension of the essence of religion. 11 There is a large amount of necessary and unnecessary tragedy due to the extrinsic connection between ideas and certain modes of their expression. 12 There can be no more serious and urgent duty than that of expressing as directly, and so as truly as possible, the great permanent human concerns. 13 The people to whom educational reform has been largely due have been the people who have remembered for their fellows what this whole business of education is after all for. 14 Comenius and Pestalozzi served society by stripping educational activity of its historical and institutional accessories, 15 and laying bare the genuine human need that these are designed to satisfy. 16 There is a similar virtue in the insistent attempt to distinguish between the essential and the accessory in religion.

THE TRUE METHOD OF DEFINING RELIGION

Ralph Barton Perry

19 Although declining to be discouraged by the conspicuousness of past failures in this connection, one may well profit by them. 2 The amazing complexity of religious phenomena must somehow be seen to be consistent with their common nature. 3 The religious

experience must not only be found, but must also be reconciled with "the varieties of religious experience." 4 The inadequacy of the well-known definitions of religion may be attributed to several causes. 5 The commonest fallacy is to define religion in terms of a religion. 6 My definition of religion must include my brother's religion, even though he live on the other side of the globe, 7 and my ancestors' religion, in spite of their prehistoric remoteness. 8 Error may easily arise through the attempt to define religion in terms of my own religion, or what I conceive to be the true religion. 9 Whatever the relation between ideal religion and actual religion, the field of religion contains by common consent cults that must on their own grounds condemn one another; 10 religions that are bad religions, and yet religions.

11 A more enlightened fallacy, and a more dangerous one, is due to the supposition that religion can be defined exclusively in terms of some department of human nature. 12 There have been descriptions of religion in terms of feeling, intellect, and conduct respectively. 13 But it is always easy to overthrow such a description, 14 by raising the question of its application to evidently religious experiences that belong to some other aspect of life. 15 Religion is not feeling, because there are many phlegmatic, God-fearing people whose religion consists in good works. 16 Religion is not conduct, for there are many mystics whose very religion is withdrawal from the field of action. 17 Religion is not intellection, for no one has ever been able to formulate a creed that is common to all religions. 18 Yet without a doubt one must look for the essence of religion in human nature. 19 The present psychological interest in religion has emphasised this truth. 20 How, then, may we describe it in terms of certain constant conditions of human life, and yet escape the abstractness of the facultative method? 21 Modern behavioural-science suggests an answer in demonstrating the interdependence of knowledge, feeling, and volition. 22 The perfect case of this unity is belief. 23 The believing

experience is cognitive in intent, but practical and emotional as well in content. 24 I believe what I take for granted; and the object of my belief is not merely known, but also felt and acted upon. 25 What I believe expresses itself in my total experience.

26 There is some hope, then, of an adequate definition of the religious experience, if it be regarded as belonging to the psychological type of belief. 27 Belief, however, is a broader category than religion. 28 There must be some religious type of believing. An account of religion in terms of believing, 29 and the particular type of it here in question, would, then, constitute the central stem of a psychology of religion, 30 and affords the proper conceptions for a description of the religious experience. 31 Even here the reservation must be made that belief is always more than the believing state, in that it means to be true.

32 Hence to complete an account of religion one should consider its object, or its cognitive implications. 33 But this direct treatment of the relation between religion and philosophy must be deferred until in the present chapter 34 we shall come to appreciate the inwardness of the religious consciousness. 35 To this end we must permit ourselves to be enlightened by the experience of religious people as viewed from within. 36 It is not our opinion of a person's religion that is here in question, but the content and meaning which it has for the person.

37 "I would have you," says Fielding, in his "Hearts of people," 38 "go and kneel beside the Mahommedan as he prays at the sunset hour, and put your heart to his and wait for the echo that will surely come. . . . 39 I would have you go to the Hillman smearing the stone with butter that his god may be pleased, 40 to the woman crying to the forest god for her sick child, to the boy before his monks learning to be good. 41 No matter where you go, no matter what the faith is called, if you have the hearing ear, if your heart is in unison with the heart of the world, you will hear always the same song."

42 The general identification of religion with belief is made

without serious difficulty. 43 The essential factor in belief, is, as we have seen, the reaction of the whole personality to a fixed object or accepted situation. 44 A similar principle underlies common judgments about a person's religion. 45 A person is accounted most religious whose religion penetrates own life most intimately. 46 In the person whose religion consists in the outer exercise of attendance upon church, we recognise the sham. 47 They appear to be religious. They do one of the things which a religious person would do; but an object of religious faith is not the constant environment of their life. 48 A person may or may not feel sure of God from own pew, but God is not among the things that count in own daily life. 49 God does not enter into one’s calculations or determine one’s scale of values. 50 Again, discursive thinking is regarded as an interruption of religion. 51 When I am at pains to justify my religion, I am already doubting; and for common opinion doubt is identical with irreligion. 52 In so far as I am religious, my religion stands in no need of justification, even though I regard it as justifiable. 53 In my religious experience I am taking something for granted; in other words I act about it and feel about it in a manner that is going to be determined by the special conditions of my mood and temperament. 54 The mechanical and prosaic person acknowledges God in own mechanical and prosaic way. 55 They believes in divine retribution as one believes in commercial or social retribution. 56 They are as careful to prepare for the next world as one is to be respectable in this. 57 The poets, on the other hand, believe in God after the manner of their genius. 58 Though they worship God in spirit they may conduct their life in an irregular manner peculiar to themselves. 59 Difference of mood in the same individual may be judged by the same measure. 60 When God is most real to them, brought home to them most vividly, or consciously obeyed, in these moments they are most religious. 61 When, on the other hand, God is merely a name to them, and church a routine, or

when both are forgotten in the daily occupations, they are least religious. 62 Their life on the whole is said to be religious in so far as periods of the second type are subordinated to periods of the first type. 63 Further well-known elements of belief, corollaries of the above, are evidently present in religion. 64 A certain imagery remains constant throughout an individual's experience. One comes back to it as to a physical object in space. 65 And although religion is sporadically an exclusive and isolated affair, it tends strongly to be social. 66 The religious object, or God, is a social object, common to me and to my neighbour, and presupposed in our collective undertakings. 67 This reduction of religion to the type of the believing state should thus provide us with an answer to that old and fundamental question concerning the relative priority of faith and works. 68 The test of the faith is in the works, and the works are religious in so far as they are the expression of the faith. 69 Religion is neither the doing of anything nor the feeling of anything nor the thinking of anything, 70 but the reacting as a whole, in terms of all possible activities of human life, to some accepted situation.

71 We may now face the more interesting but difficult question of the special character of religious belief. 72 In spite of the fact that in these days the personality of God is often regarded as a transient feature of religion, 73 that type of belief which throws most light upon the religious experience is the belief in persons. 74 Our belief in persons consists in the practical recognition of a more or less persistent disposition toward ourselves. 75 The outward behaviour of our fellow-people is construed in terms of the practical bearing of the attitude which it implies. 76 The extraordinary feature of such belief is the disproportion between its vividness and the direct evidence for it. 77 Of this we are most aware in connection with those personalities which we regard as distinctly friendly or hostile to ourselves. 78 We are always more or less clearly in the presence of our friends and enemies. 79 Their well-wishing or their ill-wishing

haunts the scene of our living. 80 There is no more important constituent of what the psychologists call our "general feeling tone." 81 There are times when we are entirely possessed by a state that is either exuberance in the presence of those who love us, 82 or awkwardness and stupidity in the presence of those whom we believe to suspect and dislike us. 83 The latter state may easily become chronic. 84 Many people live permanently in the presence of an accusing audience. 85 The inner life which expresses itself in the words, "Everybody hates me!" is perhaps the most common form of morbid self-consciousness. 86 On the other hand, buoyancy of spirits springs largely from a constant faith in the good-will of one's fellows. 87 In this case one is filled with a sense of security, 88 and is conscious of a sympathetic reinforcement that adds to private joys and compensates for private sorrows. 89 And this sense of attitude is wonderfully discriminating. 90 We can feel the presence of a "great individual," a "formidable person," a superior or inferior, 91 one who is interested or indifferent to our talk, and all the subtlest degrees of approval and disapproval.

92 A similar sensibility may quicken us even in situations where no direct individual attitude to ourselves is implied. 93 We regard places and communities as congenial when we are in sympathy with the prevailing purposes or standards of value. 94 We may feel ill at ease or thoroughly at home in cities where we know no single human soul. 95 Indeed, in a misanthrope like Rousseau-- and who has not his Rousseau moods!-- the mere absence of social repression arouses a most intoxicating sense of tunefulness and security. 96 Nature plays the part of an indulgent parent who permits all sorts of personal liberties.

97 "The view of a fine country, a succession of agreeable prospects, a free air, a good appetite, and the health I gain by walking; 98 the freedom of inns, and the distance from everything that can make me recollect the dependence of my situation, conspire to free my soul, 99 and give boldness to my thoughts, throwing me, in a

manner, into the immensity of things, where I combine, choose, and appropriate them to my fancy, 100 without restraint or fear. I dispose of all nature as I please."

101 In such confidence or distrust, inspired originally by the social environment, and similarly suggested by other surroundings of life, we have the key to the religious consciousness. 102 But it is now time to add that in the case of religion 103 these attitudes are concerned with the universal or supernatural rather than with present and normal human relationships. 104 Religious reactions are "total reactions."

105 "To get at them," says William James, "you must go behind the foreground of existence and reach down to that curious sense of the whole residual cosmos as an everlasting presence, 106 intimate or alien, terrible or amusing, lovable or odious, which in some degree everyone possesses. 107 This sense of the world's presence, appealing as it does to our peculiar individual temperament, makes us either strenuous or careless, devout or blasphemous, gloomy or exultant about life at large; 108 and our reaction, involuntary and inarticulate and often half unconscious as it is, is the completest of all our answers to the question, 109 'What is the character of this Universe in which we dwell?'"

110 This residual environment, or profounder realm of tradition and Nature, may have any degree of unity from chaos to cosmos. 111 For religion its significance lies in the idea of original and far-reaching power rather than in the idea of totality. 112 But that which is at first only "beyond," is practically the same object as that which comes in the development of thought to be conceived as the "world" or the "Universe." 113 We may therefore use these latter terms to indicate the object of religion, until the treatment of special instances shall define it more precisely. 114 Religion is, then, human's sense of the disposition of the Universe to oneself. 115 We shall expect to find, as in the social phenomena with which we have just dealt, that the manifestation of this sense consists in a general reaction appropriate to the disposition so

attributed. 116 A person will be fundamentally ill at ease, profoundly confident, or will habitually take precautions to be safe. 117 The ultimate nature of the world is here no speculative problem. 118 The savage who could feel some joy at living in the Universe would be more religious than the sublimest dialectician. 119 It is in the vividness of the sense of this presence that the acuteness of religion consists. 120 I am religious in so far as the whole tone and temper of my living reflects a belief as to what the Universe thinks of such as me.

EXAMPLES OF RELIGIOUS BELIEF

Ralph Barton Perry

20 The examples that follow are selected because their differences in personal flavor serve to throw into relief their common religious character. 2 Theodore Parker, in describing his own boyhood, writes as follows: 3 "I can hardly think without a shudder of the terrible effect the doctrine of eternal damnation had on me. 4 How many, many hours have I wept with terror as I lay on my bed, till, between praying and weeping, sleep gave me repose. 5 But before I was nine years old this fear went away, and I saw clearer light in the goodness of God. 6 But for years, say from seven till ten, I said my prayers with much devotion, I think, and then continued to repeat, 'Lord, forgive my sins,' till sleep came on me."

7 Compare with this Stevenson's Christmas letter to his mother, in which he says: 8 "The whole necessary morality is kindness; and it should spring, of itself, from the one fundamental doctrine, Faith. 9 If you are sure that God, in the long run, means kindness by you, you should be happy; and if happy, surely you should be kind."

10 Here is destiny frowning and destiny smiling, but in each case so real, so present, as to be immediately responded to with helpless terror and with grateful warm-heartedness.

11 The author of the "Imitatio Christi" speaks thus of the daily living of the Christian: 12 "The life of a Christian who has dedicated

oneself to the service of God should abound with eminent virtues of all kinds, 13 that one may be really the same person which one is by outward appearance and profession. 14 Indeed, a person ought not only to be the same, but much more, in own inward disposition of soul; 15 because one professes to serve a God who sees the inward parts, a searcher of the heart and reins, a God and Father of spirits: 16 and therefore, since we are always in His sight, we should be exceedingly careful to avoid all impurity, all that may give offence to Him whose eyes cannot behold iniquity. 17 We should, in a word, so far as mortal and frail nature can, imitate the blessed angels in all manner of holiness, 18 since we, as well as they, are always in His presence. . . . 19 And good people have always this notion of the thing. 20 For they depend upon God for the success of all they do, even of their best and wisest undertakings."

21 Such is to be the practical acknowledgment of God in the routine of life. 22 The more direct response to this presence appears abundantly in St. Augustine's conversation and reminiscence with God.

23 "How evil have not my deeds been; or if not my deeds my words; or if not my words my will? 24 But Thou, O Lord, art good and merciful, 25 and Thy right hand had respect unto the profoundness of my death, and removed from the bottom of my heart that abyss of corruption. 26 And this was the result, that I willed not to do what I willed, and willed to do what thou willedst. 27 How sweet did it suddenly become to me to be without the delights of trifles! 28 And what at one time I feared to lose, it was now a joy to me to put away. 29 For Thou didst cast them away from me, Thou true and highest sweetness. 30 Thou didst cast them away, and instead of them didst enter in Thyself-- 31 sweeter than all pleasure, though not to flesh and blood; 32 brighter than all light, but more veiled than all mysteries; 33 more exalted than all honor, but not to the exalted in their own conceits. 34 Now was my soul free from the gnawing cares of seeking and getting. 35 And I babbled unto

Thee my brightness, my riches, and my health, the Lord my God." 36 In these two passages we meet with religious conduct and with the supreme religious experience, the direct worship of God. 37 In each case the heart of the matter is an individual's indubitable conviction of the world's favourable concern for oneself. 38 The deeper order of things constitutes the real and the profoundly congenial community in which one lives.

TYPICAL RELIGIOUS PHENOMENA: CONVERSION

Ralph Barton Perry

21 Let us now apply this general account of the religious experience to certain typical religious phenomena: conversion; piety; and religious instruments, symbolisms, and modes of conveyance. 2 Although recent study of the phenomenon of conversion has brought to light a considerable amount of interesting material, 3 there is some danger of misconceiving its importance. 4 The psychology of conversion is primarily the psychology of crisis or radical alteration, rather than the psychology of religion. 5 For the majority of religious men and women conversion is an insignificant event, and in very many cases it never occurs at all. 6 Religion is more purely present where it is normal and monotonous. 7 But this phenomenon is nevertheless highly significant in that religion and irreligion are placed in close juxtaposition, 8 and the contribution of religion at its inception thereby emphasised. 9 In general it is found that conversion takes place during the period of adolescence. 10 But this is the time of the most sudden expansion of the environment of life; 11 a time when there is the awakening consciousness of many a new presence. 12 This is sometimes expressed by saying that it is a period of acute self-consciousness. 13 Life is conscious of itself as over against its inheritance; the whole setting of life sweeps into view. 14 Some solution of the life problem, some coming to terms with the Universe, is the normal issue of it. 15 Religious

conversions signify, then, that in this fundamental adjustment a person defines and accepts for own life a certain attitude on the part of the Universe. 16 The examples cited by the psychologists, as well as the generalisations which they derive, bear out this interpretation. 17 "General Booth, the founder of the Salvation Army, considers that the first vital step in saving outcasts 18 consists in making them feel that some decent human being cares enough for them to take an interest in the question whether they are to rise or sink." 19 The new state is here one of courage and hope stimulated by the glow of friendly interest. 20 The converts are no longer "out in the cold." They are told that the world wishes them well, 21 and this is brought home to them through representations of the tenderness of Christ, and through the direct ministering of those who mediate it. 22 But somehow the converts must be persuaded to realise all this. 23 They must believe it before it can mean anything to them. 24 They are therefore urged to pray-- a proceeding that is at first ridiculous to them, since it involves taking for granted what one disbelieves. 25 But therein lies the critical point. It is peculiar to the object in this case that it can exist only for one who already believes in it. 26 The psychologists call this the element of "self-surrender." 27 To be converted a person must somehow suffer own surroundings to put into one a new heart, which may thereupon confirm its object. 28 Such belief is tremendously tenacious because it so largely creates its own evidence. 29 Once believe that "God, in the long run, means kindness by you," and you are likely to stand by it to the end-- 30 the more so in this case because the external evidence either way is to the average person so insufficient. 31 Such a belief as this is inspired in the convert, 32 not by reasoning, but by all the powers of suggestion that personality and social contagion can afford.

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PIETY

Ralph Barton Perry

22 The psychologists describe piety as a sense of unity. One feels after reading their accounts that they are too abstract. 2 For there are many kinds of unity, characteristic of widely varying moods and states. 3 Any state of rapt attention is a state of unity, and this occurs in the most secular and humdrum moments of life. 4 Nor does it help matters to say that in the case of religion this unity must have been preceded by a state of division; 5 for we cannot properly characterise any state of mind in terms of another state unless the latter be retained in the former. 6 And that which is characteristic of the religious sense of unity would seem to be just such an overcoming of difference. 7 There is recognition of two distinct attitudes, which may be more or less in sympathy with one another, 8 but which are both present even in their fullest harmony. 9 Were I to be taken out of myself so completely as to forget myself, I should inevitably lose that sense 10 of sympathy from which arises the peculiar exultation of religious faith, 11 a heightened experience of the same type with the freedom and spontaneity that I experience in the presence of those with whom I feel most in accord. 12 The further graces and powers of religion readily submit to a similar description. 13 My sense of positive sympathy expresses itself in an attitude of well-wishing; 14 living in an atmosphere of kindness I instinctively endeavour to propagate it. 15 My buoyancy is distinctly of that quality which to a lesser degree is due to any sense of social security; 16 my power is that of one who works in an environment that reinforces oneself. 17 I experience the objective or even cosmical character of my enterprises. 18 They have a momentum which makes me their instrument rather than their perpetrator. 19 A paradoxical relation between religion and morality has always interested observers of custom and history. 20 Religion is apparently as capable of the most fiendish malevolence as of the most saintly gentleness.

21 Fielding writes that, "When religion is brought out or into daily life and used as a guide or a weapon in the world it has no effect either for good or evil. 22 Its effect is simply in strengthening the heart, in blinding the eyes, in deafening the ears. 23 It is an intensive force, an intoxicant. It doubles or trebles a human's powers. 24 It is an impulsive force sending one headlong down the path of emotion, whether that path leads to glory or to infamy. 25 It is a tremendous stimulant, that is all."

26 Religion does not originate life purposes or define their meaning, but stimulates them by the same means that works in all corporate and social activity. 27 To work with the Universe is the most tremendous incentive that can appeal to the individual will. 28 Hence in highly ethical religions the power for good exceeds that of any other social and spiritual agency. 29 Such religion makes present, actual, and real, that good on the whole which the individual otherwise tends to distinguish from that which is good for oneself. 30 In daily life the morally valid and the practically urgent are commonly arrayed against one another; 31 but the ethical religion makes the valid urgent.

RELIGIOUS INSTRUMENTS, SYMBOLISM, AND MODES OF CONVEYANCE

Ralph Barton Perry

23 The instruments of religion are legion, 2 and it is in order here only to mention certain prominent cases in which their selection would seem to have direct reference to the provocation and perpetuation of such a sense of attitude as we have been describing. 3 This is true in a general way of all symbolism. 4 There is no essential difference between the religious symbol and such symbols as serve to remind us of human relationships. 5 In both cases the perceptual absence of will is compensated for by the presence of some object associated with that will. 6 The function of this object is due to its power to revive and perpetuate a certain special social atmosphere. 7 But the most important vehicle of

religion has always been personality. 8 It is, after all, to priests, prophets, and believers that religious cults have owed their long life. 9 The traits that mark the prophet are both curious and sublime. 10 They are most remarkable for the confidence with which they speak for the Universe. 11 Whether it be due to lack of a sense of humour or to a profound conviction of truth, is indifferent to our purpose. 12 The power of such people is undoubtedly in their suggestion of a force greater than they, 13 whose designs they bring directly and socially to the attention of people. 14 The prophets in their prophesying are indeed not altogether distinguished from God, 15 and it is through the mediation of a directly perceptible human attitude that a divine attitude gets itself fixed in the imagination of the believer. 16 What is true of the prophet is equally true of the preacher whose function it is not to represent God in their own person, but to depict Him with their tongues. 17 It is generally recognised that the preacher is neither a moraliser nor a theologian. 18 But it is less perfectly understood that it is their function to suggest the presence of God. 19 Their proper language is that of the imagination, 20 and the picture which they portray is that of a reciprocal social relationship between human and the Supreme Master of the situation of life. 21 The preacher will not define God or prove God, but introduce Him and talk about Him. 22 And at the same time the association of prayer and worship with their sermon, and the atmosphere created by the meeting together of a body of disciples, will act 23 as the confirmation of their suggestions of such a living presence.

24 The conveyance of any single religious cult from generation to generation affords a signal illustration of the importance in religion of the recognition of attitude. 25 Religions manage somehow to survive any amount of transformation of creed and ritual. 26 It is not what is done, or what is thought, that identifies the faith of the first Christians with that of the last, but a certain reckoning with the disposition of God. 27 The successive generations of

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Christians are introduced into the spiritual world of their fathers, 28 with its furnishing of hopes and fears remaining substantially the same; 29 and their Christianity consist in their continuing to live in it with only a slight and gradual renovation. 30 To any given individual, God is more or less completely represented by one's elders in the faith in their exhortations and ministering; 31 and through them one fixes as the centre of own system an image of God's own accuser or redeemer. 32 The complete verification of this interpretation of the religious experience would require the application of it to the different historical cults. 33 In general the examination of such instances is entirely beyond the scope of this chapter; 34 but a brief consideration may be given to those which seem to afford reasonable grounds for objection.

35 First, it may be said that in primitive religions, notably in fetichism, tabooism, and totemism, there is no recognition of a cosmical unity. 36 It is quite evident that there is no conception of a Universe. 37 But it is equally evident that the natural and historical environment in its generality has a very specific practical significance for the primitive believer. 38 It is often said with truth that these earliest religions are more profoundly pantheistic than polytheistic. 39 People recognises an all-pervading interest that is capable of being directed to oneself. 40 The selection of a deity is not due to any special qualification for deification possessed by the individual object itself, 41 but to the tacit presumption that, as Thales said, "all things are full of gods." 42 The disposition of residual reality manifests to the believer no consistency or unity, 43 but it is nevertheless the most constant object of one's will. 44 We live in the midst of a capriciousness which we must appease if we are to establish ourselves at all.

45 Secondly, in the case of Buddhism we are said to meet with a religion that is essentially atheistic. 46 "Whether Buddhas arise, O priests, or whether Buddhas do not arise, it remains a fact 47 and the fixed and necessary

constitution of being, that all its constituents are transitory."

48 The secret of life lies in the application of this truth:

49 "O builder! I've discovered thee!
50 This fabric thou shalt ne'er rebuild!
51 Thy rafters all are broken now,
52 And pointed roof demolished lies!
53 This mind has demolition reached,
54 And seen the last of all desire!"

55 The case of Buddha itself and of the exponents of its purely esoteric doctrine, belong to the reflective type which will presently be given special consideration. 56 But with the ordinary believer, even where an extraneous but almost inevitable polytheism is least in evidence, 57 the religious experience consists in substantially the same elements that appear in theistic religions. 58 The individual is here living appropriately to the ultimate nature of things, with the ceaseless periods of time in full view. 59 That which is brought home to oneself is the illusoriness and hollowness of things when taken in the spirit of active endeavour. 60 The only profound and abiding good is nothingness. 61 While Nature and society conspire to mock the individual, Nirvana invites us to its peace. 62 The religious course of our life consists in the use of such means as can win us this end. 63 From the stand-point of the Universe one has the sympathy only of that wisdom whose essence is self-destruction. 64 And this truth is mediated by the imagination of divine sympathy, 65 for the Blessed One remains as the perpetual incarnation of one own blessedness.

66 Finally there remains the consideration of the bearing of this interpretation upon the more refined and disciplined religions. 67 The religion of the critically enlightened person is less naive and credulous in its imagery. 68 God tends to vanish into an ideal or a universal, into some object of theoretical definition. 69 Here we are on that borderland where an assignment of individual cases can never be made with any certainty of correctness. 70 We can generalise only by describing the conditions that such cases must

fulfill if they are properly to be denominated religious. 71 And there can be no question of the justice of deriving such a description from the reports of historical and institutional religions. 72 An idealistic philosophy will, then, be a religion just in so far as it is rendered practically vivid by the imagination. 73 Such imagination must create and sustain a social relationship.

74 The question of the legitimacy of this imagination is another matter. 75 It raises the issue concerning the judgment of truth implied in religion, and this is the topic of the next chapter. 76 At any rate the religious experience may be realised by virtue of the metaphorical or poetical representation of a situation as one of intercommunication between persons, 77 where reflective definition at the same time denies it. 78 The human worshipper may supply the personality of God from oneself, viewing oneself as from the divine stand-point. 79 But whatever faculty supplies this indispensable social quality of religion, one who defines God as the ultimate goodness or the ultimate truth, has certainly not yet worshipped Him. 80 A person begins to be religious only when such an ideal determines the atmosphere of own daily living; 81 when one regards the immanence of such an ideal in Nature and history as the object of one's will; 82 and when one responds to its presence in the spirit of own conduct and own contemplation.

THE PHILOSOPHICAL IMPLICATIONS OF RELIGION

Ralph Barton Perry

24 It has been maintained that religion is closely analogous to one's belief in the disposition toward one's self of humans or communities. 2 In the case of religion this disposition is attributed to the more or less vaguely conceived residual environment 3 that is recognised as lying outside of the more familiar natural and social relations. 4 After the rise of science this residual environment tends to be conceived as a unity which is ultimate or fundamental, 5 but for the religious

consciousness it is more commonly regarded as a general source of influence practically worthy of consideration. 6 Such a belief, like all belief, is vitally manifested, with such emphasis upon action, feeling, or intellection as temperament and mood may determine.

7 But if the psychology of belief is the proper starting-point for a description of the religious experience, 8 it is none the less suggestive of the fact that religion, just because it is belief, is not wholly a matter for behavioural-science. 9 For religion means to be true, and thus submits itself to valuation as a case of knowledge. 10 The psychological study of religion is misleading when accepted as a substitute for philosophical criticism. 11 The religious person takes own religion not as a narcotic, but as an enlightenment. 12 Its subjective worth is due at any rate in part to the supposition of its objective worth. 13 As in any case of insight, that which warms the heart must have satisfied the mind. 14 The religious experience purports to be the part of wisdom, and to afford only such happiness as increasing wisdom would confirm. 15 And the charm of truth cannot survive its truthfulness. 16 Hence, though religion may be described, it cannot be justified, from the stand-point of therapeutics. 17 Were such the case it would be the real problem of religious leaders to find a drug capable of giving a constantly pleasant tone to their patient's experience. 18 There would be no difference between priests and physicians who make a specialty of nervous diseases, 19 except that the former would aim at a more fundamental and perpetual suggestion of serenity. 20 Now no person wants to be even a blessed fool. 21 Person does not want to dwell constantly in a fictitious world, even if it be after one’s own heart. 22 A person may from the cynical point of view actually do so, but if one be religious one thinks it is reality, and is satisfied only in so far as one thinks so. 23 He regards the person who has said in own’s heart that there is no God as the fool, 24 and not because one may have to suffer for it, but because one is cognitively blind to the real nature

of things. 25 Piety, on the other hand, one regards as the standard experience, the most veracious life. 26 Hence, it is not an accident that religion has had its creeds and its controversies, its wars with science and its appeals to philosophy. 27 The history of these affairs shows that religion commonly fails to understand the scope of its own demand for truth; 28 but they have issued from the deep conviction that one's religion is, implicitly, at least, in the field of truth; 29 that there are theoretical judgments whose truth would justify or contradict it.

30 This general fact being admitted, there remains the task to which the present discussion addresses itself, 31 that of defining the kind of theoretical judgment implied in religion, and the relation to this central cognitive stem of its efflorescences of myth, theology, and ritual. 32 It is impossible to separate the stem and the efflorescence, or to determine the precise spot at which destruction of the tissue would prove fatal to the plant, 33 but it is possible to obtain some idea of the relative vitality of the parts.

34 The difficulty of reaching a definite statement in this matter is due to the fact that the truth in which any religious experience centres is a practical and not a scientific truth. 35 A practical truth does not commit itself to any single scientific statement, 36 and can often survive the overthrow of that scientific statement in which at any given time it has found expression. 37 In other words, an indefinite number of scientific truths are compatible with a single practical truth. 38 An instance of this is the consistency with my expectation of the alternation of day and night, 39 of either the Ptolemaic or Copernican formulation of the solar system. 40 Now expectation that the sun will rise to-morrow is an excellent analogue of my religious belief. 41 Celestial mechanics is as relevant to the one as metaphysics to the other. 42 Neither is overthrown until a central practical judgment is discredited, 43 and either could remain true through a very considerable alteration of logical definition; 44 but neither is on this

account exempt from theoretical responsibility.

45 In so far as religion deliberately enters the field of science, and defines its formularies with the historical or metaphysical method, this difficulty does not, of course, exist. 46 Grant that the years of Methuselah's life, or the precise place and manner of the temptation of Jesus, or the definition of Christ in the terms of the Athanasian Creed, are constitutive of Christianity, 47 and the survival of that religion will be determined by the solution of ordinary problems of historical or metaphysical research. 48 But the Christian will very properly claim that their religion is only externally and accidentally related to such propositions, 49 since they are never or very rarely intended in their experience. 50 As religious they are occupied with Christ as their saviour or with God as their protector and judge. 51 The history of Jesus or the metaphysics of God essentially concern them only in so far as they may or may not invalidate this relationship. 52 They cares only for the power and disposition of the divine, 53 and these are affected by history and metaphysics only in so far as they have definitely put them to such proof.

54 For my religion is my sense of a practical situation, and only when that has been proved to be folly has my religion become untrue. 55 My God is my practical faith, my plan of salvation. 56 My religion is overthrown if I am convinced that I have misconceived the situation and mistaken what I should do to be saved. 57 The conception of God is very simple practically, and very complex theoretically, a fact that confirms its practical genesis. 58 My conception of God contains an idea of my own interests, an idea of the disposition of the Universe toward my interests, and some working plan for the reconciliation of these two terms. 59 These three elements form a practical unity, but each is capable of emphasis, and a religion may be transformed through the modification of any one of them. 60 It appears, then, as has always been somewhat vaguely recognised, that the truth of religion is ethical as well as metaphysical or scientific. 61 My

religion will be altered by a change in my conception of what constitutes my real interest, 62 a change in my conception of the fundamental causes of reality, or a change in my conception of the manner in which my will may or may not affect these causes. 63 God is neither an entity nor an ideal, but always a relation of entity to ideal: 64 reality regarded from the stand-point of its favourableness or unfavourableness to human life, and prescribing for the latter the propriety of a certain attitude.

65 The range of historical examples is limitless, but certain of these are especially calculated to emphasise the application of a criterion to religion. 66 Such is the case with Elijah's encounter with the prophets of Baal, as narrated in the Old Testament. 67 "And Elijah came near unto all the people, and said, How long halt ye between two opinions? 68 If Yahweh be God, follow him: but if Baal, then follow him. . . . 69 And call ye on the name of your god, and I will call on the name of Yahweh: and the God that answereth by fire, let him be God. . . . 70 And Elijah said unto the prophets of Baal, Choose you one bullock for yourselves, and dress it first; for ye are many; 71 and call on the name of your god, but put no fire under. 72 And they took the bullock which was given them, and they dressed it, and called on the name of Baal from morning even until noon, saying, O Baal, hear us. 73 But there was no voice, nor any that answered. . . . 74 And it came to pass at noon, that Elijah mocked them, and said, Cry aloud: for he is a god; 75 either he is musing, or he is gone aside, or he is in a journey, or peradventure he sleepeth, and must be awaked. 76 And they cried aloud, and cut themselves after their manner with knives and lances, till the blood gushed out upon them. . . . 77 But there was neither voice, nor any to answer, nor any that regarded."

78 The religion of the followers of Baal here consists in a belief in the practical virtue of a mode of address 79 and form of ritual associated with the traditions and customs of a certain social group. 80 The prophets of this cult agree to regard the experiment proposed by Elijah as a crucial test, and that

which is disproved from its failure is a plan of action. 81 These prophets relied upon the presence of a certain motivity, 82 from which a definite response could be evoked by an appeal which they were peculiarly able to make; 83 but though "they prophesied until the time of the offering of the evening oblation," there was none that regarded.

84 An equally familiar and more instructive example is the refutation of the Greek national religion by Lucretius. 85 The conception of life which Lucretius finds unwarranted is best depicted in Homer. 86 There we hear of a society composed of gods and people. 87 Though the gods, on the one hand, have their own history, their affairs are never sharply sundered from those of people, 88 who, on the other hand, must constantly reckon with them, gauge their attitude, and seek their favour by paying tribute to their individual humours and preferences. 89 In the Ninth Book of the "Iliad," Phoenix addresses himself to the recalcitrant Achilles as follows:

90 "It fits not one that moves
The hearts of all, to live unmoved,
and succor hates for loves.
91 The Gods themselves are
flexible; whose virtues, honours,
pow'rs,
92 Are more than thine, yet they will
bend their breasts as we bend ours.
93 Perfumes, benign devotions,
savours of offerings burn'd,
94 And holy rites, the engines are
with which their hearts are turn'd,
95 By people that pray to them."

96 Here is a general recognition of that which makes sacrifice rational. 97 It is because he conceives this presupposition to be mistaken, that Lucretius declares the practices and fears which are founded upon it to be folly. 98 It is the same with all that is practically based upon the expectation of a life beyond the grave. 99 The correction of the popular religion is due in his opinion to that true view of the world taught by Epicurus, 100 whose memory Lucretius thus invokes at the opening of the Third Book of the "De Rerum Natura":

101 "Thee, who first wast able amid such thick darkness to raise

on high so bright a beacon and shed a light on the true interests of life, 101 thee I follow, glory of the Greek race, and plant now my footsteps firmly fixed in thy imprinted marks. . . . 102 For soon as thy philosophy issuing from a godlike intellect has begun with loud voice, 103 to proclaim the nature of things, the terrors of the mind are dispelled, the walls of the world part asunder, 104 I see things in operation throughout the whole void: the divinity of the gods is revealed and their tranquil abodes 105 which neither winds do shake nor clouds drench with rains nor snow congealed by sharp frost harms with hoary fall: 106 an ever cloudless ether o'ercanopies them, and they laugh with light shed largely round. 107 Nature too supplies all their wants and nothing ever impairs their peace of mind. 108 But on the other hand the Acherusian quarters are nowhere to be seen, though earth is no bar to all things being descried, 109 which are in operation underneath our feet throughout the void."

110 In another passage, after describing the Phrygian worship of Cybele, he comments as follows:

111 "All which, well and beautifully as it is set forth and told, is yet widely removed from true reason. 112 For the nature of gods must ever in itself of necessity enjoy immortality together with supreme repose, 113 far removed and withdrawn from our concerns; 114 since exempt from every pain, exempt from all dangers, strong in its own resources, not wanting aught of us, 115 it is neither gained by favours nor moved by anger. . . . 116 The earth however is at all time without feeling, 117 and because it receives into it the first-beginnings of many things, 118 it brings them forth in many ways into the light of the sun."

119 If the teaching of Epicurus be true it is evident that those who offered hecatombs with the idea that they were thereby mitigating anger, or securing special dispensation, were playing the fool. 120 They were appealing to a fictitious motivity, one not grounded in "the nature of things."

121 To one for whom the walls of

the world had parted asunder, such a procedure was no longer possible; 122 though he might choose to "call the sea Neptune" and reverence the earth as "mother of the gods."

123 The history of religion contains no more impressive and dramatic chapter than that which records the development of the religion of the Jews. 124 Passing over its obscure beginnings in the primitive Semitic cult, we find this religion first clearly defined as tribal self-interest sanctioned by Yahweh. 125 God's interest in his chosen people determines the prosperity of him who practices the social virtues.

126 "The name of Yahweh is a strong tower: the righteous runneth into it, and is safe."

127 "He that is steadfast in righteousness shall attain unto ife."

128 "To do justice and judgment is more acceptable to Yahweh than sacrifice."

129 But in time it is evident to the believer that own experience does not bear out this expectation. 130 Neither as a Jew nor as a righteous person does one prosper more than own neighbor. 131 One comes, therefore, to distrust the virtue of own wisdom. 132 "Then I saw that wisdom excelleth folly, as far as light excelleth darkness. 133 The wise man's eyes are in his head, and the fool walketh in darkness: and yet I perceived that one event happeneth to them all. 134 Then said I in my heart, As it happeneth to the fool, so will it happen even to me; and why was I then more wise? 135 Then I said in my heart, that this also was vanity. 136 For of the wise man, even as of the fool, there is no remembrance forever; seeing that in the days to come all will have been already forgotten. 137 And how doth the wise man die even as the fool! 138 So I hated life; because the work that is wrought under the sun was grievous unto me: 139 for all is vanity and a striving after wind."

140 It is evident that people who expects the favour of fortune in return for their observance of precept is mistaken. 141 The "work that is wrought under the sun" makes no special provision for them during their lifetime. 142 Unless the cry of vanity is to be the last word there must be a reinterpretation of the promise of

God. 143 This appears in the new ideal of patient submission, and the chastened faith that expects only the love of God. 144 And those whom God loves He will not forsake. 145 They will come to their own, if not here, then beyond, according to His inscrutable but unswerving plan. 146 "The sacrifices of God are a broken spirit: a broken and a contrite heart, O God, thou wilt not despise." 147 "For thus saith the high and lofty One that inhabiteth eternity, whose name is Holy: 148 I dwell in the high and holy place, with him also that is of a contrite and humble spirit, 149 to revive the spirit of the humble, and to revive the heart of the contrite ones."

150 In this faith Judaism merges into Christianity. 151 In the whole course of this evolution God is regarded as the friend of His people, but His people learn to find a new significance in his friendship. 152 That which is altered is the conduct which that friendship requires and the expectation which it determines. 153 The practical ideal which the relationship sanctions, changes gradually from that of prudence to that of goodness for its own sake. 154 God, once an instrument relevant to human temporal welfare, has come to be an object of disinterested service.

155 No such transformation as this was absolutely realised during the period covered by the writings of the Old Testament, 156 nor has it even yet been realised in the development of Christianity. 157 But the evolution of both Judaism and Christianity has taken this direction. 158 The criterion of this evolution is manifestly both ethical and metaphysical. 159 The Christians avows that they rates purity of character above worldly prosperity, 160 so that the former cannot properly be prized for the sake of the latter. 161 Furthermore, they shares more or less unconsciously such philosophical and scientific opinions as deny truth to the conception of special interferences and dispensations from a supernatural agency. 162 Therefore they look for no fire from heaven to consume their sacrifices. 163 But their religion is nevertheless a practical expectation. 164 They believe that God is good, and that God loves

them and sustains them. 165 They believe that there obtains between oneself, in so far as good, 166 and the Universe sub-specie aeternitatis, a real sympathy and reciprocal re-enforcement. 167 They believes that they secures through the profoundly potent forces of the Universe that which they regards as of most worth; 168 and that somewhat is added to these forces by virtue of their consecration. 169 The God of the Christians cannot be defined short of some such account as this, inclusive of an ideal, an attitude, and an expectation.

170 The God of the Christians is to be known only in terms of the Christlike outlook upon life, in which the disciple is taught to emulate the master. 171 When moral and intellectual development shall have discredited its scale of values, 172 or its conviction that cosmical events are in the end determined in accordance with that scale of values, 173 then Christianity must either be transformed, or be untenable for the wise person. 174 If we have conceived the essence of Christianity too broadly or vaguely, it does not much matter for our present purposes. 175 Its essence is, at any rate, some such inwardness of life resolving ideality and reality into one, 176 and drawing upon objective truth only to the extent required for the confirming of that relation.

177 We conclude, then, our attempt to emphasise the cognitive factor in religion, with the thesis that every religion centres in a practical secret of the Universe. 178 To be religious is to believe that a certain correlation of forces, moral and factual, is in reality operative, 179 and that it determines the propriety and effectiveness of a certain type of living. 180 Whatever demonstrates the futility, vanity, or self-deception of this living, discredits the religion. 181 And, per contra, except as they define or refute such practical truth, religion is not essentially concerned with theoretical judgments.

182 But neither religion nor any other human interest consists in essentials. 183 Such a practical conviction as that which has been defined inevitably flowers into a marvelous complexity, 184 and taps for its nourishment every

spontaneity of human nature. 185 If it be said that only the practical conviction is essential, this is not the same as to say that all else is superfluous. 186 There may be no single utterance that my religion could not have spared 187 and yet were I to be altogether dumb my religion would, indeed, be as nothing. 188 For if I believe, I accept a presence in my world, which as I live will figure in my dreams, or in my thoughts, or in my habits. 189 And each of these expressions of myself will have a truth if it do but bear out my practical acceptance of that presence. 190 The language of religion, like that of daily life, is not the language of science except it takes it upon itself to be so. 191 There is scarcely a sentence which I utter in my daily intercourse with people which is not guilty of transgressions against the canons of accurate and definite thinking. 192 Yet if I deceive neither myself nor another, I am held to be truthful, 193 even though my language deal with chance and accident, material purposes and spiritual causes, 194 and though I vow that the sun smiles or the moon lets down her hair into the sea. 195 Science is a special interest in the discovery of unequivocal and fixed conceptions, and employs its terms with an unalterable connotation. 196 But no such algebra of thought is indispensable to life or conversation, and its lack is no proof of error. 197 Such is the case also with that eminently living affair, religion. 198 I may if I choose, and I will if my reasoning powers be at all awakened, be a theologian. 199 But theology, like science, is a special intellectual spontaneity. 200 St. Thomas, the master theologian, did not glide unwittingly from prayer into the quæstiones of the "Summa Theologiæ," but turned to them as to a fresh adventure.

201 Theology is inevitable, because humanly speaking adventure is inevitable. 202 For human, with our intellectual spontaneity, every object is a problem; 203 and did we not seek sooner or later to define salvation, there would be good reason to believe that one did not practically reckon with any. 204 But this is similarly and independently true of the

imagination, the most familiar means with which human clothes and vivifies own convictions, 205 the exuberance with which one plays about them and delights to confess them. 206 The imagination of religion, contributing what Matthew Arnold called its "poetry and eloquence," 207 does not submit itself to such canons as are binding upon theology or science, but exists and flourishes in its own right.

208 The indispensableness to religion of the imagination is due to that faculty's power of realising what is not perceptually present. 209 Religion is not interested in the apparent, but in the secret essence or the transcendent universal. 210 And yet this interest is a practical one. 211 Imagination may introduce one into the vivid presence of the secret or the transcendent. 212 It is evident that the religious imagination here coincides with poetry. 213 For it is at least one of the interests of poetry to cultivate and satisfy a sense for the universal; 214 to obtain an immediate experience or appreciation that shall have the vividness without the particularism of ordinary perception. 215 And where poets elect so to view the world, we allow them as poets the privilege, and judge them by the standards to which they submits themselves. 216 That upon which we pass judgment is the fitness of one expression. 217 This expression is not, except in the case of the theoretical mystic, regarded as constituting the most valid form of the idea, 218 but is appreciated expressly for its fulfillment of the condition of immediacy. 219 The same sort of critical attitude is in order with the fruits of the religious imagination. 220 These may or may not fulfill enough of the requirements of that art to be properly denominated poetry; 221 but like poetry they are the translation of ideas into a specific language. 222 They must not, therefore, be judged as though they claimed to excel in point of validity, but only in point of consistency with the context of that language. 223 And the language of religion is the language of the practical life. 224 Such translation is as essential to an idea that is to enter into the religious experience, 225 as

translation into terms of immediacy is essential to an idea that is to enter into the appreciative consciousness of the poet. 226 No object can find a place in my religion until it is conjoined with my purposes and hopes; until it is taken for granted and acted upon, 227 like the love of my friends, or the courses of the stars, or the stretches of the sea.

228 The religious imagination, then, is to be understood and justified as that which brings the objects of religion within the range of living. 229 The central religious object, as has been seen, is an attitude of the residuum or totality of things. 230 To be religious one must have a sense for the presence of an attitude, like one sense for the presence of one’s human fellows, 231 with all the added appreciation that is proper in the case of an object that is unique in its mystery or in its majesty. 232 It follows that the religious imagination fulfils its function in so far as it provides the object of religion with properties similar to those which lend vividness and reality to the normal social relations.

233 The presence of one's fellows is in part the perceptual experience of their bodies. 234 To this there corresponds in religion some extraordinary or subtle appearance. 235 The gods may in visions or dreams be met with in their own proper embodiments; 236 or, as is more common, they may be regarded as present for practical purposes: 237 in some inanimate object, as in the case of the fetish; in some animal species, as in the case of the totem; in some place, as in the case of the shrine; or even in some human being, as in the case of the inspired prophet and miracle worker. 238 In more refined and highly developed religions the medium of God's presence is less specific. 239 He is perceived with "-- a sense sublime. Of something far more deeply interfused, Whose dwelling is the light of setting suns, And the round ocean and the living air, And the blue sky, and in the mind of human." 240 God is here found in an interpretation of the common and the natural, rather than in any individual and peculiar embodiment. 241 And here the

poet's appreciation, if not their art, is peculiarly indispensable.

242 But, furthermore, a person's fellows are inmates of "the household of human" in that one knows their history. 243 They belong to the temporal context of actions and events. 244 Similarly, the gods must be historical. The sacred traditions or books of religion are largely occupied with this history. 245 The more individual and anthropomorphic the gods, the more local and episodic will be the account of their affairs. 246 In the higher religions the acts of God are few and momentous, such as creation or special providence; 247 or they are identical with the events of Nature and human history when these are construed as divine. 248 To find God in this latter way requires an interpretation of the course of events in terms of some moral consistency, 249 a faith that sees some purpose in their evident destination.

250 There is still another and a more significant way in which people recognise one another: the way of address and conversation. 251 And people have invariably held a similar intercourse with their gods. To this category belong communion and prayer, with all their varieties of expression. 252 I have no god until I address him. This will be the most direct evidence of what is at least from my point of view a social relation. 253 There can be no general definition of the form which this address will take. 254 There may be as many special languages, as many attitudes, and as much playfulness and subtlety of symbolism as in human intercourse. 255 But, on the other hand, there are certain utterances that are peculiarly appropriate to religion. 256 In so far as one regards own object as endowed with both power and goodness the worshipper will use the language of adoration; 257 and the sense of one's dependence will speak in terms of consecration and thanksgiving. 258 "O God, thou art my God; early will I seek thee: 259 My soul thirsteth for thee, my flesh longeth for thee, 260 In a dry and weary land, where no water is. 261 So have I looked upon thee in the sanctuary,

262 To see thy power and thy glory. 263 For thy loving-kindness is better than life; 264 My lips shall praise thee."

265 These are expressions of a hopeful faith; 266 but, on the other hand, God may be addressed in terms of hatred and distrust. 267 "Who is most wretched in this dolorous place? 268 I think myself; yet I would rather be 269 My miserable self than He, than He. 270 Who formed such creatures to own disgrace. 271 "The vilest thing must be less vile than Thou 272 From whom it had its being, God and Lord! 273 Creator of all woe and sin! abhorred, Malignant and implacable."

274 In either case there may be an indefinite degree of hyperbole. 275 The language of love and hate, of confidence and despair, is not the language of description. 276 In this train of the religious consciousness there is occasion for whatever eloquence human can feel, and whatever rhetorical luxuriance one can utter.

277 Such considerations as these serve to account for the exercise and certain of the fruits of the religious imagination, 278 and to designate the general criterion governing its propriety. 279 But how is one to determine the boundary between the imaginative and the cognitive? 280 It is commonly agreed that what religion says and does is not all intended literally. 281 But when is expression of religion only poetry and eloquence, and when is it matter of conviction? 282 If we revert again to the cognitive aspect of religion, it is evident that there is but one test to apply: 283 whatever either fortifies or misleads the will is literal conviction. 284 This test cannot be applied absolutely, because it can properly be applied only to the intention of an individual experience. 285 However I may express my religion, that which I express, is, we have seen, an expectation. 286 The degree to which I literally mean what I say is then the degree to which it determines my expectations. 287 Whatever adds no item to these expectations, but only recognises and vitalises them, is pure imagination. 288 But it follows that it is entirely impossible from direct inspection to define any given

expression of religious experience as myth, or to define the degree to which it is myth. 289 It submits to such distinctions only when viewed from the stand-point of the concrete religious experience which it expresses. 290 Any such given expression could easily be all imagination to oneself, and all conviction to another person. 291 Consider the passage which follows: 292 "And I saw the heaven opened; and behold, a white horse, 293 and he that sat thereon, called Faithful and True; and in righteousness he doth judge and make war. 294 And his eyes are a flame of fire, and upon his head are many diadems; 295 and he hath a name written, which no one knoweth but he himself. 296 And he is arrayed in a garment sprinkled with blood: and his name is called The Word of God."

297 Is this all rhapsody, or is it in part true report? There is evidently no answer to the question so conceived. 298 But if it were to express my own religious feeling it would have some specific proportion of literal and metaphorical significance, 299 according to the degree to which its detail contributes different practical values to me. 300 It might then be my guide-book to the heavens, or only my testimony to the dignity and mystery of the function of Christ.

301 The development of religion bears in a very important way upon this last problem. 302 The factor of imagination has undoubtedly come to have a more clearly recognised role in religion. 303 There can be no doubt that what we now call myths were once beliefs, and that what we now call poetry was once history. 304 If we go back sufficiently far we come to a time when the literal and the metaphorical were scarcely distinguishable, 305 and this because science had not emerged from the early animistic extension of social relations. 306 People meant to address their gods as they addressed their fellows, 307 and expected them to hear and respond, as they looked for such reactions within the narrower circle of ordinary intercourse. 308 The advance of science has brought into vogue a description of Nature that inhibits such expectations. 309 The result has

been that people, continuing to use the same terms, essentially expressive as they are of a practical relationship, 310 have come to regard them as only a general expression of their attitude. 311 The differences of content that are in excess of factors of expectation remain as poetry and myth. 312 On the other hand, it is equally possible, if not equally common, for that which was once imagined to come to be believed. 313 Such a transformation is, perhaps, normally the case when the inspired utterance passes from its author to the cult. 314 The prophets and sweet singers are likely to possess an exuberance of imagination not appreciated by their followers; and for this reason almost certainly misunderstood. 315 For these reasons it is manifestly absurd to fasten the name of myth or the name of creed upon any religious utterance whatsoever, 316 unless it be so regarded from the stand-point of the personal religion which it originally expressed, 317 or unless one means by so doing to define it as an expression of one own religion. 318 Those who define "the myth of creation," or "the poetical story of Samson," as parts of the pre-Christian Judaic religion, exhibit a total loss of historical sense. 319 The distinction between cognition and fancy does not exist among objects, but only in the intending experience; 320 hence, for me to attach my own distinction to any individual case of belief, viewed apart from the believer, is an utterly confusing projection of my own personality into the field of my study.

321 Only after such considerations as these are we qualified to attack that much-vexed question as to whether religion deals invariably with a personal god. 322 It is often assumed in discussion of this question that "personal god," as well as "god," is a distinct and familiar kind of entity, 323 like a dragon or centaur; its existence alone being problematical. 324 This is doubly false to the religious employment of such an object. 325 If it be true that in religion we mean by God a practical interpretation of the world, 326 whatsoever be its

nature, then the personality of God must be a derivative of the attitude, and not of the nature of the world. 327 Given the practical outlook upon life, there is no definable world that cannot be construed under the form of God. 328 My god is my world practically recognised in respect of its fundamental or ultimate attitude to my ideals. 329 In the sense, then, conveyed by this term attitude my god will invariably possess the characters of personality. 330 But the degree to which these characters will coincide with the characters which I assign to human persons, or the terms of any logical conception of personality, cannot be absolutely defined. 331 Anthropomorphisms may be imagination or they may be literal conviction. 332 This will depend, as above maintained, upon the degree to which they determine my expectations. 333 Suppose the world to be theoretically conceived as governed by laws that are indifferent to all human interests. 334 The practical expression of this conception appears in the naturalism of Lucretius, or Diogenes, or Omar Khayyam. 335 Living in the vivid presence of an indifferent world, I may picture my gods as leading their own lives in some remote realm which is inaccessible to my petitions, 336 or as regarding me with sinister and contemptuous cruelty. 337 In the latter case I may shrink and cower, or return them contempt for contempt. 338 I mean this literally only if I look for consequences following directly from the emotional colouring which I have bestowed upon them. 339 It may well be that I mean merely to regard myself sub specie aeternitatis, 340 in which case I am personifying in the sense of free imagination. 341 In the religion of enlightenment the divine attitude tends to belong to the poetry and eloquence of religion rather than to its cognitive intent. 342 This is true even of optimistic and idealistic religion. 343 The love and providence of God are less commonly supposed to warrant an expectation of special and arbitrary favours, 344 and have come more and more to mean the play of my own feeling about the general central conviction of the favourableness of the cosmos to

my deeper or moral concerns. 345 But the factor of personality cannot possibly be entirely eliminated, for the religious consciousness creates a social relationship between human and the Universe. 346 Such an interpretation of life is not a case of the pathetic fallacy, unless it incorrectly reckons with the inner feeling which it attributes to the Universe. 347 It is an obvious practical truth that the total or residual environment is significant for life. 348 Grant this and you make rational a recognition of that significance, or a more or less constant sense of coincidence or conflict with cosmical forces. 349 Permit this consciousness to stand, and you make some expression of it inevitable. 350 Such an expression may, furthermore, with perfect propriety and in fulfillment of human nature, set forth and transfigure this central belief until it may enter into the context of immediacy.

351 Thus any conception of the Universe whatsoever may afford a basis for religion. 352 But there is no religion that does not virtually make a more definite claim upon the nature of things, 353 and this entirely independently of its theology, or explicit attempt to define itself. 354 Every religion, even in the very living of it, is naturalistic, or dualistic, or pluralistic, or optimistic, or idealistic, or pessimistic. 355 And there is in the realm of truth that which justifies or refutes these definite practical ways of construing the Universe. 356 But no historical religion is ever so vague even as this in its philosophical implications. 357 Indeed, we shall always be brought eventually to the inner meaning of some individual religious experience, where no general criticism can be certainly valid.

358 There is, then, a place in religion for that which is not directly answerable to philosophical or scientific standards. 359 But there is always, on the other hand, an element of hope which conceives the nature of the world, and means to be grounded in reality. 360 In respect of that element, philosophy is indispensable to religion. 361 The meaning of religion is, in fact, the

central problem of philosophy. 362 There is a virtue in religion like that which Emerson ascribes to poetry. 363 "The poet is in the right attitude; he is believing; the philosopher, after some struggle, having only reasons for believing." 364 But whatever may be said to the disparagement of its dialectic, philosophy is the justification of religion, and the criticism of religions. 365 To it must be assigned the task of so refining positive religion as to contribute to the perpetual establishment of true religion. 366 And to philosophy, with religion, belongs the task of holding fast to the idea of the Universe. 367 There is no religion except before you begin, or after you have rested from, your philosophical speculation. 368 But in the Universe these interests have a common object. 369 As philosophy is the articulation and vindication of religion, so is religion the realisation of philosophy. 370 In philosophy thought is brought up to the elevation of life, 371 and in religion philosophy, as the sum of wisdom, enters into life.

THE PROBLEMS OF RELIGION
THE SPECIAL INTERESTS OF FAITH
Ralph Barton Perry

25 In that part of his philosophy in which he deals with faith, the great German philosopher Kant mentions God, Freedom, and Immortality as the three pre-eminent religious interests. 2 Religion, as we have seen, sets up a social relationship between human and that massive drift of things which determines human destiny. 3 Of the two terms of this relation, God signifies the latter, while freedom and immortality are prerogatives which religion bestows upon the former. 4 Human, viewed from the stand-point of religion as an object of special interest to the Universe, is said to have a soul; 5 and by virtue of this soul human is said to be free and immortal, 6 when thought of as having a life in certain senses independent of its immediate natural environment. 7 The attempt to make this faith theoretically intelligible has led to the philosophical disciplines known as 'theology' and 'psychology'.

THEOSOPHY

THEOLOGY DEALS WITH THE NATURE AND PROOF OF GOD

Ralph Barton Perry

26 Theology, as a branch of philosophy, deals with the proof and the nature of God. 2 Since "God" is not primarily a theoretical conception, the proof of God is not properly a philosophical problem. 3 Historically, this task has been assumed as a legacy from Christian apologetics; 4 and it has involved, at any rate so far as European philosophy is concerned, the definition of ultimate being in such spiritual terms as make possible the relation with human postulated in Christianity. 5 For this it has been regarded as sufficient to ascribe to the world an underlying unity capable of bearing the predicates of perfection, omnipotence, and omniscience. 6 Each proof of God has defined Him pre-eminently in terms of some one of these His attributes.

THE ONTOLOGICAL PROOF OF GOD

Ralph Barton Perry

27 The ontological proof of God held the foremost place in philosophy's contribution to Christianity up to the eighteenth century. 2 This proof infers the existence from the ideal of God, and so approaches the nature of God through the attribute of perfection. 3 It owes the form in which it was accepted in the Middle Ages and Renaissance to St. Anselm, Archbishop of Canterbury at the close of the eleventh century. 4 He argued from the idea of a most perfect being to its existence, on the ground that non-existence, or existence only in idea, would contradict its perfection. 5 It is evident that the force of this argument depends upon the necessity of the idea of God. 6 The argument was accepted in Scholastic Philosophy largely because of the virtual acceptance of this necessity. 7 Mediæval thought was under the dominance of the philosophical ideas of Plato and Aristotle, and through them

rationalism had come to be the unquestioned starting-point for all thought. 8 For Plato reality and rationality meant one and the same thing, 9 so that the ultimate reality was the highest principle of rationality, which he conceived to be the idea of the good. 10 In the case of Aristotle the ideal of rationality was conceived to determine the course of the cosmical evolution as its immanent final cause. 11 But in itself it was beyond the world, or transcendent. 12 For Plato perfection itself is reality, whereas for Aristotle perfection determines the hierarchical order of natural substances. 13 The latter theory, more suitable to the uses of Christianity, because it distinguished between God and the world, was incorporated into the great school systems. 14 But both theories contain the essence of the ontological proof of God. 15 In thought one seeks the perfect truth, and posits it as at once the culmination of insight and the meaning of life. 16 The ideal of God is therefore a necessary idea, because implied in all the effort of thought as the object capable of finally satisfying it. 17 St. Anselm adds little to the force of this argument, and does much to obscure its real significance.

18 In stating the ontological argument the term perfection has been expressly emphasised, because it may be taken to embrace both truth and goodness. 19 Owing to a habit of thought, due in the main to Plato, it was long customary to regard degrees of truth and goodness as interchangeable, and as equivalent to degrees of reality. 20 The ens realissimum was in its completeness the highest object both of the faculty of cognition and of the moral will. 21 But even in the scholastic period these two different aspects of the ideal were clearly recognised, and led to sharply divergent tendencies. 22 More recently they have been divided and embodied in separate arguments. 23 The epistemological argument defines God in terms of that absolute truth which is referred to in every judgment. 24 Under the influence of idealism this absolute truth has taken the form of a universal mind, or all-embracing standard experience,

called more briefly the absolute. 25 The ethical argument, on the other hand, conceives God as the perfect goodness implied in the moral struggle, 26 or the power through which goodness is made to triumph in the Universe to the justification of moral faith. 27 While the former of these arguments identifies God with being, the latter defines God in terms of the intent or outcome of being. 28 Thus, while the epistemological argument does not distinguish God and the world, the latter does so, 29 assuming that independent reality can be attributed to the stages of a process and to the purpose that dominates it.

THE COSMOLOGICAL PROOF OF GOD
Ralph Barton Perry

28 The cosmological proof of God approaches Him through the attribute of creative omnipotence. 2 The common principle of causal explanation refers the origin of natural events to similar antecedent events. 3 But there must be some first cause from which the whole series is derived, 4 a cause which is ultimate, sufficient to itself, and the responsible author of the world. 5 Because God's function as creator was a part of the Christian teaching, and because explanation by causes is habitual with common sense, this argument has had great vogue. 6 But in philosophy it has declined in importance, 7 chiefly because it has been absorbed in arguments which deal with the kind of causality proper to a first cause or world-ground. 8 The argument that follows is a case in point.

THE TELEOLOGICAL PROOF OF GOD
Ralph Barton Perry

29 The teleological proof argues that the world can owe its origin only to an intelligent first cause. 2 The evidence for this is furnished by the cunning contrivances and beneficent adaptations of Nature. 3 These could not have come about through chance or the working of mechanical forces, but only

through the foresight of a rational will. 4 This argument originally infers God from the character of Nature and history; 5 and the extension of mechanical principles to organic and social phenomena, 6 especially as stimulated by Darwin's principle of natural selection, has tended greatly to diminish its importance. 7 When, on the other hand, for Nature and history there are substituted the intellectual and moral activities themselves, 8 and the inference is made to the ideal which they imply, the teleological argument merges into the ontological. 9 But the old-fashioned statement of it remains in the form of religious faith, 10 and in this capacity it has had the approval even of Hume and Kant, the philosophers who have contributed most forcibly to its overthrow as a demonstration of God. 11 They agree that the acknowledgment of God in Nature and history is the sequel to a theistic belief, 12 and an inevitable attitude on the part of the religious consciousness.

GOD AND THE WORLD.
THEISM AND PANTHEISM
Ralph Barton Perry

30 Another group of ideas belonging to philosophical theology consists of three generalisations respecting God's relation to the world, known as theism, pantheism, and deism. 2 Although, theoretically, these are corollaries of the different arguments for God, 3 two of them, theism and pantheism, owe their importance to their rivalry as religious tendencies.

4 Theism emphasises that attitude to God which recognises in him an historical personage, 5 in some sense distinct from both the world and humankind, which are His works and yet stand in an external relationship to Him. 6 It expresses the spirit of ethical and monotheistic religion, and is therefore the natural belief of the Christian.

7 Pantheism appears in primitive religion as an animistic or polytheistic sense of the presence of a divine principle diffused throughout *N*ature. 8 But it figures most notably in the history of

religions, in the highly reflective Brahmanism of India. 9 In sharp opposition to Christianity, this religion preaches the indivisible unity of the world 10 and the illusoriness of the individual's sense of one's own independent reality. 11 In spite of the fact that such a doctrine is alien to the spirit of Christianity, it enters into Christian theology through the influence of philosophy. 12 The theoretical idea of God tends, as we have seen, to the identification of Him with the world as its most real principle. 13 Or it bestows upon Him a nature so logical and formal, and so far removed from the characters of humanity, 14 as to forbid His entering into personal or social relations. 15 Such reflections concerning God find their religious expression in a mystical sense of unity, 16 which has in many cases either entirely replaced or profoundly modified the theistic strain in Christianity. 17 In current philosophy pantheism appears in the epistemological argument which identifies God with being; 18 while the chief bulwark of theism is the ethical argument, 19 with its provision for a distinction between the actual world and ideal principle of evolution.

DEISM

Ralph Barton Perry

31 While theism and pantheism appear to be permanent phases in the philosophy of religion, deism is the peculiar product of the eighteenth century. 2 It is based upon a repudiation of supernaturalism and "enthusiasm," on the one hand, and a literal acceptance of the cosmological and teleological proofs on the other. 3 Religions, like all else, were required, in this epoch of clear thinking, 4 to submit to the canons of experimental observation and practical common sense. 5 These authorise only a natural religion, the acknowledgment in pious living of a God 6 who, having contrived this natural world, has given it over to the rule, not of priests and prophets, but of natural law. 7 The artificiality of its conception of God, and the calculating spirit of its piety, make deism a much less

genuine expression of the religious experience 8 than either the moral chivalry of theism or the intellectual and mystical exaltation of pantheism.

METAPHYSICS AND THEOLOGY
Ralph Barton Perry

32 The systematic development of philosophy leads to the inclusion of conceptions of God within the problem of metaphysics, 2 and the subordination of the proof of God to the determination of the fundamental principle of reality. 3 There will always remain, however, an outstanding theological discipline, whose function it is to interpret worship, 4 or the living religious attitude, in terms of the theoretical principles of philosophy.

PSYCHOLOGY
IS THE THEORY OF THE SOUL
Ralph Barton Perry

33 Psychology is the theory of the soul. 2 As we have already seen, the rise of scepticism directs attention from the object of thought to the thinker, 3 and so emphasises the self as a field for theoretical investigation. 4 But the original and the dominating interest in the self is a practical one. 5 The precept, γνῶθι σεαυτόν, has its deepest justification in the concern for the salvation of one's soul. 6 In primitive and half-instinctive belief the self is recognised in practical relations. 7 In its animistic phase this belief admitted of such relations with all living creatures, 8 and extended the conception of life very generally to natural processes. 9 Thus in the beginning the self was doubtless indistinguishable from the vital principle. 10 In the first treatise on Psychology, the "περὶ Ψυχῆς" of Aristotle, this interpretation finds a place in theoretical philosophy. 11 For Aristotle the soul is the entelechy of the body-- that function or

activity which makes a person of it. 12 He recognised, furthermore, three stages in this activity: the nutritive, sensitive, and rational souls, or the vegetable, animal, and distinctively human natures, respectively. 13 The rational soul, in its own proper activity, is human's highest prerogative, the soul to be saved. 14 By virtue of it human rises above bodily conditions, and lays hold on the divine and eternal. 15 But Plato, who, as we have seen, was ever ready to grant reality to the ideal apart from the circumstances of its particular embodiment, 16 had already undertaken to demonstrate the immortality of the soul on the ground of its distinctive nature. 17 According to his way of thinking, the soul's essentially moral nature made it incapable of destruction through the operation of natural causes. 18 It is evident, then, that there were already ideas in vogue capable of interpreting the Christian teaching concerning the existence of a soul, 19 or of an inner essence of human capable of being made an object of divine interest.

20 The immediate effect of Christianity was to introduce into philosophy as one of its cardinal doctrines the theory of a spiritual being, 21 constituting the true self of the individual, and separable from the body. 22 The difference recognised in Plato and Aristotle between the divine spark and the appetitive and perceptual parts of human nature was now emphasised. 23 The former--frequently called the "spirit," to distinguish it from the lower soul --was defined as a substance having the attributes of thought and will. 24 The fundamental argument for its existence was the immediate appeal to self-consciousness; 25 and it was further defined as indestructible on the ground of its being utterly discontinuous and incommensurable with its material environment. 26 This theory survives at the present day in the conception of pure activity, 27 but on the whole the attributes of the soul have superseded its substance. 28 Intellectualism and voluntarism are the two rival possibilities of emphasis when the soul is defined in terms of its known activities.

THEOSOPHY

29 Wherever the essence of personality is in question, as also occurs in the case of theology, thought and will present their respective claims to the place of first importance. 30 Intellectualism would make will merely the concluding phase of thought, while voluntarism would reduce thought to one of the interests of a general appetency. 31 It is evident that idealistic theories will be much concerned with this question of priority. 32 It is also true, though less evident, that intellectualism, since it emphasises the general and objective features of the mind, tends to subordinate the individual to the universal; 33 while voluntarism, emphasising desire and action, is relatively individualistic, 34 and so, since there are many individuals, also pluralistic.

35 The question of the freedom of the will furnishes a favourite controversial topic in philosophy. 36 For the interest at stake is no less than the individual's responsibility before human and God for his good or bad works. 37 It bears alike upon science, religion, and philosophy, and is at the same time a question of most fundamental practical importance. 38 But this diffusion of the problem has led to so considerable a complication of it that it becomes necessary in outlining it to define two issues. 39 In the first place, the concept of freedom is designed to express generally the distinction between human and the rest of Nature. 40 To make human in all respects the product and creature of human natural environment would be to deny freedom and accept the radically necessitarian doctrine. 41 The question still remains, however, as to the causes which dominate human. 42 Human may be free from Nature, and yet be ruled by God, or by distinctively spiritual causes, such as ideas or character. 43 Where in general the will is regarded as submitting only to a spiritual causation proper to its own realm, the conception is best named determinism; 44 though in the tradition of philosophy it is held to be a doctrine of freedom, because contrasted with the necessitarianism above defined. 45 There remains indeterminism, which attributes to the will a

spontaneity that makes possible the direct presence to it of genuine alternatives. 46 The issue may here coincide with that between intellectualism and voluntarism. 47 If, e.g., in God's act of creation, His ideals and standards are prior to His fiat, His conduct is determined; 48 whereas it is free in the radical or indeterministic sense if His ideals themselves are due to His sheer will. 49 This theory involves at a certain point in action the absence of cause. 50 On this account the free-will is often identified with chance, 51 in which case it loses its distinction from Nature, and we have swung round the circle.

52 There is similar complexity in the problem concerning immortality. 53 Were the extreme claims of naturalism to be established, there would be no ground whatsoever upon which to maintain the immortality of human, mere dust returning unto dust. 54 The philosophical concept of immortality is due to the supposition that the quintessence of the individual's nature is divine. 55 But several possibilities are at this point open to us. The first would maintain the survival after death of a recognisable and discrete personality. 56 Another would suppose preservation after death, through being taken up into the life of God. 57 Still another, the theory commonly maintained on the ground of rationalistic and idealistic metaphysics, would deny that immortality has to do with life after death, 58 and affirm that it signifies the perpetual membership of the human individual in a realm of eternity through the truth or virtue that is in oneself. 59 But this interpretation evidently leaves open the question of the immortality of that which is distinctive and personal in human nature.

60 So far we have followed the fortunes only of the "spirit" of human. What of that lower soul through which one is identified with the fortunes of own body? 61 When philosophy gradually ceased, in the sixteenth and seventeenth centuries, to be "the handmaid of religion," 62 there arose a renewed interest in that part of human nature lying between the strictly physiological functions, on the one hand, and

thought and will on the other. 63 Descartes and Spinoza analysed what they called the "passions," meaning such states of mind as are conditioned by a concern for the interests of the body. 64 At a later period, certain English philosophers, following Locke, traced the dependence of ideas upon the senses. 65 Their method was that of introspection, or the direct examination by the individual of one own ideas, 66 and for the sake of noting their origin and composition from simple factors. 67 The lineal descendants of these same English philosophers defined more carefully the process of association, 68 whereby the complexity and sequence of ideas are brought about, 69 and made certain conjectures as to its dependence upon properties and transactions in the physical brain. 70 These are the three main philosophical sources of what has now grown to be the separate behavioural science of psychology. 71 It will be noted that there are two characteristics which all of these studies have in common. 72 They deal with the experience of the individual as composing one own private history, and tend to attribute the specific course which this private history takes to bodily conditions. 73 It is only recently that these investigations have acquired sufficient unity and exclusiveness of aim to warrant their being regarded as a special science. 74 But such is now so far the case that the psychologist of this type pursues their way quite independently of philosophy. 75 It is true their research has advanced considerably beyond their understanding of its province. 76 But it is generally recognised that they must examine those very factors of subjectivity which the natural scientists otherwise seeks to evade, 77 and, furthermore, that they must seek to provide for them in Nature. 78 The psychologists treats the inner life in what Locke called "the plain historical method," 79 that is to say, instead of interpreting and defining its ideas, they analyses and reports upon its content. 80 They would not seek to justify a moral judgment, as would ethics, or to criticise the cogency of thought, as

would logic; but only to describe the actual state as they found it. 81 In order to make their data commensurable with the phenomena of Nature, they discover or define bodily conditions for the subjective content which they analyses. 82 Their fundamental principle of method is the postulate of psycho-physical parallelism, 83 according to which they assumes a state of brain or nervous system for every state of mind. 84 But in adopting a province and a method the psychologist foregoes finality of truth after the manner of all natural science. 85 They deals admittedly with an aspect of experience, and their conclusions are no more adequate to the nature of the self than they are to the nature of outer objects. 86 An admirable reference to this abstract division of experience occurs in Külpe's

BEHAVIOURAL-SCIENCE
AND PHILOSOPHY
Ralph Barton Perry

34 "For the developed consciousness, as for the naive, every experience is an unitary whole; 2 and it is only the habit of abstract reflection upon experience that makes the objective and subjective worlds seem to fall apart as originally different forms of existence. 3 Just as a plane curve can be represented in analytical geometry as the function of two variables, 4 the abscissæ and the ordinates, without prejudice to the unitary course of the curve itself, 5 so the world of human experience may be reduced to a subjective and an objective factor, without prejudice to its real coherence."

6 The problems of psychology, like those of theology, tend to disappear as independent philosophical topics. 7 The ultimate nature of the-self will continue to interest philosophers-- 8 more deeply, perhaps, than any aspect of experience-- 9 but their conception of it will be a corollary of their metaphysics and epistemology. 10 The remainder of the field of the old philosophical behavioural-science, the introspective and experimental analysis of special states of mind, 11 is already the province of a

natural science which is becoming more and more free from the stand-point and method of philosophy.

TRANSITION FROM CLASSIFICATION BY PROBLEMS TO CLASSIFICATION BY DOCTRINES.

NATURALISM SUBJECTIVISM. ABSOLUTE IDEALISM. ABSOLUTE REALISM

Ralph Barton Perry

35 Reminding ourselves anew that philosophical problem cannot be treated in isolation from one another; 2 we shall hereinafter seek to become acquainted with general stand-points that give systematic unity to the issues which have been enumerated. 3 Such stand-points are not clearly defined by those who occupy them, and they afford no clear-cut classification of all historical philosophical philosophies. 4 But system-making in philosophy is commonly due to the moving in an individual mind of some most significant idea; 5 and certain of these ideas have reappeared so frequently as to define more or less clearly marked tendencies, 6 or continuous strands, out of which the history of thought is forever weaving itself. 7 Such is clearly the case with naturalism. 8 From the beginning until now there have been people whose philosophy is a summation of the natural sciences, 9 whose entire thought is based upon an acceptance of the methods and the fundamental conceptions of these disciplines. 10 This tendency stands in the history of thought for the conviction that the visible and tangible world which interacts with the body is veritable reality. 11 This philosophy is realistic and empirical to an extent entirely determined by its belief concerning being. 12 But while naturalism is only secondarily epistemological, subjectivism and absolute idealism have their very source in the self-examination and the self-criticism of thought. 13 Subjectivism signifies the conviction that the knower cannot escape oneself. 14 If reality is to be kept within the range of possible knowledge, it must be defined in terms of the processes or states of

selves. 15 Absolute idealism arises from a union of this epistemological motive with a recognition of what are regarded as the logical necessities to which reality must submit. 16 Reality must be both knowledge and rational knowledge; 17 the object, in short, of an absolute mind, which shall be at once all containing and systematic. 18 This rationalistic motive was, however, not originally associated with an idealistic epistemology, 19 but with the common-sense principle that being is discovered and not constituted by thought. 20 Such an absolute realism is, like naturalism, that seeks to define reality as a logical or ethical necessity.

The Third Book of Divine Panagogue Called

NATURE

THE GENERAL MEANING OF MATERIALISM

Ralph Barton Perry

1 The meaning conveyed by any philosophical term consists largely of the distinctions which it suggests. 2 Its peculiar quality, like the physiognomy of the battle-scarred veteran, is a composite of the controversies which it has survived. 3 There is, therefore, an almost unavoidable confusion attendant upon the denomination of any early phase of philosophy as materialism. 4 But in the historical beginnings of thought, as also in the common-sense of all ages, there is at any rate present a very essential strand of this theory. 5 The naive habit of mind which, in the sixth century before Christ, prompted successive Greek thinkers to define reality in terms of water, air, and fire, 6 is in this respect one with that exhibited in Dr. Samuel Johnson's smiting the ground with his stick in curt refutation of Bishop Berkeley's idea-philosophy. 7 There is a theoretical instinct, not accidental or perverse, but springing from the very life-preserving equipment of the organism, 8 which attributes reality to tangible space-filling things encountered by the body. 9 For obvious reasons of self-interest the organism is first of all endowed with a sense of contact, 10 and the more delicate senses enter into its practical economy as means of anticipating or avoiding contact. 11 From such practical expectations concerning the proximity of that which may press upon, injure, or displace the body, arise the first crude judgments of reality. 12 And these are at the same time the nucleus of naive philosophy and the germinal phase of materialism.

CORPOREAL BEING

Ralph Barton Perry

2 The first philosophical movement among the Greeks was a series of attempts to reduce the tangible world

to unity, 2 and of these the conception offered by Anaximander is of marked interest in its bearing upon the development of materialism. 3 This philosopher is remarkable for having defined his first principle, 4 instead of having chosen it from among the different elements already distinguished by common-sense. 5 He thought the unity of Nature to consist in its periodic evolution from and return into one infinite sum of material (τὸ ἄπειρον), 6 which, much in the manner of the "nebula" of modern science, is conceived as both indeterminate in its actual state and infinitely rich in its potentiality. 7 The conception of matter, the most familiar commonplace of science, begins to be recognisable. 8 It has here reached the point of signifying a common substance for all tangible things, 9 a substance that in its own general and omnipresent nature is without the special marks that distinguish these tangible things from one another. 10 And in so far the philosophy of Anaximander is materialistic.

CORPOREAL PROCESSES. HYLOZOISM AND MECHANISM

Ralph Barton Perry

3 But the earliest thinkers are said to be hylozoists, rather than strict materialists, 2 because of their failure to make certain distinctions in connection with the processes of matter. 3 The term hylozoism unites with the conception of the formless material of the world (ὕλη), 4 that of an animating power to which its formations and transformations are due. 5 Hylozoism itself was not a deliberate synthesis of these two conceptions, but a primitive practical tendency to universalise the conception, of life. 6 Such "animism" instinctively associates with an object's bulk and hardness a capacity for locomotion and general initiative. 7 And the material principles defined by the philosophers retain this vague and comprehensive attribute as a matter of course, 8 until it is distinguished and separated through attempts to understand it.

9 That aspect of natural process which was most impressive to Greek minds of the reflective type was the alternation of "generation and decay." 10 In full accord with his more ancient master, Epicurus, the Latin poet Lucretius writes: 11 "Thus neither can death-dealing motions keep the mastery always, nor entomb existence forevermore; 12 nor, on the other hand, can the birth and increase giving motions of things preserve them always after they are born. 13 Thus the war of first beginnings waged from eternity is carried on with dubious issue: 14 now here, now there, the life-bringing elements of things get the mastery and are o'ermastered in turn: 15 with the funeral wail blends the cry which babies raise when they enter the borders of light; 16 and no night ever followed day, nor morning night, that heard not, mingling with the sickly infant's cries, wailings of the attendants on death and black funeral."

17 In a similar vein, the earliest conceptions of natural evolution attributed it to the co-working of two principles, that of Love or union and that of Hate or dissolution. 18 The process is here distinguished from the material of Nature, but is still described in the language of practical life. 19 A distinction between two aspects of vital phenomena is the next step. These may be regarded in respect either of the motion and change which attend them, or the rationality which informs them. 20 Life is both effective and significant. 21 Although neither of these ideas ever wholly ceases to be animistic, they may nevertheless be applied quite independently of one another. 22 The one reduces the primitive animistic world to the lower end of its scale, 23 the other construes it in terms of a purposive utility commensurable with that of human action. 24 Now it is with mechanism, the former of these diverging ways, that the development of materialism is identified. 25 For this philosophy a thing need have no value to justify its existence, nor any acting intelligence to which it may owe its origin. 26 Its bulk and position are sufficient for its being, 27 and the operation of

forces capable of integrating, dividing, or moving it is sufficient for its derivation and history. 28 In short, there is no rhyme or reason at the heart of things, but only actual matter distributed by sheer force. 29 With this elimination of the element of purposiveness from the hylozoistic world, the content and process of Nature are fitted to one another. 30 Matter is that which is moved by force, and force is the determining principle of the motions of matter. 31 Materialism is now definitely equipped with its fundamental conceptions.

MATERIALISM AND PHYSICAL SCIENCE

Ralph Barton Perry

4 The central conceptions of materialism as a philosophical theory differ from those employed in the physical sciences only in what is demanded of them. 2 The scientist reports upon physical phenomena without accepting any further responsibility, while those who like Lucretius maintain a physical metaphysics, 3 must, like him, prove that "the minute bodies of matter from everlasting continually uphold the sum of things." 4 But, though they employ them in their own way, materialists and all other exponents of naturalism derive their central conceptions from the physical sciences, 5 and so reflect the historical development through which these sciences have passed. 6 To certain historical phases of physical science, in so far as these bear directly upon the meaning of naturalism, we now turn.

THE DEVELOPMENT OF THE CONCEPTIONS OF PHYSICAL SCIENCE. SPACE AND MATTER

Ralph Barton Perry

5 From the earliest times down to the present day the groundwork of materialism has most commonly been cast in the form of an atomic theory. 2 Democritus, the first system-builder of this school, adopted the conception of indivisible

particles (ἄτομοι), 3 impenetrable in their occupancy of space, and varying among themselves only in form, order, and position. 4 To provide for the motion that distributes them he conceived them as separated from one another by empty space. 5 From this it follows that the void is as real as matter, or, as Democritus himself is reputed to have said, "thing is not more real than no-thing."

6 But atomism has not been by any means universally regarded as the most satisfactory conception of the relation between space and matter. 7 Not only does it require two kinds of being, with the different attributes of extension and hardness, respectively, 8 but it would also seem to be experimentally inadequate in the case of the more subtle physical processes, such as light. 9 The former of these is a speculative consideration, and as such had no little weight with the French philosopher Descartes, 10 whose divisions and definitions so profoundly affected the course of thought in these matters after the sixteenth century. 11 Holding also "that a vacuum or space in which there is absolutely no body is repugnant to reason," 12 and that an indivisible space-filling particle is self-contradictory, he was led to identify space and matter; 13 that is, to make matter as indispensable to space as space to matter. 14 There is, then, but one kind of corporeal being, whose attribute is extension, and whose modes are motion and rest. 15 The most famous application of the mechanical conceptions which he bases upon this first principle, is his theory of the planets, 16 which are conceived to be embedded in a transparent medium, and to move with it, vortex fashion, about the sun. 17 But the conception of the space-filling continuity of material substance owes its prominence at the present time to the experimental hypothesis of ether. 18 This substance, originally conceived to occupy the intermolecular spaces and to serve as a medium for the propagation of undulations, is now regarded by many physicists as replacing matter. 19 "It is the great

hope of science at the present day," says a contemporary exponent of naturalism, "that hard and heavy matter will be shown to be ether in motion." 20 Such a theory would reduce bodies to the relative displacements of parts of a continuous substance, which would be first of all defined as spatial, 21 and would possess such further properties as special scientific hypotheses might require.

22 Two broadly contrasting theories thus appear: that which defines matter as a continuous substance coextensive with space; 23 and that which defines it as a discrete substance divided by empty space. 24 But both theories are seriously affected by the peculiarly significant development of the conception of force.

MOTION AND ITS CAUSE. DEVELOPMENT AND EXTENSION OF THE CONCEPTION OF FORCE

Ralph Barton Perry

6 In the Cartesian system the cause of motion was pressure within a plenum. 2 But in the seventeenth century this notion encountered the system of Newton, a system which seemed to involve action at a distance. 3 In the year 1728 Voltaire wrote from London: "When a Frenchman arrives in London, he finds a very great change, in philosophy as well as in most other things. 4 In Paris he left the world all full of matter; here he finds absolute vacua. 5 At Paris the universe is seen filled up with ethereal vortices, while here the same space is occupied with the play of the invisible forces of gravitation. 6 In Paris the earth is painted for us longish like an egg, and in London it is oblate like a melon. 7 At Paris the pressure of the moon causes the ebb and flow of tides; 8 in England, on the other hand, the sea gravitates toward the moon, 9 so that at the same time

when the Parisians demand high water of the moon, the gentlemen of London require an ebb."

10 But these differences are not matters of taste, nor even rival hypotheses upon an equal footing. 11 The Newtonian system of mechanics, the consummation of a development initiated by Galileo, differed from the vortex theory of Descartes 12 as exact science differs from speculation and unverified conjecture. 13 And this difference of method carried with it eventually certain profound differences of content, 14 distinguishing the Newtonian theory even from that of Democritus, with which it had so much in common. 15 Although Democritus had sought to avoid the element of purposiveness in the older hylozoism 16 by referring the motions of bodies as far as possible to the impact of other bodies, he nevertheless attributed these motions ultimately to weight, 17 signifying thereby a certain downward disposition. 18 Now it is true that in his general belief Newton himself is not free from hylozoism. 19 He thought of the motions of the planets themselves as initiated and quickened by a power emanating ultimately from God. 20 They are "impressed by an intelligent Agent," and "can be the effect of nothing else than the wisdom and skill of a powerful ever-living Agent 21 who, being in all places, is more able by His will to move the bodies within His boundless uniform sensorium, 22 and thereby to form and reform the parts of the universe, than we are by our will to move the parts of our own bodies."

23 But by the side of these statements must be set his famous disclaimer, "hypotheses non fingo." 24 In his capacity of natural philosopher he did not seek to explain motions, but only to describe them. 25 Disbelieving as he did in action at a distance, he saw no possibility of explanation short of a reference of them to God; 26 but such "hypotheses" he thought to be no proper concern of science. 27 As a consequence, the mathematical formulation of motions came, through him, to be regarded as the

entire content of mechanics. 28 The notion of an efficient cause of motion is still suggested by the term force, 29 but even this term within the system of mechanics refers always to a definite amount of motion, or measurement of relative motion. 30 And the same is true of attraction, action, reaction, and the like. 31 The further explanation of motion, the definition of a virtue or potency that produces it, first a neglected problem, 32 then an irrelevant problem, is finally, for a naturalistic philosophy in which this progression is completed, an insoluble problem. 33 For the sequel to this purely descriptive procedure on the part of science is the disavowal of "metaphysics" by those who will have no philosophy but science. 34 Thus the scientific conservatism of Newton has led to the positivistic and agnostic phase of naturalism. 35 But a further treatment of this development must be reserved until the issue of epistemology shall have been definitely raised.

36 A different emphasis within the general mechanical scheme, attaching especial importance to the conceptions of force and energy, has led to a rival tendency in science and a contrasting type of naturalism. 37 The mechanical hypotheses hitherto described are all of a simple and readily depicted type. 38 They suggest an imagery quite in accord with common-sense and with observation of the motions of great masses like the planets. 39 Material particles are conceived to move within a containing space; the motions of corpuscles, atoms, or the minute parts of ether, differing only in degree from those of visible bodies. 40 The whole physical universe may be represented in the imagination as an aggregate of bodies participating in motions of extraordinary complexity, but of one type. 41 But now let the emphasis be placed upon the determining causes rather than upon the moving bodies themselves. 42 In other words, let the bodies be regarded as attributive and the forces as substantive. 43 The result is a radical alteration of the

mechanical scheme and the transcendence of common-sense imagery. 44 This was one direction of outgrowth from the work of Newton. 45 His force of gravitation prevailed between bodies separated by spaces of great magnitude. 46 Certain of the followers of Newton, notably Cotes, accepting the formulas of the master but neglecting his allusions to the agency of God, accepted the principle of action at a distance. 47 Force, in short, was conceived to pervade space of itself.

48 But if force be granted this substantial and self-dependent character, what further need is there of matter as a separate form of entity? 49 For does not the presence of matter consist essentially in resistance, itself a case of force? 50 Such reflections as these led Boscovich and others to the radical departure of defining material particles as centres of force.

THE DEVELOPMENT AND EXTENSION OF THE CONCEPTION OF ENERGY

Ralph Barton Perry

7 But a more fruitful hypothesis of the same general order is due to the attention directed to the conception of energy, or capacity for work, 2 by experimental discoveries of the possibility of reciprocal transformations without loss, of motion, heat, electricity, and other processes. 3 The principle of the conservation of energy affirms the quantitative constancy of that which is so transformed, measured, 4 for example, in terms of capacity to move units of mass against gravity. 5 The exponents of what is called "energetics" have in many cases come to regard that the quantity of which is so conserved, as a substantial reality whose forms and distributions compose Nature. 6 A contemporary scientist, whose synthetic and dogmatic habit of mind has made him eminent in the ranks of popular philosophy, writes as follows: 7 "Mechanical and chemical

energy, sound and heat, light and electricity, are mutually convertible; 8 they seem to be but different modes of one and the same fundamental force or energy. 9 Thence follows the important thesis of the unity of all natural forces, or, as it may also be expressed, the 'monism of energy.'" 10 The conception of energy seems, indeed, to afford an exceptional opportunity to naturalism. 11 We have seen that the matter-motion theory was satisfied to ignore, or regard as insoluble, problems concerning the ultimate causes of things. 12 Furthermore, as we shall presently see to better advantage, the more strictly materialistic type of naturalism must regard thought as an anomaly, and has no little difficulty with life. 13 But the conception of energy is more adaptable, and hence better qualified to serve as a common denominator for various aspects of experience. 14 The very readiness with which we can picture the corpuscular scheme is a source of embarrassment to the seeker after unity. 15 That which is so distinct is bristling with incompatibilities. 16 The most aggressive materialist hesitates to describe thought as a motion of bodies in space. 17 Energy, on the other hand, exacts little if anything beyond the character of measurable power. 18 Thought is at any rate in some sense a power, and to some degree measurable. 19 Recent discoveries of the dependence of capacity for mental exertion upon physical vitality 20 and measurements of chemical energy received into the system as food, and somehow exhausted by the activities of thought, 21 have lent plausibility to the hypothesis of a universal energy of which physical and "psychical" processes are alike manifestations. 22 And the conception of energy seems capable not only of unifying Nature, but also of satisfying the metaphysical demand for an efficient and moving cause. 23 This term, like "force" and "power," is endowed with such a significance by common sense. 24 Indeed, naturalism would seem here to have swung round toward its hylozoistic starting-point. 25 The exponent of energetics, like the naïve

animistic thinker, attributes to Nature a power like that which he feels welling up within himself. 26 When he acts upon the environment, like meets like. 27 Energetics, it is true, may obtain a definite meaning for its central conception from the measurable behaviour of external bodies, 28 and a meaning that may be quite free from vitalism or teleology. 29 But in his extension of the conception the author of a philosophical energetics abandons this strict meaning, 30 and blends his thought even with a phase of subjectivism, known as panpsychism. 31 This theory regards the inward life of all nature as homogeneous with an immediately felt activity or appetency, 32 as energetics finds the inner life to be homogeneous with the forces of Nature. 33 Both owe their philosophical appeal to their apparent success in unifying the world upon a direct empirical basis, 34 and to their provision for the practical sense of reality. 35 Such, in brief, are the main alternatives available for a naturalistic theory of being, 36 in consequence of the historical development of the fundamental conceptions of natural science.

THE CLAIMS OF NATURALISM

Ralph Barton Perry

8 We turn now to an examination of the manner in which naturalism, equipped with working principles, seeks to meet the special requirements of philosophy. 2 The conception of the unity of Nature is directly in the line of a purely scientific development, 3 but naturalism takes the bold and radical step of regarding Nature so unified as coextensive with the real, or at any rate knowable, universe. 4 It will be remembered that among the early Greeks Anaxagoras had referred the creative and formative processes of Nature to a non-natural or rational agency, which he called the Nous. 5 The adventitious character of this principle, the external and almost purely nominal part which it played in the actual cosmology of Anaxagoras, 6 betrayed it into the

hands of the atomists, with their more consistently naturalistic creed. 7 Better, these maintain, the somewhat dogmatic extension of conceptions proved to be successful in the description of Nature, 8 than a vague dualism which can serve only to distract the scientific attention and people the world with obscurities. 9 There is a remarkable passage in Lucretius in which atomism is thus written large and inspired with cosmical eloquence:

10 "For verily not by design did the first-beginnings of things station themselves each in its right place guided by keen intelligence, 11 nor did they bargain sooth to say what motions each should assume, 12 but because many in number and shifting about in many ways throughout the universe, 13 they are driven and tormented by blows during infinite time past, 14 after trying motions and unions of every kind at length they fall into arrangements such as those out of which our sum of things has been formed, 15 and by which too it is preserved through many great years, when once it has been thrown into the appropriate motions, 16 and causes the streams to replenish the greedy sea with copious river waters, 17 and the earth, fostered by the heat of the sun, to renew its produce, 18 and the race of living things to come up and flourish, and the gliding fires of ether to live: 19 all which these several things could in no wise bring to pass, unless a store of matter could rise up from infinite space, 20 out of which store they are to make up in due season whatever has been lost."

21 The prophecy of La Place, the great French mathematician, voices the similar faith of the eighteenth century in a mechanical understanding of the universe: 22 "The human mind, in the perfection it has been able to give to astronomy, affords a feeble outline of such an intelligence. 23 Its discoveries in mechanics and in geometry, joined to that of universal gravitation, 24 have brought it within reach of comprehending in the same analytical expressions the past and future states of the system of the world." 25 As for God, the creative and presiding intelligence, La Place

had "no need of any such hypothesis."

THE TASK OF NATURALISM
Ralph Barton Perry

9 But these are the boasts of Homeric heroes before going into battle. 2 The moment such a general position is assumed there arise sundry difficulties in the application of naturalistic principles to special interests and groups of facts. 3 It is one thing to project a mechanical scheme in the large, but quite another to make explicit provision within it for the origin of Nature, 4 for life, for the human self with its ideals, and for society with its institutions. 5 The naturalistic method of meeting these problems involves a reduction all along the line in the direction of such categories as are derived from the infra-organic world. 6 That which is not like the planetary system must be construed as mechanical by indirection and subtlety.

THE ORIGIN OF THE COSMOS
Ralph Barton Perry

10 The origin of the present known natural world was the first philosophical question to be definitely met by science. 2 The general form of solution which naturalism offers is anticipated in the most ancient theories of Nature. 3 These already suppose that the observed mechanical processes of the circular or periodic type, like the revolutions and rotations of the stars, are incidents in a historical mechanical process of a larger scale. 4 Prior to the present fixed motions of the celestial bodies, the whole mass of cosmic matter participated in irregular motions analogous to present terrestrial redistributions. 5 Such motions may be understood to have resulted in the integration of separate bodies, to which they at the same time imparted a rotary motion. 6 It is such a hypothesis that Lucretius paints in his bold, impressionistic colours.

7 But the development of mechanics paved the way for a definite scientific theory, the named "nebular

hypothesis," 8 announced by La Place in 1796, and by the philosopher Kant at a still earlier date. 9 Largely through the Newtonian principle of the parallelogram of forces, the present masses, orbits, and velocities were analysed 10 into a more primitive process of concentration within a nebulous or highly diffused aggregate of matter. 11 And with the aid of the principle of the conservation of energy this theory appears to make possible the derivation of heat, light, and other apparently non-mechanical processes from the same original energy of motion.

12 But a persistently philosophical mind at once raises the question of the origin of this primeval nebula itself, 13 with a definite organisation and a vast potential energy that must, after all, be regarded as a part of Nature rather than its source. 14 Several courses are here open to naturalism. It may maintain that the question of ultimate origin is unanswerable; 15 it may regard such a process of concentration as extending back through an infinitely long past; 16 or, and this is the favourite alternative for more constructive minds, the historical cosmical process may be included within a still higher type of periodic process, which is regarded as eternal. 17 This last course has been followed in the well-known synthetic naturalism of Herbert Spencer. 18 "Evolution," he says, "is the progressive integration of matter and dissipation of motion." 19 But such a process eventually runs down, and may be conceived as giving place to a counter-process of devolution which scatters the parts of matter and gathers another store of potential motion. 20 The two processes in alternation will then constitute a cosmical system without beginning or end.

21 In such wise a sweeping survey of the physical universe may be thought in the terms of natural science. 22 The uniformitarian method in geology, resolving the history of the crust of the earth into known processes, such as erosion and igneous fusion; 23 and spectral

analysis, with its discoveries concerning the chemical constituents of distant bodies through the study of their light, 24 have powerfully reënforced this effort of thought, and apparently completed an outline sketch of the universe in terms of infra-organic processes.

LIFE. NATURAL SELECTION

Ralph Barton Perry

11 But the cosmos must be made internally homogeneous in these same terms. 2 There awaits solution, in the first place, the serious problem of the genesis and maintenance of life within a Nature that is originally and ultimately inorganic. 3 The assimilation of the field of biology and physiology to the mechanical cosmos had made little real progress prior to the nineteenth century. 4 Mechanical theories had, indeed, been projected in the earliest age of philosophy, and proposed anew in the seventeenth century. 5 Nevertheless, the structural and functional teleology of the organism remained as apparently irrefutable testimony to the in working of some principle other than that of mechanical necessity. 6 Indeed, the only fruitful method applicable to organic phenomena was that which explained them in terms of purposive adaptation. 7 And it was its provision for a mechanical interpretation of this very principle that gave to the Darwinian law of natural selection, 8 promulgated in 1859 in the "Origin of Species," so profound a significance for naturalism. It threatened to reduce the last stronghold of teleology, 9 and completely to dispense with the intelligent Author of Nature. 10 Darwin's hypothesis sought to explain the origin of animal species by survival under competitive conditions of existence through the possession of a structure suited to the environment. 11 Only the most elementary organism need be presupposed, together with slight variations in the course of subsequent generations, and both may be conceived to arise mechanically. 12 There will then result in surviving organisms a

gradual accumulation of such variations as promote survival under the special conditions of the environment. 13 Such a principle had been suggested as early as the time of Empedocles, 14 but it remained for Darwin to establish it with an unanswerable array of observation and experimentation. 15 If any organism whatsoever endowed with the power of generation be allowed to have somehow come to be, 16 naturalism now promises to account for the whole subsequent history of organic phenomena and the origin of any known species.

MECHANICAL PHYSIOLOGY
Ralph Barton Perry

12 But what of life itself? 2 The question of the derivation of organic from inorganic matter has proved insoluble by direct means, 3 and the case of naturalism must here rest upon such facts as the chemical homogeneity of these two kinds of matter, 4 and the conformity of physiological processes to more general physical laws. 5 Organic matter differs from inorganic only through the presence of protein, a peculiar product of known elements, 6 which cannot be artificially produced, but which is by natural means perpetually dissolved into these elements without any discoverable residuum. 7 Respiration may be studied as a case of aerodynamics, the circulation of the blood as a case of hydrodynamics, 8 and the heat given off in the course of work done by the body as a case of thermodynamics. 9 And although vitalistic theories still retain a place in physiology, as do teleological theories in biology, 10 on the whole the naturalistic programme of a reduction of organic processes to the type of the inorganic tends to prevail.

MIND. THE REDUCTION TO SENSATION
Ralph Barton Perry

13 The history of naturalism shows that, as in the case of life, so also in the case of mind, 2 its hypotheses were projected by the Greeks, but precisely formulated and verified

only in the modern period of science. 3 In the philosophy of Democritus the soul was itself an atom, finer, rounder, and smoother than the ordinary, but thoroughly a part of the mechanism of Nature. 4 The processes of the soul are construed as interactions between the soul and surrounding objects. 5 In sensation, the thing perceived produces images by means of effluxes which impinge upon the soul-atom. 6 These images are not true reports of the outer world, but must be revised by thought before its real atomic structure emerges.

7 For this higher critical exercise of thought Democritus devised no special atomic genesis. 8 The result may be expressed either as the invalidity of such operations of mind as he could provide for in his universe, 9 or the irreducibility to his chosen first principles of the very thought which defined them. 10 Later naturalism has generally sacrificed epistemology to cosmology, and reduced thought to sensation.

11 Similarly, will has been regarded as a highly developed case of instinct. 12 Knowledge and will, construed as sensation and instinct, may thus be interpreted in the naturalistic manner within the field of biology.

AUTOMATISM

Ralph Barton Perry

14 But the actual content of sensation, and the actual feelings which attend upon the promptings of instinct, still stubbornly testify to the presence in the universe 2 of something belonging to a wholly different category from matter and motion. 3 The attitude of naturalism in this crucial issue has never been fixed and unwavering, 4 but there has gradually come to predominate a method of denying to the inner life all efficacy and real significance in the cosmos, while admitting its presence on the scene. 5 It is a strange fact of history that Descartes, the French philosopher who prided himself on having rid the soul of all dependence on Nature, should have greatly contributed to this method. 6

But it is perhaps not so strange when we consider that every dualism is, after all, symmetrical, 7 and that consequently whatever rids the soul of Nature at the same time rids Nature of the soul. 8 It was Descartes who first conceived the body and soul to be utterly distinct substances. 9 The corollary to this doctrine was his automatism, applied in his own system to animals other than human, 10 but which those less concerned with religious tradition and less firmly convinced of the soul's originating activity were not slow to apply universally. 11 This theory conceived the vital processes to take place quite regardless of any inner consciousness, or even without its attendance. 12 To this radical theory the French materialists of the eighteenth century were especially attracted. 13 With them the active soul of Descartes, the distinct spiritual entity, disappeared. 14 This latter author had himself admitted a department of the self, which he called the "passions," 15 in which the course and content of mind is determined by bodily conditions. 16 Extending this conception to the whole province of mind, they employed it to demonstrate the thorough-going subordination of mind to body.

17 La Mettrie, a physician and the author of a book entitled "L'Homme Machine," was first interested in this thesis by a fever delirium, and afterward adduced anatomical and pathological data in support of it. 18 The angle from which he views human life is well illustrated in the following: 19 "What would have sufficed in the case of Julius Cæsar, of Seneca, of Petronius, to turn their fearlessness into timidity or braggartry? 20 An obstruction in the spleen, the liver, or the vena portae. For the imagination is intimately connected with these viscera, 21 and from them arise all the curious phenomena of hypochondria and hysteria. . . . 22 'A mere nothing, a little fibre, some trifling thing that the most subtle anatomy cannot discover, would have made two idiots out of Erasmus and Fontenelle.'"

RADICAL MATERIALISM. MIND AS AN EPIPHENOMENON

Ralph Barton Perry

15 The extreme claim that the soul is a physical organ of the body, identical with the brain, marked the culmination of this militant materialism, 2 so good an instance of that over-simplification and whole-hearted conviction characteristic of the doctrinaire propagandism of France. 3 Locke, the Englishman, had admitted that possibly the substance which thinks is corporeal. 4 In the letters of Voltaire this thought has already found a more positive expression: 5 "I am body, and I think; more I do not know. 6 Shall I then attribute to an unknown cause what I can so easily attribute to the only fruitful cause I am acquainted with? 7 In fact, where is the person who, without an absurd godlessness, dare assert that it is impossible for the Creator to endow matter with thought and feeling?"

8 Finally, Holbach, the great systematiser of this movement, takes the affair out of the hands of the Creator 9 and definitively announces that "a sensitive soul is nothing but a human brain 10 so constituted that it easily receives the motions communicated to it."

11 This theory has been considerably tempered since the age of Holbach. 12 Naturalism has latterly been less interested in identifying the soul with the body, 13 and more interested in demonstrating its dependence upon specific bodily conditions, after the manner of La Mettrie. 14 The so-called higher faculties, such as thought and will, have been related to central or cortical processes of the nervous system, 15 processes of connection and complication which within the brain itself supplement the impulses and sensations congenitally and externally stimulated. 16 The term "epiphenomenon" has been adopted to express the distinctness but entire dependence of the mind. 17 Human is "a conscious automaton." 18 The real course of Nature passes through human nervous system, while consciousness attends upon its functions like a shadow, present but not efficient.

KNOWLEDGE, POSITIVISM AND AGNOSTICISM

Ralph Barton Perry

16 Holbach's "Système de la Nature," published in 1770, marks the culmination of the unequivocally materialistic form of naturalism. 2 Its epistemological difficulties, always more or less in evidence, have since that day sufficed to discredit materialism, 3 and to foster the growth of a critical and apologetic form of naturalism known as positivism or agnosticism. 4 The modesty of this doctrine does not, it is true, strike very deep. 5 For, although it disclaims knowledge of ultimate reality, it also forbids anyone else to have any. 6 Knowledge, it affirms, can be of but one type, that which comprises the verifiable laws governing Nature. 7 All questions concerning first causes are futile, a stimulus only to excursions of fancy popularly mistaken for knowledge. 8 The superior certainty and stability which attaches to natural science is to be permanently secured 9 by the savant's steadfast refusal to be led away after the false gods of metaphysics.

10 But though this is sufficient ground for an agnostic policy, it does prove an agnostic theory. 11 The latter has sprung from a closer analysis of knowledge, though it fails to make a very brave showing for thoroughness and consistency. 12 The crucial point has already been brought within our view. 13 The general principles of naturalism require that knowledge shall be reduced to sensations, or impressions of the environment upon the organism. 14 But the environment and the sensations do not correspond. 15 The environment is matter and motion, force and energy; the sensations are of motions, to be sure, but much more conspicuously of colours, sounds, odours, pleasures, and pains. 16 Critically, this may be expressed by saying that since the larger part of sense-perception is so unmistakably subjective, 17 and since all knowledge alike must be derived from this source, knowledge as a whole must be regarded as dealing only with appearances. 18 There are

at least three agnostic methods progressing from this point. 19 All agree that the inner or essential reality is unfathomable. 20 But, in the first place, those most close to the tradition of materialism maintain that the most significant appearances, the primary qualities, are those which compose a purely quantitative and corporeal world. 21 The inner essence of things may at any rate be approached by a monism of matter or of energy.

22 This theory is epistemological only to the extent of moderating its claims in the hope of lessening its responsibility. 23 Another agnosticism places all sense qualities on a par, 24 but would regard physics and psychology as complementary reports upon the two distinct series of phenomena in which the underlying reality expresses itself. 25 This theory is epistemological to the extent of granting knowledge, viewed as perception, as good a standing in the universe as that which is accorded to its object. 26 But such a dualism tends almost irresistibly to relapse into materialistic monism, because of the fundamental place of physical conceptions in the system of the sciences. 27 Finally, in another and a more radical phase of agnosticism, we find an attempt to make full provision for the legitimate problems of epistemology. 28 The only datum, the only existent accessible to knowledge, is said to be the sensation, or state of consciousness. 29 In the words of Huxley: "What, after all, do we know of this terrible 'matter' except as a name for the unknown and hypothetical cause of states of our own consciousness? 30 And what do we know of that 'spirit' over whose threatened extinction by matter a great lamentation is arising . . . 31 except that it is also a name for an unknown and hypothetical cause, or condition, of states of consciousness?"

32 The physical world is now to be regarded as a construction which does not assimilate to itself the content of sensations, but enables you to anticipate them. 33 The sensation signifies a contact to which

science can provide a key for practical guidance.

EXPERIMENTALISM

Ralph Barton Perry

17 This last phase of naturalism is an attempt to state a pure and consistent experimentalism, a workable theory of the routine of sensations. 2 But it commonly falls into the error of the vicious circle. The hypothetical cause of sensations is said to be matter. 3 From this point of view the sensation is a complex, comprising elaborate physical and physiological processes. 4 But these processes themselves, on the other hand, are said to be analysable into sensations. 5 Now two such methods of analysis cannot be equally ultimate. 6 If all of reality is finally reducible to sensations, then the term sensation must be used in a new sense to connote a self-subsistent being, 7 and can no longer refer merely to a function of certain physiological processes. 8 The issue of this would be some form of idealism or of the experience-philosophy that is now coming so rapidly to the front. 9 But while it is true that idealism has sometimes been intended, and that a radically new philosophy of experience has sometimes been closely approached, 10 those, nevertheless, who have developed experimentalism from the naturalistic stand-point have in reality achieved only a thinly disguised materialism. 11 For the very ground of their agnosticism is Materialistic Knowledge of reality itself is said to be unattainable, 12 because knowledge, in order to come within the order of Nature, must be regarded as reducible to sensation; 13 and because sensation itself, when regarded as a part of Nature, is only a physiological process, 14 a special phenomenon, in no way qualified to be knowledge that is true of reality.

NATURALISTIC EPISTEMOLOGY NOT SYSTEMATIC

Ralph Barton Perry

18 Perhaps, after all, it would be as fair to the spirit of naturalism to relieve it of responsibility for an epistemology. 2 It has never thoroughly reckoned with this problem. It has deliberately selected from among the elements of experience, 3 and been so highly constructive in its method as to forfeit its claim to pure empiricism; 4 and, on the other hand, has, in this same selection of categories and in its insistence upon the test of experiment, fallen short of a thorough-going rationalism. 5 While, on the one hand, it defines and constructs, it does so, on the other hand, within the field of perception and with constant reference to the test of perception. 6 The explanation and justification of this procedure is to be found in the aim of natural science rather than in that of philosophy. 7 It is this special interest, rather than the general problem of being, that determines the order of its categories. 8 Naturalism as an account of reality is acceptable only so far as its success in satisfying specific demands obtains for it a certain logical immunity. 9 These demands are unquestionably valid and fundamental, but they are not coextensive with the demand for truth. 10 They coincide rather with the immediate practical need of a formulation of the spatial and temporal changes that confront the will. 11 Hence naturalism is acceptable to common-sense as an account of what the every-day attitude to the environment treats as its object. 12 Naturalism is common-sense about the "outer world," revised and brought up to date with the aid of the results of science. 13 Its deepest spring is the organic instinct for the reality of the tangible, 14 the vital recognition of the significance of that which is on the plane of interaction with the body.

NATURE

GENERAL ETHICAL STAND-POINT

Ralph Barton Perry

19 Oddly enough, although common-sense is ready to entrust to naturalism the description of the situation of life, it prefers to deal otherwise with its ideals. 2 Indeed, common-sense is not without a certain suspicion that naturalism is the advocate of moral reversion. 3 It is recognised as the prophecy of the brute majority of life, 4 of those considerations of expediency and pleasure that are the warrant for its secular moods rather than for its sustaining ideals. 5 And that strand of life is indeed its special province. 6 For the naturalistic method of reduction must find the key to human action 7 among those practical conditions that are common to human and own inferiors in the scale of being. 8 In short, human life, like all life, must be construed as the adjustment of the organism to its natural environment 9 for the sake of preservation and economic advancement.

CYNICISM AND CYRENAICISM

Ralph Barton Perry

20 Early in Greek philosophy this general idea of life was picturesquely interpreted in two contrasting ways, those of the Cynic and the Cyrenaic. 2 Both of these wise men postulated the spiritual indifference of the universe at large, 3 and looked only to the contact of life with its immediate environment. 4 But while the one hoped only to hedge himself about, the other sought confidently the gratification of his sensibilities. 5 The figure of the Cynic is the more familiar. Diogenes of the tub practised self-mortification until his dermal and spiritual callousness were alike impervious. 6 From behind his protective sheath he could without affectation despise both Nature and society. 7 He could reckon himself more blessed than Alexander, 8 because, with demand reduced to the minimum, he could be sure of a surplus of supply. 9 Having renounced all goods save the bare necessities of life, he could neglect both promises and threats and be

played upon by no one. 10 He was securely entrenched within himself, an unfurnished habitation, but the citadel of a king. 11 The Cyrenaic, on the other hand, did not seek to make impervious the surface of contact with Nature and society, 12 but sought to heighten its sensibility, that it might become a medium of pleasurable feeling. 13 For the inspiration with which it may be pursued this ideal has nowhere been more eloquently set forth than in the pages of Walter Pater, who styles himself "the new Cyrenaic." 14 "Not the fruit of experience, but experience itself, is the end. 15 A counted number of pulses only is given to us of a variegated, dramatic life. 16 How may we see in them all that is to be seen in them by the finest senses? 17 How shall we pass most swiftly from point to point, and be present always at the focus where the greatest number of vital forces unite in their purest energy?

18 To burn always with this hard, gemlike flame, to maintain this ecstacy, is success in life. . . . 19 While all melts under our feet, we may well catch at any exquisite passion, 20 or any contribution to knowledge that seems by a lifted horizon to set the spirit free for a moment, 21 or any stirring of the senses, strange dyes, strange colours, and curious odours, or work of the artist's hands, or the face of one's friend. 22 Not to discriminate every moment some passionate attitude in those about us, 23 and in the brilliancy of their gifts some tragic dividing of forces on their ways, is, on this short day of frost and sun, to sleep before evening."

DEVELOPMENT OF UTILITARIANISM. EVOLUTIONARY CONCEPTION OF SOCIAL RELATIONS

Ralph Barton Perry

21 In the course of modern philosophy the ethics of naturalism has undergone a transformation 2 and development that equip it much more formidably for its competition with rival theories. 3 If the Cynic and Cyrenaic philosophies of life seem too egoistic and narrow in outlook,

this inadequacy has been largely overcome through the modern conception of the relation of the individual to society. 4 Human is regarded as so dependent upon social relations that it is both natural and rational for human to govern own actions with a concern for the community. 5 There was a time when this relation of dependence was viewed as external, a barter of goods between the individual and society, sanctioned by an implied contract. 6 Thomas Hobbes, whose unblushing materialism and egoism stimulated by opposition the whole development of English ethics, 7 conceived morality to consist in rules of action which condition the stability of the state, 8 and so secure for the individual that "peace" which self-interest teaches us is essential to our welfare. 9 "And therefore so long a human is in the condition of mere nature, which is a condition of war, as private appetite is the measure of good and evil: 10 and consequently all people agree on this, that peace is good, 11 and therefore also the ways or means of peace, which, as I have showed before, are 'justice,' 'gratitude,' 'modesty,' 'equity,' 'mercy,' 12 and the rest of the laws of Nature, are good; that is to say, 'moral virtues'; and their contrary 'vices,' evil."

13 Jeremy Bentham, the apostle of utilitarianism in the eighteenth century, defined political and social sanctions 14 through which the individual could purchase security and good repute with action conducive to the common welfare. 15 But the nineteenth century has understood the matter better-- and the idea of an evolution under conditions that select and reject, is here again the illuminating thought. 16 No individual, evolutionary naturalism maintains, has survived the perils of life without possessing as an inalienable part of own nature, 17 congenital like human’s egoism, certain impulses and instinctive desires in the interest of the community as a whole. 18 The latest generation of a race whose perpetuation has been conditioned by a capacity to sustain social relations and make common cause against a

more external environment, is moral, 19 and does not adopt morality in the course of a calculating egoism. 20 Conscience is the racial instinct of self-preservation uttering itself in the individual member, who draws your own very life-blood from the greater organism.

NATURALISTIC ETHICS NOT SYSTEMATIC
Ralph Barton Perry

22 This latest word of naturalistic ethics has not won acceptance as the last word in ethics, and this in spite of its indubitable truth within its scope. 2 For the deeper ethical interest seeks not so much to account for the moral nature as to construe and justify its promptings. 3 The evolutionary theory reveals the genesis of conscience, and demonstrates its continuity with Nature, 4 but this falls as far short of realising the purpose of ethical study as a history of the natural genesis of thought would fall short of logic. 5 Indeed, naturalism shows here, as in the realm of epistemology, a persistent failure to appreciate the central problem. 6 Its acceptance as a philosophy, we are again reminded, can be accounted for only on the score of its genuinely rudimentary character. 7 As a rudimentary phase of thought it is both indispensable and inadequate. 8 It is the philosophy of instinct, which should in normal development precede a philosophy of reason, in which it is eventually assimilated and supplemented.

NATURALISM AS ANTAGONISTIC TO RELIGION
Ralph Barton Perry

23 There is, finally, an inspiration for life which this philosophy of naturalism may convey -- 2 atheism, its detractors would call it, but none the less a faith and a spiritual exaltation that spring from its summing up of truth. 3 It is well first to realise that which is dispiriting in it, 4 its failure to provide for the freedom, immortality, and moral

providence of the more sanguine faith.

5 "For what is human looked at from this point of view? . . . 6 Human, so far as natural science by itself is able to teach us, is no longer the final cause of the universe, the Heaven-descended heir of all the ages. 7 Human very existence is an accident, its story a brief and transitory episode in the life of one of the meanest of the planets. 8 Of the combination of causes which first converted a dead organic compound into the living progenitors of humanity, science, indeed, as yet knows nothing. 9 It is enough that from such beginnings famine, disease, and mutual slaughter, fit nurses of the future lords of creation, have gradually evolved, 10 after infinite travail, a race with conscience enough to feel that it is vile, and intelligence enough to know that it is insignificant. . . . 11 We sound the future, and learn that after a period, long compared with the individual life, but short indeed compared with the divisions of time open to our investigation, 12 the energies of our system will decay, the glory of the sun will be dimmed, and the earth, tideless and inert, will no longer tolerate the race which has for a moment disturbed its solitude. 13 Human will go down into the pit, and all our thoughts will perish. 14 The uneasy consciousness, which in this obscure corner has for a brief space broken the contented silence of the universe, will be at rest. 15 Matter will know itself no longer. 'Imperishable monuments' and 'immortal deeds,' death itself, and love stronger than death, will be as though they had never been. 16 Nor will anything that is be better or be worse for all that the labour, genius, devotion, and suffering of human have striven through countless generations to effect."

NATURALISM AS THE BASIS FOR A RELIGION OF SERVICE, WONDER, AND RENUNCIATION

Ralph Barton Perry

24 But though our philosopher must accept the truth of this terrible

picture, he is not left without spiritual resources. 2 The abstract religion provided for the agnostic faithful by Herbert Spencer does not, it is true, afford any nourishment to the religious nature. 3 He would have people look for a deep spring of life in the negative idea of mystery, the apotheosis of ignorance, 4 while religious faith to live at all must lay hold upon reality. 5 But there does spring from naturalism a positive religion, whose fundamental motives are those of service, wonder, and renunciation: 6 service of humanity in the present, wonder at the natural truth, and renunciation of a universe keyed to vibrate with human ideals.

7 "Have you," writes Charles Ferguson, "had dreams of Nirvana and sickly visions and raptures? 8 Have you imagined that the end of your life is to be absorbed back into the life of God, and to flee the earth and forget all? 9 Or do you want to walk on air, or fly on wings, or build a heavenly city in the clouds? 10 Come, let us take our kit on our shoulders, and go out and build the city here."

11 For Haeckel "natural religion" is such as "the astonishment with which we gaze upon the starry heavens and the microscopic life in a drop of water, 12 the awe with which we trace the marvellous working of energy in the motion of matter, 13 the reverence with which we grasp the universal dominance of the law of substance throughout the universe."

14 There is a deeper and a sincerer note in the stout, forlorn humanism of Huxley: 15 "That which lies before the human race is a constant struggle to maintain and improve, 16 in opposition to the State of Nature, the State of Art of an organised polity; 17 in which, and by which, human may develop a worthy civilisation, capable of maintaining and constantly improving itself, 18 until the evolution of our globe shall have entered so far upon its downward course that the cosmic process resumes its sway; 19 and, once more, the State of Nature prevails over the surface of our planet."

MIRABAUD'S
SYSTEM OF NATURE
Paul Henri Thiery
(Baron D'Holbach)

25 The source of human's unhappiness *is* own ignorance of Nature. 2 The pertinacity with which human clings t*o* blind opinions imbibed in our infancy, which interweave themselves with human existence, 3 the consequent prejudice that warps human's mind, that prevents its expansion, that renders human the slave of fiction, appears to doom human to continual error. 4 Human resembles a child destitute of experience, full of ideal notions: 5 a dangerous leaven mixes itself with all own knowledge: it is of necessity obscure, it is vacillating and false:-- 6 Human takes the tone of own ideas on the authority of others, who are themselves in error, or else have an interest in deceiving others. 7 To remove this Cimmerian darkness, these barriers to the improvement of human's condition; 8 to disentangle human from the clouds of error that envelope human's mind; 9 to guide human out of this Cretan labyrinth, requires the clue of Ariadne, with all the love she could bestow on Theseus. 10 It exacts more than common exertion; it needs a most determined, a most undaunted courage-- 11 it is never effected but by a persevering resolution to act, to think for yourself; to examine with rigour and impartiality the opinions you have adopted. 12 Human will find that the most noxious weeds have sprung up beside beautiful flowers; 13 entwined themselves around their stems, overshadowed them with an exuberance of foliage, cloaked the ground, enfeebled their growth, diminished their petals; dimmed the brilliancy of their colours; 14 that deceived by their apparent freshness of their verdure, by the rapidity of their exfoliation, human have given them cultivation, 15 watered them, nurtured them, when human ought to have plucked out their very roots.

16 Human seeks to range out of own sphere: notwithstanding the reiterated checks of your ambitious folly experiences, you still attempts

the impossible; 17 strives to carry human researches beyond the visible world; and hunts out misery in imaginary regions. 18 Human would be a metaphysician before human has become a practical philosopher. 19 Human quits the contemplation of realities to meditate on chimeras. 20 Human neglects experience to feed on conjecture, to indulge in hypothesis. 21 Human dares not cultivate own reason, because from human's earliest days human has been taught to consider it criminal. 22 Human pretends to know own date in the indistinct abodes of another life, 23 before human has considered of the means by which human is to render itself happy in the world human inhabits: 24 in short, human disdains the study of Nature, except it be partially: 25 human pursues phantoms that resemble an 'ignis-fatuus', which at once dazzle, bewilders, and affright: 26 like the benighted traveller led astray by these deceptive exhalations of a swampy soil, 27 human frequently quits the plain, the simple road of truth, by pursuing of which, human can alone ever reasonably hope to reach the goal of happiness.

28 The most important of our duties, then, is to seek means by which we may destroy delusions that can never do more than mislead us. 29 The remedies for these evils must be sought for in Nature Herself; 30 it is only in the abundance of Her resources, that we can rationally expect to find antidotes to the mischiefs brought upon us by an ill directed, by an overpowering enthusiasm. 31 It is time these remedies were sought; it is time to look the evil boldly in the face, to examine its foundations, to scrutinise its superstructure: reason, with its faithful guide experience, 32 must attack in their entrenchments those prejudices, to which the human race has but too long been the victim. 33 For this purpose reason must be restored to its proper rank,-- it must be rescued from the evil company with which it is associated. 34 It has been too long degraded-- too long neglected-- cowardice has rendered it subservient to delirium, the slave to falsehood. 35 It must no longer be

held down by the massive claims of ignorant prejudice.

36 Truth is invariable-- it is requisite to human-- it can never harm you-- your very necessities, sooner or later, make you sensible of this; oblige you to acknowledge it. 37 Let us then discover it to mortals-- let us exhibit its charms-- let us shed it effulgence over the darkened road; 38 it is the only mode by which human can become disgusted with that disgraceful superstition which leads you into error, 39 and which but too often usurps your homage by treacherously covering itself with the mask of truth-- 40 its lustre can wound none but those enemies to the human race whose power is bottomed solely on the ignorance, 41 on the darkness in which they have in almost every claimed contrived to involve the mind of human.

42 Truth speaks not to those perverse beings:-- her voice can only be heard by generous souls accustomed to reflection, 43 whose sensibilities make them lament the numberless calamities showered on the earth by political and religious tyranny-- 44 whose enlightened minds contemplate with horror the immensity, the ponderousity of that series of misfortunes which error has in all ages overwhelmed humankind.

45 To error must be attributed those insupportable chains which tyrants, which priests have forged for most nations. 46 To error must be equally attributed that abject slavery into which the people of almost every country have fallen. 47 Nature designed they should pursue their happiness by the most perfect freedom.-- 48 To error must be attributed those religious terrors which, in almost every climate, have either petrified human with fear, or caused human to destroy themselves for coarse or fanciful beings. 49 To error must be attributed those inveterate hatreds, those barbarous persecutions, those numerous massacres, those dreadful tragedies, 50 of which, under pretext of serving the interests of heaven, the earth has been but too frequently made the theatre. 51 It is error consecrated by religious enthusiasm, which produces that ignorance, 52 that

uncertainty in which human ever finds themselves with regard to your most evident duties, your clearest rights, the most demonstrable truths. 53 In short, human is almost everywhere a poor degraded captive, devoid of greatness of soul, of reason, or of virtue, 54 whom human's inhuman gaolers have never permitted to see the light of day.

55 Let us then endeavour to disperse those clouds of ignorance, those mists of darkness, which impede human on your journey, 56 which obscure your progress, which prevent your marching through life with a firm, with a steady grip. 57 Let us try to inspire human with courage-- with respect for your reason-- with an inextinguishable love for truth-- 58 with a remembrance of Gallileo--to the end that you may learn to know yourself-- to know your legitimate rights-- 59 that you may learn to consult your own experience, and no longer be the dupe of an imagination led astray by authority-- 60 that you may renounce the prejudices of your childhood-- that you may learn to found your morals on your nature, on your wants, on the real advantage of society-- 61 that you may dare to love yourself-- that you may learn to pursue your true happiness by promoting that of others-- 62 in short, that you may no longer occupy yourself with reveries either useless or dangerous-- 63 that you may become a virtuous, a rational being, in which case you cannot fail to become happy.

64 If human must have own chimeras, let you at least learn to permit others to form theirs after their own fashion; 65 since nothing can be more immaterial than the manner of people's thinking on subjects not accessible to reason, 66 provided those thoughts be not suffered to embody themselves into actions injurious to others: 67 above all, let human be fully persuaded that it is of the utmost importance to the inhabitants of this world to be JUST, KIND, and PEACEABLE.

68 Far from injuring the cause of virtue, an impartial examination of the principles of this work will show that its object is to restore truth to its

proper temple, 69 to build up an altar whose foundations shall be consolidated by morality, reason, and justice: 70 from this sacred pane, virtue guarded by truth, clothed with experience, shall shed forth her radiance on delighted mortals; 71 whose homage flowing consecutively shall open to the world a new aera, 72 by rendering general the belief that happiness, the true end of human's existence, can never be attained but BY PROMOTING THAT OF ONE FELLOW CREATURE .

73 In short, human should learn to know, that happiness is simply an emanative quality formed by reflection; 74 that each individual ought to be the sun of one's own system, continually shedding around one's own genial rays; 75 that these, re-acting, will keep your own existence constantly supplied with the requisite heat to enable you to put forth kindly fruit.

NATURE AND HER LAWS
Paul Henri Thiery
(Baron D'Holbach)

26 Human has always deceived oneself when you abandoned experience to follow imaginary systems. 2 Human is the work of Nature. Human exists in Nature. Human is submitted to the laws of Nature. 3 Human cannot deliver oneself from them:-- cannot step beyond them even in thought. 4 It is in vain your mind would spring forward beyond the visible world: direful and imperious necessity ever compels you return-- 5 being formed by Nature, human is circumscribed by Her laws; 6 there exists nothing beyond the great whole of which human forms a part, of which human experiences the influence. 7 The beings human fancy pictures as above Nature, or distinguished from Her, are always chimeras formed after that which you have already seen, 8 but of which it is utterly impossible human should ever form any finished idea, either as to the place they occupy, or their manner of

acting-- 9 for human there is not, there can be nothing out of that Nature which includes all beings.

10 Therefore, instead of seeking out of the world you inhabits for beings who can procure yourself a happiness denied to human by Nature, 11 let you study this Nature, learn Her laws, contemplate Her energies, observe the immutable rules by which She acts. 12 Let you apply these discoveries to your own felicity, and submit in silence to Her precepts, which nothing can alter. 13 Let you cheerfully consent to be ignorant of causes hid from human under the most impenetrable veil. 14 Let you yield to the decrees of a universal power, which can never be brought within your own comprehension, 15 nor ever emancipate you from those laws imposed on yourself by human's essence.

16 The distinction which has been so often made between the physical and the moral being, is evidently an abuse of terms. 17 Human is a being purely physical: the moral human is nothing more than this physical being considered under a certain point of view; 18 that is to say, with relation to some of human's modes of action, arising out of your individual organisation. 19 But is not this organisation itself the work of Nature?

20 The motion or impulse to action, of which human is susceptible, is that not physical? 21 Human visible actions, as well as the invisible motion interiorly excited by your will or your thoughts, are equally the natural effects, 22 the necessary consequencesyou're your peculiar construction, and the impulse you receives from those beings by whom you are always surrounded. 23 All that the human mind has successively invented, with a view to change or perfect your being, to render yourself happy, 24 was never more than the necessary consequence of human's peculiar essence, and that of the beings who act upon yourself.

25 The object of all human's institutions, all human's reflections, all human's knowledge, is only to procure that happiness toward which you is continually impelled by the

peculiarity of your nature. 26 All that you does, all that you thinks, all that you are, all that you will be, is nothing more than what Universal Nature has made human. 27 Human's ideas, human's actions, human's will, are the necessary effects of those properties infused into human by Nature, 28 and of those circumstances in which She has placed human. 29 In short, art is nothing but Nature acting with the tools She has furnished.

30 Nature sends human naked and destitute into this world which is to be human's abode: 31 human quickly learns to cover own nakedness-- to shelter oneself from the inclemencies of the weather, 32 first with artlessly constructed huts, and the skins of the beasts of the forest; by degrees human mends their appearance, renders them more convenient: 33 human establishes manufactories to supply own immediate wants; 34 human digs clay, gold, and other fossils from the bowels of the earth; converts them into bricks for own house, into vessels for own use, gradually improves their shape, and augments their beauty. 35 To a being exalted above our terrestrial globe, human would not appear less subjected to the laws of Nature when naked in the forest painfully seeking own sustenance, 36 than when living in civilised society surrounded with ease, or enriched with greater experience, plunged in luxury, 37 where human everyday invents a thousand new wants and discovers a thousand new modes of supplying them. 38 All the steps taken by human to regulate own existence, ought only to be considered as a long succession of causes and effects, 39 which are nothing more than the development of the first impulse given human by Nature.

40 The same animal, by virtue of their organisation, passes successively from the most simple to the most complicated wants; it is nevertheless the consequence of their nature. 41 The butterfly whose beauty we admire, whose colours are so rich, whose appearance is so brilliant, commences as an inanimate unattractive egg; 42 from this, heat produces a worm, this

becomes a chrysalis, then changes into that beautiful insect adorned with the most vivid tints: 43 arrived at this stage it reproduces, it generates; at last despoiled of its ornaments, it is obliged to disappear, having fulfilled the task imposed on it by Nature, 44 having performed the circle of transformation marked out for beings of its order.

45 The same course, the same change takes place in the vegetable world. 46 It is by a series of combinations originally interwoven with the energies of the aloe, 47 that this plant is insensibly regulated, gradually expanded, and at the end of a number of years produces those flowers which announce its dissolution.

48 It is equally so with human, who in all your motion, all the changes you undergoes, never acts but according to the laws peculiar to your organisation, and to the matter of which you are composed. 49 The physical human, is one who acts by the causes our faculties make us understand. 50 The moral person, is one who acts by physical causes, with which our prejudices preclude us from becoming perfectly acquainted. 51 The wild person is a child destitute of experience, incapable of proceeding in own happiness, 52 because human has not learnt how to oppose resistance to the impulses you receives from those beings by whom you are surrounded. 53 The civilised person, is one whom experience and sociality have enabled to draw from Nature the means of your own happiness, 54 because you have learned to oppose resistance to those impulses you receives from exterior beings, 55 when experience has taught you they would be destructive to your welfare. 56 The enlightened person is one in own maturity, in own perfection; who is capable of advancing one's own felicity, 57 because you have learned to examine, to think for yourself, and not to take that for truth upon the authority of others, 58 which experience has taught you a critical disquisition will frequently prove erroneous. 59 The happy person is one who knows how to enjoy the benefits bestowed upon human by Nature: 60 in other words,

one who thinks for oneself; who is thankful for the good human possesses; 61 who does not envy the welfare of others, nor sigh after imaginary benefits always beyond one's grasp. 62 The unhappy person is one who is incapacitated to enjoy the benefits of Nature; 63 that is, one who suffers others to think for themselves; who neglects the absolute good human possesses, in a fruitless search after ideal benefits; 64 who vainly sighs after that whichever eludes your pursuit.

65 It necessarily results, that human in own enquiry ought always to contemplate experience, and natural philosophy: 66 These are what you should consult in your religion,-- in your morals,-- in your legislation,-- in your state-government,-- in the arts,-- in the sciences,-- in your pleasures,-- above all, in your misfortunes. 67 Experience teaches that Nature acts by simple, regular, and invariable laws. 68 It is by human own senses, human is bound to this universal Nature; 69 it is by human's own perception human must penetrate Nature's secrets; 70 it is from human's own senses human must draw experience of Nature's laws. 71 Therefore, whenever you neglects to acquire experience or quits Her path, you stumbles into an abyss; your own imagination leads you astray.

72 All the errors of human are physical: a person never deceives oneself 73 but when human neglects to return back to Nature, to consult Her laws, to call practical knowledge to one's aid. 74 It is for want of practical knowledge a person forms such imperfect ideas of matter, 75 of its properties, of its combinations, of its power, of its mode of action, and of the energies which spring from its essence. 76 Wanting this experience, the whole universe, to human, is but one vast scene of error. 77 The most ordinary results appear to human the most astonishing phenomena; human wonders at everything, understands nothing, 78 and yields the guidance of your actions to those interested in betraying your interests. 79 Human is ignorant of Nature, and human has mistaken Nature's laws; 80 human has not contemplated the necessary

routine which Nature has marked out for everything She holds.

81 Mistaken the laws of Nature, did I say? Human has mistaken themselves: 82 the consequence is, that all human systems, all human conjectures, all human reasonings, from which you have banished experience, are nothing more than a tissue of errors, a long chain of inconsistencies. 83 Error is always prejudicial to human: it is by deceiving yourself the human race is plunged into misery. 84 Human neglected Nature; human did not comprehend Her laws; human formed gods of the most preposterous and ridiculous kinds: 85 these became the sole objects of your hope, and the creatures of your fear: human was unhappy, human trembled under these visionary deities; 86 under the supposed influence of visionary beings created by human; under the terror inspired by blocks of stone; 87 by logs of wood; by flying fish; or the frowns of people, mortal as yourself, 88 whom your disturbed fancy had elevated above that Nature of which alone you are capable of forming any idea. 89 Human's very posterity laughs at own folly, because experience has convinced them of the absurdity of own groundless fears-- of human misplaced worship. 90 Thus has passed away the ancient mythology, with all the trifling and nonsensical attributes attached to it by ignorance.

91 Not understanding that Nature, equal in Her distributions, entirely destitute of malice, follows only necessary and immutable laws, 92 when Nature either produces beings or destroys them, when She causes those to suffer, whose construction creates sensibility; 93 when She scatters among them good and evil; when She subjects them to incessant change-- 94 human did not perceive it was in the breast of Nature Herself, that it was in Her exuberance you ought to seek to satisfy your own deficiencies; 95 for remedies against your pains; for the means of rendering yourself happy: you expected to derive these benefits from fantastic beings, whom you supposed to be above Nature; 96

whom you mistakenly imagined to be the authors of your pleasures, and the cause of your misfortunes. 97 From hence it appears that to human ignorance of Nature, you owes the creation of those illusive powers; under which you has so long trembled with fear; 98 that superstitious worship, which has been the source of all human misery, and the evils entailed upon posterity.

99 For want of clearly comprehending your own peculiar nature, your proper course, your wants, and your rights, human has fallen in society, from FREEDOM INTO SLAVERY 100 Human had forgotten the purpose of own existence, or else you believed yourself obliged to suppress the natural desires of your own heart, 101 to sacrifice your own welfare to the caprice of chiefs, either elected by yourself, or submitted to without examination. 102 Human was ignorant of the true policy of association-- of the object of government; 103 you disdained to listen to the voice of Nature, which loudly proclaimed the price of all submission to be protection and happiness: 104 the end of all government is the benefit of the governed, not the exclusive advantage of the governors. 105 You gave yourself up without enquiry to people like yourself, whom your prejudices induced you to contemplate as beings of a superior order, 106 as God upon earth, they profited by your own ignorance, took advantage of your own prejudices, corrupted you, rendered you vicious, enslaved you, and made you miserable. 107 Thus human, intended by Nature for the full enjoyment of liberty, to patiently search out Her laws, to investigate Her secrets, to cling to your own experience; 108 has, from a neglect of Her salutary admonitions, from an inexcusable ignorance of your own peculiar essence, fallen into servility: has been wickedly governed.

109 Having mistaken yourself, human has remained ignorant of the indispensable affinity that subsists between yourself, and the beings of your own species: 110 having mistaken your duty to yourself, it consequently follows, human has

mistaken own duty to others. 111 Human made a calculation in error of what your happiness required; 112 you did not perceive, what you owed to yourself, the excesses you ought to avoid, the desires you ought to resist, the impulses you ought to follow, 113 in order to consolidate your felicity, to promote your comfort, and to further your advantage. 114 In short, human was ignorant of own true interests; hence your irregularities, your excesses, your shameful extravagance, 115 with that long train of vices, to which you have abandoned yourself, at the expense of your preservation, at the hazard of your permanent prosperity.

116 It is, therefore, ignorance of yourself that has hindered human from enlightening own morals. 117 The corrupt authorities to which you had submitted, felt an interest in obstructing the practice of your duties, even when you knew them. 118 Time, with the influence of ignorance, aided by your own corruption, gave them a strength not to be resisted by your enfeebled voice. 119 Human's duties continued unperformed, and you fell into contempt both with yourself and with others.

120 The ignorance of human has endured so long, human has taken such slow, such irresolute steps to ameliorate human condition, 121 only because human has neglected to study Nature, to scrutinise Her laws, to search out Her expedients, to discover Her properties, 122 that your sluggishness finds its account, in permitting yourself to be guided by example, rather than to follow experience, which demands activity; 123 to be led by routine, rather than by your reason, which enjoins reflection; 124 to take that for truth upon the authority of others, which would require a diligent and patient investigation. 125 From hence may be traced the hatred human betrays for everything that deviates from those rules to which you have been accustomed; 126 hence you stupid, your scrupulous respect for antiquity, for the most silly, the most absurd and ridiculous institutions of your fathers: 127 hence those fears that seize you, when the most beneficial

changes are proposed to you, or the most likely attempts are made to better your condition. 128 Human dreads to examine, because you have been taught to hold it irreverent of something immediately connected with your welfare; 129 human's credulity suffers you to believe the interested advice, and spurns at those who wish to show you the danger of the road you are travelling.

130 This is the reason why nations linger on in the most shameful lethargy, suffering under abuses handed down from century to century, 131 trembling at the very idea of that which alone can repair their calamities. 132 It is for want of energy, for want of consulting experience, that medicine, natural philosophy, agriculture, painting, in fact, all the useful sciences, have so long remained under the fetters of authority, have progressed so little: 133 those who profess these sciences, prefer treading the beaten paths, however imperfect, rather than strike out new ones,-- 134 they prefer the phrensy of their imagination, their voluntary conjectures, to that laboured experience which alone can extract Her secrets from Nature.

135 Human, in short, whether from sloth or from terror, having abnegated the evidence of own senses, has been guided in all own actions, in all own enterprises, 136 by imagination, by enthusiasm, by habit, by preconceived opinions, but above all, by the influence of authority, 137 which knew well how to deceive human, to turn human ignorance to esteem, human sloth to advantage. 138 Thus imaginary, unsubstantial systems, have supplied the place of experience-- of mature reflection-- of reason. 139 Human, petrified with own fears, intoxicated with the marvellous, stupefied with sloth, surrendered own experience: 140 guided by human credulity, you was unable to fall back upon it; you became consequently inexperienced; 141 from thence you gave birth to the most ridiculous opinions, 142 or else adopted all those vague chimeras, all those idle notions offered to you by people whose interest it was to continue human in that lamentable state of ignorance.

143 Thus the human race has continued so long in a state of infancy, because human has been inattentive to Nature; has neglected Her ways, 144 because you have disdained experience--because you have thrown by your reason--because you have been enraptured with the marvellous and the supernatural,-- because you have unnecessarily TREMBLED. 145 These are the reasons there is so much trouble in conducting yourself from this state of childhood to that of humanhood. 146 Human has had nothing but the most trifling hypotheses, of which you have never dared to examine either the principles or the proofs, 147 because you have been accustomed to hold them sacred, to consider them as the most perfect truths, and which you are not permitted to doubt, even for an instant. 148 Human's ignorance made you credulous; human's curiosity made you swallow the wonderful: time confirmed you in your own opinions, 149 and you passed your conjectures from race to race for realities; 150 a tyrannical power maintained human in your own notions, because by those alone could society be enslaved. 151 It was in vain that some faint glimmerings of Nature occasionally attempted the recall of your own reason, 152 that slight coruscations of experience sometimes threw human darkness into light, 153 the interest of the few was founded on one person's enthusiasm; their pre-eminence depended on the person's love of the marvellous; 154 their very existence rested on the firmness of the person's ignorance; 155 they consequently suffered no opportunity to escape, of smothering even the transient flame of intelligence. 156 The many were thus first deceived into credulity, then forced into submission. 157 At length the whole science of human became a confused mass of darkness, falsehood, and contradictions, 158 with here and there a feeble ray of truth, furnished by that Nature, of which you can never entirely divest yourself; 159 because, without human perception, human necessities are continually bringing you back to Nature's resources.

160 Let us then, if possible, raise ourselves above these clouds of prepossession! 161 Let us quit the heavy atmosphere in which we are enucleated; 162 let us in a more unsullied medium-- in a more elastic current, contemplate the opinions of people, and observe their various systems. 163 Let us learn to distrust a disordered conception; let us take that faithful monitor, experience, for our guide; 164 let us consult Nature, examine Her laws, dive into Her stores; let us draw from Herself, our ideas of the beings She contains; 165 let us recover our senses, which interested error has taught us to suspect; 166 let us consult that reason, which, for the vilest purposes has been so infamously calumniated, so cruelly dishonoured; 167 let us examine with attention the visible world; 168 let us try, if it will not enable us to form a supportable judgment of the invisible territory of the intellectual world: 169 perhaps it may be found there has been no sufficient reason for distinguishing them-- 170 that it is not without motives, well worthy our enquiry, that two empires have been separated, which are equally the inheritance of Nature.

171 The universe, that vast assemblage of everything that exists, presents only matter and motion: 172 the whole offers to our contemplation, nothing but an immense, an uninterrupted succession of causes and effects; 173 some of these causes are known to us, because they either strike immediately on our senses, or have been brought under their cognisance, by the examination of long experience; 174 others are unknown to us, because they act upon us by effects, frequently very remote from their primary cause. 175 An immense variety of matter, combined under an infinity of forms, incessantly communicates, unceasingly receives a diversity of impulses. 176 The different qualities of this matter, its innumerable combinations, its various methods of action, 177 which are the necessary consequence of these associations, constitute for human what we calls the ESSENCE of beings: 178 it is from these varied

essences that spring the orders, the classes, or the systems, which these beings respectively possess, 179 of which the sum total makes up that which is known by the term Nature.

180 Nature, therefore, in its most significant meaning, is the great whole that results from the collection of matter, 181 under its various combinations, with that contrariety of motion, which the universe presents to our view. 182 Nature, in a less extended sense, or considered in each individual, is the whole that results from its essence; 183 that is to say, the peculiar qualities, the combination, the impulse, and the various modes of action, by which it is discriminated from other beings. 184 It is thus that HUMAN is, as a whole, or in own nature, the result of a certain combination of matter, 185 endowed with peculiar properties, competent to give, capable of receiving, certain impulses, the arrangement of which is called organisation; 186 of which the essence is, to feel, to think, to act, to move, after a manner distinguished from other beings, with which you can be compared. 187 Human, therefore, ranks in an order, in a system, in a class by oneself, 188 which differs from that of other animals, in whom we do not perceive those properties of which human is possessed. 189 The different systems of beings, or if they will, their particular natures, depend on the general system of the great whole, 190 or that Universal Nature, of which they form a part; to which everything that exists is necessarily submitted and attached.

191 Having described the proper definition that should be applied to the word NATURE, I must advise the reader, once for all, 192 that whenever in the course of this work the expression occurs, that "Nature produces such or such an effect," 193 there is no intention of personifying that Nature which is purely an abstract being; 194 it merely indicates that the effect spoken of necessarily springs from the peculiar properties of those beings which compose the mighty macrocosm. 195 When, therefore, it is said, Nature demands that human should pursue one’s own

happiness, it is to prevent circumlocution -- to avoid tautology; 196 it is to be understood, that it is the property of a being that feels, that thinks, that acts, to labour to its own happiness; 197 in short, that is called natural, which is conformable to the essence of things, or to the laws, which Nature prescribes to the beings She contains, 198 in the different orders they occupy, under the various circumstances through which they are obliged to pass. 199 Thus health is natural to human in a certain state; disease is natural to human under other circumstances; dissolution, 200 or if they will, death, is a natural state for a body, deprived of some of those things, necessary to maintain the existence of the animal. 201 By ESSENCE is to be understood, that which constitutes a being, such as it is; the whole of the properties or qualities by which it acts as it does. 202 Thus, when it is said, it is the essence of a stone to fall, it is the same as saying that its descent is the necessary effect of its gravity-- 203 of its density-- of the cohesion of its parts-- of the elements of which it is composed. 204 In short, the essence of a being is its particular, its individual nature.

OF MOTION, AND ITS ORIGIN

Paul Henri Thiery (Baron D'Holbach)

27 Motion is an effect by which a body either changes, or has a tendency to change, its position: 2 that is to say, by which it successively corresponds with different parts of space, or changes its relative distance to other bodies. 3 It is motion alone that establishes the relation between our senses and exterior or interior beings: 4 it is only by motion that these beings are impressed upon us-- that we know their existence-- that we judge of their properties-- 5 that we distinguish the one from the other-- that we distribute them into classes. 6 The beings, the substances, or the various bodies of which Nature is the assemblage, 7 are themselves effects of certain combinations or causes which become causes in their turn. 8

NATURE

A CAUSE is a being which puts another in motion, or which produces some change in it. 9 The EFFECT is the change produced in one body, by the motion or presence of another. 10 Each being, by its essence, by its peculiar nature, has the faculty of producing, is capable of receiving, has the power of communicating, a variety of motion. 11 Thus some beings are proper to strike our organs; 12 these organs are competent to receiving the impression, are adequate to undergoing changes by their presence. 13 Those which cannot act on any of our organs, either immediately and by themselves, or immediately by the intervention of other bodies, exist not for us; 14 since they can neither move us, nor consequently furnish us with ideas: 15 they can neither be known to us, nor of course be judged of by us. 16 To know an object, is to have felt it; to feel it, it is requisite to have been moved by it. 17 To see, is to have been moved, by something acting on the visual organs; 18 to hear, is to have been struck, by something on our auditory nerves. 19 In short, in whatever mode a body may act upon us, whatever impulse we may receive from it, we can have no other knowledge of it than by the change it produces in us.

20 Nature, as we have already said, is the assemblage of all the beings, 21 consequently of all the motion of which we have a knowledge, as well as of many others of which we know nothing, because they have not yet become accessible to our senses. 22 From the continual action and re-action of these beings, result a series of causes and effects; 23 or a chain of motion guided by the constant and invariable laws peculiar to each being; 24 which are necessary or inherent to its particular nature--which make it always act or move after a determinate manner. 25 The different principles of this motion are unknown to us, because we are in many instances, if not in all, ignorant of what constitutes the essence of beings. 26 The elements of bodies escape our senses; we know them only in the mass: 27 we are neither acquainted with their intimate

combination, nor the proportion of these combinations; 28 from whence must necessarily result their mode of action, their impulse, or their different effects.

29 Our senses bring us generally acquainted with two sorts of motion in the beings that surround us: 30 the one is the motion of the mass, by which an entire body is transferred from one place to another. 31 Of the motion of this genus we are perfectly sensible. 32 Thus, we see a stone fall, a ball roll, an arm move, or change its position. 33 The other is an internal or concealed motion, which always depends on the peculiar energies of a body: that is to say, on its essence, 34 or the combination, the action, and re-action of the minute-- of the insensible particles of matter, of which that body is composed. 35 This motion we do not see; we know it only by the alteration or change, which after some time we discover in these bodies or mixtures. 36 Of this genus is that concealed motion which fermentation produces in the particles that compose flour, 37 which, however scattered, however separated, unite, and form that mass which we call BREAD. 38 Such also is the imperceptible motion by which we see a plant or animal enlarge, strengthen, undergo changes, and acquire new qualities, 39 without our eyes being competent to follow its progression, or to perceive the causes which have produced these effects. 40 Such also is the internal motion that takes place in human, which is called your INTELLECTUAL FACULTIES, your THOUGHTS, your PASSIONS, your will. 41 Of these we have no other mode of judging, than by their action; that is, by those sensible effects which either accompany or follow them. 42 Thus, when we see a person run away, we judge the person to be interiorly actuated by the passion of fear.

43 Motion, whether visible or concealed, is styled ACQUIRED, when it is impressed on one body by another; 44 either by a cause to which we are a stranger, or by an exterior agent which our senses enable us to discover. 45 Thus we call that acquired motion, which the wind

gives to the sails of a ship. 46 That motion which is excited in a body, that contains within itself the causes of those changes we see it undergo, is called SPONTANEOUS. 47 Then it is said, this body acts or moves by its own peculiar energies. Of this kind is the motion of the person who walks, who talks, who thinks. 48 Nevertheless, if we examine the matter a little closer, we shall be convinced, that, strictly speaking, there is no such thing as spontaneous motion in any of the various bodies of Nature; 49 seeing they are perpetually acting one upon the other; that all their changes are to be attributed to the causes, either visible or concealed, by which they are moved. 50 The will of human is secretly moved or determined by some exterior cause that produces a change in human: 51 we believe human moves of oneself, because we neither see the cause that determined human, the mode in which it acted, nor the organ that it put in motion.

52 That is called SIMPLE MOTION, which is excited in a body by a single cause. 53 COMPOUND MOTION, that which is produced by two or more different causes; 54 whether these causes are equal or unequal, conspiring differently, acting together or in succession, known or unknown.

55 Let the motion of beings be of whatsoever nature it may, it is always the necessary consequence of their essence, 56 or of the properties which compose them, and of those causes of which they experience the action. 57 Each being can only move and act after a particular manner; 58 that is to say, conformably to those laws which result from its peculiar essence, its particular combination, its individual nature: 59 in short, from its specific energies, and those of the bodies from which it receives an impulse. 60 It is this that constitutes the invariable laws of motion:

61 I say invariable, because they can never change, without producing confusion in the essence of things. 62 It is thus that a heavy body must necessarily fall, if it meets with no obstacle sufficient to arrest its descent; 63 that a sensible body must naturally seek pleasure, and avoid

pain; 64 that fire must necessarily burn, and diffuse light. 65 Each being, then, has laws of motion, that are adapted to itself, 66 and constantly acts or moves according to these laws; at least when no superior cause interrupts its action. 67 Thus, fire ceases to burn combustible matter, as soon as sufficient water is thrown into it, to arrest its progress. 68 Thus, a sensible being ceases to seek pleasure, as soon as the person fears that pain will be the result. 69 The communication of motion, or the medium of action, from one body to another, also follows certain and necessary laws; 70 one being can only communicate motion to another, by the affinity, by the resemblance, by the conformity, by the analogy, 71 or by the point of contact, which it has with that other being. 72 Fire can only propagate when it finds matter analogous to itself: it extinguishes when it encounters bodies which it cannot embrace; 73 that is to say, that do not bear towards it a certain degree of relation or affinity.

74 Everything in the universe is in motion: the essence of matter is to act: 75 if we consider its parts, attentively, we shall discover there is not a particle that enjoys absolute repose. 76 Those which appear to us to be without motion, are, in fact, only in relative or apparent rest; 77 they experience such an imperceptible motion, and expose it so little on their surfaces, that we cannot perceive the changes they undergo. 78 All that appears to us to be at rest, does not, however, remain one instant in the same state. 79 All beings are continually breeding, increasing, decreasing, or dispersing, with more or less dullness or rapidity. 80 The insect called EPHEMERON, is produced and perishes in the same day; of consequence, it experiences the greatest changes of its being very rapidly, in our eyes. 81 Those combinations which form the most solid bodies, which appear to enjoy the most perfect repose, are nevertheless decomposed, and dissolved in the course of time. 82 The hardest stones, by degrees, give way to the contact of air. 83 A mass

of iron, which time, and the action of the atmosphere, has gnawed into rust, 84 must have been in motion, from the moment of its formation, in the bowels of the earth, until the instant we behold it in this state of dissolution.

85 Natural philosophers, for the most part, seem not to have sufficiently reflected on what they call the nisus; 86 that is to say, the incessant efforts one body is making on another, but which, notwithstanding appear, to our superficial observation, to enjoy the most perfect repose. 87 A stone of five hundred weight seems to rest quiet on the earth, nevertheless, it never ceases for an instant, to press with force upon the earth, which resists or repulses it in its turn. 88 Will the assertion be ventured, that the stone and earth do not act? Do they wish to be undeceived? 89 They have nothing to do but interpose their hand betwixt the earth and the stone; 90 it will then be discovered, that notwithstanding its seeming repose, the stone has power adequate to bruise it; 91 because the hand has not energies sufficient, within itself, to resist effectually both the stone and earth. 92 Action cannot exist in bodies without re-action. 93 A body that experiences an impulse, an attraction, or a pressure of any kind, if it resists, clearly demonstrates by such resistance that it re-acts; 94 from whence it follows, there is a concealed force, called by these philosophers ‘vis inertia’, that displays itself against another force; 95 and this clearly demonstrates, that this inert force is capable of both acting and re-acting. 96 In short, it will be found, on close investigation, that those powers which are called dead, and those which are termed live or moving, are powers of the same kind; which only display themselves after a different manner.

97 Permit us to go a greater distance yet. May we not say, that in those bodies, or masses, of which their whole become evident from appearances to us to be at rest, 98 there is notwithstanding, a continual action, and counter-action, constant efforts, uninterrupted or communicated force, and continued opposition? 99 In short, a nisus, by

which the constituting portions of these bodies press one upon another, mutually resisting each other, acting and re-acting incessantly? 100 That this reciprocity of action, this simultaneous re-action, keeps them united, 101 causes their particles to form a mass, a body, and a combination, which, viewed in its whole, has the appearance of complete rest, 102 notwithstanding not one of its particles really ceases to be in motion for a single instant? 103 These collective masses appear to be at rest, simply by the equality of the motion-- 104 by the responsorial impulse of the powers acting in them.

105 Thus it appears that bodies enjoying perfect repose, really receive, whether upon their surface, or in their interior, a continual communicated force, 106 from those bodies by which they are either surrounded or penetrated, dilated or contracted, rarified or condensed: in fact, from those which compose them; 107 whereby their particles are incessantly acting and re-acting, or in continual motion, the effects of which are displayed by extraordinary changes. 108 Thus heat rarifies and dilates metals, which is evidence deducible that a bar of iron, from the change of the atmosphere alone, must be in continual motion; 109 that there is not a single particle in it that can be said to enjoy rest even for a single moment. 110 In those hard bodies, indeed, the particles of which are in actual contact, and which are closely united, 111 how is it possible to conceive, that air, cold, or heat, can act upon one of these particles, even exteriorly, 112 without the motion being communicated to those which are most intimate and minute in their union? 113 Without motion, how should we be able to comprehend the manner in which our sense of smelling is affected, by emanations escaping from the most solid bodies, 114 of which all the particles appear to be at perfect rest? 115 How could we, even by the assistance of a telescope, see the most distant stars, if there was not a progressive motion of light from these stars to the retina of our eye?

116 Observation and reflection ought to convince us, that everything in Nature is in continual motion-- 117 that there is not a single part, however small, that enjoys repose-- that Nature acts in all-- that She would cease to be Nature if She did not act. 118 Practical knowledge teaches us, that without unceasing motion, nothing could be preserved-- nothing could be produced-- nothing could act in this Nature. 119 Thus the idea of Nature necessarily includes that of motion. 120 But it will be asked, and not a little triumphantly, from whence did Nature derive Her motion? 121 Our reply is, we know not, neither do they-- that we never shall, that they never will. 122 It is a secret hidden from us, concealed from them, by the most impenetrable veil. 123 We also reply, that it is fair to infer, unless they can logically prove to the contrary, that it is in Herself, since She is the great whole, out of which nothing can exist. 124 We say this motion is a manner of existence, that flows, necessarily, out of the nature of matter; 125 that matter moves by its own peculiar energies; that its motion is to be attributed to the force which is inherent in itself; 126 that the variety of motion, and the phenomena which result, proceed from the diversity of the properties-- 127 of the qualities-- of the combinations, which are originally found in the primitive matter, of which Nature is the assemblage.

128 Natural philosophers, for the most part, have regarded as inanimate, or as deprived of the faculty of motion, those bodies which are only moved by the intervention of some agent or exterior cause; 129 they have considered themselves justified in concluding, that the matter which forms these bodies is perfectly inert in its nature. 130 They have not forsaken this error, 131 although they must have observed, that whenever a body is left to itself, or disengaged from those obstructions which oppose themselves to its descent, it has a tendency to fall 132 or to approach the centre of the earth, by a motion uniformly accelerated; 133 they have rather chosen to suppose a

visionary exterior cause, of which they themselves had but an imperfect idea, 134 than admit that these bodies held their motion from their own peculiar nature. 135 These philosophers, also, notwithstanding they saw above them an infinite number of globes 136 that moved with great rapidity round a common centre, still adhered to their favourite opinions; 137 and never ceased to suppose some whimsical causes for these movements, until the immortal 138 NEWTON clearly demonstrated that it was the effect of the gravitation of these celestial bodies towards each other. 139 Experimental philosophers, however, and amongst them the great Newton himself, have held the cause of gravitation as inexplicable. 140 Notwithstanding the great weight of this authority, it appears manifest that it may be deduced from the motion of matter, by which bodies are diversely determined. 141 Gravitation is nothing more than a mode of moving-- a tendency towards a centre: 142 to speak strictly, all motion is relative gravitation; since that which falls relatively to us, rises, with relation to other bodies. 143 From this it follows, that every motion in our microcosm is the effect of gravitation; 144 seeing that there is not in the universe either top or bottom, nor any absolute centre. 145 It should appear, that the weight of bodies depends on their configuration, 146 as well external as internal, which gives them that form of action which is called gravitation. 147 Thus, for instance, a piece of lead, spherically formed, falls quickly and direct: 148 reduce this ball into very thin plates, it will be sustained in the air for a much longer time: 149 apply to it the action of fire, this lead will rise in the atmosphere: 150 here, then, the same metal, variously modified, has very different modes of action.

151 A very simple observation would have sufficed to make the philosophers, antecedent to Newton, feel the inadequateness of the causes they admitted to operate with such powerful effect. 152 They had a sufficiency to convince themselves, in the collision of two bodies, which

they could contemplate, 153 and in the known laws of that motion, which these always communicate by reason of their greater or less compactness; 154 from whence they ought to have inferred, that the density of subtle or ethereal matter, being considerably less than that of the planets, 155 it could only communicate to them a very feeble motion, quite insufficient to produce that velocity of action, of which they could not possibly avoid being the witnesses.

156 If Nature had been viewed uninfluenced by prejudice, they must have been long since convinced that matter acts by its own peculiar activity; 157 that it needs no exterior communicative force to set it in motion. 158 They might have perceived that whenever mixed bodies were placed in a situation to act on each other, motion was instantly excited; 159 and that these mixtures acted with a force capable of producing the most surprising results. 160 If particles of iron, sulphur, and water be mixed together, these bodies thus capacitated to act on each other, are heated by degrees, and ultimately produce a violent combustion. 161 If flour be wetted with water, and the mixture closed up, it will be found, after some lapse of time, (by the aid of a microscope) to have produced organised beings that enjoy life, 162 of which the water and the flour were believed incapable: 163 it is thus that inanimate matter can pass into life, or animate matter, which is in itself only an assemblage of motion.

164 Reasoning from analogy, which the philosophers of the present day do not hold incompatible: 165 the production of a human, independent of the ordinary means, would not be more astonishing than that of an insect with flour and water. 166 Fermentation and putrid substances, evidently produce living animals. 167 We have here the principle; with proper materials, principles can always be brought into action. 168 That generation which is styled uncertain is only so for those who do not reflect, 169 or who do not permit themselves, attentively, to observe the operations of Nature.

NATURE

170 The generative of motion, and its development, as well as the energy of matter, may be seen everywhere; 171 more particularly in those unitions in which fire, air, and water, find themselves combined. 172 These elements, or rather these mixed bodies, are the most volatile, the most fugitive of beings; 173 nevertheless in the hands of Nature, they are the essential agents employed to produce the most striking phenomena. 174 To these we must ascribe the effects of thunder, the eruption of volcanoes, earthquakes. 175 Science offers to our consideration an agent of astonishing force, in gunpowder, the instant it comes in contact with fire. 176 In short, the most terrible effects result from the combination of matter, which is generally believed to be dead and inert.

177 These facts prove, beyond a doubt, that motion is produced, is augmented, is accelerated in matter, without the help of any exterior agent: 178 therefore it is reasonable to conclude that motion is the necessary consequence of immutable laws, 179 resulting from the essence, from the properties existing in the different elements, and the various combinations of these elements. 180 Are we not justified, then, in concluding, from these precedents, that there may be an infinity of other combinations, 181 with which we are unacquainted, competent to produce a great variety of motion in matter, 182 without being under the necessity of having recourse, for the explanation, to agents who are more difficult to comprehend than even the effects which are attributed to them?

183 Had human but paid proper attention to what passed under one's review, human would not have sought out of Nature, a power distinguished from Herself, 184 to set Her in action, and without which human believes She cannot move. 185 If, indeed, by Nature is meant a heap of dead matter, destitute of peculiar qualities purely passive, we must unquestionably seek out of this Nature the principle of Her motion. 186 But if by Nature be understood, what it really is, a whole, of which the numerous parts are endowed with

various properties, 187 which oblige them to act according to these properties; 188 which are in a perpetual ternateness of action and reaction; 189 which press, which gravitate towards a common center, whilst others depart from and fly off towards the periphery, or circumference; 190 which attract and repel; 191 which by continual approximation and constant collision, produce and decompose all the bodies we behold; 192 then, I say, there is no necessity to have recourse to supernatural powers, 193 to account for the formation of things, and those extraordinary appearances which are the result of motion.

194 Those who admit a cause exterior to matter, are obliged to believe that this cause produced all the motion by which matter is agitated in giving it existence. 195 This belief rests on another, namely, that matter could begin to exist; 196 an hypothesis that, until this moment, has never been satisfactorily demonstrated. 197 To produce from nothing, or the CREATION, is a term that cannot give us the least idea of the formation of the universe; 198 it presents no sense, upon which the mind can rely. 199 In fact, the human mind is not adequate to conceive a moment of non-existence, or when all shall have passed away; 200 even admitting this to be a truth, it is no truth for us, because by the very nature of our organisation, we cannot admit positions as facts, of which no evidence can be adduced that has relation to our senses; 201 we may, indeed, consent to believe it, because others say it; but will any rational being be satisfied with such an admission? 202 Can any moral good spring from such blind assurance? 203 Is it consistent with sound doctrine, with philosophy, or with reason?

204 Do we, in fact, pay any respect to the intellectual powers of another, 205 when we say to human, "I will believe this, because in all the attempts you have ventured, for the purpose of proving what you say, you have entirely failed; 206 and have been at last obliged to acknowledge you know nothing about the matter?" 207 What moral reliance ought we to

have on such people? 208 Hypothesis may succeed hypothesis; system may destroy system: a new set of ideas may overturn the ideas of a former day. 209 Other Gallileos may be condemned to death-- other Newtons may arise-- we may reason-- argue-- dispute-- quarrel-- punish and destroy: 210 nay, we may even exterminate those who differ from us in opinion; but when we have done all this, we shall be obliged to fall back upon our original darkness-- 211 to confess, that that which has no relation with our senses, that which cannot manifest itself to us by some of the ordinary modes by which other things are manifested, has no existence for us-- 212 is not comprehensible by us-- can never entirely remove our doubt-- can never seize on our steadfast belief; 213 seeing it is that of which we cannot form even a notion; 214 in short, that it is that, which as long as we remain what we are, must be hidden from us by a veil, which no power, no faculty, no energy we possess, is able to remove.

215 All who are not enslaved by prejudice agree to the truth of the position, that nothing can be made of nothing. 216 Many theologians have acknowledged Nature to be an active whole. 217 Almost all the ancient philosophers were agreed to regard the world as eternal. 218 OCELLUS LUCANUS, speaking of the universe, says, "it has always been, and it always will be." 219 VATABLE and GROTIUS assure us, that to render the Hebrew phrase in the first chapter of the Bible, GENESIS correctly, we must say, 220 "when God made heaven and earth, matter was without form." 221 If this be true, and every Hebraist can judge for oneself, then the word which has been rendered ‘created’, means only to fashion, form, arrange. 222 We know that the Greek words create and form, have always indicated the same thing. 223 According to ST. JEROME, ‘creare’ has the same meaning as ‘condere’, to found, to build. 224 The Bible does not anywhere say in a clear manner, that the world was made of nothing. 225 TERTULLIAN and the father PETAU both admit, that "this is a truth

established more by reason than by authority." 226 ST. JUSTIN seems to have contemplated matter as eternal, since he commends PLATO for having said, that 227 "God, in the creation of the world, only gave impulse to matter, and fashioned it." 228 BURNET and PYTHAGORAS were entirely of this opinion, and even our Church Service may be adduced in support; 229 for although it admits by implication a beginning, it expressly denies an end: 230 "As it was in the beginning, is now, and ever shall be, world without end." 231 It is easy to perceive that that which cannot cease to exist, must have always been.

232 Motion becomes still more obscure, when creation, or the formation of matter, is attributed to a SPIRITUAL being; 233 that is to say, to a being which has no analogy, no point of contact, with it--to a being which has neither extent or parts, 234 and cannot, therefore, be susceptible of motion, as we understand the term; 235 this being only the change of one body, relatively to another body, in which the body moved presents successively different parts to different points of space. 236 Moreover, as all the world are nearly agreed that matter can never be totally annihilated, or cease to exist; 237 by what reasoning, I would ask, do they comprehend-- how understand-- that that which cannot cease to be, could ever have had a beginning?

238 If, therefore, it be asked, whence came matter? it is very reasonable to say it has always existed. 239 If it be inquired, whence proceeds the motion that agitates matter? the same reasoning furnishes the answer; 240 namely, that as motion is coeval with matter, it must have existed from all eternity, seeing that motion is the necessary consequence of its existence-- 241 of its essence-- of its primitive properties, such as its extent, its gravity, its impenetrability, its figure. 242 By virtue of these essential constituent properties, inherent in all matter, and without which it is impossible to form an idea of it, 243 the various matter of which the universe is composed must from all eternity have pressed against, each other-- 244 have

gravitated towards a center-- have clashed-- have come in contact-- have been attracted-- have been repelled-- have been combined-- have been separated: 245 in short, must have acted and moved according to the essence and energy peculiar to each genus, and to each of its combinations.

246 Existence supposes properties in the thing that exists: whenever it has properties, its mode of action must necessarily flow from those properties which constitute its mode of being. 247 Thus, when a body is ponderous, it must fall; when it falls, it must come in collision with the bodies it meets in its descent; 248 when it is dense, when it is solid, it must, by reason of this density, communicate motion to the bodies with which it clashes; 249 when it has analogy, when it has affinity with these bodies, it must be attracted, must be united with them; 250 when it has no point of analogy with them, it must be repulsed.

251 From which it may be fairly inferred, that in supposing, as we are under the necessity of doing, the existence of matter, 252 we must suppose it to have some kind of properties; from which its motion, or modes of action, must necessarily flow. 253 To form the universe, DESCARTES asked but matter and motion: a diversity of matter sufficed for him; 254 variety of motion was the consequence of its existence, of its essence, of its properties: 255 its different modes of action would be the necessary consequence of its different modes of being. 256 Matter without properties would be a mere nothing; therefore, as soon as matter exists, it must act; 257 as soon as it is various, it must act variously; 258 if it cannot commence to exist, it must have existed from all eternity; 259 if it has always existed, it can never cease to be: 260 if it can never cease to be, it can never cease to act by its own energy. 261 Motion is a manner of being, which matter derives from its peculiar existence.

262 The existence of matter is a fact: the existence of motion is another fact. 263 Our visual organs point out to us matter with different essences, forming a variety of combinations,

endowed with various properties that discriminate them. 264 Indeed, it is a palpable error to believe that matter is a homogeneous body, of which the parts differ from each other only by their various modifications. 265 Among the individuals of the same species that come under our notice, no two resemble exactly; 266 and it is therefore evident that the difference of situation alone will, necessarily, carry a diversity more or less sensible, 267 not only in the modifications, but also in the essence, in the properties, in the entire system of beings. 268 This truth was well understood by the profound and subtle LEIBNITZ.

269 If this principle be properly digested, and experience seems always to produce evidence of its truth, 270 we must be convinced that the matter or primitive elements which enter into the composition of bodies, are not of the same nature, 271 and consequently, can neither have the same properties, nor the same modifications; 272 and if so, they cannot have the same mode of moving and acting. 273 Their activity or motion, already different, can be diversified to infinity, augmented or diminished, accelerated or retarded, 274 according to the combinations, the proportions, the pressure, the density, the volume of the matter, that enters their composition. 275 The endless variety to be produced, will need no further illustration than the commonest book of arithmetic furnishes us, 276 where it will be found, that to ring all the changes that can be produced on twelve bells only, would occupy a space of more than ninety-one years.

277 The element of fire is visibly more active and more inconstant than that of earth. 278 This is more solid and ponderous than fire, air, or water. 279 According to the quantity of these elements, which enter the composition of bodies, these must act diversely, 280 and their motion must in some measure partake the motion peculiar to each of their constituent parts. 281 Elementary fire appears to be in Nature the principle of activity; 282 it may be compared to a fruitful leaven, that puts the mass into fermentation and gives it life.

NATURE

283 Earth appears to be the principle of solidity in bodies, from its impenetrability, and by the firm coherence of its parts. 284 Water is a medium, to facilitate the combination of bodies, into which it enters itself, as a constituent part. 285 Air is a fluid whose business it seems to be, to furnish the other elements with the space requisite to expand, to exercise their motion, and which is, moreover, found proper to combine with them. 286 These elements, which our senses never discover in a pure state-- which are continually and reciprocally set in motion by each other-- 287 which are always acting and re-acting, combining and separating, attracting and repelling-- 288 are sufficient to explain to us the formation of all the beings we behold.

289 Their motion is uninterruptedly and reciprocally produced from each other; they are alternately causes and effects. 290 Thus, they form a vast circle of generation and destruction-- of combination and decomposition, 291 which, it is quite reasonable to suppose, could never have had a beginning, and which, consequently can never have an end. 292 In short, Nature is but an immense chain of causes and effects, which unceasingly flow from each other. 293 The motion of particular beings depends on the general motion, which is itself maintained by individual motion. 294 This is strengthened or weakened, accelerated or retarded, simplified or complicated, procreated or destroyed, by a variety of combinations and circumstances, 295 which every moment change the directions, the tendency, the modes of existing, and of acting, of the different beings that receive its impulse.

296 If it were true, as has been asserted by some philosophers, that everything has a tendency to form one unique or single mass, 297 and in that unique mass the instant should arrive when all was in ‘nisus’, all would eternally remain in this state; 298 to all eternity there would be no more than one Being and one effort: this would be eternal and universal death. 299 If we desire to go beyond

this, to find the principle of action in matter, to trace the origin of things, it is forever to fall back upon difficulties; 300 it is absolutely to abridge the evidence of our senses; by which only we can understand, by which alone we can judge of the causes acting upon them, or the impulse by which they are set in action.

301 Let us, therefore, content ourselves with saying WHAT is supported by our experience, and by all the evidence we are capable of understanding; 302 against the truth of which not a shadow of proof, such as our reason can admit, has ever been adduced-- 303 which has been maintained by philosophers in every age-- which theologians themselves have not denied, but which many of them have upheld; 304 namely, that matter always existed; that it moves by virtue of its essence; 305 that all the phenomena of Nature is ascribable to the diversified motion of the variety of matter She contains; 306 and which, like the phoenix, is continually regenerating out of its own ashes.

OF MATTER;
OF THE COURSE OF NATURE
Paul Henri Thiery (Baron D'Holbach)

28 We know nothing of the elements of bodies, but we know some of their properties or qualities; 2 and we distinguish their various matter by the effect or change produced on our senses; that is to say, by the variety of motion their presence excites in us. 3 In consequence, we discover in them, extent, mobility, divisibility, solidity, gravity, and inert force. 4 From these general and primitive properties flow a number of others, such as density, figure, colour, ponderousity. 5 Thus, relatively to us, matter is all that affects our senses in any manner whatever; 6 the various properties we attribute to matter, by which we discriminate its diversity, are founded on the different impressions we receive on the changes they produce in us.

7 A satisfactory definition of matter has not yet been given. Human, deceived and led astray by its prejudices, 8 formed but vague,

superficial, and imperfect notions concerning it. 9 Human looked upon it as an unique being, gross and passive, incapable of either moving by itself, of forming combinations, or of producing anything by its own energies. 10 Instead of this unintelligible jargon, human ought to have contemplated it as a genus of beings, 11 of which the individuals, although they might possess some common properties, such as extent, divisibility, figure, 12 should not, however, be all ranked in the same class, nor comprised under the same general denomination. 13 An example will serve more fully to explain what we have asserted, throw its correctness into light, and facilitate the application. 14 The properties common to all matter, are extent, divisibility, impenetrability, figure, mobility, or the property of being moved in mass. 15 FIRE, beside these general properties, common to all matter, enjoys also the peculiar property of being put into activity by a motion that produces on our organs of feeling the sensation of heat; 16 and by another, that communicates to our visual organs the sensation of light.

17 Iron, in common with matter in general, has extent and figure; is divisible, and moveable in mass: 18 if fire be combined with it in a certain proportion, the iron acquires two new properties; 19 namely, those of exciting in us similar sensations of heat and light, which were excited by the element of fire, 20 but which the iron had not, before its combination with the igneous matter. 21 These distinguishing properties are inseparable from matter, and the phenomena that result, may, in the strictest sense of the word, be said to result necessarily.

22 If we contemplate a little the paths of Nature-- if, for a time, we trace the beings in this Nature, under the different states through which, by reason of their properties, they are compelled to pass; 23 we shall discover, that it is to motion, and motion only, that is to be ascribed all the changes, all the combinations, all the forms, in short, all the various modifications of matter. 24 That it is by motion everything that exists is

produced, experiences change, expands, and is destroyed. 25 It is motion that alters the aspect of beings; that adds to, or takes away from their properties; which obliges each of them, by a consequence of its nature, after having occupied a certain rank or order, 26 to quit it, to occupy another, and to contribute to the generation, maintenance, and decomposition of other beings, totally different in their bulk, rank, and essence.

27 In what experimental philosophers have styled the THREE ORDERS OF NATURE, 28 that is to say, the mineral, the vegetable, and animal worlds, they have established, by the aid of motion, a transmigration, an exchange, a continual circulation in the particles of matter. 29 Nature has occasion in one place, for those particles which, for a time, She has placed in another. 30 These particles, after having, by particular combinations, constituted beings endued with peculiar essences, 31 with specific properties, with determinate modes of action, dissolve and separate with more or less facility; and combining in a new manner, they form new beings. 32 The attentive observer sees this law execute itself, in a manner more or less prominent, through all the beings by which one is surrounded. 33 Human sees Nature full of ‘erratic germe’, some of which expand themselves, whilst others wait until motion has placed them in their proper situation, 34 in suitable wombs or matrices, in the necessary circumstances, to unfold, to increase, to render them more perceptible by the addition of other substances of matter analogous to their primitive being. 35 In all this we see nothing but the effect of motion, necessarily guided, modified, accelerated or slackened, strengthened or weakened, 36 by reason of the various properties that beings successively acquire and lose; which, every moment, infallibly produces alterations in bodies more or less marked. 37 Indeed, these bodies cannot be, strictly speaking, the same in any two successive moments of their existence; 38 they must, every instant, either acquire or lose: 39 in

short, they are obliged to undergo continual variations in their essences, in their properties, in their energies, in their masses, in their qualities, in their mode of existence.

40 Animals, after they have been expanded in, and brought out of, the wombs that are suitable to the elements of their machine, enlarge, strengthen, acquire new properties, new energies, new faculties; 41 either by deriving nourishment from plants analogous to their being, or by devouring other animals whose substance is suitable to their preservation; 42 that is to say, to repair the continual depredation or loss of some portion of their own substance, that is disengaging itself every instant. 43 These same animals are nourished, preserved, strengthened, and enlarged, by the aid of air, water, earth, and fire. 44 Deprived of air, or of the fluid that surrounds them, that presses on them, that penetrates them, that gives them their elasticity, they presently cease to live. 45 Water, combined with this air, enters into their whole mechanism of which it facilitates the motion. 46 Earth serves them for a basis, by giving solidity to their texture: it is conveyed by air and water, which carry it to those parts of the body with which it can combine. 47 Fire itself, disguised and enveloped under an infinity of forms, continually received into the animal, 48 procures it heat, continues it in life, renders it capable of exercising its functions. 49 The aliments, charged with these various principles, entering into the stomach, re-establish the nervous system, and restore, by their activity, and the elements which compose them, the machine which begins to languish, to be depressed, by the loss it has sustained. 50 Forthwith the animal experiences a change in its whole system; it has more energy, more activity; 51 it feels more courage; displays more gaiety; it acts, it moves, it thinks, after a different manner; all its faculties are exercised with more ease. 52 This igneous matter, so congenial to generation--so restorative in its effect-- so necessary to life, was the JUPITER of the ancients: 53 from all that has

preceded, it is clear, that what are called the elements, or primitive parts of matter, variously combined, are, by the agency of motion, continually united to, and assimilated with, the substance of animals-- 54 that they visibly modify their being-- have an evident influence over their actions, that is to say, upon the motion they undergo, whether visible or concealed.

55 The same elements, which under certain circumstances serve to nourish, to strengthen, to maintain the animal, become, under others, the principles of its weakness, the instruments of its dissolution-- of its death: 56 they work its destruction, whenever they are not in that just proportion which renders them proper to maintain its existence: 57 thus, when water becomes too abundant in the body of the animal, it enervates it, it relaxes the fibres, and impedes the necessary action of the other elements: 58 thus, fire admitted in excess, excites in it disorderly motion destructive of its machine: 59 thus, air, charged with principles not analogous to its mechanism, brings upon its dangerous diseases and contagion. 60 In fine, the aliments modified after certain modes, in the room of nourishing, destroy the animal, and conduce to its ruin: 61 the animal is preserved no longer than these substances are analogous to its system. 62 They ruin it when they want that just equilibrium that renders them suitable to maintain its existence.

63 Plants that serve to nourish and restore animals are themselves nourished by earth; 64 they expand on its bosom, enlarge and strengthen at its expense, continually receiving into their texture, by their roots and their pores, water, air, and igneous matter: 65 water visibly reanimates them whenever their vegetation or genus of life languishes; it conveys to them those analogous principles by which they are enabled to reach perfection: 66 air is requisite to their expansion, and furnishes them with water, earth, and the igneous matter with which it is charged. 67 By these means they receive more or less of the inflammable matter; the different proportions of these principles, their

numerous combinations, 68 from whence result an infinity of properties, a variety of forms, constitute the various families and classes into which botanists have distributed plants: 69 it is thus we see the cedar and the hyssop develop their growth; the one rises to the clouds, the other creep humbly on the earth. 70 Thus, by degrees, from an acorn springs the majestic oak, accumulating, with time, its numerous branches, and overshadowing us with its foliage. 71 Thus, a grain of corn, after having drawn its own nourishment from the juices of the earth, serves, in its turn, for the nourishment of human, 72 into whose system it conveys the elements or principles by which it has been itself expanded, combined, and modified 73 in such a manner, as to render this vegetable proper to assimilate and unite with the human frame; that is to say, with the fluids and solids of which it is composed.

74 The same elements, the same principles, are found in the formation of minerals, as well as in their decomposition, whether natural or artificial. 75 We find that earth, diversely modified, wrought, and combined, serves to increase their bulk, and give them more or less density and gravity. 76 Air and water contribute to make their particles cohere; the igneous matter, or inflammable principle, tinges them with colour, 77 and sometimes plainly indicates its presence, by the brilliant scintillation which motion elicits from them. 78 These stones and metals, these bodies, so compact and solid, are disunited, are destroyed, by the agency of air, water, and fire; 79 which the most ordinary analysis is sufficient to prove, as well as a multitude of experience, to which our eyes are the daily evidence.

80 Animals, plants, and minerals, after a lapse of time, give back to Nature; 81 that is to say, to the general mass of things, to the universal magazine, the elements, or principles, which they have borrowed: 82 The earth retakes that portion of the body of which it formed the basis and the solidity; 83 the air charges itself with these parts,

that are, analogous to it, and with those particles which are light and subtle; 84 water carries off that which is suitable to liquescency; 85 fire, bursting its chains, disengages itself, and rushes into new combinations with other bodies. 86 The elementary particles of the animal, being thus dissolved, disunited, and dispersed; assume new activity, and form new combinations: 87 thus, they serve to nourish, to preserve, or destroy new beings; 88 among others, plants, which arrived at their maturity, nourish and preserve new animals; these in their turn yielding to the same fate as the first.

89 Such is the constant, the invariable course, of Nature; such is the eternal circle of mutation, which all that exists is obliged to describe. 90 It is thus motion generates, preserves for a time, and successively, destroys, one part of the universe by the other; whilst the sum of existence remains eternally the same. 91 Nature, by its combinations, produces suns, which place themselves in the centre of so many systems: 92 she forms planets, which, by their peculiar essence, gravitate and describe their revolutions round these suns: 93 by degrees the motion is changed altogether, and becomes eccentric: 94 perhaps the day may arrive when these wondrous masses will disperse, of which human, in the short space of its existence, can only have a faint and transient glimpse.

95 It is clear, then, that the continual motion inherent in matter, changes and destroys all beings; 96 every instant depriving them of some of their properties, to substitute others: 97 it is motion, which, in thus changing their actual essence, changes also their order, their direction, their tendency, and the laws which regulate their mode of acting and being: 98 from the stone formed in the bowels of the earth, by the intimate combination and close coherence of similar and analogous particles, 99 to the sun, that vast reservoir of igneous particles, which sheds torrents of light over the firmament; 100 from the benumbed oyster, to the thoughtful and active human; we see an uninterrupted progression, a perpetual chain of

motion and combination; 101 from which is produced, beings that only differ from each other by the variety of their elementary matter-- 102 by the numerous combinations of these elements, from whence springs modes of action and existence, diversified to infinity. 103 In generation, in nutrition, in preservation, we see nothing more than matter, variously combined, 104 of which each has its peculiar motion, regulated by fixed and determinate laws, which oblige them to submit to necessary changes. 105 We shall find, in the formation, in the growth, in the instantaneous life, of animals, vegetables, and minerals, nothing but matter; 106 which combining, accumulating, aggregating, and expanding by degrees, forms beings, who are either feeling, living, vegetating, or else destitute of these faculties; 107 which, having existed some time under one particular form, are obliged to contribute by their ruin to the production of other forms.

108 Thus, to speak strictly, nothing in Nature is either born, or dies, according to the common acceptation of those terms. 109 This truth was felt by many of the ancient philosophers. 110 PLATO says, that according to tradition, "the living were born of the dead, the same as the dead did come of the living; and that this is the constant routine of Nature." 111 He adds from himself, "who knows, if to live, be not to die; and if to die, be not to live?" 112 This was the doctrine of PYTHAGORAS, a man of great talent and no less note. 113 EMPEDOCLES asserts, "there is neither birth nor death, for any mortal; but only a combination, and a separation of that which was combined, and that this is what amongst people they call birth, and death." 114 Again he remarks, "those are infants, or short-sighted people, with very contracted understandings, who imagine anything is born, which did not exist before, or that anything can die or perish totally."

LAWS OF MOTION

Paul Henri Thiery (Baron D'Holbach)

29 Human is never surprised at those effects, of which you thinks you knows the cause; 2 you believes you does know the cause, as soon as you sees them act in an uniform and determinate manner, 3 or when the motion excited is simple: the descent of a stone, that falls by its own peculiar weight, is an object of contemplation to the philosopher only; 4 to whom the mode by which the most immediate causes act, 5 and the most simple motion, are no less impenetrable mysteries than the most complex motion, 6 and the manner by which the most complicated causes give impulse. 7 The uninformed are seldom tempted either to examine the effects which are familiar to them, or to recur to first principles. 8 They think they see nothing in the descent of a stone, which ought to elicit their surprise, or become the object of their research: 9 it requires a NEWTON to feel that the descent of heavy bodies is a phenomenon, worthy his whole, his most serious attention; 10 it requires the sagacity of a profound experimental philosopher, to discover the laws by which heavy bodies fall, by which they communicate to others their peculiar motion. 11 In short, the mind that is most practised in philosophical observation, has frequently the chagrin to find, 12 that the most simple and most common effects escape all his researches, and remains inexplicable to him. 13 When any extraordinary, any unusual, effect is produced, to which our eyes have not been accustomed; 14 or when we are ignorant of the energies of the cause, the action of which so forcibly strikes our senses, we are tempted to meditate upon it, and take it into our consideration.

15 The European, accustomed to the use of GUNPOWDER, passes it by, without thinking much of its extraordinary energies; 16 the workman, who labours to manufacture it, finds nothing marvellous in its properties, because he daily handles the matter that forms its composition. 17 The

American, to whom this powder was a stranger, who had never beheld its operation, looked upon it as a divine power, and its energies as supernatural. 18 The uninformed, who are ignorant of the true cause of THUNDER, contemplate it as the instrument of divine vengeance. 19 The experimental philosopher considers it as the effect of the electric matter, which, nevertheless, is itself a cause which he is very far from perfectly understanding. 20 It required the keen, the penetrating mind of a FRANKLIN, to throw light on the nature of this subtle fluid-- 21 to develop the means by which its effects might be rendered harmless-- 22 to turn to useful purposes, a phenomenon that made the ignorant tremble--that filled their minds with terror, their hearts with dismay, as indicating the anger of the gods: 23 impressed with this idea, they prostrated themselves, they sacrificed to JUPITER, to deprecate its wrath.

24 Be this as it may, whenever we see a cause act, we look upon its effect as natural: 25 when this cause becomes familiar to the sight, when we are accustomed to it, we think we understand it, and its effects surprise us no longer. 26 Whenever any unusual effect is perceived, without our discovering the cause, the mind sets to work, becomes uneasy; 27 this uneasiness increases in proportion to its extent: 28 as soon as it is believed to threaten our preservation, we become completely agitated; 29 we seek after the cause with an earnestness proportioned to our alarm; our perplexity augments in a ratio equivalent to the persuasion we are under: 30 how essentially requisite it is, we should become acquainted with the cause that has affected us in so lively a manner. 31 As it frequently happens that our senses can teach us nothing respecting this cause which so deeply interests us-- 32 which we seek with so much ardour, we have recourse to our imagination; this, disturbed with alarm, enervated by fear, becomes a suspicious, a fallacious guide: 33 we create chimeras, fictitious causes, to whom we give the credit, to whom we ascribe the honour of those

phenomena by which we have been so much alarmed. 34 It is to this disposition of the human mind that must be attributed, as will be seen in the sequel, the religious errors of human, 35 who, despairing of the capacity to trace the natural causes of those perplexing phenomena to which human was the witness, 36 and sometimes the victim, created in human's brain (heated with terror) imaginary causes, which have become to human a source of the most extravagant folly.

37 In Nature, however, there can be only natural causes and effects; 38 all motion excited in this Nature, follows constant and necessary laws: the natural operations, 39 to the knowledge of which we are competent, of which we are in a capacity to judge, 40 are of themselves sufficient to enable us to discover those which elude our sight; we can at least judge of them by analogy. 41 If we study Nature with attention, the modes of action which She displays to our senses will teach us not to be disconcerted by those which She refuses to discover. 42 Those causes which are the most remote from their effects, unquestionably act by intermediate causes; by the aid of these, we can frequently trace out the first. 43 If in the chain of these causes we sometimes meet with obstacles that oppose themselves to our research, we ought to endeavour by patience and diligence to overcome them; 44 when it so happens we cannot surmount the difficulties that occur, we still are never justified in concluding the chain to be broken, 45 or that the cause which acts is SUPER-NATURAL. 46 Let us, then, be content with an honest avowal, that Nature contains resources of which we are ignorant; 47 but never let us substitute phantoms, fictions, or imaginary causes, senseless terms, for those causes which escape our research; 48 because, by such means we only confirm ourselves in ignorance, impede our enquiries, and obstinately remain in error.

49 In spite of our ignorance with respect to the meanderings of Nature, 50 for of the essence of being, of their properties, their elements, their

combinations, their proportions, we yet know the simple and general laws, according to which bodies move; 51 we see clearly, that some of these laws, common to all beings, never contradict themselves; 52 although, on some occasions, they appear to vary, we are frequently competent to discover that the cause becoming complex, from combination with other causes, 53 either impedes or prevents its mode of action being such as in its primitive state we had a right to expect. 54 We know that active, igneous matter, applied to gunpowder, must necessarily cause it to explode: 55 whenever this effect does not follow the combination of the igneous matter with the gunpowder-- whenever our senses do not give us evidence of the fact, 56 we are justified in concluding, either that the powder is damp, or that it is united with some other substance that counteracts its explosion. 57 We know that all the actions of human have a tendency to render you happy: 58 whenever, therefore, we see human labouring to injure or destroy oneself, it is just to infer that human is moved by some cause opposed to own natural tendency; 59 that human is deceived by some prejudice; that, for want of experience, human is blind to consequences: that human does not see whither own actions will lead oneself.

60 If the motion excited in beings was always simple; if their actions did not blend and combine with each other, it would be easy to know, and we should be assured, in the first instance, of the effect a cause would produce. 61 I know that a stone, when descending, ought to describe a perpendicular: 62 I also know, that if it encounters any other body which changes its course, it is obliged to take an oblique direction, 63 but if its fall be interrupted by several contrary powers, which act upon it alternately, I am no longer competent to determine what line it will describe. 64 It may be a parabola, an ellipsis, spiral, circular, this will depend on the impulse, it receives, and the powers by which it is impelled.

65 The most complex motion, however, is never more than the result of simple motion combined: 66 therefore as soon as we know the general laws of beings and their action, we have only to decompose, to analyse them, in order to discover those of which they are combined; 67 experience teaches us the effects we are to expect. 68 Thus it is clear, the simplest motion causes that necessary junction of different matter, of which all bodies are composed: 69 that matter, varied in its essence, in its properties, in its combinations, has each its several modes of action or motion, peculiar to itself; 70 the whole motion of a body is consequently the sum total of each particular motion that is combined.

71 Amongst the matter we behold, some is constantly disposed to unite, whilst other is incapable of union; 72 that which is suitable to unite, forms combinations, more or less intimate, possessing more or less durability: 73 that is to say, with more or less capacity to preserve their union, to resist dissolution. 74 Those bodies which are called SOLIDS, receive into their composition a great number of homogeneous, similar, and analogous particles, disposed to unite themselves with energies conspiring or tending to the same point. 75 The primitive beings, or elements of bodies, have need of supports, of props; 76 that is to say, of the presence of each other, for the purpose of preserving themselves; of acquiring consistence or solidity: 77 a truth, which applies with equal uniformity to what is called ‘physical’, as to what is termed ‘moral’.

78 It is upon this disposition in matter and bodies, with relation to each other, that is founded those modes of action 79 which natural philosophers designate by the terms attraction, repulsion, sympathy, antipathy, affinities, relations; 80 that moralists describe under the names of love, hatred, friendship, aversion. 81 Human, like all the beings in Nature, experiences the impulse of attraction and repulsion; 82 the motion excited in human differing from that of other beings, only, because it is more

concealed, and frequently so hidden, that neither the causes which excite it, nor their mode of action are known. 83 This system of attraction and repulsion is very ancient, although it required a NEWTON to develop it. 84 That love, to which the ancients attributed the unfolding, or disentanglement of chaos, appears to have been nothing more than a personification of the principle of attraction. 85 All their allegories and fables upon chaos, evidently indicate nothing more than the accord or union that exists between analogous and homogeneous substances; 86 from whence resulted the existence of the universe: 87 whilst discord or repulsion, which they called SOIS, was the cause of dissolution, confusion, and disorder; 88 there can scarcely remain a doubt, but this was the origin of the doctrines of the TWO PRINCIPLES. 89 According to DIOGENES LAERTIUS, the philosopher, EMPEDOCLES, asserted, that "there is a kind of affection by which the elements unite themselves; 90 and a sort of discord, by which they separate or remove themselves."

91 However it may be, it is sufficient for us to know that by an invariable law, certain bodies are disposed to unite with more or less facility; whilst others cannot combine or unite themselves: 92 water combines itself readily with salt, but will not blend with oil. 93 Some combinations are very strong, cohering with great force, as metals; others are extremely feeble, their cohesion slight and easily decomposed, as in fugitive colours. 94 Some bodies, incapable of uniting by themselves, become susceptible of union by the agency of other bodies, which serve for common bonds or MEDIUMS. 95 Thus, oil and water, naturally heterogeneous, combine and make soap, by the intervention of alkaline salt. 96 From matter diversely combined, in proportions varied almost to infinity, result all physical and moral bodies; 97 the properties and qualities of which are essentially different, with modes of action more or less complex: 98 which are either understood with facility, or difficult of comprehension, according to the elements or matter that has entered

into their composition, and the various modifications this matter has undergone.

99 It is thus, from the reciprocity of their attraction, the primitive imperceptible particles of matter, which constitute bodies, become perceptible, 100 form compound substances, aggregate masses; by the union of similar and analogous matter, whose essences fit them to cohere. 101 The same bodies are dissolved, their union broken, whenever they undergo the action of matter inimical to their junction. 102 Thus by degrees are formed, plants, metals, animals, humans; each grows, expands, and increases in its own system or order; 103 sustaining itself in its respective existence, by the continual attraction of analogous matter; to which it becomes united, and by which it is preserved and strengthened. 104 Thus, certain aliments become fit for the sustenance of human, whilst others destroy human existence: 105 some are pleasant to human, strengthen human habit; others are repugnant to human, weaken its system: 106 in short, never to separate physical from moral laws, it is thus that human, mutually attracted to each other by their reciprocal wants, form those unions which we designate by the terms, MARRIAGE, FAMILIES, SOCIETIES, FRIENDSHIPS, CONNEXIONS: 107 it is thus that virtue strengthens and consolidates them; that vice relaxes or totally dissolves them.

108 Of whatever Nature may be the combination of beings, their motion has always one direction or tendency: 109 without direction we could not have any idea of motion: this direction is regulated by the properties of each being; 110 as soon as they have any given properties, they necessarily act in obedience to them: 111 that is to say, they follow the law invariably determined by these same properties; 112 which, of themselves, constitute the being such as human is found, and settle human's mode of action, which is always the consequence of human's manner of existence. 113 But what is the general direction, or common tendency, we see in all beings? What is the visible and known end of all

their motion? 114 It is to conserve their actual existence-- to preserve themselves-- to strengthen their several bodies-- to attract that which is favourable to them-- to repel that which is injurious them-- 115 to avoid that which can harm them-- to resist impulsions contrary to their manner of existence, and to their natural tendency.

116 To exist, is to experience the motion peculiar to a determinate essence: 117 to conserve this existence, is to give and receive that motion from which results its maintenance:-- 118 it is to attract matter suitable to corroborate its being-- to avoid that by which it may be either endangered or enfeebled. 119 Thus, all beings of which we have any knowledge have a tendency to conserve themselves, each after its peculiar manner: 120 the stone, by the firm adhesion of its particles, opposes resistance to its destruction. 121 Organised beings conserve themselves by more complicated means, but which are, nevertheless, calculated to maintain their existence against that by which it may be injured. 122 Human, both in its physical and in its moral capacity, is a living, feeling, thinking, active being; 123 who, every instant of human duration, strives equally to avoid that which may be injurious, 124 and to procure that which is pleasing to yourself, or that which is suitable to your mode of existence; 125 all human actions tending solely to conserve oneself. ST. AUGUSTINE admits this tendency in all whether organised or not.

126 Conservation, then, is the common point to which all the energies, all the powers, all the faculties of beings, seem continually directed. 127 Natural philosophers call this direction or tendency, SELF-GRAVITATION: NEWTON calls it INERT FORCE: moralists denominate it in human, SELF-LOVE 128 which is nothing more than the tendency human has to preserve oneself-- 129 a desire of happiness--a love of your own welfare-- a wish for pleasure-- a promptitude in seizing on everything that appears favourable to your conservation-- 130 a marked aversion to all that either disturbs your

happiness, or menaces your existence-- 131 primitive sentiments, that are common to all beings of the human species; which all their faculties are continually striving to satisfy; 132 which all their passions, their wills, their actions, have eternally for their object and their end. 133 This self-gravitation, then, is clearly a necessary disposition in human, and in all other beings; 134 which, by a variety means, contribute to the preservation of the existence they have received, 135 as long as nothing deranges the order of their machine, or its primitive tendency.

136 Cause always produces effect; there can be no effect without cause. 137 Impulse is always followed by some motion, more or less sensible; by some change, more or less remarkable in the body which receives it. 138 But motion, and its various modes of displaying itself, is, as has been already shown, determined by the nature, the essence, the properties, the combinations of the beings acting. 139 It must, then, be concluded that motion, or the modes by which beings act, arises from some cause; 140 that as this cause is not able to move or act, but in conformity with the manner of its being or its essential properties, 141 it must equally be concluded, that all the phenomena we perceive are necessary; 142 that every being in Nature, under the circumstances in which it is placed, and with the given properties it possesses, cannot act otherwise than it does.

143 Necessity is the constant and infallible relation of causes with their effects. 144 Fire consumes, of necessity, combustible matter plated within its circuit of action: 145 human, by fatality, desires either that which really is, or appears to be serviceable to own welfare. 146 Nature, in all the extraordinary appearances She exhibits, necessarily acts after Her own peculiar essence: 147 all the beings She contains, necessarily act each after its own a individual nature: 148 it is by motion that the whole has relation with its parts; and these parts with the whole: 149 it is thus that in the general

system everything is connected: 150 it is itself but an immense chain of causes and effects, which flow without ceasing, one from the other. 151 If we reflect, we shall be obliged to acknowledge that everything we see is necessary; 152 that it cannot be otherwise than it is that all the beings we behold, as well as those which escape our sight, act by invariable laws. 153 According to these laws, heavy bodies fall-- light bodies ascend-- analogous substances attract each other-- beings tend to preserve themselves-- human cherishes oneself; 154 loves that which human thinks advantageous--detests that which human has an idea may prove unfavourable to oneself. 155 In fine, we are obliged to admit, there can be no perfectly independent energy-- no separated cause-- no detached action, in a Nature where all the beings are in a reciprocity of action-- 156 who, without interruption, mutually impel and resist each other-- 157 who is Herself nothing more than an eternal circle of motion, given and received according to necessary laws; 158 which under the same given incidents, invariably produce the same effect. 159 Two examples will serve to throw the principle here laid down, into light-- 160 one shall be taken from physics, the other from morals.

161 In a whirlwind of dust, raised by elemental force, confused as it appears to our eyes, in the most frightful tempest excited by contrary winds, when the waves roll high as mountains, 162 there is not a single particle of dust, or drop of water, that has been placed by CHANCE, 163 that has not a cause for occupying the place where it is found; 164 that does not, in the most rigorous sense of the word, act after the manner in which it ought to act; 165 that is, according to its own peculiar essence, and that of the beings from whom it receives this communicated force.

166 A geometrician exactly knew the different energies acting in each case, 167 with the properties of the particles moved, could demonstrate that after the causes given, each particle acted precisely as it ought to act, 168 and that it could not have acted otherwise than it did. 169 In

those terrible convulsions that sometimes agitate political societies, shake their foundations, and frequently produce the overthrow of an empire; 170 there is not a single action, a single word, a single thought, a single will, a single passion in the agents, 171 whether they act as destroyers, or as victims, that is not the necessary result of the causes operating; 172 that does not act, as, of necessity, it must act, from the peculiar essence of the beings who give the impulse, 173 and that of the agents who receive it, according to the situation these agents fill in the moral whirlwind. 174 This could be evidently proved by an understanding capacitated to rate all the action and re-action, of the minds and bodies of those who contributed to the revolution.

175 In fact, if all be connected in Nature, if all motion be produced, the one from the other, notwithstanding their secret communications frequently elude our sight; 176 we ought to feel convinced of this truth, that there is no cause, however minute, however remote, that does not sometimes produce the greatest and most immediate effects on human. 177 It may, perhaps, be in the parched plains of Libya, that are amassed the first elements of a storm or tempest, which, borne by the winds, approach our climate, 178 render our atmosphere dense, and thus operating on the temperament, may influence the passions of a human, 179 whose circumstances shall have capacitated this person to influence many others, who shall decide after own will the fate of many nations.

180 Human, in fact, finds oneself in Nature, and makes a part of it: 181 human acts according to laws, which are appropriate to oneself; 182 you receives in a manner more or less distinct, the action and impulse of the beings who surrounds you; 183 who themselves act after laws that are peculiar to their essence. 184 Thus human is variously modified; but your actions are always the result of your own energy, 185 and that of the beings who act upon yourself, and by whom you are modified. 186 This is what gives such variety to human's

determinations-- what generally produces such contradiction in human's thoughts, human's opinions, human's will, human's actions; 187 in short, in that motion, whether concealed or visible, by which human is agitated. 188 We shall have occasion, in the sequel, to place this truth, at present so much contested, in a clearer light: 189 it will be sufficient for our purpose at present to prove, generally, that everything in Nature is necessary-- 190 that nothing to be found in it can act otherwise than it does. 191 Motion, alternately communicated and received, establishes the connection or relation between the different orders of beings: 192 when they are in the sphere of reciprocal action, attraction approximates them; repulsion dissolves and separates them; 193 the one strengthens and preserves them; the other enfeebles and destroys them. 194 Once combined, they have a tendency to conserve themselves in that mode of existence, by virtue of their inert force; 195 in this they cannot succeed, because they are exposed to the continual influence of all other beings, who perpetually and successively act upon them; 196 their change of form, their dissolution, is requisite to the preservation of Nature Herself: 197 this is the sole end we are able to assign Her-- to which we see Her tend without intermission-- 198 which she follows without interruption, by the destruction and reproduction of all subordinate beings, who are obliged to submit to Her laws-- 199 to concur, by their mode of action, to the maintenance of Her active existence, so essentially requisite to the GREAT WHOLE.

200 It is thus each being is an individual, who, in the great family, performs own necessary portion of the general labour-- 201 who executes the unavoidable task assigned to oneself. 202 All bodies act according to laws, inherent in their peculiar essence, without the capability to swerve, even for a single instant, from those according to which Nature Herself acts. 203 This is the central power, to which all other powers, essences, and energies, are

submitted: 204 She regulates the motions of beings, by the necessity of Her own peculiar essence: 205 She makes them concur by various modes to the general plan: this appears to be nothing more than the life, action, and maintenance of the whole, by the continual change of its parts. 206 This object She obtains, in removing them, one by the other; by that which establishes, and by that which destroys, the relation subsisting between them; 207 by that which gives them, and that which deprives them of, their forms, combinations, proportions, and qualities, 208 according to which they act for a time, after a given mode; these are afterwards taken from them, to make them act after a different manner.

209 It is thus that Nature makes them expand and change, grow and decline, augment and diminish, approximate and remove, forms and destroys them, according as She finds it requisite to maintain the whole; 210 towards the conservation which this Nature is Herself essentially necessitated to have a tendency. 211 This irresistible power, this universal necessity, this general energy, then, is only a consequence of the nature of things; 212 by virtue of which everything acts, without intermission, after constant and immutable laws: 213 these laws not varying more for the whole than for the beings of which it is composed. 214 Nature is an active living whole, to which all its parts necessarily concur; of which, without their own knowledge, they maintain the activity, the life, and the existence. 215 Nature acts and exists necessarily: all that She contains, necessarily conspires to perpetuate Her active existence. 216 This is the decided opinion of PLATO, when he says, "matter and necessity are the same thing; this necessity is the mother of the world." 217 In point of fact, we cannot go beyond this aphorism, MATTER ACTS, BECAUSE IT EXISTS; AND EXISTS, TO ACT.

218 If it be enquired how, or for why, matter exists? We answer, we know not: 219 but reasoning by analogy, of what we do not know by that which we do, we should be of opinion it

exists necessarily, 220 or because it contains within itself a sufficient reason for its existence. 221 In supposing it to be created or produced by a being distinguished from it, or less known than itself, 222 which it may be, for anything we know to the contrary, 223 we must still admit, that this being is necessary, and includes a sufficient reason for own existence. 224 We have not then removed any of the difficulty, we have not thrown a clearer light upon the subject, we have not advanced a single step; 225 we have simply laid aside a being, of which we know some few of the properties, 226but of which we are still extremely ignorant, to have recourse to a power, of which it is utterly impossible we can, as long as we are humans, form any distinct idea; 227 of which, notwithstanding it may be a truth, we cannot, by any means we possess, demonstrate the existence. 228 As, therefore, these must be at best but speculative points of belief, which each individual, by reason of its obscurity, may contemplate with different optics, under various aspects, 229 they surely ought to be left free for each to judge after one's own fashion: 230 the Hindu can have no just cause of enmity against the Christian for their faith: this has no moral right to question the Muslims upon theirs; 231 the numerous sects of each of the various persuasions spread over the face of the earth, ought to make it a creed to look with an eye of complacency on the deviation of the others; 232 and rest upon that great moral axiom, which is strictly conformable to Nature, which contains the whole of human's happiness-- 233 "Do not unto another, that which do you not wish another should do unto you;" 234 for it is evident, according to their own doctrines, out of all the variety of systems, you only can be right.

235 We shall see in the sequel, how much human's imagination labours to form an idea, 236 of the energies of that Nature human has personified, and distinguished from Herself: 237 in short, we shall examine some of the ridiculous and pernicious inventions, 238 which, for want of

understanding Nature, have been imagined to impede Her course, to suspend Her eternal laws, to place obstacles to the necessity of things.

ORDER AND CONFUSION--INTELLIGENCE--CHANCE

Paul Henri Thiery (Baron D'Holbach)

30 The observation of the necessary, regular, and periodical motion in the universe, generated in the mind of human the idea of ORDER; 2 this term, in its original signification, represents nothing more than a mode of considering, 3 a facility of perceiving, together and separately, the different relations of a whole; 4 in which is discovered, by its manner of existing and acting, a certain affinity or conformity with its own. 5 Human, in extending this idea to the universe, carried with you those methods of considering things which are peculiar to yourself: 6 human has consequently supposed there really existed in Nature affinities and relations, which we classed under the name of ORDER; 7 and others which appeared to you not to conform to those, which you have ranked under the term of CONFUSION.

8 It is easy to comprehend, that this idea of order and confusion can have no absolute existence in Nature, where everything is necessary; 9 where the whole follows constant and invariable laws, which oblige each being, in every moment of its duration, to submit to other laws, which flow from its own peculiar mode of existence. 10 Therefore it is in human imagination, only, you finds a model of that which you terms order or confusion; 11 which, like all human abstract, metaphysical ideas, supposes nothing beyond your reach. 12 Order, however, is never more than the faculty of conforming itself with the beings by whom you are environed, or with the whole of which you forms a part.

13 Nevertheless, if the idea of order be applied to Nature, it will be found to be nothing but a series of action or motion, which you judges to conspire to your common end. 14 Thus, in a body that moves, order is the chain of action, the series of

motion, proper to constitute it what it is, and to maintain it in its actual state. 15 Order, relatively to the whole of Nature, is the concatenation of causes and effects, necessary to Her active existence-- to maintaining Her constantly together; 16 but, as it has been proved in the chapter preceding, every individual being is obliged to concur to this end, in the different ranks they occupy; 17 from whence it is a necessary deduction, that what is called the ORDER OF NATURE, can never be more than a certain manner of considering the necessity of things, 18 to which all, of which human has any knowledge, is submitted. 19 That which is styled CONFUSION, is only a relative term, used to designate that series of necessary action, that chain of requisite motion, 20 by which an individual being is necessarily changed or disturbed in its mode of existence-- by which it is instantaneously obliged to alter its manner of action; 21 but no one of these actions, no part of this motion is capable, even for a single instant, of contradicting or deranging the general order of Nature; 22 from which all beings derive their existence, their properties, the motion appropriate to each.

23 What is termed confusion in a being, is nothing more than its passage into a new class, a new mode of existence; 24 which necessarily carries with it a new series of action, a new chain of motion, different from that of which this being found itself susceptible in the preceding rank it occupied. 25 That which is called order, in Nature, is a mode of existence, or a disposition of its particles, strictly necessary. 26 In every other assemblage of causes and effects, of worlds, as well as in that which we inhabit, some sort of arrangement, some kind of order would necessarily be established. 27 Suppose the most incongruous, the most heterogeneous substances were put into activity, and assembled by a concatenation of extraordinary circumstances; 28 they would form amongst themselves, a complete order, a perfect arrangement. 29 This is the true notion of a property, which may be

defined, an aptitude to constitute a being, 30 such as it is actually found, such as it is with respect to the whole of which it makes a part.

31 Order, then, is nothing but necessity, considered relatively to the series of actions, or the connected chain of causes and effects, that it produces in the universe. 32 What is the motion in our planetary system; but a series of phenomena, operated upon according to necessary laws, that regulate the bodies of which it is composed? 33 In conformity to these laws, the sun occupies the centre; the planets gravitate towards it, and revolve round it, in regulated periods: 34 the satellites of these planets gravitate towards those which are in the centre of their sphere of action, and describe round them their periodical route. 35 One of these planets, the earth which human inhabits, turns on its own axis; 36 and by the various aspects which its revolution obliges it to present to the sun, experiences those regular variations which are called SEASONS. 37 By a sequence of the sun's action upon different parts of this globe, all its productions undergo vicissitudes: 38 plants, animals, humans, are in a sort of morbid drowsiness during Winter: in Spring, these beings re-animate, to come as it were out of a long lethargy. 39 In short, the mode in which the earth receives the sun's beams, has an influence on all its productions; 40 these rays, when darted obliquely, do not act in the same manner as when they fall perpendicularly; 41 their periodical absence, caused by the revolution of this sphere on itself, produces night and day. 42 However, in all this, human never witnesses more than necessary effects, flowing from the nature of things, which, whilst that remains the same, can never be opposed with propriety. 43 These effects are owing to gravitation, attraction, centrifugal power, and more.

44 On the other hand, this order, which human admires as a supernatural effect, is sometimes disturbed, or changed into what you calls confusion: 45 this confusion is, however, always a necessary

consequence of the laws of Nature; 46 in which it is requisite to the support of the whole that some of Her parts should be deranged and thrown out of the ordinary course. 47 It is thus, COMETS present themselves so unexpectedly to human's wondering eyes; 48 their eccentric motion disturbs the tranquillity of human's planetary system; 49 they excite the terror of the mis-instructed to whom everything unusual is marvellous. 50 The natural philosopher, himself, conjectures that in former ages, these comets have overthrown the surface of this mundane ball, and caused great revolutions on the earth. 51 Independent of this extraordinary confusion, you are exposed to others more familiar to yourself: 52 sometimes, the seasons appear to have usurped each other's place; to have quitted their regular order: 53 sometimes the opposing elements seem to dispute among themselves the dominion of the world; 54 the sea bursts its limits; the solid earth is shaken and rent asunder; 55 mountains are in a state of conflagration; pestilential diseases destroy both humans and animals; sterility desolates a country: 56 then affrighted human utters piercing cries, offers up own prayers to recall order; 57 tremblingly raises your hands towards the Being you supposes to be the author of all these calamities; 58 nevertheless, the whole of this afflicting confusion are necessary effects, produced by natural causes; 59 which act according to fixed laws, determined by their own peculiar essence, and the universal essence of Nature: 60 in which everything must necessarily be changed, moved, and dissolved; 61 where that which is called ORDER, must sometimes be disturbed and altered into a new mode of existence; 62 which to your deluded mind, to your imagination, led astray by ignorance and want of reflection, appears CONFUSION.

63 There cannot possibly exist what is generally termed a confusion of Nature: 64 human finds order in everything that is conformable to one's own mode of being; confusion in everything by which it is opposed:

65 nevertheless, in Nature, all is in order; because none of Her parts are ever able to emancipate themselves from those invariable rules which flow from their respective essences: 66 there is not, there cannot be confusion in a whole, to the maintenance of which what is called confusion is absolutely requisite; 67 of which the general course can never be discomposed, although individuals may be, and necessarily are; 68 where all the effects produced are the consequence of natural causes, that under the circumstances in which they are placed, act only as they infallibly are obliged to act.

69 It therefore follows, there can be neither monsters nor prodigies; wonders nor miracles in Nature: 70 those which are designated MONSTERS, are certain combinations, with which the eyes of human are not familiarised; but which, therefore, are not less the necessary effects of natural causes. 71 Those which human terms PRODIGIES, WONDERS, or SUPERNATURAL effects, are phenomena of Nature, with whose mode of action you are unacquainted; 72 of which your ignorance does not permit you to ascertain the principles; whose causes you cannot trace; 73 but which your impatience, your heated imagination, aided by a desire to explain, makes you foolishly attribute to imaginary causes; 74 which, like the idea of order, have no existence but in yourself; 75 and which, that you may conceal your own ignorance, that you may obtain more respect with the uninformed, you places beyond Nature, 76 out of which your experience is every instant demonstrably proving that none of these things can have existence.

77 As for those effects which are called MIRACLES, that is to say, contrary to the unalterable laws of Nature, it must be felt such things are impossible; 78 because, nothing can, for an instant, suspend the necessary course of beings, without the whole of Nature was arrested; without She was disturbed in Her tendency. 79 There have neither been wonders nor miracles in Nature; except for those, who have not sufficiently studied the

laws, 80 who consequently do not feel, that those laws can never be contradicted, even in the most minute parts, without the whole being destroyed, 81 or at least without changing Her essence, Her mode of action; that it is the height of folly to recur to supernatural causes to explain the phenomena human beholds, 82 before you becomes fully acquainted with natural causes-- with the powers and capabilities which Nature herself contains. 83 Order and Confusion, then, are only relative terms, by which human designates the state in which particular beings find themselves. 84 It says, a being is in order, when all the motion it undergoes conspires to favour its tendency to its own preservation; 85 when it is conducive to the maintenance of its actual existence: 86 that it is in confusion when the causes which move it disturb the harmony of its existence, 87 or have a tendency to destroy the equilibrium necessary to the conservation of its actual state. 88 Nevertheless, confusion, as we have shown, is nothing but the passage of a being into a new order; 89 the more rapid the progress, the greater the confusion for the being that is submitted to it: 90 that which conducts human to what is called death, is, for human, the greatest of all possible confusion. 91 Yet this death is nothing more than a passage into a new mode of existence: 92 it is the eternal, the invariable, the unconquerable law of Nature, to which the individuals of own order, each in own turn, is obliged to submit.

93 The human body is said to be in order, when its various component parts act in that mode, from which results the conservation of the whole; 94 from which emanates that which is the tendency of your actual existence; 95 in other words, when all the impulse you receives, all the motion you communicates, tends to preserve your health, to render you happy, by promoting the happiness of your fellow humans. 96 You is said to be in health when the fluids and solids of your body concur to render you robust, to keep your mind

in vigour; when each lends mutual aid towards this end. 97 You is said to be in confusion, or in ill health, whenever this tendency is disturbed; 98 when any of the essential parts of your body cease to concur to your preservation, or to fulfil its peculiar functions. 99 This it is that happens in a state of sickness, in which, however, the motion excited in the human machine is as necessary, 100 is regulated by laws as certain, as natural, as invariable, as that which concurs to produce health. 101 Sickness merely produces in him a new order of motion, a new series of action, a new chain of things. 102 Human dies: to human, this appears the greatest confusion you can experience; 103 your body is no longer what it was-- its parts no longer concur to the same end-- the blood has lost its circulation-- the body is deprived of feeling-- your ideas have vanished-- the brain thinks no more-- your desires have fled-- death is the epoch, the cessation of your human existence. 104 Human frame becomes an inanimate mass, by the subtraction of those principles by which it was animated; that is, which made it act after a determinate manner: 105 its tendency has received a new direction; its action is changed; the motion excited in its ruins conspires to a new end. 106 To that motion, the harmony of which you calls order, which produced life, sentiment, thought, passions, health, succeeds a series of motion of another species; 107 that, nevertheless, follows laws as necessary as the first; 108 all the parts of the dead human conspire to produce what is called dissolution, fermentation, putrefaction: 109 these new modes of being, of acting, are just as natural to human, reduced to this state, as sensibility, thought, the periodical motion of the blood, etc, 110 were to the living human: your essence having changed, your mode of action can no longer be the same. 111 To that regulated motion, to that necessary action, which conspired to the production of life, succeeds that determinate motion, that series of action which concurs to produce the dissolution of the dead carcass; 112 the dispersion of its parts; the

formation of new combinations, from which result new beings; and which, as we have before seen, is the immutable order of active Nature.

113 How then can it be too often repeated, that relatively to the great whole, all the motion of beings, all their modes of action, can never be but in order, that is to say, are always conformable to Nature; 114 that in all the stages through which beings are obliged to pass, they invariably act after a mode necessarily subordinate to the universal whole? 115 To say more, each individual being always acts in order; 116 all its actions, the whole system of its motion, are the necessary consequence of its peculiar mode of existence; whether that be momentary or durable. 117 Order, in state-governmental society, is the effect of a necessary series of ideas, of wills, of actions, in those who compose it; 118 whose movements are regulated in a manner, either calculated to maintain its indivisibility, or to hasten its dissolution. 119 Human constituted, or modified, in the manner we term virtuous, acts necessarily in that mode, from whence results the welfare of your associates: 120 the human we stile wicked, acts necessarily in that mode, from whence springs the misery of own fellows: 121 the nature, being essentially different, it must necessarily act after a different mode: its individual order is at variance, but its relative order is complete: 122 it is equally the essence of the one, to promote happiness, as it is of the other to induce misery.

123 Thus, order and confusion in individual beings, is nothing more than the manner of human's considering the natural and necessary effects, which they produce relatively to yourself. 124 Human fears the wicked person; one says that the wicked will carry confusion into society, because they disturbs its tendency and places obstacles to its happiness. 125 Human avoids a falling stone, because it will derange in you the order necessary to your conservation. 126 Nevertheless, order and confusion, are always, as we have shown, consequences, equally

necessary to either the transient or durable state of beings. 127 It is in order that fire burns, because it is of its essence to burn; 128 on the other hand, it is in order, that an intelligent being should remove oneself from whatever can disturb one's mode of existence. 129 A being, whose organisation renders you sensible, must in virtue of your essence, fly from everything that can injure your organs, or that can place your existence in danger.

130 Human calls those beings intelligent, who are organised after your own manner; 131 in whom you sees faculties proper for their preservation; suitable to maintain their existence in the order that is convenient to them; 132 that can enable them to take the necessary measures towards this end, with a consciousness of the motion they undergo. 133 From hence, it will be perceived, that the faculty called intelligence, consists in a possessing capacity to act comformably to a known end, in the being to which it is attributed. 134 Human looks upon these beings as deprived of intelligence, in which you finds no conformity with yourself; 135 in whom you discovers neither the same construction, nor the same faculties: 136 of which you knows neither the essence, the end to which they tend, the energies by which they act, nor the order that is necessary to them. 137 The whole cannot have a distinct name, or end, because there is nothing out of itself, to which it can have a tendency. 138 If it be in yourself, that you arrange the idea of 'order', it is also in yourself that you draws up that of 'intelligence'. 139 Human refuses to ascribe it to those beings, who do not act after one's own manner: you accords it to all those whom you supposes to act like yourself: 140 the latter one calls intelligent agents: the former blind causes; that is to say, intelligent agents who act by chance: 141 thus chance is an empty word without sense, but which is always opposed to that of intelligence, without attaching any determinate, or any certain idea.

142 Human, in fact, attributes to chance all those effects, of which the

connection they have with their causes is not seen. 143 Thus you uses the word chance, to cover your own ignorance of those natural causes, which produce visible effects, by means which you cannot form an idea of; 144 or that act by a mode of which you does not perceive the order; or whose system is not followed by actions conformable to your own. 145 As soon as you sees, or believes you sees, the order of action, or the manner of motion, you attributes this order to an intelligence; 146 which is nothing more than a quality borrowed from yourself-- from your own peculiar mode of action-- from the manner in which you is yourself affected.

147 Thus an intelligent being is one who thinks, who wills, and who acts, to compass an end. 148 If so, you must have organs, an aim conformable to those of human: 149 therefore, to say Nature is governed by an intelligence, is to affirm that She is governed by a being, furnished with organs; 150 seeing that without this organic construction, you can neither have sensations, perceptions, ideas, thought, will, plan, nor action which you understands.

151 Human always makes oneself the center of the universe: it is to yourself that you relates all you beholds. 152 As soon as you believes you discovers a mode of action that has a conformity with your own, or some phenomenon that interests your feelings, you attributes it to a cause that resembles yourself-- 153 that acts after your manner-- that has faculties similar to those you possesses-- whose interests are like your own-- whose projects are in unison with and have the same tendency as those one's yourself indulges: 154 in short, it is from yourself, or the properties which actuate you, that you forms the model of this cause. 155 It is thus that human beholds, out of your own species, nothing but beings who act differently from yourself; 156 yet believes that you remarks in Nature an order similar to your own ideas-- views conformable to those which one's yourself possesses. 157 Human imagines that Nature is governed by a cause whose intelligence is

conformable to your own, 158 to whom you ascribes the honour of the order which you believes you witnesses-- of those views that fall in with those that are peculiar to yourself-- 159 of an aim which quadrates with that which is the great end of all your own actions. 160 It is true that human, feeling your incapability of producing the vast, the multiplied effects of which you witnesses the operation, when contemplating the universe, 161 was under the necessity of making a distinction between yourself and the cause which you supposed to be the author of such stupendous effects; 162 you believed you removed every difficulty, by amplifying in this cause all those faculties of which you was yourself in possession; 163 adding others of which your own self-love made you desirous, or which you thought would render your being more perfect: 164 thus, human gave JUPITER wings, with the faculty of assuming any form you might deem convenient: 165 it was thus, by degrees, you arrived at forming an idea of that intelligent cause, which you has placed above Nature, 166 to preside over action-- to give Her that motion of which you have chosen to believe She was in Herself incapable. 167 Human obstinately persists in regarding this Nature as a heap of dead, inert matter, without form, 168 which has not within itself the power of producing any of those great effects, those regular phenomena, from which emanates what you styles the order of the Universe. 169 ANAXAGORAS is said to have been the first who supposed the universe created and governed by an intelligence: 170 ARISTOTLE reproaches him with having made an automaton of this intelligence; or in other words, with ascribing to it the production of things, only when he was at a loss to account for their appearance. 171 From whence it may be deduced, that it is for want of being acquainted with the powers of Nature, or the properties of matter, that human has multiplied beings without necessity-- 172 that you has supposed the universe under the government of an intelligent cause,

which you is, and perhaps always will be, yourself the model: 173 in fine, this cause has been personified under such a variety of shapes, sexes, and names, that a list of the deities human has at various times supposed to guide this.

174 Nature, or to whom you has submitted Her, makes a large volume that occupies some years of your youthful education to understand. 175 Human only rendered this cause more inconceivable, when you extended in it your own faculties too much. 176 Human either annihilates, or renders it altogether impossible, when you would attach to it incompatible qualities, 177 which you are obliged to do, to enable you to account for the contradictory and disorderly effects you beholds in the world. 178 In fact, you sees confusion in the world; 179 yet, notwithstanding your confusion contradicts the plan, the power, the wisdom, the bounty of this intelligence, and the miraculous order which you ascribes to it; 180 human says, the extreme beautiful arrangement of the whole, obliges you to suppose it to be the work of a sovereign intelligence: 182 unable, however, to reconcile this seeming confusion with the benevolence you attaches to this cause, you had recourse to another effort of your imagination; 183 human made a new cause, to whom you ascribed all the evil, all the misery, resulting from this confusion: 184 still, your own person served for the model; to which you added those deformities which you had learned to hold in disrespect: 185 in multiplying these counter or destroying causes, one peopled Pandemonium.

186 It will no doubt be argued, that as Nature contains and produces intelligent beings, either She must be Herself intelligent, or else She must be governed by an intelligent cause. 187 We reply, intelligence is a faculty peculiar to organised beings, that it is to say, to beings constituted and combined after a determinate manner; 188 from whence results certain modes of action, which are designated under various names; 189 according to the different effects which these beings produce: wine has not the properties called ‘wit’

and ‘courage’; 190 nevertheless, it is sometimes seen that it communicates those qualities to people, who are supposed to be in themselves entirely devoid of them. 191 It cannot be said Nature is intelligent after the manner of any of the beings She contains; 192 but She can produce intelligent beings by assembling matter suitable to their particular organisation, 193 from whose peculiar modes of action will result the faculty called intelligence; 194 who shall be capable of producing certain effects which are the necessary consequence of this property. 195 I therefore repeat, that to have intelligence, designs and views, it is requisite to have ideas; to the production of ideas, organs or senses are necessary: 196 this is what is neither said of Nature nor of the causes human has supposed to preside over Her actions. 197 In short experience warrants the assertion, it does more, it proves beyond a doubt, that matter, which is regarded as inert and dead, assumes sensible action, intelligence, and life, when it is combined and organised after particular modes.

198 From what has been said, it must rationally be concluded that order is never more than the necessary or uniform connection of causes with their effects; 199 or that series of action which flows from the peculiar properties of beings, so long as they remain in a given state; 200 that confusion is nothing more than the change of this state; that in the universe, all is necessarily in order, because everything acts and moves according to the various properties of the different beings it contains; 201 that in Nature there cannot be either confusion or real evil, since everything follows the laws of its natural existence; 202 that there is neither chance nor any thing fortuitous in this Nature, where no effect is produced without a sufficient, without a substantial cause; 203 where all causes act necessarily according to fixed and certain laws, which are themselves dependant on the essential properties of these causes or beings, 204 as well as on the combination, which constitutes either their transitory or permanent state; 205 that intelligence

is a mode of acting, a method of existence natural to some particular beings; 206 that if this intelligence should be attributed to Nature, it would then be nothing more than the faculty of conserving Herself in active existence by necessary means. 207 In refusing to Nature the intelligence human enjoys-- in rejecting the intelligent cause which is supposed to be the contriver of this Nature, or the principle of that order human discovers in Her course, nothing is given to chance, 208 nothing to a blind cause, nothing to a power which is indistinguishable; 209 but everything human beholds is attributed to real, to known causes; or to those which by analogy are easy of comprehension. 210 All that exists is acknowledged to be a consequence of the inherent properties of eternal matter, 211 which by contact, by blending, by combination, by change of form, produces order and confusion; 212 with all those varieties which assail your sight, it is yourself who is blind, when you imagines blind causes:-- 213 human only manifested own ignorance of the powers of motion, of the laws of Nature, when you attributed, any of its effects to 'chance'. 214 Human did not show a more enlightened feeling when you ascribed them to an intelligence, 215 the idea of which you borrowed from yourself, but which is never in conformity with the effects which you attributes to its intervention-- 216 human only imagined words to supply the place of things-- human made JUPITER, SATURN, JUNO, and a thousand others, operate that which you found yourself inadequate to perform; 217 human distinguished them from Nature, gave them an amplification of your own properties, 218 and believed they understood them by thus obscuring ideas, which they never dared either define or analyse.

NATURE

MORAL AND PHYSICAL DISTINCTIONS OF HUMAN-- HUMAN ORIGIN

Paul Henri Thiery (Baron D'Holbach)

31 Let us now apply the general laws we have scrutinised, to those beings of Nature who interest us the most. 2 Let us see in what human differs from the other beings by which you are surrounded. 3 Let us examine if human has not certain points in conformity with them, that oblige human, notwithstanding the different properties they respectively possess, 4 to act in certain respects according to the universal laws to which everything is submitted. 5 Finally, let us enquire if the ideas human has formed of itself in meditating on your own peculiar mode of existence, be chimerical, or founded in reason.

6 Human occupies a place amidst that crowd, that multitude of beings, of which Nature is the assemblage. 7 Human's essence, that is to say, the peculiar manner of existence, by which human is distinguished from other beings, 8 renders you susceptible of various modes of action, of a variety of motion, some of which are simple and visible, others concealed and complicated. 9 Human's life itself is nothing more than a long series, a succession of necessary and connected motion; which operates perpetual changes in your machine; 10 which has for its principle either causes contained within yourself, such as blood, nerves, fibres, flesh, bones; 11 in short, the matter, as well solid as fluid, of which your body is composed-- or those exterior causes, which, by acting upon human, modify you diversely; 12 such as the air with which human is encompassed, the aliments by which you are nourished, 13 and all those objects from which human receives any impulse whatever, by the impression they make on your own senses.

14 Human, like all other beings in Nature, tends to own destruction-- 15 human experiences inert force-- and gravitates upon oneself-- 16 human is attracted by objects that are contrary or repugnant to own existence-- and

seeks after some-- 17 human flies, or endeavours to remove itself from others. 18 It is this variety of action, this diversity of modification of which the human being is susceptible, that has been designated under such different names, by such varied nomenclature. 19 It will be necessary, presently, to examine these closely and go more into detail. 20 However marvellous, however hidden, however secret, however complicated may be the modes of action, which the human frame undergoes, whether interiorly or exteriorly; 21 whatever may be, or appear to be the impulse you either receives or communicates, examined closely, it will be found that all human's motion, all human's operations, all human's changes, all human's various states, all human's revolutions, are constantly regulated by the same laws, 22 which Nature has prescribed to all the beings She brings forth-- which She develops-- which She enriches with faculties-- 23 of which She increases the bulk-- which She conserves for a season-- which She ends by decomposing, by destroying: obliging them to change their form.

24 Human, in one's origin, is an imperceptible point, a speck, of which the parts are without form; of which the mobility, the life, escapes own senses; 25 in short, in which you does not perceive any sign of those qualities, called SENTIMENT, FEELING, THOUGHT, INTELLIGENCE, FORCE, REASON, etc. 26 Placed in the womb suitable to own expansion, this point unfolds, extends, increases, by the continual addition of matter human attracts, 27 that is analogous to human being, which consequently assimilates itself with you. 28 Having quitted this womb, so appropriate to conserve your existence, to unfold your qualities, to strengthen your habits; 29 so competent to give, for a season, consistence to the weak rudiments of human frame; 30 human travels through the stage of infancy; human becomes adult: human's body has then acquired a considerable extension of bulk, 31 human's motion is marked, human's action is visible, human is sensible in all own parts; 32 human is a living, an active mass;

that is to say, a combination that feels and thinks; that fulfils the functions peculiar to beings of own species.

33 But how has human become sensible? 34 Because human has been by degrees nourished, enlarged, repaired by the continual attraction that takes place within yourself, 35 of that kind of matter which is pronounced inert, insensible, inanimate; which is, nevertheless, continually combining itself with human's machine; 36 of which it forms an active whole, that is living, that feels, judges, reasons, wills, deliberates, chooses, elects; 37 that has the capability of labouring, more or less efficaciously, to human's own individual preservation; that is to say, to the maintenance of the harmony of human existence.

38 All the motion and changes that human experiences in the course of one's life, whether it be from exterior objects or from those substances contained within oneself, are either favourable or prejudicial to your existence; 39 either maintain its order, or throw it into confusion; are either in conformity with, or repugnant to, the essential tendency of human's peculiar mode of being. 40 Human is compelled by Nature to approve of some, to disapprove of others; some of necessity render you happy, others contribute to your misery; 41 some become the objects of your most ardent desire, others of your determined aversion: some elicit your confidence, others make you tremble with fear.

42 In all the phenomena human presents, from the moment you quits the womb of your mother, to that wherein you becomes the inhabitant of the silent tomb, you perceives nothing but a succession of necessary causes and effects, 43 which are strictly conformable to those laws that are common to all the beings in Nature. 44 All your modes of action-- all your sensations-- all your ideas-- all your passions-- every act of your will-- every impulse which you either gives or receives, are the necessary consequences of your own peculiar properties, 45 and those which human finds in the various beings by whom you are moved. 46

NATURE

Everything you does-- everything that passes within yourself-- your concealed motion-- your visible action, are the effects of inert force-- of self-gravitation-- 47 the attractive or repulsive powers contained in human's machine-- of the tendency you have, in common with other beings, to your own individual preservation; 48 in short, of that energy which is the common property of every being you beholds. 49 Nature, in human, does nothing more than show, in a decided manner, what belongs to the peculiar nature by which you are distinguished from the beings of a different system or order. 50 The source of those errors into which human has fallen, when you have contemplated yourself, has its rise, as will presently be shown, in the opinion you have entertained, 51 that you moved by yourself-- that you always acts by your own natural energy-- that in your actions, in the will that gave you impulse, you were independent of the general laws of Nature; 52 and of those objects which, frequently, without your knowledge, always in spite of yourself, in obedience to these laws, are continually acting upon yourself. 53 If you had examined yourself attentively, you must have acknowledged, that none of the motion you underwent was spontaneous-- 54 you must have discovered, that even your birth depended on causes, wholly out of the reach of your own powers-- 55 that, it was without your own consent you entered into the system in which you occupies a place-- 56 that, from the moment in which you were born, until that in which you dies, you are continually impelled by causes, 57 which, in spite of yourself, influence your frame, modify your existence, dispose of your conduct. 58 Would not the slightest reflection have sufficed to prove to yourself, that the fluids, the solids, of which your own body is composed, as well as that concealed mechanism, which you believes to be independent of exterior causes, 59 are, in fact, perpetually under the influence of these causes; that without them you finds yourself in a total incapacity to

act? 60 Would you not have seen, that your temperament, your constitution, did in no wise depend on yourself-- 61 that your passions are the necessary consequence of this temperament-- that your will is influenced, your actions determined by these passions; consequently by opinions, which you have not given to yourself, of which you are not the master? 62 Human's blood, more or less heated or abundant; human's nerves more or less braced, human's fibres more or less relaxed, you're your dispositions either transitory or durable-- 63 are not these, at every moment decisive of your ideas; of your thoughts: of your desires: of your fears: of your motion, whether visible or concealed? 64 The state in which you finds yourself, does it not necessarily depend on the air which surrounds you diversely modified; 65 on the various properties of the aliments which nourish yourself; on the secret combinations that form themselves in your machine, which either preserve its order, or throw it into confusion? 66 In short, had human fairly studied itself, everything must have convinced you, that in every moment of your duration, you were nothing more than a passive instrument in the hands of necessity.

67 Thus it must appear, that where all is connected, where all the causes are linked one to the other, where the whole forms but one immense chain, there cannot be any independent, any isolated energy; any detached power. 68 It follows then, that Nature, always in action, marks out to human each point of the line you are bound to describe; establishes the route, by which you must travel. 69 It is Nature that elaborates, that combines the elements of which you must be composed; 70 It is Nature that gives human its being, your tendency, your peculiar mode of action. 71 It is Nature that develops humans, expands yourself, strengthens yourself, increases your bulk-- preserves you for a season, during which you are obliged to fulfil the task imposed on yourself. 72 It is Nature, that in human's journey through life, strews on the road those objects, those events; those

adventures, that modify you in a variety of ways, 73 that give you impulses which are sometimes agreeable and beneficial, at others prejudicial and disagreeable. 74 It is Nature, that in giving human feeling, in supplying human with sentiment, has endowed you with capacity to choose, 75 the means to elect those objects, to take those methods that are most conducive, most suitable, most natural, to your conservation. 76 It is Nature, who when you have run your race, when you have finished your career, when you have described the circle marked out for yourself, conducts you in its turn to your own destruction; 77 dissolves the union of your elementary particles, and obliges you to undergo the constant, the universal law; from the operation of which nothing is exempted. 78 It is thus, motion places human in the matrix of its mother; brings human forth out of Her womb; sustains human for a season; at length destroys human; 79 obliges human to return into the bosom of Nature; who speedily reproduces human, scattered under an infinity of forms; 80 in which each of human's particles run over again, in the same manner, the different stages, as necessary as the whole had before run over those of your preceding existence.

81 The beings of the human species, as well as all other beings, are susceptible of two sorts of motion: 82 the one, that of the mass, by which an entire body, or some of its parts, are visibly transferred from one place to another; the other, internal and concealed, of some of which human is sensible, 83 while some takes place without your knowledge, and is not even to be guessed at, but by the effect it outwardly produces. 84 In a machine so extremely complex as human, formed by the combination of such a multiplicity of matter, 85 so diversified in its properties, so different in its proportions, so varied in its modes of action, the motion necessarily becomes of the most complicated kind; 86 its dullness, as well as its rapidity, frequently escapes the observation of those themselves, in whom it takes place.

87 Let us not, then, be surprised, if, when human would account to oneself for your own existence, for your own manner of acting, 88 finding so many obstacles to encounter, you invented such strange hypotheses to explain the concealed spring of your machine-- 89 if then this motion appeared to yourself, to be different from that of other bodies, you conceived an idea, that you moved and acted in a manner altogether distinct from the other beings in Nature. 90 Human clearly perceived that your own body, as well as different parts of it, did act; but, frequently, you were unable to discover what brought them into action: 91 from whence you received the impulse: you then conjectured it contained within yourself a moving principle distinguished from your machine, which secretly gave an impulse to the springs which set this machine in motion; 92 that moved human by its own natural energy; that consequently human acted according to laws totally distinct from those which regulated the motion of other beings: 93 human was conscious of certain internal motion, which you could not help feeling; 94 but how could you conceive, that this invisible motion was so frequently competent to produce such striking effects? 95 How could you comprehend, that a fugitive idea, an imperceptible act of thought, was so frequently capacitated to bring your whole being into trouble and confusion? 96 Human fell into the belief, that you perceived within yourself a substance distinguished from that self, endowed with a secret force; 97 in which human supposed existed qualities distinctly differing from those, of either the visible causes that acted on your own organs, or those organs themselves. 98 Human did not sufficiently understand, that the primitive cause which makes a stone fall, or your own arm move, are perhaps as difficult of comprehension, 99 as arduous to be explained, as those internal impulses, of which your thought or your will are the effects. 100 Thus, for want of meditating Nature-- of considering Her under Her true point of view--

101 of remarking the conformity-- of noticing the simultaneity, the unity of the motion of this fancied motive-power with that of human body-- of your material organs-- 102 you conjectured you were not only a distinct being, but that you were set apart, with different energies, from all the other beings in Nature; 103 that you was of a more simple essence having nothing in common with anything by which you were surrounded; nothing that connected human with all that you beheld.

104 It is from thence has successively sprung your notions of SPIRITUALITY, IMMATERIALITY, IMMORTALITY; 105 in short, all those vague unmeaning words you have invented by degrees, in order to subtilise and designate the attributes of the unknown power, 106 which you believes you contains within yourself; which you conjectures to be the concealed principle of all your visible actions when human once imbibes an idea that you cannot comprehend, 107 you meditates upon it until you have given it a complete personification:

108 Thus human saw, or fancied human saw, the igneous matter pervade everything; 109 human conjectured that it was the only principle of life and activity; human proceeded to embody it; human gave it its own form; called it JUPITER, 110 and ended by worshipping this image of human's own creation, as the power from whom human derived every good human experienced, every evil human sustained.

111 To crown the bold conjectures human ventured to make on this internal motive-power, human supposed, that different from all other beings, even from the body that served to envelope it, it was not bound to undergo dissolution; 112 that such was its perfect simplicity, that it could not be decomposed, nor even change its form; 113 in short, that it was by its essence exempted from those revolutions to which you saw the body subjected, as well as all the compound beings with which Nature is filled.

114 Thus human, in your own ideas, became double; human looked upon oneself as a whole, composed by the

inconceivable assemblage of two different, two distinct natures, which have no point of analogy between themselves: 115 human distinguished two substances in oneself; you evidently submitted to the influence of gross beings, composed of coarse inert matter: this human called BODY;-- 116 the other, which human supposed to be simple, of a purer essence, was contemplated as acting from itself: 117 giving motion to the body, with which it found itself so miraculously united: this human called SOUL, or SPIRIT; 118 the functions of the One, human denominated physical, corporeal, material; the functions of the other human styled spiritual, intellectual. 119 Human, considered relatively to the first, was termed the PHYSICAL HUMAN; viewed with relation to the last, human was designated the MORAL HUMAN. 120 These distinctions, although adopted by the greater number of the philosophers of the present day, are, nevertheless, only founded on gratuitous suppositions. 121 Human has always believed you remedied your ignorance of things, by inventing words to which you could never attach any true sense or meaning. 122 Human imagined one understood matter, its properties, its faculties, its resources, its different combinations, because you had a superficial glimpse of some of its qualities: 123 human has, however, in reality, done nothing more than obscure the faint ideas you have been capacitated to form of this matter, by associating it with a substance much less intelligible than itself. 124 It is thus, speculative human, in forming words, in multiplying beings, has only plunged you into greater difficulties than those you endeavoured to avoid; 125 and thereby placed obstacles to the progress of your own knowledge: whenever you have been deficient of facts, you have had recourse to conjecture, which you quickly changed into fancied realities. 126 Thus, your imagination, no longer guided by experience, hurried on by your new ideas, was lost, without hope of return, in the labyrinth of an ideal, of an intellectual world, to which you had yourself given birth;

127 it was next to impossible to withdraw human from this delusion, to place human in the right road, of which nothing but experience can furnish you the clue. 128 Nature points out to human, that in you, as well as in all those objects which act upon human, there is never more than matter endowed with various properties, diversely modified, that acts by reason of these properties: 129 that human is an organised whole, composed of a variety of matter; 130 that like all the other productions of Nature, human follows general and known laws, as well as those laws or modes of action which are peculiar to yourself and unknown.

131 Thus, when it shall be inquired, what is human? 132 We say, human is a material being, organised after a peculiar manner conformed to a certain mode of thinking-- of feeling; 133 capable of modification in certain modes peculiar to oneself-- to one's organisation-- to that particular combination of matter which is found assembled in yourself.

134 If, again, it be asked, what origin we give to beings of the human species? 135 We reply, that, like all other beings, human is a production of Nature, who resembles them in some respects, and finds yourself submitted to the same laws; 136 who differs from them in other respects, and follows particular laws, determined by the diversity of your conformation.

137 If, then, it be demanded, whence came human? 138 We answer, our experience on this head does not capacitate us to resolve the question: but that it cannot interest us, as it suffices for us to know that human exists; 139 that human is so constituted, as to be competent to the effects we witness.

140 But it will be urged, has human always existed? 141 Has the human species existed from all eternity; or is it only an instantaneous production of Nature? 142 Have there been always human like ourselves? Will there always be such? 143 Have there been, in all times, males and females? Was there a first human, from whom all others are descended?

144 Was the animal anterior to the egg, or did the egg precede the animal? 145 Is this species without beginning? Will it also be without end? 146 The species itself, is it indestructible, or does it pass away like its individuals? 147 Has human always been what human now is; or has human, before human arrived at the state in which we see human, been obliged to pass under an infinity of successive developments? 148 Can human at last flatter itself with having arrived at a fixed being, or must the human species again change? 149 If human is the production of Nature, it will perhaps be asked, Is this Nature competent to the production of new beings, to make the old species disappear?

150 Adopting this supposition, it may be inquired, why Nature does not produce under our own eyes new beings-- new species? 151 It would appear on reviewing these questions, to be perfectly indifferent, as to the stability of the argument we have used, which side was taken; 152 that, for want of experience, hypothesis must settle a curiosity that always endeavours to spring forward beyond the boundaries prescribed to our mind. 153 This granted, the contemplators of Nature will say, that they sees no contradiction, in supposing the human species, such as it is at the present day, was either produced in the course of time, or from all eternity: 154 they will not perceive any advantage that can arise from supposing that it has arrived by different stages, 155 or successive developments, to that state in which it is actually found. 156 Matter is eternal, it is necessary, but its forms are evanescent and contingent.

157 It may be asked of human, is human anything more than matter combined, of which the former varies every instant? 158 Notwithstanding, some reflections seem to favour the supposition, to render more probable the hypothesis, that human is a production formed in the course of time; 159 who is peculiar to the globe human inhabits, who is the result of the peculiar laws by which it is directed; 160 who, consequently, can only date own formation as coeval with that of own

planet. 161 Existence is essential to the universe, or the total assemblage of matter essentially varied that presents itself to our contemplation; 162 the combinations, the forms, however, are not essential. 163 This granted, although the matter of which the earth is composed has always existed, this earth may not always have had its present form--its actual properties; 164 perhaps it may be a mass detached in the course of time from some other celestial body;-- 165 perhaps it is the result of the spots, or those encrustations which astronomers discover in the sun's disk, which have had the faculty to diffuse themselves over our planetary system;-- 166 perhaps the sphere we inhabit may be an extinguished or a displaced comet, which heretofore occupied some other place in the regions of space;-- 167 which, consequently, was then competent to produce beings very different from those we now behold spread over its surface; 168 seeing that its then position, its nature, must have rendered its productions different from those which at this day it offers to our view.

169 Whatever may be the supposition adopted, plants, animals, humans, can only be regarded as productions inherent in and natural to our globe, 170 in the position and in the circumstances in which it is actually found: 171 these productions it would be reasonable to infer would be changed, if this globe by any revolution should happen to shift its situation. 172 What appears to strengthen this hypothesis, is, that on our ball itself, all the productions vary, by reason of its different climates: 173 humans, animals, vegetables, minerals, are not the same on every part of it: they vary sometimes in a very sensible manner, at very inconsiderable distances.

174 The elephant is indigenous to, or native of the torrid zone: the rein deer is peculiar to the frozen climates of the North; 175 Indostan is the womb that matures the diamond; we do not find it produced in some countries: 176 the pine-apple grows in the common atmosphere of America; in some climate it is never

produced in the open ground, never until art has furnished a sun analogous to that which it requires-- 177 the Europeans in their own climate finds not this delicious fruit. 178 Human in different climates varies in own skin colour, in own size, in own conformation, in own human-powers, in own industry, in own courage, and in the faculties of own mind. 179 But, what is it that constitutes climate? 180 It is the different position of parts of the same globe, relatively to the sun; positions that suffice to make a sensible variety in its productions.

181 There is, then, sufficient foundation to conjecture that if by any accident our globe should become displaced, all its productions would of necessity be changed; 182 seeing that causes being no longer the same, or no longer acting after the same manner, the effects would necessarily no longer be what they now are, 183 all productions, that they may be able to conserve themselves, or maintain their actual existence, have occasion to co-order themselves with the whole from which they have emanated. 184 Without this they would no longer be in a capacity to subsist: 185 it is this faculty of co-ordering themselves,-- this relative adaption, which is called the ORDER OF THE UNIVERSE: the want of it is called CONFUSION.

186 Those productions which are treated as MONSTROUS, are such as are unable to co-order themselves with the general or particular laws of the beings who surround them, 187 or with the whole in which they find themselves placed: they have had the faculty in their formation to accommodate themselves to these laws; 188 but these very laws are opposed to their perfection: for this reason they are unable to subsist. 189 It is thus that by a certain analogy of conformation, which exists between animals of different species, mules are easily produced; 190 but these mules, unable to co-order themselves with the beings that surround them, are not able to reach perfection, consequently cannot propagate their species. 191 Human can live only in air, fish only in water: put the human into the water, the fish into the air,

not being able to co-order themselves with the fluids which surround them, these animals will quickly be destroyed. 192 Transport by imagination, a human from our planet into SATURN, human lungs will presently be rent by an atmosphere too rarified for own mode of being, 193 human members will be frozen with the intensity of the cold; human will perish for want of finding elements analogous to own actual existence: 194 transport another into MERCURY, the excess of heat, beyond what own mode of existence can bear, will quickly destroy it.

195 Thus, everything seems to authorise the conjecture, that the human species is a production peculiar to our sphere, in the position in which it is found: 196 that when this position may happen to change, the human species will, of consequence, either be changed or will be obliged to disappear; 197 seeing that there would not then be that with which human could co-order itself with the whole, or connect itself with that which can enable it to subsist. 198 It is this aptitude in human to co-order itself with the whole, that not only furnishes human with the idea of order, but also makes human exclaim "whatever is, is right;" 199 whilst everything is only that which it can be, as long as the whole is necessarily what it is; whilst it is positively neither good nor bad, as we understand those terms: 200 it is only requisite to displace a human, to make human accuse the universe of confusion. 201 These reflections would appear to contradict the ideas of those, who are willing to conjecture that the other planets, like our own, are inhabited by beings resembling ourselves. 202 But if the LAPLANDER differs in so marked a manner from the HOTTENTOT, 203 what difference ought we not rationally to suppose between an inhabitant of our planet and one of SATURN or of VENUS?

204 However it may be, if we are obliged to recur by imagination to the origin of things, to the infancy of the human species, 205 we may say that it is probable that human was a necessary consequence of the

disentangling of our globe; 206 or one of the results of the qualities, of the properties, of the energies, of which it is susceptible in its present position-- 207 that human was born male and female-- that human's existence is co-ordinate with that of the globe, under its present position-- 208 that as long as this co-ordination shall subsist, the human species will conserve itself, will propagate itself, 209 according to the impulse, after the primitive laws, which human has originally received-- 210 that if this co-ordination should happen to cease; if the earth, displaced, should cease to receive the same impulse, the same influence, on the part of those causes which actually act upon it, or which give it energy; 211 that then the human species would change, to make place for new beings, 212 suitable to co-order themselves with the state that should succeed to that which we now see subsist. 213 In thus supposing the changes in the position of our globe, the primitive human did, perhaps, differ more from the modern human, than the quadruped differs from the insect. 214 Thus human, the same as everything else that exists on our planet, as well as in all the others, may be regarded as in a state of continual vicissitude: 215 thus the last term of the existence of human is to us as unknown and as indistinct as the first: 216 there is, therefore, no contradiction in the belief that the species vary incessantly-- 217 that to us it is as impossible to know what you will become, as to know what you have been.

218 With respect to those who may ask why Nature does not produce new beings? 219 We may enquire of them in turn, upon what foundation they suppose this fact? What it is that authorises them to believe this sterility in Nature? 220 Know that if, in the various combinations which She is every instant forming, Nature be not occupied in producing new beings, without the cognisance of these observers? 221 Who has informed them that this Nature is not actually assembling, 222 in Her immense elaboratory, the elements suitable to bring to light, generations entirely new, that will have nothing

in common with those of the species at present existing? 223 What absurdity then, or what want of just inference would there be, to imagine that the human, the horse, the fish, the bird, will be no more? 224 Are these animals so indispensably requisite to Nature, that without them She cannot continue her eternal course? 225 Does not all change around us? Do we not ourselves change? 226 Is it not evident that the whole universe has not been, in its anterior eternal duration, rigorously the same that it now is? 227 That it is impossible, in its posterior eternal duration, it can be rigidly in the same state that it now is for a single instant? 228 How, then, pretend to define that, to which the infinite succession of destruction, of reproduction, of combination, of dissolution, of metamorphosis, of change, of transposition, may be able eventually to conduct it by their consequence? 229 Suns encrust themselves, and are extinguished; planets perish and disperse themselves in the vast plains of air; 230 other suns are kindled, and illumine their systems; new planets form themselves, either to make revolutions round these suns, or to describe new routes; 231 and human, an infinitely small portion of the globe, which is itself but an imperceptible point in the immensity of space, vainly believes it is for itself this universe is made; 232 foolishly imagines human ought to be the confident of Nature; confidently flatters itself human is eternal: and calls itself KING OF THE UNIVERSE!!!

233 O human! wilt thou never conceive, that thou art but an ephemeron? 234 All changes in the great macrocosm: nothing remains the same an instant, in the planet thou inhabitest: 235 Nature contains no one constant form, yet thou pretendest thy species can never disappear; 236 that thou shalt be exempted from the universal law, that wills all shall experience change! 237 Alas! In thy actual being, art not thou submitted to continual alterations? 238 Thou, who in thy folly, arrogantly assumest to thyself the title of KING OF NATURE! 239 Thou,

who measurest the earth and the heavens!

240 Thou, who in thy vanity imaginest, that the whole was made, because thou art intelligent! 241 There requires but a very slight accident, a single atom to be displaced, to make thee perish; 242 to degrade thee; to ravish from thee this intelligence of which thou appearest so proud.

243 If all the preceding conjectures be refused by those opposed to us; 244 if it be pretended that Nature acts by a certain quantum of immutable and general laws; 245 if it be believed that humans, quadrupeds, fish, insects, plants, are from all eternity, and will remain eternally, what they now are: 246 if I say it be contended, that from all eternity the stars have shone, in the immense regions of space, have illuminated the firmament; 247 if it be insisted, we must no more demand why human is such as human appears, 248 then ask why Nature is such as we behold Her, or why the world exists?

249 We are no longer opposed to such arguments. 250 Whatever may be the system adopted, it will perhaps reply equally well to the difficulties with which our opponents endeavour to embarrass the way: 251 examined closely, it will be perceived they make nothing against those truths, which we have gathered from experience. 252 It is not given to human to know everything-- it is not given human to know own origin-- it is not given human to penetrate into the essence of things, nor to recur to first principles-- 253 but it is given human, to have reason, to have honesty, to ingenuously allow you are ignorant of that which you cannot know, 254 and not to substitute unintelligible words, absurd suppositions, for own uncertainty. 255 Thus, we say to those, who to solve difficulties far above their reach, pretend that the human species descended from a first man and a first woman, created diversely according to different creeds;-- 256 that we have some ideas of Nature, but that we have none of creation;-- 257 that the human mind is incapable of comprehending the period when all was nothing;-- 258 that to use

words we cannot understand, is only in other terms to acknowledge our ignorance of the powers of Nature;-- 259 that we are unable to fathom the means by which She has been capacitated to produce the phenomena we behold.

260 Let us then conclude, that human has no just, no solid reason to believe itself a privileged being in Nature; 261 because human is subject to the same vicissitudes, as all Her other productions. 262 Human pretended prerogatives have their foundation in error, arising from mistaken opinions concerning own existence. 263 Let human but elevate itself by own thoughts above the globe human inhabits, human will look upon one's own species with the same eyes it does all other beings in Nature: 264 Human will then clearly perceive that in the same manner that each tree produces its fruit, by reason of its energies, 265 in consequence of its species: so each human acts by reason of one's own particular energy; 266 that human produces fruit, actions, works, equally necessary: 267 human will feel that the illusion which human anticipates in favour of itself, arises from own being, at one and the same time, a spectator and a part of the universe. 268 Human will acknowledge, that the idea of excellence which human attaches to your being, has no other foundation than your own peculiar interest; than the predilection you have in favour of yourself-- 269 that the doctrine human has broached with such seeming confidence, bottoms itself on a very suspicious foundation, namely IGNORANCE and SELF-LOVE.

THE SOUL
AND THE SPIRITUAL SYSTEM
Paul Henri Thiery (Baron D'Holbach)

32 Human, after having gratuitously supposed yourself composed of two distinct independent substances, that have no common properties, relatively with each other; 2 has pretended, as we have seen, that that which actuated human interiorly, 3 that motion which is invisible, that impulse

which is placed within yourself, is essentially different from those which act exteriorly. 4 The first human designated, as we have already said, by the name of a SPIRIT or a SOUL.

5 If however it be asked, what is a spirit? 6 The moderns will reply, that the whole fruit of their metaphysical researches is limited to learning that this motive-power, which they state to be the spring of human's action, is a substance of an unknown nature; 7 so simple, so indivisible, so deprived of extent, so invisible, so impossible to be discovered by the senses, 8 that its parts cannot be separated, even by abstraction or thought. 9 The question then arises, how can we conceive such a substance, which is only the negation of everything of which we have a knowledge? 10 How form to ourselves an idea of a substance, void of extent, yet acting on our senses; 11 that is to say, on those organs which are material, which have extent? 12 How can a being without extent be moveable; how put matter in action? 13 How can a substance devoid of parts, correspond successively with different parts of space? 14 But a very cogent question presents itself on this occasion: if this distinct substance that is said to form you of the component parts of human, be really what it is reported, and if it be not, it is not what it is described; 15 if it be unknown, if it be not pervious to the senses; if it be invisible, by what means did the metaphysicians themselves become acquainted with it? 16 How did they form ideas of a substance, that taking their own account of it, is not, under any of its circumstances, either directly or by analogy, cognisable to the mind of human? 17 If they could positively achieve this, there would no longer be any mystery in Nature: 18 it would be as easy to conceive the time when all was nothing, when all shall have passed away, to account for the production of everything we behold, as to dig in a garden or read a lecture. 19 Doubt would vanish from the human species; there could no longer be any difference of opinion, since all must necessarily be of your

mind on a subject so accessible to every enquirer.

20 But it will be replied, the materialists themselves admits, the natural philosophers of all ages have admitted, elements and atoms, beings simple and indivisible, of which bodies are composed:--granted; they have no more: 21 they have also admitted that many of these atoms, many of these elements, if not all, are unknown to them: 22 nevertheless, these simple beings, these atoms of the materialists, are not the same thing with the spirit, or the soul of the metaphysician. 23 When the natural philosophers talks of atoms-- when they describes them as simple beings, they indicates nothing more than that they are homogeneous, pure, without mixture: 24 but then they allows that they have extent, consequently parts, are separable by thought, although no other natural agent with which they are acquainted is capable of dividing them: 25 that the simple beings of this genus are susceptible of motion-- can impart action-- receive impulse-- are material-- are placed in Nature-- are indestructible;-- 26 that consequently, if they cannot know them from themselves, they can form some idea of them by analogy: 27 thus they has done that intelligibly, which the metaphysician would do unintelligibly: 28 the latter, with a view to render human immortal, finding difficulties to your own wish, from seeing that the body decayed-- 29 that it has submitted to the great, the universal law-- has, to solve the difficulty, to remove the impediment, given human a soul, distinct from the body, which they says is exempted from the action of the general law: 30 to account for this, they has called it a spiritual being, whose properties are the negation of all known properties, consequently inconceivable: 31 had they, however, had recourse to the atoms of the former-- had they made this substance the last possible term of the division of matter-- it would at least have been intelligible; 32 it would also have been immortal, since, according to the reasonings of all human, whether metaphysicians, theologians, or natural philosophers,

an atom is an indestructible element, that must exist to all eternity.

33 All people are agreed in this position, that motion is the successive change of the relations of your body with other bodies, or with the different parts of space. 34 If that which is called spirit be susceptible of communicating or receiving motion-- if it acts --if it gives play to the organs of body-- to produce these effects, 35 it necessarily follows that this being changes successively its relation, its tendency, its correspondence, the position of its parts, 36 either relatively to the different points of space, or to the different organs of the body which it puts in action: 37 but to change its relation with space, with the organs to which it gives impulse, it follows of necessity that this spirit must have extent, solidity, consequently distinct parts: 38 whenever a substance possesses these qualities, it is what we call MATTER, 39 it can no longer be regarded as a simple pure being, in the sense attached to it by the moderns, or by theologians.

40 Thus it will be seen, that those who, to conquer insurmountable difficulties, have supposed in human an immaterial substance, distinguished from human body, have not thoroughly understood themselves; 41 indeed they have done nothing more than imagined a negative quality, of which they cannot have any correct idea: 42 matter alone is capable of acting on our senses; without this action nothing would be capable of making itself known to us. 43 They have not seen that a being without extent is neither in a capacity to move itself, nor has the capability of communicating motion to the body; 44 since such a being, having no parts, has not the faculty of changing its relation, or its distance, relatively to other bodies, 45 nor of exciting motion in the human body, which is itself material. 46 That which is called our soul moves itself with us; now motion is a property of matter-- this soul gives impulse to the arm; 47 the arm, moved by it, makes an impression, a blow, that follows the general law of motion: 48 in this

case, the force remaining the same, if the mass was two-fold, the blow should be double. 49 This soul again evinces its materiality in the invincible obstacles it encounters on the part of the body. 50 If the arm be moved by its impulse when nothing opposes it, yet this arm can no longer move, when it is charged with a weight beyond its strength. 51 Here then is a mass of matter that annihilates the impulse given by a spiritual cause, 52 which spiritual cause having no analogy with matter, ought not to find more difficulty in moving the whole world, than in moving a single atom, nor an atom, than the universe. 53 From this, it is fair to conclude, such a substance is a chimera-- a being of the imagination. 54 That it required a being differently endowed, differently constituted, to set matter in motion-- to create all the phenomena we behold: 55 nevertheless, it is a being the metaphysicians have made the contriver, the Author of Nature.

56 As human, in all own speculations, takes yourself for the model, you no sooner imagined a spirit within yourself, than giving it extent, human made it universal; 57 then ascribed to it all those causes with which your ignorance prevents you from becoming acquainted, 58 thus you identified human with the Author of Nature-- then availed yourself of the supposition to explain the connection of the soul with the body: 59 your self-complacency prevented you perceiving that you was only enlarging the circle of your own errors, 60 by pretending to understand that which it is more than possible you will never be permitted to know; 61 your self-love prevented you from feeling, that whenever you punished another for not thinking as you did, that you committed the greatest injustice, 62 unless you were satisfactorily able to prove that other wrong, and yourself right: 63 that if you were obliged to have recourse to hypothesis-- to gratuitous suppositions, whereon to found your doctrine, that from the very fallibility of your nature, these might be erroneous: 64 thus GALLILEO was persecuted, because the

metaphysicians, the theologians of his day, chose to make others believe what it was evident they did not themselves understand.

65 As soon as I feel an impulse, or experience motion, I am under the necessity to acknowledge extent, solidity, density, impenetrability in the substance I see move, or from which I receive impulse: 66 thus, when action is attributed to any cause whatever, I am obliged to consider it MATERIAL. 67 I may be ignorant of its individual nature, of its mode of action, or of its generic properties; but I cannot deceive myself in general properties, which are common to all matter: 68 this ignorance will only be increased, when I shall take that for granted of a being, of which from that moment I am precluded by what I admit from forming any idea, 69 which moreover deprives it completely either of the faculty of moving itself, giving an impulse, or acting. 70 Thus, according to the received idea of the term, a spiritual substance that moves itself, that gives motion to matter, and that acts, implies a contradiction, that necessarily infers a total impossibility.

71 The partisans of spirituality believe they answer the difficulties they have accumulated, by asserting that "the soul is entire-- is whole under each point of its extent." 72 If an absurd answer will solve difficulties, they certainly have done it. But let us examine this reply:-- 73 it will be found that this indivisible part which is called soul, however insensible or however minute, must yet remain something: 74 then an infinity of unextended substances, or the same substance having no dimensions, repeated an infinity of times, would constitute a substance that has extent: 75 this cannot be what they mean, because according to this principle, the human soul would then be as infinite as the Author of Nature; 76 seeing that they have stated this to be a being without extent, who is an infinity of times whole in each part of the universe.

77 But when there shall appear as much solidity in the answer as there is a want of it, it must be acknowledged that in whatever

manner the spirit or the soul finds itself in its extent, 78 when the body moves forward the soul does not remain behind; if so, it has a quality in common with the body, peculiar to matter; since it is conveyed from place to place jointly with the body. 79 Thus, when even the soul should be admitted to be immaterial, what conclusion must be drawn? 80 Entirely submitted to the motion of the body, without this body it would remain dead and inert.

81 This soul would only be part of a two-fold machine, necessarily impelled forward by a concatenation, or connection with the whole. 82 It would resemble a bird, which a child conducts at its pleasure, by the string with which it is bound. 83 Thus, it is for want of consulting experience, by not attending to reason, that human has darkened own ideas upon the concealed principle of own motion. 84 If, disentangled from prejudice--if, destitute of gratuitous suppositions--if, throwing aside error, you would contemplate your own soul, or the moving principle that acts within yourself, 85 you would be convinced that it forms a part of its body, that it cannot be distinguished from it, but by abstraction; 86 that it is only the body itself, considered relatively with some of its functions, or with those faculties of which its nature, or its peculiar organisation, renders it susceptible:-- 87 human will perceive that this soul is obliged to undergo the same changes as the body; 88 that it is born with it; that it expands itself with it; that like the body, it passes through a state of infancy, a period of weakness, a season of inexperience; 89 that it enlarges itself, that it strengthens itself, in the same progression; that like the body, it arrives at an adult age or reaches maturity; 90 that it is then, and not till then, it obtains the faculty of fulfilling certain functions; that it is in this stage, and in no other, that it enjoys reason; 91 that it displays more or less wit, judgment, and humanly activity; that like the body, it is subject to those vicissitudes which exterior causes obliges it to undergo by their influence; 92 that, conjointly with the body, it suffers,

enjoys, partakes of its pleasures, shares its pains, is sound when the body is healthy, and diseased when the body is oppressed with sickness; 93 that like the body, it is continually modified by the different degrees of density in the atmosphere; by the variety of the seasons, and by the various properties of the aliments received into the stomach: 94 in short, human would be obliged to acknowledge that at some periods it manifests visible signs of torpor, stupefaction, decrepitude, and death.

95 In despite of this analogy, or rather this continual identity, of the soul with the body, human has been desirous of distinguishing their essence; 96 human has therefore made the soul an inconceivable being: 97 but in order that human might form to oneself some idea of it, you was, notwithstanding, obliged to have recourse to material beings, and to their manner of acting. 98 The word spirit, therefore, presents to the mind no other ideas than those of breathing, of respiration, of wind.

99 Thus, when it is said the soul is a spirit, it really means nothing more than that its mode of action is like that of breathing: 100 which though invisible in itself, or acting without being seen, nevertheless produces very visible effects. 101 But breath, it is acknowledged, is a material cause; it is allowed to be air modified; it is not, therefore, a simple or pure substance, such as the moderns designate under the name of SPIRIT.

102 It is rather singular that in the Hebrew, the Greek, and the Latin, the synonymy, or corresponding term for spirit should signify breath. 103 The metaphysicians themselves can best say why they have adopted such a word, to designate the substance they have distinguished from matter: 104 some of them, fearful they should not have distinct beings enough, have gone farther, and compounded human of three substances, BODY, SOUL, and INTELLECT.

105 Although the word spirit is so very ancient among people, the sense attached to it by the moderns is quite new: 106 the idea of spirituality, as admitted at this day, is a recent production of the imagination. 107 Neither PYTHAGORAS nor PLATO,

however heated their brain, however decided their taste for the marvellous, appear to have understood by spirit an immaterial substance, 108 or one without extent, devoid of parts; such as that of which the moderns have formed the human soul, the concealed author of motion. 109 The ancients, by the word spirit, were desirous to define matter of an extreme subtilty, of a purer quality than that which acted grossly on our senses. 110 In consequence, some have regarded the soul as an ethereal substance; others as igneous matter; others again have compared it to light. 111 DEMOCRITUS made it consist in motion, consequently gave it a manner of existence. 112 ARISTOXENES, who was himself a musician, made it harmony. 113 ARISTOTLE regarded the soul as the moving faculty, upon which depended the motion of living bodies.

114 The earliest doctors of Christianity had no other idea of the soul, than that it was material. 115 TERTULLIAN, ARNOBIUS, CLEMENT of ALEXANDRIA, ORIGEN, SAINT JUSTIN, IRENAEUS, have all of them discoursed upon it; but have never spoken of it other than as a corporeal substance-- as matter.

116 It was reserved for their successors at a great distance of time, to make the human soul and the soul of the world pure spirits; 117 that is to say, immaterial substances, of which it is impossible they could form any accurate idea: 118 by degrees this incomprehensible doctrine of spirituality, conformable without doubt to the views of those who make it a principle to annihilate reason, prevailed over the others: 119 But it might be fairly asked, if the pretended proofs of this doctrine owe themselves to a human, who on a much more comprehensible point has been proved in error; 120 if, on that which time has shown was accessible to human's reason, the great champion in support of this dogma was deceived; 121 are we not bound to examine, with the most rigorous investigation, the reasonings, the evidence, of one who was the decided, the proven child of enthusiasm and error? 122 Yet

DESCARTES, to whose sublime errors the world is indebted for the Newtonian system, although before him the soul had been considered spiritual, 123 was the first who established that, "that which thinks ought to be distinguished from matter;" 124 from whence he concludes rather hastily, that the soul, or that which thinks in human, is a spirit; or a simple indivisible substance. 125 Perhaps it would have been more logical, more consistent with reason, to have said, since human, who is matter, who has no idea but of matter, enjoys the faculty of thought, matter can think; 126 that is, it is susceptible of that particular modification called thought.

127 However this may be, this doctrine was believed divine, supernatural, because it was inconceivable to human. 128 Those who dared believe even that which was believed before; namely, that the soul was material, were held as rash inconsiderate mad-people, 129 or else treated as enemies to the welfare and happiness of the human race. 130 When human had once renounced experience; when human had abjured own reason; when human had joined the banner of this enthusiastic novelty; human did nothing more, day after day, than subtilise the delirium, the ravings of your own imagination: 131 you pleased yourself by continually sinking deeper into the most unfathomable depths of error: 132 you felicitated yourself on your discoveries; on your pretended knowledge; in an exact ratio as your own understanding became enveloped in the mists of darkness, environed with the clouds of ignorance. 133 Thus, in consequence of human's reasoning upon false principles; of having relinquished the evidence of own senses; the moving principle within yourself, the concealed author of motion, has been made a mere chimera, a mere being of the imagination, 134 because human has divested it of all known properties; because human has attached to it nothing but properties which, from the very nature of human existence, you are incapacitated to comprehend.

NATURE

135 The doctrine of spirituality, such as it now exists, offers nothing but vague ideas; or rather is the absence of all ideas. 136 What does it present to the mind, but a substance which possesses nothing of which our senses enable us to have a knowledge? 137 Can it be truth that a person is able to figure to oneself a being not material, having neither extent nor parts, 138 which, nevertheless, acts upon matter without having any point of contact, any kind of analogy with it; 139 and which itself receives the impulse of matter by means of material organs, which announce to it the presence of other beings? 140 Is it possible to conceive the union of the soul with the body; to comprehend how this material body can bind, enclose, constrain, determine a fugitive being which escapes all our senses? 141 Is it honest, is it plain dealing, to solve these difficulties, by saying there is a mystery in them; 142 that they are the effects of a power, more inconceivable than the human soul; than its mode of acting, however concealed from our view? 143 When to resolve these problems, human is obliged to have recourse to miracles or to make the Divinity interfere, does human not avow own ignorance? 144 When, notwithstanding the ignorance human is thus obliged to avow by availing oneself of the divine agency, 145 human tells us, this immaterial substance, this soul, shall experience the action of the element of fire, which human allows to be material; 146 when human confidently says this soul shall be burnt; shall suffer in purgatory; have we not a right to believe, that either human has a design to deceive us, 147 or else that human does not itself understand that which you are so anxious we should take upon human's word?

148 Let us not then be surprised at those subtile hypotheses, as ingenious as they are unsatisfactory, to which theological prejudice has obliged the most profound modern speculators to recur; 149 when they have undertaken to reconcile the spirituality of the soul, with the physical action of material beings, on this incorporeal substance; 150 its re-

action upon these beings; its union with the body. 151 When the human mind permits itself to be guided by authority without proof, to be led forward by enthusiasm; 152 when it renounces the evidence of its senses; what can it do more than sink into error? 153 Let those who doubt this, read the metaphysical romances of LEIBNITZ, DESCARTES, MALEBRANCHE, CUDWORTH, and many others: 154 let them coolly examine the ingenious, but fanciful systems entitled the pre-established harmony of occasional causes; physical pre-motion.

155 If you wishes to form to yourself clear, perspicuous ideas of your own soul, let you throw yourself back on your own experience-- 156 let you renounce your own prejudices-- let you avoid theological conjecture-- let you tear the bandages which you have been taught to think necessary, 157 but with which you have been blind-folded, only to confound your own reason. 158 If it be wished to draw human to virtue, let the natural philosopher, let the anatomist, let the physician, unite their experience; 159 let them compare their observations, in order to show what ought to be thought of a substance, so disguised, so hidden by absurdities, as not easily to be known. 160 Their discoveries may perhaps teach moralists the true motive-power that ought to influence the actions of human-- 161 legislators, the true motives that should actuate human, that should excite human to labour to the welfare of society-- 162 sovereigns, the means of rendering their subjects truly happy; of giving solidity to the power of the nations committed to their charge. 163 Physical souls have physical wants, and demand physical happiness. 164 These are real, are preferable objects, to that variety of fanciful chimeras, each in its turn giving place to the other, with which the mind of human has been fed during so many ages. 165 Let us, then, labour to perfect the morality of human; let us make it agreeable to human; let us excite in human an ardent thirst for its purity: 166 we shall presently see human's morals become better, yourself become happier; your soul become calm and serene; 167 your will

determined to virtue, by the natural, by the palpable motives held out to yourself. 168 By the diligence, by the care which legislators shall bestow on natural philosophy, they will form citizens of sound understandings; 169 robust and well constituted; who, finding themselves happy, will be themselves accessory to that useful impulse so necessary for their soul. 170 When the body is suffering, when nations are unhappy, the soul cannot be in a proper state. 171 'Mens sana in corpora sano', a sound mind in a sound body, will be always able to make a good citizen.

172 The more you reflects, the more you will be convinced that the soul, very far from being distinguished from the body, is only the body itself, 173 considered relatively to some of its functions, or to some of the modes of existing or acting, of which it is susceptible whilst it enjoys life. 174 Thus, the soul is human, considered relatively to the faculty you have of feeling, of thinking, of acting in a mode resulting from your own peculiar nature; 175 that is to say, from your properties, from your particular organisation: from the modifications, whether durable or transitory, which the beings who act upon human cause your machine to undergo.

176 Those who have distinguished the soul from the body, appear only to have distinguished their brain from themselves. 177 Indeed, the brain is the common centre, where all the nerves, distributed through every part of the body, meet and blend themselves: 178 it is by the aid of this interior organ that all those operations are performed which are attributed to the soul: 179 it is the impulse, or the motion, communicated to the nerve, which modifies the brain: in consequence, it re-acts, or gives play to the bodily organs; 180 or rather it acts upon itself, and becomes capable of producing within itself a great variety of motion, which has been designated intellectual faculties.

181 From this it may be seen that some philosophers have been desirous to make a spiritual substance of the brain. 182 It is evidently nothing but ignorance that

has given birth to and accredited this system, which embraces so little, either of the natural or the rational. 183 It is from not having studied yourself, that human has supposed one was compounded with an agent, essentially different from your own body: 184 in examining this body, you will find that it is quite useless to recur to hypothesis for the explanation of the various phenomena it presents to your own contemplation; 185 that hypothesis can do nothing more than lead you out of the right road to the information after which you seeks. 186 What obscures this question, arises from this, that you cannot see yourself: 187 indeed, for this purpose, that would be requisite which is impossible; namely, that you could at one and the same moment both within and without yourself: 188 you may be compared to an Eolian harp, that issues sounds of itself, and should demand what it is that causes it to give them forth? 189 It does not perceive that the sensitive quality of its chords causes the air to brace them; 190 that being so braced, it is rendered sonorous by every gust of wind with which it happens to come in contact.

191 When a theologian, obstinately bent on admitting into human two substances essentially different, is asked why he multiplies beings without necessity? he will reply, because "thought cannot be a property of matter." 192 If, then, it be enquired of him, cannot God give to matter the faculty of thought? he will answer, "no! seeing that God cannot do impossible things!" 193 According to his principles, it is as impossible that spirit or thought can produce matter, as it is impossible that matter can produce spirit or thought: 194 it might, therefore, be concluded against him, that the world was not made by a spirit, any more than a spirit was made by the world. 195 But in this case, does not the theologian, according to his own assertion, acknowledge himself to be the true atheist? 196 Does he not, in fact, circumscribe the attributes of the Deity, and deny his power, to suit his own purpose? 197 Yet these people demand implicit belief in doctrines,

which they are obliged to maintain by the most contradictory assertions. 198 The more experience we collect, the more we shall be convinced that the word spirit, in its present received usage, conveys no one sense that is tangible, 199 either to ourselves or to those that invented it; consequently cannot be of the least use, either in physics or morals. 200 What modern metaphysicians believe and understand by the word, is nothing more than an occult power, imagined to explain occult qualities and actions, but which, in fact, explains nothing. 201 Savage nations admit of spirits, to account to themselves for those effects, which to them appear marvellous, 202 as long as their ignorance knows not the cause to which they ought to be attributed. 203 In attributing to spirits the phenomena of Nature, as well as those of the human body, do we, in fact, do anything more than reason like savages? 204 Human has filled Nature with spirits, because human has almost always been ignorant of the true causes of those effects by which human was astonished. 205 Not being acquainted with the powers of Nature, human has supposed Her to be animated by a great spirit: 206 not understanding the energy of the human frame, human has in like manner conjectured it to be animated by a minor spirit: 207 from this it would appear, that whenever human wished to indicate the unknown cause of a phenomena, human knew not how to explain in a natural manner, human had recourse to the word spirit. 208 In short, spirit was a term by which human solved all own doubts, and cleared up own ignorance to oneself. 209 It was according to these principles that when the AMERICANS first beheld the terrible effects of gunpowder, they ascribed the cause to wrathful spirits, to their enraged divinities: 210 it was by adopting these principles, that our ancestors believed in a plurality of gods, in ghosts, in genii, etc, 211 Pursuing the same track, we ought to attribute to spirits gravitation, electricity, magnetism, etc. 212 It is somewhat singular, that priests have in all ages so strenuously upheld those systems which time has

exploded; 213 that they have appeared to be either the most crafty or the most ignorant of humans. 214 Where are now the priests of Apollo, of Juno, of the Sun, and a thousand others? 215 Yet these are the people, who in all times have persecuted those who have been the first to give natural explanations of the phenomena of Nature, as witness ANAXAGORAS, ARISTOTLE, GALLILEO, DESCARTES.

THE INTELLECTUAL FACULTIES DERIVED FROM THE FACULTY OF FEELING

Paul Henri Thiery (Baron D'Holbach)

33 To convince ourselves that the faculties called intellectual, are only certain modes of existence, or determinate manners of acting, which result from the peculiar organisation of the body, we have only to analyse them; 2 we shall then see that all the operations which are attributed to the soul, are nothing more than certain modifications of the body; 3 of which a substance that is without extent, that has no parts, that is immaterial, is not susceptible.

4 The first faculty we behold in the living human, and that from which all your others flow, is feeling: 5 however inexplicable this faculty may appear, on a first view, if it be examined closely, it will be found to be a consequence of the essence, or a result of the properties of organised beings; 6 the same as gravity, magnetism, elasticity, electricity, etc. result from the essence or nature of some others. 7 We shall also find these last phenomena are not less inexplicable than that of feeling. 8 Nevertheless, if we wish to define to ourselves a clear and precise idea of it, we shall find that feeling is a particular manner of being moved-- 9 a mode of receiving an impulse peculiar to certain organs of animated bodies, 10 which is occasioned by the presence of a material object that acts upon these organs, and transmit the impulse or shock to the brain.

11 Human only feels by the aid of nerves dispersed through one’s own body; 12 which is itself, to speak

correctly, nothing more than a great nerve; 13 or may be said to resemble a large tree, of which the branches experience the action of the root, communicated through the trunk. 14 In human the nerves unite and lose themselves in the brain; that intestine is the true seat of feeling: 15 like the spider in the centre of its web, it is quickly warned of all the changes that happen to the body, even at the extremities to which it sends its filaments and branches. 16 Experience enables us to ascertain, that human ceases to feel in those parts of one's own body of which the communication with the brain is intercepted; 17 you feels very little, or not at all, whenever this organ is itself deranged or affected in too lively a manner. 18 A proof of this is afforded in the transactions of the Royal Academy of Sciences at Paris: 19 they inform us of a man who had his scull taken off, in the room of which his brain was recovered with skin; 20 in proportion as a pressure was made by the hand on his brain, the man fell into a kind of insensibility, which deprived him of all feeling. 21 BARTOLIN says, the brain of a human is twice as big as that of an ox. This observation had been already made by ARISTOTLE.

22 In the dead body of an idiot dissected by WILLIS, the brain was found smaller than ordinary: 23 he says the greatest difference he found between the parts of the body of this idiot, and those of wiser men, was, that the plexus of the intercostal nerves, which is the mediator between the brain and the heart, was extremely small, accompanied by a less number of nerves than usual. 24 According to WILLIS, the ape is, of all animals, that which has the largest brain, relatively to its size: it is also, after human, that which has the most intelligence: 25 this is further confirmed, by the name it bears in the soil, to which it is indigenous, which is 'ourang outang', or the human beast. 26 There is, therefore, every reason to believe that it is entirely in the brain, that consists the difference, that is found not only between human and beasts, but also between the human of wit, and the fool: 27 between the thinking human,

and those who are ignorants; between the human of sound understanding, and the mad-people: 28 a multitude of experience, serves to prove, that those people who are most accustomed to use their intellectual faculties, have their brain more extended than others: 29 the same has been remarked of water-people, that they have arms much longer than other people.

30 However this may be, the sensibility of the brain, and all its parts, is a fact: 31 if it be asked, whence comes this property? We shall reply, it is the result of an arrangement, of a combination, peculiar to the animal: 32 it is thus that milk, bread, wine, change themselves in the substance of human, who is a sensible being: 33 this insensible matter becomes sensible, in combining itself with a sensible whole. 34 Some philosophers think that sensibility is a universal quality of matter: in this case, it would be useless to seek from whence this property is derived, as we know it by its effects. 35 If this hypothesis be admitted, in like manner as two kinds of motion are distinguished in Nature, the one called live force, the other dead, or inert force, 36 two sorts of sensibility will be distinguished, the one active or alive, the other inert or dead. 37 Then to animalise a substance, is only to destroy the obstacles that prevent its being active or sensible. 38 In fact, sensibility is either a quality which communicates itself like motion, and which is acquired by combination; 39 or this sensibility is a property inherent in all matter: in both, or either case, an unextended being, without parts, 40 such as the human soul is said to be, can neither be the cause of it nor submitted to its operation; 41 but we may fairly conclude, that all the parts of Nature enjoy the capability to arrive at animation; the obstacle is only in the state, not in the quality. 42 Life is the perfection of Nature: She has no parts which do not tend to it-- which do not attain it by the same means. 43 Life in an insect, a dog, a human, has no other difference, than that this act is more perfect, relatively to ourselves in proportion to the

structure of the organs: 44 if, therefore, it be asked, what is requisite to animate a body? 45 We reply, it needs no foreign aid; it is sufficient that the power of Nature be joined to its organisation.

46 The conformation, the arrangement, the texture, the delicacy of the organs, as well exterior as interior, which compose humans and animals, render their parts extremely mobile, 47 or make their machine susceptible of being moved with great facility. 48 In a body, which is only a heap of fibres, a mass of nerves, contiguous one to the other, united in a common center, always ready to act; 49 in a whole, composed of fluids and solids, of which the parts are in equilibrium, the smallest touching each other, are active in their motion, communicating reciprocally, 50 alternately and in succession, the impression, oscillations, and shocks they receive; 51 in such a composition, it is not surprising that the slightest impulse propagates itself with celerity; 52 that the shocks excited in its remotest parts, make themselves quickly felt in the brain, whose delicate texture renders it susceptible of being itself very easily modified. 53 Air, fire, water, agents the most inconstant, possessing the most rapid motion, circulate continually in the fibres, incessantly penetrate the nerves: 54 without doubt these contribute to that incredible celerity with which the brain is acquainted with what passes at the extremities of the body.

55 Notwithstanding the great mobility with which human's organisation renders you susceptible, 56 although exterior as well as interior causes are continually acting upon human, you does not always feel in a distinct, in a decided manner, the impulse given to your senses: 57 indeed, you does not feel it, until it has produced some change, or given some shock to your brain. 58 Thus, although completely environed by air, human does not feel its action, until it is so modified, as to strike with a sufficient degree of force on your organs; 59 to penetrate your skin, through which your brain is warned of its presence. 60 Thus,

during a profound and tranquil sleep, undisturbed by any dream, human ceases to feel. 61 In short, notwithstanding the continued motion that agitates your frame, you does not appear to feel, when this motion acts in a convenient order; 62 you does not perceive a state of health, but you discovers a state of grief or sickness; 63 because, in the first, your brain does not receive too lively an impulse, whilst in the others, your nerves are contracted, shocked, and agitated, with violent, with disorderly motion: 64 these communicating with your brain, give notice that some cause acts strongly upon them-- 65 impels them in a manner that bears no analogy with their natural habit: this constitutes, in human, that peculiar mode of existing which we calls grief.

66 On the other hand, it sometimes happens that exterior objects produce very considerable changes on human's body, without you perceiving them at the moment. 67 Often, in the heat of battle, the soldier perceives not that one is dangerously wounded, 68 because, at the time, the rapidity, the multiplicity of impetuous motion that assails your brain, does not permit you to distinguish the particular change a part of your own body has undergone by the wound. 69 In short, when a great number of causes are simultaneously acting on human with too much vivacity, human sinks under their accumulated pressure,-- 70 human swoons-- human loses own senses-- human is deprived of feeling.

71 In general, feeling only obtains, when the brain can distinguish distinctly, the impressions made on the organs with which it has communication; 72 it is the distinct shock, the decided modification human undergoes, that constitute conscience. 73 Doctor Clarke, says to this effect: "Conscience is the act of reflecting, by means of which I know that I think, and that my thoughts, or my actions belong to me, and not to another." 74 From this it will appear, that feeling is a mode of being, a marked change, produced on our brain, 75 occasioned by the impulse communicated to our organs,

whether by interior or exterior agents, by which it is modified either in a durable or transient manner: 76 it is not always requisite that human's organs should be moved by an exterior object, to enable you to feel that you should be conscious of the changes effected in yourself: 77 human can feel them within oneself by means of an interior impulse; your brain is then modified, or rather you renews within yourself the anterior modifications. 78 We are not to be astonished that the brain should be necessarily warned of the shocks, of the impediments, of the changes that may happen to so complicated a machine as the human body, 79 in which, notwithstanding all the parts are contiguous to the brain, and concentrate themselves in this brain, and are by their essence in a continual state of action and re-action.

80 When a human experiences the pains of the gout, one is conscious of them; in other words, you feels interiorly, that it has produced very marked, very distinct changes in yourself, 81 without you perceiving, that you have received an impulse from any exterior cause; 82 nevertheless, if you will recur to the true source of these changes, you will find that they have been wholly produced by exterior agents: 83 they have been the consequence, neither of your own temperament; of the organisation received from your parents; of the aliments with which your frame has been nourished; 84 besides a thousand trivial, inappreciable causes, which congregating themselves by degrees produce in human the gouty humour; 85 the effect of which is to make you feel in an acute and very lively manner. 86 The pain of the gout engenders in your brain an idea, so modifies it that it acquires the faculty of representing to itself, of reiterating as it were, this pain when even you shall be no longer tormented with the gout: 87 human brain, by a series of motion interiorly excited, is again placed in a state analogous to that in which it was when you really experienced this pain: 88 but if you had never felt it, you would never have been in a capacity to form to

yourself any just idea of its excruciating torments.

89 The visible organs of human's body, by the intervention of which your brain is modified, take the name of senses. 90 The various modifications which human brain receives by the aid of these senses, assumes a variety of names. 91 Sensation, perception, and idea, are terms that designate nothing more than the changes produced in this interior organ, in consequence of impressions made on the exterior organs by bodies acting on them: 92 these changes considered by themselves, are called sensations; they adopt the term perception when the brain is warned of their presence; 93 ideas is that state of them in which the brain is able to ascribe them to the objects by which they have been produced.

94 Every sensation, then, is nothing more than the shock given to the organs, every perception is this shock propagated to the brain; 95 every idea is the image of the object to which the sensation and the perception is to be ascribed. 96 From whence it will be seen, that if the senses be not moved, there can neither be sensations, perceptions, nor ideas: 97 this will be proved to those, who can yet permit themselves to doubt so demonstrable and striking a truth.

98 It is the extreme mobility of which human is capable, owing to your peculiar organisation, that distinguishes human from other beings that are called insensible or inanimate; 99 the different degrees of this mobility, of which the individuals of one’s species are susceptible, discriminate them from each other; 100 make that incredible variety, that infinity of difference which is to be found, as well in their corporeal faculties, as in those which are mental or intellectual. 101 From this mobility, more or less remarkable in each human being, results wit, sensibility, imagination, taste, 102 for the present, however, let us follow the operation of the senses; let us examine in what manner they are acted upon, and are modified by exterior objects:-- 103 we will

afterwards scrutinise the re-action of the interior organ or brain.

104 The eyes are very delicate, very movable organs, by means of which the sensation of light or colour is experienced: 105 these give to the brain a distinct perception, in consequence of which, human forms an idea, generated by the action of luminous or coloured bodies: 106 as soon as the eyelids are opened, the retina is affected in a peculiar manner; 107 the fluid, the fibres, the nerves, of which they are composed, are excited by shocks which they communicate to the brain; 108 to which they delineate the images of the bodies from which they have received the impulse; 109 by this means, an idea is acquired of the colour, the size, the form, the distance of these bodies: 110 it is thus that may be explained the mechanism of sight.

111 The mobility and the elasticity of which the skin is rendered susceptible, by the fibres and nerves which form its texture, accounts for the rapidity with which this envelope to the human body is affected when applied to any other body; 112 by their agency, the brain has notice of its presence, of its extent, of its roughness, of its smoothness, of its surface, of its pressure of its ponderousity. 113 Qualities from which the brain derives distinct perceptions, which breed in it a diversity of ideas; it is this that constitutes the touch or feeling.

114 The delicacy of the membrane by which the interior of the nostrils is covered, renders them easily susceptible of irritation, 115 even by the invisible and impalpable corpuscles that emanate from odorous bodies: 116 by these means sensations are excited, the brain has perceptions, and generates ideas: it is this that forms the sense of smelling.

117 The mouth, filled with nervous, sensible, movable, irritable glands, saturated with juices suitable to the dissolution of saline substances, 118 is affected in a very lively manner by the aliments which pass through it for the nourishment of the body; 119 these glands transmit to the brain the impressions received: perceptions are of consequence; ideas follow: it is

from this mechanism that results taste.

120 The ear, whose conformation fits it to receive the various impulses of air, diversely modified, communicates to the brain the shocks or sensations; 121 these breed the perception of sound, and generate the idea of sonorous bodies: it is this that constitutes hearing.

122 Such are the only means by which human receives sensations, perceptions, and ideas. 123 These successive modifications of human's brain are effects produced by objects that give impulse to your senses; 124 they become themselves causes, producing in your soul new modifications, which are denominated thought, reflection, memory, imagination, judgment, will, action; the basis, however, of all these is sensation.

125 To form a precise notion of thought, it will be requisite to examine, step by step, what passes in human during the presence of any object whatever. 126 Suppose for a moment this object to be a peach: this fruit makes, at the first view, two different impressions on your eyes; 127 that is to say, it produces two modifications, which are transmitted to the brain, which on this occasion experiences two new perceptions, or has two new ideas or modes of existence, designated by the terms colour and rotundity; 128 in consequence, you have an idea of a body possessing roundness and colour: 129 if you places your hand on this fruit, the organ of feeling having been set in action, your hand experiences three new impressions, which are called softness, coolness, weight, 130 from whence result three new perceptions in the brain, you have consequently three new ideas: 131 if you approximates this peach to your nose, the organ of smelling receives an impulse, which, communicated to the brain, a new perception arises, by which you acquires a new idea, called odour: 132 if you carries this fruit to your mouth, the organ of taste becomes affected in a very lively manner: 133 this impulse communicated to the brain, is followed by a perception that generates in yourself the idea of

flavour. 134 In re-uniting all these impressions, or these various modifications of human's organs, which it have been consequently transmitted to your brain; 135 that is to say, in combining the different sensations, perceptions, and ideas, that result from the impulse you have received, you have an idea of a whole, 136 which you designates by the name of a peach, with which you can then occupy your thoughts.

137 From this it is sufficiently proved that thought has a commencement, a duration, an end; 138 or rather a generation, a succession, a dissolution, like all the other modifications of matter; 139 like them, thought is excited, is determined, is increased, is divided, is compounded, is simplified. 140 If, therefore, the soul, or the principle that thinks, be indivisible; how does it happen, that this soul has the faculty of memory, or of forgetfulness; 141 is capacitated to think successively, to divide, to abstract, to combine, to extend its ideas, to retain them, or to lose them? 142 How can it cease to think?

143 If forms appear divisible in matter, it is only in considering them by abstraction, after the method, of geometricians; 144 but this divisibility of form exists not in Nature, in which there is neither a point, an atom, nor form perfectly regular; 145 it must therefore be concluded, that the forms of matter are not less indivisible than thought.

146 What has been said is sufficient to show the generation of sensations, of perceptions, of ideas, with their association, or connection in the brain: 147 it will be seen that these various modifications are nothing more than the consequence of successive impulses, 148 which the exterior organs transmit to the interior organ, which enjoys the faculty of thought, 149 that is to say, to feel in itself the different modifications it has received, or to perceive the various ideas which it has generated; 150 to combine them, to separate them, to extend them, to abridge them, to compare them, to renew them. 151 From whence it will be seen, that thought is nothing more than the perception of certain

modifications, which the brain either gives to itself, or has received from exterior objects.

152 Indeed, not only the interior organ perceives the modifications it receives from without, but again it has the faculty of modifying itself; 153 of considering the changes which take place in it, the motion by which it is agitated in its peculiar operations, from which it imbibes new perceptions and new ideas. 154 It is the exercise of this power to fall back upon itself, that is called reflection.

155 From this it will appear, that for human to think and to reflect, is to feel, or perceive within yourself the impressions, the sensations, the ideas, which have been furnished to your brain 156 by those objects which give impulse to your senses, with the various changes which your brain produced on itself in consequence.

157 Memory is the faculty which the brain has of renewing in itself the modifications it has received, 158 or rather, to restore itself to a state similar to that in which it has been placed by the sensations, the perceptions, the ideas, 159 produced by exterior objects, in the exact order it received them, without any new action on the part of these objects, or even when these objects are absent; 160 the brain perceives that these modifications assimilate with those it formerly experienced in the presence of the objects to which it relates, or attributes them. 161 Memory is faithful, when these modifications are precisely the same; it is treacherous, when they differ from those which the organs have exteriorly experienced.

162 Imagination in human is only the faculty which the brain has of modifying itself, 163 or of forming to itself new perceptions, upon the model of those which it has anteriorly received through the action of exterior objects on the senses. 164 The brain, then, does nothing more than combine ideas which it has already formed, 165 which it recalls to itself, from which it forms a whole, or a collection of modifications, which it has not received, which exists no-where but in itself, 166 although the individual

ideas, or the parts of which this ideal whole is composed, have been previously communicated to it, in consequence of the impulse given to the senses by exterior objects: 167 it is thus human forms to oneself the idea of centaurs, or a being composed of a human and a horse, of hippogriffs, or a being composed of a horse with wings and a griffin, besides a thousand other objects, equally ridiculous. 168 By memory, the brain renews in itself the sensations, the perceptions, and the ideas which it has received or generated; 169 represents to itself the objects which have actually moved its organs. By imagination it combines them variously: 170 forms objects in their place which have not moved its organs, although it is perfectly acquainted with the elements or ideas of which it composes them. 171 It is thus that human, by combining a great number of ideas borrowed from oneself, such as justice, wisdom, goodness, intelligence, 172 by the aid of imagination, has formed various ideal beings, or imaginary wholes, which human has called JUPITER, JUNO, BRAMAH, SATURN, 173 Judgment is the faculty which the brain possesses of comparing with each other the modifications it receives, the ideas it engenders, or which it has the power of awakening within itself, to the end that it may discover their relations, or their effects.

174 Will is a modification of the brain, by which it is disposed to action, that is to say, to give such an impulse to the organs of the body, as can induce to act in a manner, 175 that will procure for itself what is requisite to modify it in a mode analogous to its own existence, or to enable it to avoid that by which it can be injured. 176 To will is to be disposed to action. 177 The exterior objects, or the interior ideas, which give birth to this disposition are called motives, 178 because they are the springs or movements which determine it to act, that is to say, which give play to the organs of the body. 179 Thus, voluntary actions are the motion of the body, determined by the modification of the brain. 180 Fruit hanging on a tree, through the

agency of the visual organs, modifies the brain in such a manner as to dispose the arm to stretch itself forth to cull it; 181 again, it modifies it in another manner, by which it excites the hand to carry it to the mouth.

182 All the modifications which the interior organ or the brain receives, all the sensations, all the perceptions, all the ideas that are generated by the objects which give impulse to the senses, 183 or which it renews within itself by its own peculiar faculties, are either favourable or prejudicial to human's mode of existence, whether that be transitory or habitual: 184 they dispose the interior organ to action, which it exercises by reason of its own peculiar energy: 185 this action is not, however, the same in all the individuals of the human species, depending much on their respective temperaments. 186 From hence the PASSIONS have their birth: these are more or less violent; they are, however, nothing more than the motion of the will, determined by the objects which give it activity; 187 consequently composed of the analogy or of the discordance which is found between these objects, human's peculiar mode of existence, and the force of your temperament. 188 From this it results, that the passions are modes of existence or modifications of the brain; which either attract or repel those objects by which human is surrounded; 189 that consequently they are submitted in their action to the physical laws of attraction and repulsion.

190 The faculty of perceiving or of being modified, as well by itself as exterior objects which the brain enjoys is sometimes designated by the term understanding. 191 To the assemblage of the various faculties of which this interior organ is susceptible, is applied the name of intelligence. 192 To a determined mode in which the brain exercises the faculties peculiar to itself, is given the appellation of reason. 193 The dispositions or the modifications of the brain, some of them constant, others transitory, 194 which give impulse to the beings of the human species, causing them to act, are styled wit, wisdom, goodness, prudence, virtue.

195 In short, as there will be an opportunity presently to prove, all the intellectual faculties-- that is to say, all the modes of action attributed to the soul, may be reduced to the modifications, 196 to the qualities, to the modes of existence, to the changes produced by the motion of the brain; 197 which is visibly in human the seat of feeling, the principle of all your actions. 198 These modifications are to be attributed to the objects that strike on your senses; of which the impression is transmitted to the brain, or rather to the ideas, 199 which the perceptions caused by the action of these objects on your senses have their generated, and which it has the faculty to re-produce. 200 This brain moves itself in its turn, re-acts upon itself, gives play to the organs, which concentrate themselves in it, 201 or which are rather nothing more than an extension of its own peculiar substance. 202 It is thus the concealed motion of the interior organ, renders itself sensible by outward and visible signs. 203 The brain, affected by a modification which is called FEAR, diffuses a paleness over the countenance, excites a tremulous motion in the limbs called trembling. 204 The brain, affected by a sensation of GRIEF, causes tears to flow from the eyes, even without being moved by any exterior object; 205 an idea which it retraces with great strength, suffices to give it very little modifications, which visibly have an influence on the whole frame.

206 In all this, nothing more is to be perceived than the same substance which acts diversely on the various parts of the body. 207 If it be objected that this mechanism does not sufficiently explain the principles of the motion or the faculties of the soul; 208 we reply, that it is in the same situation as all the other bodies of Nature, 209 in which the most simple motion, the most ordinary phenomena, the most common modes of action are inexplicable mysteries, of which we shall never be able to fathom the first principles. 210 Indeed, how can we flatter ourselves we shall ever be enabled to compass the true principle of that

gravity by which a stone falls? 211 Are we acquainted with the mechanism which produces attraction in some substances, repulsion in others? 212 Are we in a condition to explain the communication of motion from your body to another? 213 But it may be fairly asked,-- Are the difficulties that occur, when attempting to explain the manner in which the soul acts, removed by making it a spiritual being, 214 a substance of which we have not, nor cannot form one idea, which consequently must bewilder all the notions we are capable of forming to ourselves of this being? 215 Let us then be contented to know that the soul moves itself, modifies itself, in consequence of material causes, which act upon it which give it activity: 216 from whence the conclusion may be said to flow consecutively, that all its operations, all its faculties, prove that it is itself material.

THE DIVERSITY OF THE INTELLECTUAL FACULTIES

Paul Henri Thiery (Baron D'Holbach)

34 Nature is under the necessity of diversifying all Her works. 2 Elementary matter, different in its essence, must necessarily form different beings, various in their combinations, in their properties, in their modes of action, in their manner of existence. 3 There is not, neither can there be, two beings, two combinations, which are mathematically and rigorously the same; 4 because the place, the circumstances, the relations; the proportions, the modifications, never being exactly alike, 5 the beings that result can never bear a perfect resemblance to each other: 6 their modes of action must of necessity vary in something, even when we believe we find between them the greatest conformity.

7 In consequence of this principle, which everything we see conspires to prove to be a truth, there are not two individuals of the human species who have precisely the same traits--

8 who think exactly in the same manner-- who view things under the same identical point of sight-- who have decidedly the same ideas; 9 consequently no two of them have uniformly the same system of conduct. 10 The visible organs of human, as well as your concealed organs, have indeed some analogy, some common points of resemblance, some general conformity; 11 which makes them appear, when viewed in the gross, to be affected in the same manner by certain causes: but the difference is infinite in the detail. 12 The human soul may be compared to those instruments, of which the chords, already diversified in themselves, by the manner in which they have been spun, are also strung upon different notes: 13 struck by the same impulse, each chord gives forth the sound that is peculiar to itself; 14 that is to say, that which depends on its texture, its tension, its volume, on the momentary state in which it is placed by the circumambient air. 15 It is this that produces the diversified spectacle, the varied scene, which the moral world offers to our view: 16 it is from this that results the striking contrariety that is to be found in the minds, in the faculties, in the passions, in the energies, in the taste, in the imagination, in the ideas, in the opinions of human. 17 This diversity is as great as that of human's physical powers: like them it depends on your temperament, which is as much varied as your physiognomy. 18 This variety gives birth to that continual series of action and reaction, which constitutes the life of the moral world: 19 from this discordance results the harmony which at once maintains and preserves the human race.

20 The diversity found among the individuals of the human species, causes inequalities between people: this inequality constitutes the support of society. 21 If all humans were equal in their bodily powers, in their mental talents, they would not have any occasion for each other: 22 it is the variation of human's faculties, the inequality which this places yourself in, with regard to your fellows, that renders morals

necessary to human: 23 without these, you would live by yourself, you would remain an isolated being. 24 From whence it may be perceived, that this inequality of which human so often complains without cause-- 25 this impossibility which each human finds when in an isolated state, when left to oneself, when unassociated with one's fellow humans, 26 to labour efficaciously to your own welfare, to make your own security, to ensure your own conservation; 27 places you in the happy situation of associating with your own like, of depending on your fellow associates, of meriting their succour, of propitiating them to your views, of attracting their regard, of calling in their aid to chase away, 28 by common and united efforts, that which would have the power to trouble or derange the order of your own existence.

29 In consequence of human's diversity, of the inequality that results, the weaker is obliged to seek the protection of the stronger; 30 this, in your turn, recurs to the understanding, to the talents, to the industry of the weaker, whenever your judgment points out you can be useful to others: 31 this natural inequality furnishes the reason why nations distinguish those citizens who have rendered their country eminent services. 32 It is in consequence of your exigencies that human honours and recompenses those whose understanding, good deeds, assistance, or virtues, have procured for yourself real or supposed advantages, pleasures, or agreeable sensations of any sort: 33 it is by this means that genius gains an ascendancy over the mind of human, and obliges a whole people to acknowledge its powers.

34 Thus, the diversity and inequality of the faculties, as well corporeal as mental or intellectual, renders human necessary to one's fellow human, 35 makes human a social being, and incontestably proves to human the necessity of morals. 36 According to this diversity of faculties, the individuals of the human species are divided into different classes, 37 each in proportion to the effects produced, or the different qualities that may be

remarked: 38 all these varieties in human flow from the individual properties of one's soul, or from the particular modification of one's brain. 39 It is thus, that wit, imagination, sensibility, talents, diversifies to infinity the differences that are to be found in human. 40 It is thus, that some are called good, others wicked; some are denominated virtuous, others vicious; some are ranked as learned, others as ignorant; some are considered reasonable, others unreasonable.

41 If all the various faculties attributed to the soul are examined, it will be found that like those of the body they are to be ascribed to physical causes, to which it will be very easy to recur. 42 It will be found that the powers of the soul are the same as those of the body; 43 that they always depend on the organisation of this body, on its peculiar properties, on the permanent or transitory modifications that it undergoes; in a word, on its temperament.

44 Temperament is, in each individual, the habitual state in which human finds the fluids and the solids of which your body is composed. 45 This temperament varies, by reason of the elements or matter that predominate in yourself, 46 in consequence of the different combinations, of the various modifications, which this matter, diversified in itself, undergoes in your machine. 47 Thus, in one, the blood is super abundant; in another, the bile; in a third, phlegm.

48 It is from Nature-- from your parents-- from causes, which from the first moment of your own existence have unceasingly modified yourself, that you derive your own temperament. 49 It is in your mother's womb that you have attracted the matter which, during your whole life, shall have an influence on your intellectual faculties-- on your energies-- on your passions-- on your conduct. 50 The very nourishment you takes, the quality of the air you respires, the climate you inhabits, the education you receives, the ideas that are

presented to yourself, the opinions you imbibes, modify this temperament. 51 As these circumstances can never be rigorously the same in every point for any two individuals, 52 it is by no means surprising that such an amazing variety, so great a contrariety, should be found in human; 53 or that there should exist as many different temperaments, as there are individuals in the human species.

54 Thus, although human may bear a general resemblance, humans differs essentially, as well by the texture of your fibres and the disposition of your nerves, 55 as by the nature, the quality, the quantity of matter that gives them play, that sets your organs in motion. 56 You, already different from your fellow, by the elasticity of your fibres, the tension of your nerves, becomes still more distinguished by a variety of other circumstances: 57 you are more active, more robust, when you receives nourishing aliments, when you drinks wine, when you takes exercise: 58 whilst another, who drinks nothing but water, who takes less juicy nourishment, who languishes in idleness, shall be sluggish and feeble.

59 All these causes have necessarily an influence on the mind, on the passions, on the will; in a word, on what are called the intellectual faculties. 60 Thus, it may be observed, that a human of a sanguine constitution, is commonly lively, ingenious, full of imagination, passionate, voluptuous, enterprising; 61 whilst the phlegmatic human is dull, of a heavy understanding, slow of conception, inactive, difficult to be moved, pusillanimous, 62 without imagination, or possessing it in a less lively degree, incapable of taking any strong measures, or of willing resolutely.

63 If experience was consulted, in the room of prejudice, the physician would collect from morals, the key to the human heart: 64 in curing the body, he would sometimes be assured of curing the mind. 65 Human, in making a spiritual substance of your soul, has contented yourself with administering to it spiritual

remedies, which either have no influence over your temperament, or do it an injury. 66 The doctrine of the spirituality of the soul has rendered morals a conjectural science, that does not furnish a knowledge of the true motives which ought to be put in activity, in order to influence human to their welfare. 67 If, calling experience to your assistance, human sought out the elements which form the basis of your temperament, 68 or of the greater number of the individuals composing a nation, you would then discover what would be most proper for yourself,-- 69 that which could be most convenient to your mode of existence-- which could most conduce to your true interest-- what laws would be necessary to your happiness-- what institutions would be most useful for yourself--what regulations would be most beneficial. 70 In short, morals and state-government would be equally enabled to draw from materialism, 71 advantages which the dogma of spirituality can never supply, of which it even precludes the idea. 72 Human will ever remain a mystery, to those who shall obstinately persist in viewing you with eyes prepossessed by metaphysics; 73 human will always be an enigma to those who shall pertinaciously attribute your actions to a principle, of which it is impossible to form to themselves any distinct idea. 74 When human shall be seriously inclined to understand oneself, let you sedulously endeavour to discover the matter that enters into your combination, which constitutes your temperament; 75 these discoveries will furnish human with the clue to the nature of your own desires, to the quality of your passions, to the bent of your inclinations-- 76 will enable you to foresee your conduct on given occasions-- 77 will indicate the remedies that may be successfully employed to correct the defects of a vicious organisation, of a temperament, as injurious to yourself as to the society of which you are a member.

78 Indeed, it is not to be doubted that human's temperament is capable of being corrected, of being modified,

of being changed, by causes as physical as the matter of which it is constituted. 79 We are all in some measure capable of forming our own temperament: 80 a person of a sanguine constitution, by taking less juicy nourishment, by abating its quantity, by abstaining from strong liquor, may achieve the correction of the nature, the quality, the quantity, the tendency, the motion of the fluids, which predominate in his machine. 81 A bilious human, or one who is melancholy, may, by the aid of certain remedies, diminish the mass of this bilious fluid; 82 you may correct the blemish of your humours, by the assistance of exercise; you may dissipate your gloom, by the gaiety which results from increased motion. 83 An European transplanted into Hindostan, will, by degrees, become quite a different person in own humours, in own ideas, in own temperament, in own character.

84 Although but few experiments have been made with a view to learn what constitutes the temperament of human, there are still enough if one would but deign to make use of them-- 85 if you would vouchsafe to apply to useful purposes the little experience you have gleaned. 86 It would appear, speaking generally, that the igneous principle which chemists designate under the name of phlogiston, or inflammable matter, is that which in human yields yourself the most active life, 87 furnishes you with the greatest energy, affords the greatest mobility to your frame, supplies the greatest spring to your own organs, gives the greatest elasticity to your fibres, the greatest tension to your nerves, the greatest rapidity to your fluids.

88 From these causes, which are entirely material, commonly result the dispositions or faculties called sensibility, wit, imagination, genius, vivacity, 89 which give the tone to the passions, to the will, to the moral actions of human. 90 In this sense, it is with great justice we apply the expressions, 'warmth of soul,' 'ardency of imagination,' 'fire of genius.

91 It is this fiery element, diffused unequally, distributed in various proportions through the beings of the

human species, that sets human in motion, 92 gives human activity, supplies human with animal heat, and which, if we may be allowed the expression, renders human more or less alive. 93 This igneous matter, so active, so subtle, dissipates itself with great facility, then requires to be reinstated in your system by means of aliments that contain it, 94 which thereby become proper to restore your machine, to lend new warmth to the brain, to furnish it with the elasticity requisite to the performance of those functions which are called intellectual. 95 It is this ardent matter contained in wine, in strong liquor, that gives to the most torpid, to the dullest, to the most sluggish person, a vivacity of which, without it, human would be incapable-- which urges even the coward on to battle. 96 When this fiery element is too abundant in human, whilst you are labouring under certain diseases, it plunges you into delirium; 97 when it is in too weak or in too small a quantity, human swoons, human sinks to the earth. 98 This igneous matter diminishes in your old age-- it totally dissipates at your death. 99 It would not be unreasonable to suppose, that what physicians call the nervous fluid, which so promptly gives notice to the brain of all that happens to the body, is nothing more than electric matter; 100 that the various proportions of this matter diffused through your system, is the cause of that great diversity to be discovered in the human being, and in the faculties you possesses.

101 If the intellectual faculties of human, or your moral qualities, be examined according to the principles here laid down, the conviction must be complete that they are to be attributed to material causes, 102 which have an influence more or less marked, either transitory or durable, over your peculiar organisation. 103 But where does you derive this organisation, except it be from the parents from whom you receives the elements of a machine necessarily analogous to their own? 104 From whence does you derive the greater or less quantity of igneous matter, or vivifying heat, that decides upon,

that gives the tone to your mental qualities? 105 It is from the mother who bore you in her womb, who has communicated to you a portion of that fire with which she was herself animated, which circulated through her veins with her blood;-- 106 it is from the aliments that have nourished you,-- it is from the climate you inhabits,-- it is from the atmosphere that surrounds: 107 all these causes have an influence over your fluids, over your solids, and decide on your natural dispositions. 108 In examining these dispositions, from whence your faculties depend, it will ever be found, that they are corporeal, that they are material.

109 The most prominent of these dispositions in human, is that physical sensibility from which flows all human's intellectual or moral qualities. 110 To feel, according to what has been said, is to receive an impulse, to be moved, to have a consciousness of the changes operated on your system.

111 To have sensibility is nothing more than to be so constituted as to feel promptly, and in a very lively manner, the impressions of those objects which act upon yourself. 112 A sensible soul is only human's brain, disposed in a mode to receive the motion communicated to it with facility, to re-act with promptness, by giving an instantaneous impulse to the organs.

113 Thus the human is called sensible, whom the sight of the distressed, the contemplation of the unhappy, the recital of a melancholy tale, the witnessing of an afflicting catastrophe, 114 or the idea of a dreadful spectacle, touches in so lively a manner as to enable the brain to give play to your lachrymal organs, which cause you to shed tears; 115 a sign by which we recognise the effect of great grief, of extreme anguish in the human being. 116 The human in whom musical sounds excite a degree of pleasure, or produce very remarkable effects, is said to have a sensible or a fine ear. 117 In short, when it is perceived that eloquence-- the beauty of the arts-- the various objects that strike your senses, excite in you very lively

emotions, you are said to possess a soul full of sensibility.

118 Wit, is a consequence of this physical sensibility; 119 indeed, wit is nothing more than the facility which some beings, of the human species possess, of seizing with promptitude, of developing with quickness, a whole, with its different relations to other objects. 120 Genius, is the facility with which some people comprehend this whole, and its various relations when they are difficult to be known, but useful to forward great and mighty projects. 121 Wit may be compared to a piercing eye which perceives things quickly. 122 Genius is an eye that comprehends at one view, all the points of an extended horizon: or what the French term ‘coup d'oeil’. 123 True wit is that which perceives objects with their relations such as they really are. 124 False wit is that which catches at relations, which do not apply to the object, or which arises from some blemish in the organisation. 125 True wit resembles the direction on a hand-post.

126 Imagination is the faculty of combining with promptitude ideas or images; it consists in the power human possesses of re-producing with ease the modifications of your own brain: of connecting them, of attaching them to the objects to which they are suitable. 127 When imagination does this, it gives pleasure; its fictions are approved, it embellishes Nature, it is a proof of the soundness of the mind, it aids truth: 128 when on the contrary, it combines ideas, not formed to associate themselves with each other-- 129 when it paints nothing but disagreeable phantoms, it disgusts, its fictions are censured, it distorts Nature, it advocates falsehood, it is the proof of a disordered, of a deranged mind: 130 thus poetry, calculated to render Nature more pathetic, more touching, pleases when it creates ideal beings, but which move us agreeably: 131 we, therefore, forgive the illusions it has held forth, on account of the pleasure we have reaped from them. 132 The hideous chimeras of superstition displease, because they are nothing

more than the productions of a distempered imagination, 133 that can only awaken the most afflicting sensations, fills us with the most disagreeable ideas.

134 Imagination, when it wanders, produces fanaticism, superstitious terrors, inconsiderate zeal, phenyl, and the most enormous crimes: 135 when it is well regulated, it gives birth to a strong predilection for useful objects, an energetic passion for virtue, an enthusiastic love of our country, and the most ardent friendship: 136 the person who is divested of imagination, is commonly one in whose torpid constitution phlegm predominates over the igneous fluid, 137 over that sacred fire, which is the great principle of your mobility, of that warmth of sentiment, which vivifies all human's intellectual faculties. 138 There must be enthusiasm for transcendent virtues as well as for atrocious crimes; enthusiasm places the soul in a state similar to that of drunkenness; 139 both the one and the other excite in human that rapidity of motion which is approved, when good results, when its effects are beneficial; 140 but which is censured, is called folly, delirium, crime, fury; when it produces nothing but disorder and confusion.

141 The mind is out of order, it is incapable of judging sanely-- 142 the imagination is badly regulated, whenever human's organisation is not so modified, as to perform its functions with precision. 143 At each moment of human existence, you gathers experience; every sensation you have, furnishes a fact that deposits in your brain an idea which your memory recalls with more or less fidelity: 144 these facts connect themselves, these ideas are associated; their chain constitutes experience; this lays the foundation of science. 145 Knowledge is that consciousness which arises from reiterated experience-- 146 from experiments made with precision of the sensations, of the ideas, of the effects which an object is capable of producing, either in ourselves or in others. 147 All science, to be just, must be founded on truth. 148 Truth

itself rests on the constant, the faithful relation of our senses. 149 Thus, truth is that conformity, that perpetual affinity, which human's senses, when well constituted, when aided by experience, discover to oneself, 150 between the objects of which you have a knowledge, and the qualities with which you clothes them. 151 In short, truth is nothing more than the just, the precise association of human's ideas. 152 But how can you, without experience, assure yourself of the accuracy, of the justness of this association? 153 How, if you does not reiterate this experience, can you compare it? How prove its truth? 154 If human senses are vitiated, how is it possible they can convey to others with precision, the sensations, the facts, with which they store own brain? 155 It is only by multiplied, by diversified, by repeated experience, that human is enabled to rectify the errors of own first conceptions.

156 Human is in error every time your organs, either originally defective in their nature, or vitiated by the durable or transitory modifications which they undergo, render you incapable of judging soundly of objects. 157 Error consists in the false association of ideas, by which qualities are attributed to objects which they do not possess. 158 Human is in error, when you supposes those beings really to have existence, which have no local habitation but in your own imagination: 159 you are in error, when you associates the idea of happiness with objects capable of injuring yourself, whether immediately or by remote consequences which you cannot foresee. 160 But how can you foresee effects of which you have not yet any knowledge?

161 It is by the aid of experience: by the assistance which this experience affords, it is known that analogous, that like causes, produce analogous, produce like effects. 162 Memory, by recalling these effects, enables human to form a judgment of those you may expect, whether it be from the same causes, or from causes that bear a relation to those of which you have already experienced the action.

163 From this it will appear, that prudence, foresight, are faculties that are ascribable to, that grow out of experience. 164 If you have felt that fire excited in your organs painful sensation, this experience suffices you to know, to foresee, that fire so applied, will consequently excite the same sensations. 165 If you have discovered that certain actions, on your part, stirred up the hatred, elicited the contempt of others, 166 this experience sufficiently enables you to foresee, that every time you shall act in a similar manner, you will be either hated or despised.

167 The faculty human has of gathering experience, of recalling it to yourself, of foreseeing effects by which you are enabled to avoid whatever may have the power to injure you, 168 to procure that which may be useful to the conservation of your own existence, which may contribute to that which is the sole end of all your actions, 169 whether corporeal or mental,-- your felicity-- constitutes that, which, in your word, is designated under the name of ‘Reason’.

170 Sentiment, imagination, temperament, may be capable of leading human astray-- may have the power to deceive human; 171 but experience and reflection will rectify your errors, point out your mistakes, place you in the right road, teach you what can really conduce to, what can truly conduct yourself to happiness. 172 From this, it will appear, that reason is human's nature, modified by experience, moulded by judgment, regulated by reflection: 173 it supposes a moderate, sober temperament; a just, a sound mind; a well-regulated, orderly imagination; a knowledge of truth, grounded upon tried, upon reiterated experience; in fact, prudence and foresight: 174 this will serve to prove, that although nothing is more commonly asserted, although the phrase is repeated daily, nay, hourly, that human is a reasonable being, 175 yet there are but a very small number of the individuals who compose the human species, 176 of whom it can with truth be said; who really enjoy the faculty of reason, or who combine the dispositions, the experience, by

which it is constituted. 177 It ought not, then to excite surprise, that the individuals of the human race, who are in a capacity to make true experience, are so few in number.

178 Human, when you are born, brings with you into the world organs susceptible of receiving impulse, amassing ideas, of collecting experience; 179 but whether it be from the vice of your system, the imperfection of your organisation, or from those causes by which it is modified, your own experience is false, 180 your ideas are confused, your images are badly associated, your judgment is erroneous, your brain is saturated with vicious, with wicked systems, 181 which necessarily have an influence over your conduct, which are continually disturbing your mind, and confounding your reason.

182 Human's senses, as it has been shown, are the only means by which you are enabled to ascertain whether your opinions are true or false, 183 whether your conduct is useful to yourself and beneficial to others, whether it is advantageous or disadvantageous. 184 But that your senses may be competent to make a faithful relation-- that they may be in a capacity to impress true ideas on your brain, it is requisite they should be sound; 185 that is to say, in the state necessary to maintain your existence; in that order which is suitable to your preservation-- that condition which is calculated to ensure your permanent felicity. 186 It is also indispensable that your brain itself should be healthy, or in the proper circumstances to enable it to fulfill its functions with precision, to exercise its faculties with vigour. 187 It is necessary that memory should faithfully delineate its anterior sensations, should accurately retrace its former ideas; to the end, 188 that you may be competent to judge, to foresee the effects you may have to hope, the consequences you may have to fear, from those actions to which you may be determined by your will. 189 If your organic system be vicious, if your interior or exterior organs be defective, whether by their natural conformation or from those causes by which they are regulated,

you feels but imperfectly-- in a manner less distinct than is requisite; 190 your ideas are either false or suspicious, you judges badly, you are in a delusion, in a state of ebriety, in a sort of intoxication that prevents your grasping the true relation of things. 191 In short, if your memory is faulty, if it is treacherous, your reflection is void, your imagination leads you astray, your mind deceives you, 192 whilst the sensibility of your organs, simultaneously assailed by a crowd of impressions, shocked by a variety of impulsions, oppose you to prudence, to foresight, to the exercise of your own reason. 193 On the other hand, if the conformation of your organs, as it happens with those of a phlegmatic temperament, of a dull habit, does not permit you to move, except with feebleness, in a sluggish manner, your experience is slow, frequently unprofitable. 194 The tortoise and the butterfly are alike incapable of preventing their destruction. 195 The stupid human, equally with yourself who is intoxicated, are in that state which renders it impossible for them to arrive at or attain the end they have in view.

196 But what is the end? What is the aim of human in the sphere you occupies? 197 It is to preserve yourself; to render your own existence happy. 198 It becomes then of the utmost importance, that you should understand the true means which reason points out, 199 which prudence teaches you to use, in order that you may with certainty, that you may constantly arrive at the end which you proposes to yourself. 200 These human will find are your natural faculties-- your mind-- your talents-- your industry-- your actions, 201 determined by those passions of which your own nature renders you susceptible, which give more or less activity to your own will. 202 Experience and reason again show human, that the people with whom you are associated are necessary to yourself, 203 are capable of contributing to your happiness, are in a capacity to administer to your pleasures, are competent to assist you by those faculties which are peculiar to them; 204 experience

teaches human the mode you must adopt to induce them to concur in your designs, to determine them to will and incline them to act in your favour. 205 This points out to human the actions they approve-- those which displease them-- the conduct which attracts them-- that which repels them-- the judgment by which they are swayed-- 206 the advantages that occur-- the prejudicial effects that result to yourself from their various modes of existence and from their diverse manner of acting. 207 This experience furnishes human with the ideas of virtue and of vice, of justice and of injustice, of goodness and of wickedness, of decency and of indecency, of probity and of knavery: 208 In short, you learns to form a judgment of humans-- to estimate their actions-- to distinguish the various sentiments excited in them, according to the diversity of those effects which they make your experience. 209 It is upon the necessary diversity of these effects that is founded the discrimination between good and evil-- between virtue and vice; 210 distinctions which do not rest, as some thinkers have believed, on the conventions made between humans; 211 still less, as some metaphysicians have asserted, upon the chimerical will of supernatural beings: 212 but upon the solid, the invariable, the eternal relations that subsist between beings of the human species congregated together, and living in society: 213 which relations will have existence as long as human shall remain, as long as society shall continue to exist.

214 Thus virtue is everything that is truly beneficial, everything that is constantly useful to the individuals of the human race, living together in society; 215 vice everything that is really prejudicial, everything that is permanently injurious to them. 216 The greatest virtues are those which procure for human the most durable advantages, 217 from which you derives the most solid happiness, which preserves the greatest degree of order in your association: 218 the greatest vices, are those which most disturb your tendency to happiness, which perpetuate error, which most

interrupt the necessary order of society.

219 The virtuous human, is one whose actions tend uniformly to the welfare, constantly to the happiness, of your fellow creatures. 220 The vicious human, is one whose conduct tends to the misery, whose propensities form the unhappiness of those with whom you lives; 221 from whence your own peculiar misery most commonly results.

222 Everything that procures for a person true and permanent happiness is reasonable; 223 everything that disturbs an individual felicity, or that of the beings necessary to your own happiness, is foolish and unreasonable. 224 The person who injures others, is wicked; 225 the person who injures oneself, is an imprudent being, who neither has a knowledge of reason, of own peculiar interests, nor of truth.

226 Human's duties are the means pointed out to you by experience, the circle which reason describes for yourself, by which you are to arrive at that goal you proposes to yourself; 227 these duties are the necessary consequence of the relations subsisting between mortals, who equally desire happiness, who are equally anxious to preserve their existence. 228 When it is said these duties compel you, it signifies nothing more than that, without taking these means, you could not reach the end proposed to yourself by your own nature. 229 Thus, moral obligation is the necessity of employing the natural means to render the beings with whom you lives happy; 230 to the end that you may determine them in turn to contribute to your own individual happiness: 231 your obligation toward yourself, is the necessity you are under to take those means, without which you would be incapable to conserve yourself, or render your existence solidly and permanently happy. 232 Morals, like the universe, is founded upon necessity, or upon the eternal relation of things.

233 Happiness is a mode of existence of which human naturally wishes the duration, or in which you are willing to continue. 234 It is measured by its

duration, by its vivacity. The greatest happiness is that which has the longest continuance: 235 transient happiness, or that which has only a short duration, is called Pleasure; 236 the more lively it is, the more fugitive, because human's senses are only susceptible of a certain quantum of motion. 237 When pleasure exceeds this given quantity, it is changed into anguish, or into that painful mode of existence, of which you ardently desires the cessation: 238 this is the reason why pleasure and pain frequently so closely approximate each other as scarcely to be discriminated. 239 Immoderate pleasure is the forerunner of regret. It is succeeded by ennui, it is followed by weariness, it ends in disgust: 240 transient happiness frequently converts itself into durable misfortune.

241 According to these principles it will be seen that human, who in each moment of your duration seeks necessarily after happiness, 242 ought, when you are reasonable, to manage, to husband, to regulate your pleasures; 243 to refuse yourself to all those of which the indulgence would be succeeded by regret; 244 to avoid those which can convert themselves into pain; in order that you may procure for yourself the most permanent felicity.

245 Happiness cannot be the same for all the beings of the human species; 246 the same pleasures cannot equally affect humans whose conformation is different, whose modification is diverse. 247 This no doubt, is the true reason why the greater numbers of moral philosophers are so little in accord upon those objects in which they have made human's happiness consist, as well as on the means by which it may be obtained.

248 Nevertheless, in general, happiness appears to be a state, whether momentary or durable, in which human readily acquiesces, because you finds it conformable to your being. 249 This state results from the accord, springs out of the conformity, which is found between yourself and those circumstances in which you have been placed by Nature; 250 or, if it be preferred,

happiness is the co-ordination of human, with the causes that give you impulse.

251 The ideas which human forms to oneself of happiness depend not only on your temperament, on your individual conformation, but also upon the habits you have contracted. 252 Habit is, in human, a mode of existence-- of thinking-- of acting, which your organs, as well interior as exterior, contract, by the frequent reiteration of the same motion; 253 from whence results the faculty of performing these actions with promptitude, of executing them with facility.

254 If things be attentively considered, it will be found that almost the whole conduct of human-- the entire system of your own actions-- your occupations-- your connexions-- your studies-- your amusements-- your manners-- your customs-- your very garments--even your aliments, are the effect of habit. 255 Human owes equally to habit, the facility with which you exercises your mental faculties of thought-- of judgment-- of wit-- of reason-- of taste. 256 It is to habit you owe the greater part of your inclinations-- of your desires-- of your opinions-- of your prejudices-- of the ideas, true or false, you form to yourself of your own welfare. 257 In short, it is to habit, consecrated by time, that you owe those errors into which everything strives to precipitate you; 258 from which everything is calculated to prevent you emancipating yourself. 259 It is habit that attaches you either to virtue or to vice: experience proves this: 260 observations teach incontrovertibly that the first crime is always accompanied by more pangs of remorse than the second; this again, by more than the third; so on to those that follow. 261 A first action is the commencement of a habit; 262 those which succeed confirm it: by force of combating the obstacles that prevent the commission of criminal actions, human arrives at the power of vanquishing them with ease; of conquering them with facility. 263 Thus you frequently becomes wicked from habit.

NATURE

264 Human is so much modified by habit, that it is frequently confounded with your own nature: 265 from hence results, as will presently be seen, those opinions or those ideas, which you have called innate: 266 because you have been unwilling to recur back to the source from whence they sprung: which has, as it were, identified itself with your brain. 267 However this may be, human adheres with great strength of attachment to all those things to which you are habituated; 268 your mind experiences a sort of violence, an incommodious revulsion, a troublesome distaste, when it is endeavoured to make you change the course of your own ideas: 269 a fatal predilection frequently conducts you back to the old track in despite of reason.

270 It is by a pure mechanism that may be explained the phenomena of habit, as well physical as moral; 271 the soul, notwithstanding its spirituality, is modified exactly in the same manner as the body. 272 Habit, in human, causes the organs of voice to learn the mode of expressing quickly the ideas consigned to your brain, 273 by means of certain motion, which, during your infancy, the tongue acquires the power of executing with facility: 274 your tongue, once habituated to move itself in a certain manner, finds much trouble, has great pain, to move itself after another mode; 275 the throat yields with difficulty to those inflections which are exacted by a language different from that to which you have, been accustomed. 276 It is the same with regard to your ideas; your brain, your interior organ, 277 your soul, inured to a given manner of modification, accustomed to attach certain ideas to certain objects, long used to form to itself a system connected with certain opinions, whether true or false, 278 experiences a painful sensation, whenever you undertakes to give it a new impulse, or alter the direction of its habitual motion. 279 It is nearly as difficult to make you change your opinions as your language.

280 Here, then, without doubt, is the cause of that almost invincible attachment which human displays to

those customs-- those prejudices-- 281 those institutions of which it is in vain that reason, experience, good sense prove to yourself the inutility, or even the danger. 282 Habit opposes itself to the clearest, the most evident demonstrations; 283 these can avail nothing against those passions, those vices, which time has rooted in you-- against the most ridiculous systems-- against the most absurd notions-- against the most extravagant hypotheses-- against the strangest customs: 284 above all, when you have learned to attach to them the ideas of utility, of common interest, of the welfare of society. 285 Such is the source of that obstinacy, of that stubbornness, which human evinces for your religion, for ancient usages, for unreasonable customs, 286 for laws so little accordant with justice, for abuses, which so frequently make you suffer, for prejudices of which you sometimes acknowledges the absurdity, yet is unwilling to divest yourself of them. 287 Here is the reason why nations contemplate the most useful novelties as mischievous innovations-- 288 why they believe they would be lost, if they were to remedy those evils to which they have become habituated; 289 which they have learned to consider as necessary to their repose; which they have been taught to consider dangerous to be cured.

290 Education is only the art of making human contract, in early life, that is to say, when your organs are extremely flexible, the habits, the opinions, the modes of existence, adopted by the society in which you are placed. 291 The first moments of human's infancy are employed in collecting experience; 292 those who are charged with the care of rearing you, or who are entrusted to bring you up, teaches you how to apply it: 293 it is they who develop reason in you: the first impulse they give you commonly decides upon your own condition, upon your own passions, upon the ideas you forms to yourself of happiness, upon the means you shall employ to procure it, upon your virtues, and upon your vices. 294 Under the eyes of human's masters, the infant acquires ideas: under their

tuition you learns to associate them,-- to think in a certain manner,-- to judge well or ill. 295 They point out to human various objects, which they accustom you either to love or to hate, to desire or to avoid, to esteem or to despise. 296 It is thus opinions are transmitted from fathers, mothers, nurses, and masters, to human in your infantine state. 297 It is thus, that your mind by degrees saturates itself with truth, or fills itself with error; 298 after which you regulates your conduct, which renders you either happy or miserable, virtuous or vicious, estimable or hateful. 299 It is thus human becomes either contented or discontented with own destiny, according to the objects towards which they have directed your passions-- towards which they have bent the energies of your own mind; 300 that is to say, in which they have shown you your own interest, in which they have taught you to place your felicity: 301 in consequence, you loves and searches after that which they have taught you to revere-- that which they have made the object of your research; 302 you have those tastes, those inclinations, those phantasms, which, during the whole course of your life, you are forward to indulge, 303 which you are eager to satisfy, in proportion to the activity they have excited in you, and the capacity with which you have been provided by Nature.

304 State-government ought to be the art of regulating the passions of human-- of directing them to the welfare of society-- of diverting them into a genial current of happiness-- of making them flow gently to the general benefit of all: 305 but too frequently it is nothing more than the detestable art of arming the passions of the various members of society against each other,-- 306 of making them the engines to accomplish their mutual destruction,-- of converting them into agents which embitter their existence, create jealousies among them, 307 and fill with rancorous animosities that association from which, if properly managed, human ought to derive own felicity. 308 Society is commonly so vicious because it is not founded upon

Nature, upon experience, and upon general utility; 309 but on the contrary, upon the passions, upon the caprices, and upon the particular interests of those by whom it is governed. 310 In short, it is for the most part the advantage of the few opposed to the prosperity of the many. 311 State-government, to be useful, should found its principles upon Nature; that is to say, should conform itself to the essence of human, should mould itself to the great end of society: 312 but what is society? And what is its end?

313 It is a whole, formed by the union of a great number of families, or by a collection of individuals, assembled from a reciprocity of interest, in order that they may satisfy with greater facility their reciprocal wants-- 314 that they may, with more certainty, procure the advantages they desire-- that they may obtain mutual succours-- above all, that they may gain the faculty of enjoying, in security, those benefits with which Nature and industry may furnish them: 315 it follows, of course, that state-government, which are intended to maintain society, and to consolidate the interests of this congregation, ought to enter into its views, 316 to facilitate the means of giving them efficiency, to remove all those obstacles that have a tendency to counteract the intention with which human entered into association.

317 Human, in approximating to your fellow human, to live with others in society, has made, either formally or tacitly, a covenant; 318 by which you engage to render mutual services, to do nothing that can be prejudicial to your neighbour. 319 But as the nature of each individual impels you each instant to seek after your own welfare, 320 which you have mistaken to consist in the gratification of your passions, and the indulgence of your transitory caprices, without any regard to the convenience of your fellows; 321 there needed a power to conduct yourself back to human duty, to oblige you to conform yourself to human's obligations, 322 and to recall yourself to your engagements, which the hurry of your passions frequently

make you forget. 323 This power is the law; it is, or ought to be, the collection of the will of society, 324 reunited to fix the conduct of its members, to direct their action in such a mode, that it may concur to the great end of your association--the general good.

325 But as society, more especially when very numerous, is incapable of assembling itself, unless with great difficulty, as it cannot with tumult make known its intentions, it is obliged to choose citizens in whom it places a confidence, 326 whom it makes the interpreter of its will, whom it constitutes the depositaries of the power requisite to carry it into execution. 327 Such is the origin of all state-government, which to be legitimate can only be founded on the free consent of society. 328 Those who are charged with the care of governing, call themselves sovereigns, chiefs, legislators: 329 according to the form which society has been willing to give to its government: 330 these sovereigns are styled monarchs, magistrates, representatives.

331 Government only borrows its power from society: being established for no other purpose than its welfare, 332 it is evident society can revoke this power whenever its interest shall exact it; change the form of its government; extend or limit the power which it has confided to its chiefs, over whom, by the immutable laws of Nature, it always conserves a supreme authority: 333 because these laws enjoin, that the part shall always remain subordinate to the whole

334 Thus sovereigns are the ministers of society, its interpreters, the depositaries of a greater or of a less portion of its power; 335 but they are not its absolute masters, neither are they the proprietors of nations. 336 By a covenant, either expressed or implied, they engage themselves to watch over the maintenance, to occupy themselves with the welfare of society; 337 it is only upon these conditions society consents to obey them. 338 The price of obedience is protection. 339 There is or ought to be a reciprocity of interest between the governed and the governor: 340

whenever this reciprocity is wanting, society is in that state of confusion: it is verging on destruction. 341 No society upon earth was ever willing or competent to confer irrevocably upon its chiefs the power, the right, of doing it injury. 342 Such a concession, such a compact, would be annulled, would be rendered void by Nature; 343 because She wills that each society, the same as each individual of the human species shall tend to its own conservation; it has not therefore the capacity to consent to its permanent unhappiness. 344 Laws, in order that they may be just, ought invariably to have for their end, the general interest of society; 345 that is to say, to assure to the greater number of citizens those advantages for which human originally associated. 346 These advantages are liberty, property, security.

347 Liberty, to human, is the faculty of doing, for your own peculiar happiness, everything which does not injure or diminish the happiness of your associates: 348 in associating, each individual renounced the exercise of that portion of own natural liberty which would be able to prejudice or injure the liberty of one's fellows. 349 The exercise of that liberty which is injurious to society is called licentiousness.

350 Property, to human, is the faculty of enjoying those advantages which spring from labour; 351 those benefits which industry or talent has procured to each member of society.

352 Security, to human, is the certitude, the assurance, that each individual ought to have, of enjoying in your person, of finding for your property the protection of the laws, 353 as long as you shall faithfully observe, as long as you shall punctually perform, your engagements with society.

354 Justice, to human, assures to all the members of society, the possession of these advantages, the enjoyment of those rights, which belong to them. 355 From this, it will appear, that without justice, society is not in a condition to procure the happiness of any human. 356 Justice is also called equity, because by the assistance of the laws made to

command the whole, it reduces all its members to a state of equality; 357 that is to say, justice prevents them from prevailing one over the other, by the inequality which Nature or industry may have made between their respective powers.

358 Rights, to human, are everything which society, by equitable laws, permits each individual to do for your own peculiar felicity. 359 These rights are evidently limited by the invariable end of all association: 360 society has, on its part, rights over all its members, by virtue of the advantages which it procures for them; 361 all its members, in turn, have a right to claim, to exact from society, or secure from its ministers those advantages for the procuring of which they congregated, in favour of which they renounced a portion of their natural liberty. 362 A society, of which the chiefs, aided by the laws, do not procure any good for its members, evidently loses its right over them: 363 those chiefs who injure society lose the right of commanding. 364 It is not our country, without it secures the welfare of its inhabitants; a society without equity contains only enemies; a society oppressed is composed only of tyrants and slaves; 365 slaves are incapable of being citizens; it is liberty, property, and security, that render our country dear to us; it is the true love of your country that forms the citizen.

366 For want of having a proper knowledge of these truths, or for want of applying them when known, some nations have become unhappy-- 367 have contained nothing but a vile heap of slaves, separated from each other, detached from society, which neither procures for them any good, nor secures to them any one advantage. 368 In consequence of the imprudence of some nations, or of the craft, cunning, and violence of those to whom they have confided the power of making laws, and carrying them into execution, their sovereigns have rendered themselves absolute masters of society. 369 These, mistaking the true source of their power, pretended to hold it from heaven, to be accountable for their

actions to God alone, to owe nothing, not to have any obligation to society, 370 in a word, to be gods upon earth, to possess the right of governing arbitrarily.

371 From thence politics became corrupted: they were only a mockery. Such nations, disgraced and grown contemptible, did not dare resist the will of their chiefs; 372 their laws were nothing more than the expression of the caprice of these chiefs; public welfare was sacrificed to their peculiar interests; 373 the force of society was turned against itself; its members withdrew to attach themselves to its oppressors, to its tyrants; 374 these to seduce them, permitted them to injure it with impunity and to profit by its misfortunes. 375 Thus liberty, justice, security, and virtue, were banished from many nations; 376 politics was no longer anything more than the art of availing itself of the forces of a people and of the treasure of society; 377 of dividing it on the subject of its interest, in order to subjugate it by itself; 378 at length a stupid, a mechanical habit, made them cherish their oppressors, and love their chains.

379 Human when you have nothing to fear, presently becomes wicked; 380 you who believes you have not occasion for your fellow, persuades yourself you may follow the inclinations of your heart without caution or discretion. 381 Thus fear is the only obstacle society can effectually oppose to the passions of its chiefs; without it they will quickly become corrupt, 382 and will not scruple to avail themselves of the means society has placed in their hands, to make them accomplices in their iniquity. 383 To prevent these abuses, it is requisite society should set bounds to its confidence; 384 should limit the power which it delegates to its chiefs; should reserve to itself a sufficient portion of authority to prevent them from injuring it; 385 it must establish prudent checks: it must cautiously divide the power it confers, because re-united, it will by such reunion be infallibly oppressed. 386 The slightest reflection, the most scanty review, will make people feel that the

burthen of governing and weight of administration, is too ponderous and overpowering to be borne by an individual; 387 that the scope of your jurisdiction, that the range of your surveillance, and multiplicity of your duties must always render you negligent; 388 that the extent of your power has ever a tendency to render you mischievous. 389 In short, the experience of all ages will convince nations that human is continually tempted to the abuse of power: 390 that as an abundance of strong liquor intoxicates human's brain, so unlimited power corrupts human's heart; 391 that therefore the sovereign ought to be subject to the law, not the law to the sovereign.

392 Government has necessarily an equal influence over the philosophy, as over the morals of nations. 393 In the same manner that its care produces labour, activity, abundance, salubrity and justice; its negligence induces idleness, sloth, discouragement, penury, contagion, injustice, vices and crimes. 394 It depends upon government either to foster industry, mature genius, give a spring to talents, or stifle them. 395 Indeed government, the disturber of dignities, of riches, of rewards, and punishments; 396 the master of those objects in which human from your infancy has learned to place your felicity, and contemplate as the means of your happiness; 397 acquires a necessary influence over your conduct: it kindles your passions; gives them direction; makes you instrumental to whatever purpose it pleases; 398 it modifies you; determines your manners; which in a whole people, as in the individual, is nothing more than the conduct, the general system of wills, 399 of actions that necessarily result from your education, government, laws, and religious opinions-- your institutions, whether rational or irrational. 400 In short, manners are the habits of a people: these are good whenever society draws from them true felicity and solid happiness; 401 they are bad, they are detestable in the eye of reason, when the happiness of society does not spring from them; 402 they are unwholesome when they have

nothing more in their favour than the suffrage of time, and the countenance of prejudice which rarely consults experience, which is almost ever at variance with good sense: 403 notwithstanding they may have the sanction of the law, custom, religion, public opinion, 404 or for example, they may be unworthy and may be disgraceful, provided society is in disorder; 405 that crime abounds; that virtue shrinks beneath the basilisk eye of triumphant vice; 406 they may then be said to resemble the UPAS, whose luxuriant yet poisonous foliage, the produce of a rank soil, becomes more baneful to those who are submitted to its vortex, in proportion as it extends its branches. 407 If experience you consulted, it will be found there is no action, however abominable, that has not received the applause, that has not obtained the approbation of some people. 408 Parricide, the sacrifice of children, robbery, usurpation, cruelty, intolerance, and prostitution, have all in their turn been licensed actions; 409 have been advocated; have been deemed laudable and meritorious deeds with some nations of the earth. 410 Above all, superstition has consecrated the most unreasonable, the most revolting customs.

411 Human's passions result from and depend on the motion of attraction or repulsion, of which you are rendered susceptible by Nature; 412 who enables human, by your peculiar essence, to be attracted by those objects which appear useful to yourself, to be repelled by those which you considers prejudicial; 413 it follows that government, by holding the magnet, can put these passions into activity, has the power either of restraining them, or of giving them a favourable or an unfavourable direction. 414 All human’s passions are constantly limited by either loving or hating, seeking or avoiding, desiring or fearing. 415 These passions, so necessary to the conservation of human, are a consequence of your organisation; 416 they display themselves with more or less energy, according to your own temperament; 417 education and habit develop

them; government gives them play, conducts them towards those objects, which it believes itself interested in making desirable to its subjects. 418 The various names which have been given to these passions, are relative to the different objects by which they are excited, 419 such as pleasure, grandeur, or riches, which produce voluptuousness, ambition, vanity and avarice. 420 If the source of those passions which predominate in nations be attentively examined it will be commonly found in their governments. 421 It is the impulse received from their chiefs that renders them sometimes warlike, sometimes superstitious, sometimes aspiring after glory, sometimes greedy after wealth, sometimes rational, and sometimes unreasonable; 422 if sovereigns, in order to enlighten and render happy their dominions, were to employ only the tenth part of the vast expenditures which they lavish, 423 only a tithe of the pains which they employ to render them brutish, to stupify them, to deceive them, and to afflict them; 424 their subjects would presently be as wise, would quickly be as happy, as they are now remarkable for being blind, ignorant, and miserable.

425 Let the vain project of destroying, the delusive attempt at rooting your passions from the heart of human, you abandoned; 426 let an effort be made to direct them towards objects that may be useful to yourself, beneficial to your associates. 427 Let education, let government, let the laws, habituate you to restrain your passions within those just bounds that experience fixes and reason prescribes. 428 Let the ambitious have honours, titles, distinctions, and power, when they shall have usefully served their country; 429 let riches be given to those who covet them, when they shall have rendered themselves necessary to their fellow citizens; 430 let commendations, let eulogies, encourage those who shall be actuated by the love of glory. 431 In short, let the passions of human have a free, an uninterrupted course, whenever there shall result from their exercise, real, substantial, and

durable advantages to society. 432 Let education kindle only those, which are truly beneficial to the human species; let it favour those alone which are really necessary to the maintenance of society. 433 The passions of human are dangerous, only because everything conspires to give them an evil direction.

434 Nature does not make human either good or wicked: She combines machines more or less active, mobile, and energetic; 435 She furnishes human with organs and temperament, of which your passions, more or less impetuous, are the necessary consequence; 436 these passions have always your happiness for their object, your welfare for their end: 437 in consequence they are legitimate, they are natural, they can only be called bad or good, relatively, to the influence they have on the beings of your species.

438 Nature gives human legs proper to sustain your weight, and necessary to transport yourself from one place to another; 439 the care of those who rear them strengthens them, habituates you to avail yourself of yourself, accustoms you to make either a good or a bad use of them. 440 The arm which you have received from Nature is neither good nor bad; it is necessary to a great number of the actions of life; 441 nevertheless, the use of this arm becomes criminal, if you have contracted the habit of using it to rob, to assassinate, with a view to obtain that money which you have been taught from your infancy to desire, 442 and which the society in which you lives renders necessary to yourself, but which your industry will enable you to obtain without doing injury to your fellow human.

443 The heart of human is a soil which Nature has made equally suitable to the production of brambles, or of useful grain-- 444 of deleterious poison, or of refreshing fruit, by virtue of the seeds which may be sown in it-- 445 by the cultivation that may be bestowed upon it, 446 In your infancy, those objects are pointed out to you which you are to estimate or to despise, to seek after or to avoid, to love or to hate. 447 It is your parents, your instructors, who render you either

virtuous or wicked, wise or unreasonable, studious or dissipated, steady or trifling, solid or vain. 448 Their example, their discourse, modify you through your whole life, teaching you what are the things you ought either to desire or to avoid; 449 what the objects you ought to fear or to love: you desires them, in consequence; 450 and you imposes on yourself the task of obtaining them, according to the energy of your temperament, which ever decides the force of your passions. 451 It is thus that education, by inspiring yourself with opinions, by infusing into yourself ideas, whether true or false, gives you those primitive impulsions after which you acts, in a manner either advantageous or prejudicial both to yourself and to others.

452 Human, at your birth, brings with you into the world nothing but the necessity of conserving yourself, of rendering your own existence happy: 453 instruction, example, the customs of the world, present you with the means, either real or imaginary, of achieving it; 454 habit procures for human the facility of employing these means: you attaches yourself strongly to those you judges best calculated, 455 most proper to secure to yourself the possession of those objects which they have taught you, which you have learned to desire as the preferable good attached to your own existence. 456 Whenever your education-- whenever the examples which have been afforded you-- whenever the means with which you have been provided, are approved by reason, are the result of experience, everything concurs to render yourself virtuous; 457 habit strengthens these dispositions in yourself; you becomes, in consequence, a useful member of society; 458 to the interests of which, everything ought to prove to you your own permanent well-being, your own durable felicity, is necessarily allied. 459 If, on the contrary, your education-- your institutions-- the examples which are set before you-- the opinions which are suggested to you in your infancy, are of a nature to exhibit to your mind virtue as useless and repugnant-- 460 vice as useful

and congenial to your own individual happiness, you will become vicious; you will believe yourself interested in injuring society, in rendering your associates unhappy; 461 you will be carried along by the general current: you will renounce virtue, which to yourself will no longer be anything more than a vain idol, without attractions to induce you to follow it; 462 without charms to tempt your adoration; because it will appear to exact, that you should immolate at its shrine, 463 that you should sacrifice at its altar all those objects which you have been constantly taught to consider the most dear to yourself; to contemplate as benefits the most desirable.

464 In order that human may become virtuous, it is absolutely requisite that you should have an interest, that you should find advantages in practising virtue. 465 For this end, it is necessary that education should implant in you reasonable ideas; that public opinion should lean towards virtue, as the most desirable good; 466 that example should point it out as the object most worthy esteem; that government should faithfully recompense, should regularly reward it; 467 that honour should always accompany its practice; that vice should constantly be despised; that crime should invariably be punished. 468 Is virtue in this situation amongst humans? 469 Does the education of human infuse into you just, faithful ideas of happiness-- true notions of virtue-- dispositions really favourable to the beings with whom you are to live? 470 The examples spread before you, are they suitable to innocence and manners? 471 Are they calculated to make you respect decency-- to cause you to love probity-- to practice honesty-- to value good faith-- to esteem equity-- to revere conjugal fidelity-- to observe exactitude in fulfilling your duties? 472 Religion, which alone pretends to regulate human's manners, does it render you sociable-- does it make you pacific-- does it teach you to be humane? 473 The arbiters, the sovereigns of society, are they faithful in recompensing, punctual in rewarding, those who have best

served their country? 474 In punishing those who have pillaged, who have robbed, who have plundered, who have divided, who have ruined it? 475 Justice, does she hold her scales with a firm, with an even hand, between all the citizens of the state? 476 The laws, do they never support the strong against the weak-- favour the rich against the poor-- uphold the happy against the miserable? 477 In short, is it an uncommon spectacle to behold crime frequently justified, often applauded, sometimes crowned with success, insolently triumphing, arrogantly striding over that merit which it disdains, over that virtue which it outrages? 478 Well then, in societies thus constituted, virtue can only be heard by a very small number of peaceable citizens, a few generous souls, who know how to estimate its value, who enjoy it in secret. 479 For the others, it is only a disgusting object; they see in it nothing but the supposed enemy to their happiness, or the censor of their individual conduct.

480 If human, according to your own nature, is necessitated to desire own welfare, you are equally obliged to love and cherish the means by which you believes it is to be acquired: 481 it would be useless, it would perhaps be unjust, to demand that a person should be virtuous, if you could not be so without rendering yourself miserable. 482 Whenever you thinks vice renders you happy, you must necessarily love vice; 483 whenever you sees inutility recompensed, crime rewarded-- whenever you witnesses either or both of them honoured,-- what interest will you find in occupying yourself with the happiness of your fellow-creatures? 484 What advantage will you discover in restraining the fury of your passions? 485 Whenever your mind is saturated with false ideas, filled with dangerous opinions, it follows, of course, that your whole conduct will become nothing more than a long chain of errors, a tissue of mistakes, a series of depraved actions.

486 We are informed, that the savages, in order to flatten the heads

of their children, squeeze them between two boards, 487 by that means preventing them from taking the shape designed for them by Nature. 488 It is pretty nearly the same thing with the institutions of human; they commonly conspire to counteract Nature, 489 to constrain and divert, to extinguish the impulse Nature has given human, to substitute others which are the source of all your misfortunes. 490 In almost all the countries of the earth, human is bereft of truth, is fed with falsehoods, and amused with marvellous chimeras: 491 human is treated like those children whose members are, by the imprudent care of their nurses, swathed with little fillets, 492 bound up with rollers, which deprive them of the free use of their limbs, obstruct their growth, prevent their activity, and oppose themselves to their health.

493 Most of the superstitious opinions of human have for their object only to display to you your supreme felicity in those illusions for which they kindle your passions: 494 but as the phantoms which are presented to your imagination are incapable of being considered in the same light by all who contemplate them, 495 human is perpetually in dispute concerning these objects; human hates own fellow, human persecutes own neighbour, your neighbour in turn persecutes you, 496 and you believes that in doing this you are doing well: that in committing the greatest crimes to sustain your opinions you are acting right. 497 It is thus superstition infatuates human from one's infancy, fills human with vanity, and enslaves human with fanaticism: 498 if you have a heated imagination, it drives you on to fury; 499 if you have activity, it makes you a mad-person, who is frequently as cruel, as you are dangerous to your fellow-creatures, as you are incommodious to others: 500 if, on the contrary, you be phlegmatic, and of a slothful habit, you becomes melancholy and useless to society.

501 Public opinion every instant offers to human's contemplation false ideas of honour, and wrong notions of glory: 502 it attaches human

esteem not only to frivolous advantages, but also to prejudicial interests and injurious actions; 503 which example authorises, which prejudice consecrates, which habit precludes you from viewing with the disgust and horror which they merit. 504 Indeed, habit familiarises human's mind with the most absurd ideas, the most unreasonable customs, the most blameable actions; 505 with prejudices the most contrary to your own interests, and detrimental to the society in which you lives. 506 Human finds nothing strange, nothing singular, nothing despicable, nothing ridiculous, except those opinions and objects to which you are yourself unaccustomed. 507 There are countries in which the most laudable actions appear very blameable and ridiculous-- 508 where the foulest and most diabolical actions pass for very honest and perfectly rational conduct. 509 In some nations they kill the old people; in some the children strangle their parents. 510 The Phoenicians and Carthaginians immolated their children to their gods. 511 Europeans approve duels; you, who refuse to cut the throat of another, or to blow out the brains of your own neighbour, is contemplated by them as dishonoured. 512 The Spaniards and Portuguese think it meritorious to burn an heretic. 513 In some countries women prostitute themselves without dishonour; 514 in others it is the height of hospitality for a man to present his wife to the embraces of the stranger: the refusal to accept this, excites his scorn and calls forth his resentment.

515 Authority commonly believes itself interested in maintaining the received opinions: those prejudices and errors which it considers requisite to the maintenance of its power and the consolidation of its interests, are sustained by force, which is never rational. 516 Princes themselves, filled with deceptive images of happiness, mistaken notions of power, erroneous opinions of grandeur, and false ideas of glory, are surrounded with flattering courtiers, who are interested in keeping up the delusion of their masters: 517 these contemptible men

have acquired ideas of virtue, only that they may outrage it: 518 by degrees they corrupt the people, these become depraved, lend themselves to their debaucheries, pander to the vices of the great, then make a merit of imitating them in their irregularities. 519 A court is too frequently the true focus of the corruption of a people.

520 This is the true source of moral evil. It is thus that everything conspires to render human vicious, and give a fatal impulse to your soul: 521 from whence results the general confusion of society, which becomes unhappy, from the misery of almost every one of its members. 522 The strongest motive-powers are put in action to inspire human with a passion for futile objects which are indifferent to yourself; 523 which make you become dangerous to your fellow human, by the means which you are compelled to employ, in order to obtain them. 524 Those who have the charge of guiding your steps, either impostors themselves, or the dupes to their own prejudices, forbid you to hearken to reason; 525 they make truth appear dangerous to you; they exhibit error as requisite to your welfare, not only in this world, but in the next. 526 In short, habit strongly attaches human to own irrational opinions, to your own perilous inclinations, and to your blind passion for objects either useless or dangerous. 527 Here, then, is the reason why for the most part human finds oneself necessarily determined to evil; 528 the reason why the passions, inherent in human's nature and necessary to your conservation, become the instruments of your destruction, 529 and the bane of that society, which properly conducted, they ought to preserve; 530 the reason why society becomes a state of warfare; why it does nothing but assemble enemies, who are envious of each other, and are always rivals for the prize. 531 If some virtuous beings are to be found in these societies, they must be sought for in the very small number of those, who, born with a phlegmatic temperament have moderate passions, 532 who therefore, either do not desire at all,

or desire very feebly, those objects with which their associates are continually inebriated.

533 Human's nature, diversely cultivated, decides upon your own faculties, as well corporeal as intellectual; upon your own qualities, as well moral as physical. 534 The human who is of a sanguine, robust constitution, must necessarily have strong passions; 535 you who is of a bilious, melancholy habit, will as necessarily have fantastical and gloomy passions; 536 the person of a gay turn, of a sprightly imagination, will have cheerful passions; while the person in whom phlegm abounds, will have those which are gentle, or which have a very slight degree of violence. 537 It appears to be upon the equilibrium of the humours, that depends the state of the person who is called virtuous; 538 your temperament seems to be the result of a combination, in which the elements or principles are balanced with such precision that no one passion predominates over another, or carries into your machine more disorder than your neighbour.

539 Habit, as we have seen, is human's nature modified: this latter furnishes the matter; education, domestic example, national manners, give it the form: 540 these, acting on human’s temperament, make you either reasonable, or irrational-- enlightened, or stupid-- a fanatic, or a hero-- an enthusiast for the public good, or an unbridled criminal-- a wise person, smitten with the advantages of virtue, or a libertine, plunged into every kind of vice. 541 All the varieties of the moral person, depend on the diversity of your ideas; which are themselves arranged and combined in your brain by the intervention of your senses. 542 Human’s temperament is the produce of physical substances, your own habits are the effect of physical modifications; 543 the opinions, whether good or bad, injurious or beneficial, true or false, which form themselves in your mind, are never more than the effect of those physical impulsions which the brain receives by the medium of the senses.

THE SOUL DOES NOT DERIVE ITS IDEAS FROM ITSELF-- IT HAS NO INNATE IDEAS

Paul Henri Thiery (Baron D'Holbach)

35 What has proceeded suffices to prove, that the interior organ of human, which is called your soul, is purely material. 2 Human will be enabled to convince yourself of this truth, by the manner in which you acquires your ideas,-- 3 from those impressions which material objects successively make on your organs, which are themselves acknowledged to be material. 4 It has been seen, that the faculties which are called intellectual, are to be ascribed to that of feeling; 5 the different qualities of those faculties which are called moral, have been explained after the necessary laws of a very simple mechanism: 6 it now remains, to reply to those who still obstinately persist in making the soul a substance distinguished from the body, or who insist on giving it an essence totally distinct. 7 They seem to found their distinction upon this, that this interior organ has the faculty of drawing its ideas from within itself; 8 they will have it, that human, at own birth, brings with oneself ideas into the world, which, according to this wonderful notion, they have called innate. 9 The Jews have a similar doctrine which they borrowed from the Chaldeans: 10 their rabbins taught, that each soul, before it was united to the seed that must form an infant in the womb of a woman, is confided to the care of an angel, which causes you to behold heaven, earth, and hell: 11 this, they pretend, is done by the assistance of a lamp, which extinguishes itself as soon as the infant comes into the world. 12 Some ancient philosophers have held, that the soul originally contains the principles of several notions or doctrines: 13 the Stoics designated this by the term PROLEPSIS, anticipated opinions; the Greek mathematicians, KOINAS ENNOIAS, universal ideas. 14 They have believed that the soul, by a special privilege, in a nature where everything is connected, enjoyed the faculty of moving itself without receiving any impulse; 15 of creating

to itself ideas, of thinking on a subject, without being determined to such action, by any exterior object; 16 which by moving its organs should furnish it with an image of the subject of its thoughts. 17 In consequence of these gratuitous suppositions, of these extraordinary pretensions, which it is only requisite to expose, 18 in order to confute some very able speculators, who were prepossessed by their superstitious prejudices; 19 have ventured the length to assert, that without model, without prototype to act on the senses, the soul is competent to delineate to itself, the whole universe with all the beings it contains. 20 DESCARTES and his disciples have assured us, that the body went absolutely for nothing, in the sensations, in the perceptions, in the ideas of the soul; 21 that it can feel, that it can perceive, that it can understand, that it can taste, that it can touch, even when there should exist nothing that is corporeal or material exterior to ourselves. 22 But what shall be said of a BERKELEY, who has endeavoured, who has laboured to prove to human, that everything in this world is nothing more than a chimerical illusion; 23 that the universe exists nowhere but in yourself; that it has no identity but in human's imagination; 24 who has rendered the existence of all things problematical by the aid of sophisms, insolvable even to those who maintain the doctrine of the spirituality of the soul.

25 Extravagant as this doctrine of the BISHOP OF CLOYNE may appear, it cannot well be more so than that of MALEBRANCHE, 26 the champion of innate ideas; who makes the divinity the common bond between the soul and the body: 27 or than that of those metaphysicians, who maintain that the soul is a substance heterogeneous to the body; 28 who by ascribing to this soul the thoughts of human, have in fact rendered the body superfluous. 29 They have not perceived they were liable to one solid objection, which is, that if the ideas of human are innate, 30 if human derives them from a superior being, independent of exterior causes, if you sees everything in

God; 31 how comes it that so many false ideas are afloat, that so many errors prevail, with which the human mind is saturated? 32 From whence comes these opinions, which according to the theologians are so displeasing to God? 33 Might it not be a question to the Malebranchists, was it in the Divinity that SPINOZA beheld his system?

34 Nevertheless, to justify such monstrous opinions, they assert that ideas are only the objects of thought. 35 But according to the last analysis, these ideas can only reach human from exterior objects, which in giving impulse to your senses modify your brain; 36 or from the material beings contained within the interior of your machine, who make some parts of your body experience those sensations which you perceives, 37 which furnish you with ideas, which you relates, faithfully or otherwise, to the cause that moves you. 38 Each idea is an effect, but however difficult it may be to recur to the cause, can we possibly suppose it is not ascribable to a cause? 39 If we can only form ideas of material substances, how can we suppose the cause of our ideas can possibly be immaterial? 40 To pretend that human without the aid of exterior objects, without the intervention of your senses, is competent to form ideas of the universe, 41 is to assert, that a blind person is in a capacity to form a true idea of a picture, that represents some fact of which you have never heard anyone speak.

42 It is very easy to perceive the source of those errors, into which humans, otherwise extremely profound and very enlightened have fallen, 43 when they have been desirous to speak of the soul: to describe its operations. 44 Obliged either by their own prejudices, or by the fear of combating the opinions of some imperious theologian, they have become the advocates of the principle, that the soul was a pure spirit: 45 an immaterial substance; of an essence directly different from that of the body; from everything we behold: 46 this granted, they have been incompetent to conceive how material objects could operate, in

what manner gross and corporeal organs were enabled to act on a substance, that had no kind of analogy with them; 47 how they were in a capacity to modify it by conveying its ideas; 48 in the impossibility of explaining this phenomenon, at the same time perceiving that the soul had ideas, they concluded that it must draw them from itself, and not from those beings, 49 which according to their own hypothesis, were incapable of acting on it, or rather, of which they could not conceive the manner of action; 50 they therefore imagined that all the modifications, all the actions of this soul, sprung from its own peculiar energy, were imprinted on it from its first formation, by the Author of Nature: 51 that these did not in any manner depend upon the beings of which we have a knowledge, or which act upon it, by the gross means of our senses.

52 There are, however, some phenomena, which, considered superficially, appear to support the opinion of these philosophers; 53 to announce a faculty in the human soul of producing ideas within itself, without any exterior aid; these are dreams, in which the interior organ of human, deprived of objects that move it visibly, does not, however, cease to have ideas-- 54 to be set in activity-- to be modified in a manner that is sufficiently sensible-- to have an influence upon your body. 55 But if a little reflection be called in, the solution to this difficulty will be found: 56 it will be perceived that, even during sleep, human's brain is supplied with a multitude of ideas, with which the eye or time before has stocked it; 57 these ideas were communicated to it by exterior or corporeal objects, by which they have been modified: 58 it will be found that these modifications renew themselves, not by any spontaneous, not by any voluntary motion on its part, 59 but by a chain of involuntary movements which take place in your machine, which determine, which excite those that give play to the brain; 60 these modifications renew themselves with more or less fidelity, with a greater or lesser degree of conformity to those which it has

anteriorly experienced. 61 Sometimes in dreaming, human has memory, then you retraces to yourself the objects which have struck you faithfully;-- 62 at other times, these modifications renew themselves without order, and without connection, very differently from those, which real objects have before excited in your interior organ. 63 If in a dream you believes you sees a friend, your brain renews in itself the modifications or the ideas which this friend had formerly excited-- 64 in the same order that they arranged themselves when your eyes really beheld you-- this is nothing more than an effect of memory. 65 If in your dream you fancies you sees a monster which has no model in nature, your brain is then modified in the same manner that it was by the particular, 66 by the detached ideas, with which it then does nothing more than compose an ideal whole; 67 by assembling, and associating, in a ridiculous manner, the scattered ideas that were consigned to its keeping; 68 it is then, that in dreaming you have imagination.

69 Those dreams that are troublesome, extravagant, whimsical, or unconnected, are commonly the effect of some confusion in your machine; 70 such as painful indigestion-- an overheated blood-- a prejudicial fermentation,-- 71 these material causes excite in human's body a disorderly motion, which precludes the brain from being modified in the same manner it was on the day before; 72 in consequence of this irregular motion the brain is disturbed, it only represents to itself confused ideas that want connection. 73 When in a dream, you believes you sees a Sphinx, a being supposed by the poets to have a head and face like a woman, 74 a body like a dog, wings like a bird, and claws like a lion, who put forth riddles and killed those who could not expound them; 75 either, you have seen the representation of you when you were awake, or else the disorderly motion of the brain is such that it causes it to combine ideas, 76 to connect parts, from which there results a whole without model, of which the parts were not formed to be united. 77 It is

thus, that human's brain combines the head of a woman, of which it already has the idea, with the body of a lioness, of which it also has the image. 78 In this your head acts in the same manner, as when by any defect in the interior organ, your disordered imagination paints to you some objects, notwithstanding you are awake. 79 Human frequently dreams, without being asleep: 80 human's dreams never produce anything so strange but that they have some resemblance, with the objects which have anteriorly acted on one's own senses; 81 which have already communicated ideas to one's brain. 82 The watchful theologians have composed, at their leisure, in their waking hours, those phantoms, of which they avail themselves, to terrify or frighten human; 83 they have done nothing more than assemble the scattered traits which they have found in the most terrible beings of their own species; 84 by exaggerating the powers, by enlarging the rights claimed by tyrants, they have formed ideal beings, before whom human trembles, and is afraid.

85 Thus, it is seen, that dreams, far from proving that the soul acts by its own peculiar energy, that it draws its ideas from its own recesses; 86 prove, on the contrary, that in sleep it is entirely passive, that it does not even renew its modifications, 87 but according to the involuntary confusion, which physical causes produce in the body, of which everything tends to show the identity, the consubstantiality with the soul.

88 What appears to have led those into a mistake, who maintained that the soul drew its ideas from itself, 89 is this, they have contemplated these ideas, as if they were real beings, when, in point of fact, they are nothing more than the modifications produced in the brain of human, by objects to which this brain is a stranger; 90 they are these objects, who are the true models, who are the real archetypes to which it is necessary to recur: here is the source of all their errors.

91 In the individual who dreams, the soul does not act more from itself, than it does in the human who is drunk, 92 that is to say, who is modified by some spirituous liquor: or than it does in the sick person, when you are delirious, 93 that is to say, when you are modified by those physical causes which disturb your machine, which obstruct it in the performance of its functions; 94 or than it, does in you, whose brain is disordered: dreams, like these various states, announce nothing more than a physical confusion in the human machine, 95 under the influence of which the brain ceases to act, after a precise and regular manner: this disorder may be traced to physical causes, 96 such as the aliments-- the humours-- the combinations-- the fermentations, which are but little analogous to the salutary state of human; 97 from hence it will appear, that your brain is necessarily confused, whenever your own body is agitated in an extraordinary manner.

98 Do not let human, therefore, believe that one soul acts by itself, or without a cause, in any one moment of your existence; 99 it is, conjointly with the body, submitted to the impulse of beings, who act on you necessarily, according to their various properties. 100 Wine taken in too great a quantity, necessarily disturbs your own ideas, causes confusion in your corporeal functions, occasions disorder in your mental faculties.

101 If there really existed a being in Nature, with the capability of moving itself by its own peculiar energies, 102 that is to say, able to produce motion, independent of all other causes, such a being would have the power of arresting itself, 103 or of suspending the motion of the universe; which is nothing more than an immense chain of causes linked one to another, acting and re-acting by necessary immutable laws, 104 and which cannot be changed, which are incapable of being suspended, unless the essences of everything in it were changed, without the properties of everything were annihilated. 105 In the general system of the world, nothing more can be

perceived than a long series of motion, received and communicated in succession, by beings capacitated to give impulse to each other: 106 it is thus, that each body is moved by the collision of some other body. The invisible motion of some soul is to be attributed to causes concealed within yourself; 107 human believes that it is moved by itself, because you does not see the springs which put it in motion, 108 or because human conceives those powers are incapable of producing the effects you so much admires: 109 but, does human more clearly conceive, how a spark in exploding gunpowder, is capable of producing the terrible effects you witnesses? 110 The source of human errors arise from this, that you regards your own body as gross and inert, 111 whilst this body is a sensible machine, which has necessarily an instantaneous conscience the moment it receives an impression; 112 which is conscious of its own existence by the recollection of impressions successively experienced; 113 memory by resuscitating an impression anteriorly received, by detaining it, or by causing an impression which it receives to remain, 114 whilst it associates it with another, then with a third, gives all the mechanism of reasoning.

115 An idea, which is only an imperceptible modification of the brain, gives play to the organ of speech, which displays itself by the motion it excites in the tongue: 116 this, in its turn, breeds ideas, thoughts, and passions, in those beings who are provided with organs susceptible of receiving analagous motion; 117 in consequence of which, the wills of a great number of people are influenced, who, combining their efforts, produce a revolution in a state, or even have an influence over the entire globe. 118 It is thus, that an ALEXANDER decided the fate of Asia, it is thus, that a MAHOMET changed the face of the earth; 119 it is thus, that imperceptible causes produce the most terrible, the most extended effects, by a series of necessary motion imprinted on the brain of human.

120 The difficulty of comprehending the effects produced on the soul of human, has made you attribute to it those incomprehensible qualities which have been examined. 121 By the aid of imagination, by the power of thought, this soul appears to quit your body, 122 to carry itself with the greatest ease, to transport itself with the utmost facility towards the most distant objects; 123 to run over, to approximate in the twinkling of an eye, all the points of the universe: 124 human has therefore believed, that a being who is susceptible of such rapid motion, must be of a nature very distinguished from all others; 125 human has persuaded oneself that this soul in reality does travel, that it actually springs over the immense space necessary to meet these various objects; 126 human did not perceive, that to do it in an instant, it had only to run over itself to approximate the ideas consigned to its keeping, by means of the senses.

127 Indeed, it is never by any other means than by your senses, that beings become known to human, or furnish you with ideas; 128 it is only in consequence of the impulse given to human body, that your brain is modified, or that your soul thinks, wills, and acts. 129 If, as ARISTOTLE asserted more than two thousand years ago,--" nothing enters the mind of human but through the medium of your senses,"-- 130 it follows as a consequence, that everything that issues from it must find some sensible object to which it can attach its ideas, 131 whether immediately, as a human, a tree, a bird, or in the last analysis or decomposition, such as pleasure, happiness, vice, virtue. 132 This principle, so true, so luminous, so important in its consequence, has been set forth in all its lustre, by a great number of philosophers; among the rest, by the great LOCKE. 133 Whenever, therefore, a word or its idea does not connect itself with some sensible object to which it can be related, this word or this idea is unmeaning, and void of sense; 134 it were better for human that the idea was banished from your mind, struck out of your language: this principle is only the converse of the axiom of ARISTOTLE,-- "if the direct be evident,

the inverse must be so likewise." 135 How has it happened, that the profound LOCKE, who, to the great mortification of the metaphysicians, has placed this principle of ARISTOTLE in the clearest point of view? 136 How is it, that all those who, like him, have recognised the absurdity of the system of innate ideas, have not drawn the immediate, the necessary consequences? 137 How has it come to pass, that they have not had sufficient courage to apply so clear a principle to all those fanciful chimeras with which the human mind has for such a length of time been so vainly occupied? 138 Did they not perceive that their principle sapped the very foundations of those metaphysical speculations, which never occupy human 139 but with those objects of which, as they are inaccessible to your own senses, you consequently can never form to yourself any accurate idea? 140 But prejudice, when it is generally held sacred, prevents you from seeing the most simple application of the most self-evident principles. 141 In metaphysical researches, the greatest people are frequently nothing more than children, who are incapable of either foreseeing or deducing the consequence of their own data.

142 LOCKE, as well as all those who have adopted his system, which is so demonstrable,-- or to the axiom of ARISTOTLE, which is so clear, 143 ought to have concluded from it that all those wonderful things with which metaphysicians have amused themselves, are mere chimeras; 144 mere wanderings of the imagination; that an immaterial spirit or substance, without extent, without parts, is, in fact, nothing more than an absence of ideas; 145 in short, they ought to have felt that the ineffable intelligence which they have supposed to preside at the helm of the world, is after all nothing more than a being of their own imagination, 146 on which human has never been in accord, whom human has pictured under all the variety of forms, 147 to which human has at different periods, in different climes, ascribed every kind of attribute, good or bad; 148 but of which it is

impossible human senses can ever prove either the existence or the qualities.

149 For the same reason, moral philosophers ought to have concluded, that what is called moral sentiment, moral instinct, that is, innate ideas of virtue, anterior to all experience of the good or bad effects resulting from its practice, are mere chimerical notions, 150 which, like a great many others, have for their guarantee and base only metaphysical speculation. 151 Before human can judge, you must feel; before human can distinguish good from evil, you must compare. 152 Morals, is a science of facts: to found them, therefore, on an hypothesis inaccessible to human senses, of which you have no means of proving the reality, is to render them uncertain; 153 it is to cast the log of discord into your lap, to cause you unceasingly to dispute upon that which you can never understand. 154 To assert that the ideas of morals are innate, or the effect of instinct, is to pretend that human knows how to read before you have learned the letters of the alphabet; 155 that human is acquainted with the laws of society before they are either made or promulgated.

156 To undeceive you, with respect to innate ideas or modifications, imprinted on human soul, at the moment of your birth, it is simply requisite to recur to their source; 157 you will then see that those with which you are familiar, which have, as it were, identified themselves with human existence, have all come to you through the medium of some of your senses; 158 that they are sometimes engraven on your brain with great difficulty,-- that they have never been permanent,-- that they have perpetually varied in human: 159 you will see that these pretended inherent ideas of human soul, are the effect of education, of example, above all, of habit, 160 which by reiterated motion has taught your brain to associate your ideas either in a confused or a perspicuous manner; to familiarise itself with systems either rational or absurd. 161 In short, human takes those for innate ideas of which you have forgotten the origin;

162 human no longer recalls to oneself, either the precise epoch, or the successive circumstances when these ideas were first consigned to human's brain: 163 arrived at a certain age you believes human has always had the same notions; your memory, crowded with experience, loaded with a multitude of facts, 164 is no longer able to distinguish the particular circumstances which have contributed to give your brain its present modifications; its instantaneous mode of thinking; its actual opinions. 165 For example, not one of human race, perhaps, recollects the first time the word God struck your ears-- the first ideas that it formed in yourself-- the first thoughts that it produced in yourself; 166 nevertheless, it is certain that from thence you have searched for some being with whom to connect the idea which you have either formed to yourself, or which have been suggested to you: 167 accustomed to hear God continually spoken of, you have, when in other respects, the most enlightened, regarded this idea as if it were infused into yourself by Nature; 168 whilst it is visibly to be attributed to those delineations of it, which your parents or your instructors have made to you; 169 which you have, in consequence, modified according to your own particular organisation, and the circumstances in which you have been placed; 170 it is thus, that each individual forms to oneself a God, of which you are yourself the model, or which you modifies after your own fashion.

171 His ideas of morals, although more real than those of metaphysics, are not however innate: 172 the moral sentiments human forms on the will, or the judgment you passes on the actions of human, are founded on experience; 173 which alone can enable you to discriminate those which are either useful or prejudicial, virtuous or vicious, honest or dishonest, worthy your esteem, or deserving your censure. 174 Human moral sentiments are the fruit of a multitude of experience that is frequently very long and very complicated. 175 Human gathers it with time; it is more or less faithful,

by reason of your particular organisation and the causes by which you are modified; 176 human ultimately applies this experience with greater or less facility; to this is to be attributed your habit of judging. 177 The celerity with which you applies your experience when you judges of the moral actions of your fellow human, is what has been termed moral instinct.

178 That which in natural philosophy is called instinct, is only the effect of some want of the body, the consequence of some attraction or some repulsion in human or animals. 179 The child that is newly born, sucks for the first time; the nipple of the breast is put into the mouth: by the natural analogy, that is found between the conglomerate glands, filled with nerves; which line the mouth, 180 and the milk which flows from the bosom of the nurse, through the medium of the nipple, causes the child to press it with own mouth, in order to express the fluid appropriate to nourish own tender age; 181 from all this the infant gathers experience; by degrees the idea of a nipple, of milk, of pleasure, associate themselves in the brain: 182 every time the child sees the nipple, the child seizes it, promptly conveys it to own mouth, and applies it to the use for which it is designed.

183 What has been said, will enable us to judge of those prompt and sudden sentiments, which have been designated the force of blood. 184 Those sentiments of love, which fathers and mothers have for their children-- those feelings of affection, which children, with good inclinations, bear towards their parents, are by no means innate sentiments; 185 they are nothing more, than the effect of experience, of reflection, of habit, in souls of sensibility. 186 These sentiments do not even exist in a great number of human beings. We but too often witness tyrannical parents, occupied with making enemies of their children, 187 who appear to have been formed, only to be the victims of their irrational caprices or their unreasonable desires.

188 From the instant in which you commences, until that in which you

ceases to exist, you feels-- you are moved either agreeably or unpleasantly-- you collects facts-- you gathers experience; 189 these produce ideas in your brain, that are either cheerful or gloomy. 190 Not one individual has all this experience present to your memory at the same time, it does not ever represent to you the whole clew at once: 191 it is, however, this experience that mechanically directs you, without your knowledge, in all your actions; 192 it was to designate the rapidity with, which you applied this experience, of which you so frequently loses the connection-- 193 of which human is so often at a loss to render you an account, that you imagined the word instinct: it appears to be the effect of magic, the operation of a supernatural power, to the greater number of individuals: 194 it is a word devoid of sense to many others; but to the philosophers it is the effect of a very lively feeling to them it consists in the faculty of combining, promptly, a multitude of experience-- 195 of arranging with facility-- of comparing with quickness, a long and numerous train of extremely complicated ideas. 196 It is want that causes the inexplicable instinct we behold in animals which have been denied souls without reason, 197 whilst they are susceptible of an infinity of actions that prove they think -- judge -- have memory-- are capable of experience-- can combine ideas-- 198 can apply them with more or less facility to satisfy the wants engendered by their particular organisation; in short, that prove they have passions that are capable of being modified. 199 Nothing but the height of folly can refuse intellectual faculties to animals; they feel, choose, deliberate, express love, show hatred; in many instances their senses are much keener than those of human. 200 Fish will return periodically to the spot where it is the custom to throw them bread.

201 It is well known the embarrassments which animals have thrown in the way of the partisans of the doctrine of spirituality; 202 they have been fearful, if they allowed them to have a spiritual soul, of

elevating them to the condition of human creatures; 203 on the other hand, in not allowing them to have a soul, they have furnished their adversaries with authority to deny it in like manner to human, who thus finds yourself debased to the condition of the animal. 204 Metaphysicians have never known how to extricate themselves from this difficulty. 205 DESCARTES fancied he solved it by saying that beasts have no souls, but are mere machines. 206 Nothing can be nearer the surface, than the absurdity of this principle.

207 Whoever contemplates Nature without prejudice, will readily acknowledge that there is no other difference between human and the beast, 208 than that which is to be attributed to the diversity of human organisation. 209 In some beings of the human species, who appear to be endowed with a greater sensibility of organs than others, may be seen an instinct, 210 by the assistance of which they very promptly judge of the concealed dispositions of their fellows, simply by inspecting the lineaments of their face. 211 Those who are denominated physiognomists, are only people of very acute feelings; 212 who have gathered an experience of which others, whether from the coarseness of their organs, from the little attention they have paid, or from some defect in their senses, are totally incapable: 213 these last do not believe in the science of physiognomy, which appears to them perfectly ideal. 214 Nevertheless, it is certain, that the action of this soul, which has been made spiritual, makes impressions that are extremely marked upon the exterior of the body; 215 these impressions, continually reiterated, their image remains: thus the habitual passions of human paint themselves on your countenance; 216 by which the attentive observer, who is endowed with acute feeling, is enabled to judge with great rapidity of your mode of existence, 217 and even to foresee your actions, your inclinations, your desires, your predominant passions. 218 Although the science of physiognomy appears

chimerical to a great number of people, yet there are few who have not a clear idea of a tender regard-- of a cruel eye-- of an austere aspect-- of a false, dissimulating look-- of an open countenance. 219 Keen practised optics acquire without doubt the faculty of penetrating the concealed motion of the soul, 220 by the visible traces it leaves upon features that it has continually modified. 221 Above all, the eyes of human very quickly undergo changes according to the motion which is excited in yourself: 222 these delicate organs are visibly altered by the smallest shock communicated to your brain. 223 Serene eyes announce a tranquil soul; wild eyes indicate a restless mind; fiery eyes portray a choleric, sanguine temperament; 224 fickle or inconstant eyes give room to suspect a soul either alarmed or dissimulating. 225 It is the study of this variety of shades that renders human practised and acute: upon the spot you combine a multitude of acquired experience, in order to form your judgment of the person you beholds. 226 Human's judgment, thus rapidly formed, partakes in nothing of the supernatural, in nothing of the wonderful: 227 such a person is only distinguished by the fineness of your own organs, and by the celerity with which your brain performs its functions.

228 It is the same with some beings of the human species, in whom may be discovered an extraordinary sagacity, which, to the uninformed, appears miraculous. 229 The most skilful practitioners in medicine, are, no doubt, people endowed with very acute feelings, similar to that of the physiognomists, 230 by the assistance of which they judge with great facility of diseases, and very promptly draw their prognostics. 231 Indeed, we see people who are capable of appreciating in the twinkling of an eye a multitude of circumstances, who have sometimes the faculty of foreseeing the most distant events; 232 yet, this species of prophetic talent has nothing in it of the supernatural; 233 it indicates nothing more than great experience, with an extremely delicate organisation, from which they derive

the faculty of judging with extreme faculty of causes, of foreseeing their very remote effects. 234 This faculty, however, is also found in animals, who foresee much better than human, the variations of the atmosphere with the various changes of the weather. 235 Birds have long been the prophets, and even the guides of several nations who pretend to be extremely enlightened. 236 It is, then, to their organisation, exercised after a particular manner, that must be attributed those wonderous faculties which distinguish some beings, that astonish others. 237 To have instinct, only signifies to judge quickly, without requiring to make a long, reasoning on the subject. 238 Human's ideas upon vice and upon virtue, are by no means innate; they are, like all others, acquired: the judgment you forms, is founded upon experience, whether true or false,-- 239 this depends upon your conformation, and upon the habits that have modified you. 240 The infant has no ideas either of the Divinity or of virtue; it is from those who instruct you that you receives these ideas; 241 you makes more or less use of them, according to your natural organisation, or as your dispositions have been more or less exercised. 242 Nature gives human legs, the nurse teaches you their use, your agility depends upon their natural conformation, and the manner in which you exercises them. 243 What is called taste, in the fine arts, is to be attributed, in the same manner, only to the acuteness of human's organs, 244 practised by the habit of seeing, of comparing, of judging certain objects; 245 from whence results, to some of your species, the faculty of judging with great rapidity, in the twinkling of an eye, the whole with its various relations. 246 It is by the force of seeing, of feeling, of experiencing objects, that you attains to a knowledge of them; 247 it is in consequence of reiterating this experience, that you acquires the power, that you gains the habit of judging with celerity. 248 But this experience is by no means innate, you did not possess it before you

were born; you are neither able to think, to judge, nor to have ideas, before you have feeling; 249 you are neither in a capacity to love, nor to hate; to approve, nor to blame, before you have been moved, either agreeably or disagreeably. 250 Nevertheless, this is precisely what must be supposed by those who are desirous to make human admit of innate ideas, of opinions; 251 infused by Nature, whether in morals, metaphysics, or any other science. 252 That human mind should have the faculty of thought, that it should occupy itself with an object, it is requisite it should be acquainted with its qualities; 253 that it may have a knowledge of these qualities, it is necessary some of your senses should have been struck by them: 254 those objects, therefore, of which you does not know any of the qualities, are nullities; or at least they do not exist for yourself.

255 It will be asserted, perhaps, that the universal consent of human, upon certain propositions, such as the whole is greater than its part, 256 upon all geometrical demonstrations, appear to warrant the supposition of certain primary notions that are innate, not acquired. 257 It may be replied, that these notions are always acquired; that they are the fruit of an experience more or less prompt; 258 that it is requisite to have compared the whole with its part, before conviction can ensue, that the whole is the greater of the two. 259 Human when you are born, does not bring with you the idea that two and two make four; but you are, nevertheless, speedily convinced of its truth. 260 Before forming any judgment whatever, it is absolutely necessary to have compared facts.

261 It is evident, that those who have gratuitously supposed innate ideas, or notions inherent in human, have confounded your organisation, 262 or your natural dispositions, with the habit by which you are modified; with the greater or less aptitude you have of making experience, and of applying it in your judgment. 263 A human who has taste in painting, has, without doubt, brought with oneself into the world eyes more acute, more penetrating than another; 264 but

these eyes would by no means enable you to judge with promptitude, if you had never had occasion to exercise them; 265 much less, in some respects, can those dispositions which are called natural, be regarded as innate. 266 Human is not, at twenty years of age, the same as you were when you came into the world; 267 the physical causes that are continually acting upon human, necessarily have an influence upon your organisation, 268 and so modify it, that your natural dispositions themselves are not at one period what they are at another.

269 La Motte Le Vayer says, "We think quite otherwise of things at one time than at another; 270 when young than when old-- when hungry than when our appetite is satisfied-- in the night than in the day-- when peevish than when cheerful. 271 Thus, varying every hour, by a thousand other circumstances, which keep us in a state of perpetual inconstancy and instability." 272 Everyday may be seen children, who, to a certain age-- display a great deal of ingenuity, a strong aptitude for the sciences, who finish by falling into stupidity.

273 Others may be observed, who, during their infancy, have shown dispositions but little favourable to improvement, yet develop themselves in the end, 274 and astonish us by an exhibition of those qualities of which we hardly thought them susceptible: 275 there arrives a moment in which the mind takes a spring, makes use of a multitude of experience which it has amassed, without its having been perceived; 276 and, if I may be allowed the expression, without their own knowledge.

277 Thus, it cannot be too often repeated, all the ideas, all the notions, all the modes of existence, and all the thoughts of human, are acquired. 278 Human mind cannot act, cannot exercise itself, but upon that of which it has knowledge; 279 it can understand either well or ill, only those things which it has previously felt. 280 Such of human ideas that do not suppose some exterior material object for their model, or one to which human is able to relate them,

which are therefore called abstract ideas, 281 are only modes in which your interior organ considers its own peculiar modifications, of which it chooses some without respect to others. 282 The words which you uses to designate these ideas, such as bounty, beauty, order, intelligence, virtue, do not offer any one sense, 283 if you does not relate them to, or if you does not explain them by, those objects which your senses have shown you to be susceptible of those qualities, 284 or of those modes of existence, of that manner of acting, which is known to yourself. 285 What is it that points out to you the vague idea of beauty, if you does not attach it to some object that has struck your senses in a peculiar manner, to which, in consequence, you attributes this quality? 286 What is it that represents the word intelligence, if you does not connect it with a certain mode of being and of acting? 287 Does the word order signify anything, if you does not relate it to a series of actions, to a chain of motion, by which you are affected in a certain manner? 288 Is not the word virtue void of sense, if you does not apply it to those dispositions of your fellows which produce known effects, different from those which result from contrary inclinations? 289 What do the words pain and pleasure offer to your mind in the moment when your organs neither suffer nor enjoy, 290 if it be not the modes in which you have been affected, of which your brain conserves the remembrance, of those impressions, which experience has shown you to be either useful or prejudicial? 291 But when you bears the words spirituality, immateriality, in corporeality, pronounced, neither your senses nor your memory afford you any assistance; 292 they do not furnish human with any means by which you can form an idea of their qualities, or of the objects to which you ought to apply them; 293 in that which is not matter you can only see vacuum and emptiness, which as long as you remains what you are, cannot, to your mind, be susceptible of any one quality.

294 All the errors, all the disputes of humans, have their foundation in

this, that they have renounced experience, 295 have surrendered the evidence of their senses, to give themselves up to the guidance of notions which they have believed infused or innate; 296 although in reality they are no more than the effect of a distempered imagination, of prejudices, in which they have been instructed from their infancy, 297 with which habit has familiarised them, which authority has obliged them to conserve.

298 Languages are filled with abstract words, to which are attached confused and vague ideas; 299 of which, when they come to be examined, no model can be found in Nature; no object to which they can be related. 300 When human gives oneself the trouble to analyse things, you are quite surprised to find, that those words which are continually in the mouths of people, never present any fixed or determinate idea: 301 you hears them unceasingly speaking of spirits-- of the soul and its faculties-- of duration-- of space-- of immensity-- of infinity-- of perfection--of virtue-- of reason-- of sentiment-- of instinct-- of taste, 302 without your being able to tell precisely, what they themselves understand by these words. 303 Nevertheless, they do not appear to have been invented, but for the purpose of representing the images of things; 304 or to paint, by the assistance of the senses, those known objects on which the mind is able to meditate, which it is competent to appreciate, to compare, and to judge.

305 For human to think of that which has not acted on any of your senses, is to think on words; 306 it is for your senses to dream; it is to seek in your own imagination for objects to which you can attach your wandering ideas: 307 to assign qualities to these objects is, unquestionably, to redouble your extravagance, to set no limits to your folly. 308 If a word be destined to represent to you an object that has not the capacity to act on any one of your organs; of which, it is impossible for you to prove either the existence or the qualities; 309 your imagination, by dint of racking itself, will nevertheless, in some measure, supply you with the ideas

you wants; 310 human composes some kind of a picture, with the images or colours you are always obliged to borrow, from the objects of which you have a knowledge: 311 thus the Divinity has been represented by some under the character of a venerable old person; by others, under that of a puissant monarch; by others, as an exasperated, irritated being. 312 It is evident, however, that human, with some of your qualities, has served for the model of these pictures: 313 but if you be informed of objects that are represented as pure spirits-- that have neither body nor extent-- that are not contained in space-- that are beyond Nature,--here then you are plunged into emptiness; 314 your mind no longer has any ideas-- it no longer knows upon what it meditates. 315 This, as will be seen in the sequel, no doubt, is the source of those unformed notions which some people have formed of the Divinity; 316 they themselves frequently annihilate human, by assembling incompatible and contradictory attributes. 317 In giving human morals-- in composing human of known qualities,-- they make human a human;-- 318 in assigning human the negative attributes of everything they know, they render human inaccessible to their senses-- they destroy all antecedent ideas-- they make human a mere nothing. 319 From this it will appear, that those sublime sciences which are called Theology, Psychology, Metaphysics, have been mere sciences of words: 320 morals and politics, with which they very frequently mix, have, in consequence, become inexplicable enigmas, which there is nothing short of the study of Nature can enable us to expound.

321 Human has occasion for truth; it consists in a knowledge of the true relations you have with those beings competent to have an influence on your welfare; 322 these relations are to be known only by experience: without experience there can be no reason; without reason human is only a blind creature, who conducts oneself by chance. 323 But, how is human to acquire experience upon ideal objects, which your senses

neither enable you to know nor to examine? 324 How is human to assure oneself of the existence, how ascertain the qualities of other beings you are not able to feel? 325 How can human judge whether there objects be favourable or prejudicial to oneself? 326 How is human to know, without the evidence of your senses, what you ought to love, what you should hate, what to seek after, what to shun, what to do, what to leave undone? 327 It is, however, upon this knowledge that your condition in this world rests; it is upon this knowledge that morals is founded.

328 From whence it may be seen, that, by causing human to blend vague metaphysical notions with morals, 329 or the science of the certain and invariable relations which subsist between humankind; 330 or by weakly establishing them upon chimerical ideas, which have no existence but in your imagination; 331 these morals, upon which the welfare of society so much depends, are rendered uncertain, are made arbitrary, are abandoned to the caprices of fancy, are not fixed upon any solid basis.

332 Beings essentially different by their natural organisation, by the modifications they experience, by the habits they contract, by the opinions they acquire, must of necessity think differently. 333 Your temperament, as we have seen, decides the mental qualities of human: this temperament itself is diversely modified in human: 334 from whence it consecutively follows, your imagination cannot possibly be the same; neither can it create to you the same images. 335 Each individual is a connected whole, of which all the parts have a necessary correspondence.

336 Different eyes must see differently, must give extremely varied ideas of the objects they contemplate, even when these objects are real. 337 What, then, must be the diversity of these ideas, if the objects meditated upon do not act upon the senses? 338 Humankind have pretty nearly the same ideas, in the gross, of those substances that act upon your organs with vivacity; 339 human is sufficiently in unison upon

some qualities which you contemplates very nearly in the same manner; 340 I say, very nearly, because the intelligence, the notion, the conviction of any one proposition, however simple, however evident, however clear it may be supposed, is not, nor cannot be, strictly the same, in any two people. 341 Indeed, one person not being another person, the first cannot, for example, have rigorously and mathematically the same notion of unity as the second; 342 seeing that an identical effect cannot be the result of two different causes. 343 Thus, when people are in accord in their ideas, in their modes of thinking, in their judgment, in their passions, in their desires, in their tastes, 344 their consent does not arise from their seeing or feeling the same objects precisely in the same manner, but pretty nearly; 345 language is not, nor cannot be, sufficiently copious to designate the vast variety of shades, the multiplicity of imperceptible differences, which is to be found in their modes of seeing and thinking. 346 Each person, then, has, to say thus, a language which is peculiar to oneself alone, and this language is incommunicable to others. 347 What harmony, what unison, then, can possibly exist between them, when they discourse with each other, upon objects only known to their imagination? 348 Can this imagination in one individual ever be the same as in another? 349 How can they possibly understand each other, when they assign to those objects qualities that can only be attributed to the particular manner in which their brain is affected.

350 For one person to exact from another that one shall think like the other, is to insist that the one shall be organised precisely in the same manner as the other-- 351 that one shall have been modified exactly the same in every moment of the other's existence: 352 that one shall have received the same temperament, the same nourishment, the same education: in a word, that you shall require that the other to be yourself. 353 Wherefore is it not exacted that all people shall have the same

features? 354 Is human more the master of your opinions? 355 Are not your opinions the necessary consequence of your nature, and of those peculiar circumstances which, from your infancy, have necessarily had an influence upon your mode of thinking, and your manner of acting? 356 If human be a connected whole, whenever a single feature differs from your own, ought you not to conclude that it is not possible your brain can either think, associate ideas, imagine, or dream precisely in the same manner with that other.

357 The diversity in the temperament of human, is the natural, the necessary source of the diversity of your passions, of your taste, of your ideas of happiness, of your opinions of every kind. 358 Thus, this same diversity will be the fatal source of your disputes, of your hatreds, of your injustice, every time you shall reason upon unknown objects, but to which you shall attach the greatest importance. 359 Human will never understand either oneself or others, in speaking of a spiritual soul, or of immaterial substances distinguished from Nature; 360 human will, from that moment, cease to speak the same language, and you will never attach the same ideas to the same words. 361 What, then, shall be, the common standard that shall decide which is the person that thinks with the greatest justice? 362 What the scale by which to measure who has the best regulated imagination? 363 What balance shall be found sufficiently exact to determine whose knowledge is most certain, when you agitates subjects, 364 which experience cannot enable you to examine, that escape all your senses, that have no model, that are above reason? 365 Each individual, each legislator, each speculator, each nation, has ever formed to oneself different ideas of these things; 366 each believes, that your own peculiar reveries ought to be preferred to those of your neighbours; 367 which always appear to you an absurd, ridiculous, and false as your own can possibly have appeared to your fellow; 368 each clings to your own opinion, because each retains your own peculiar mode of existence; 369 each believes your

happiness depends upon your attachment to your prejudices, which you never adopts but because you believes them beneficial to your welfare. 370 Propose to a person to change own religion for yours, the person will believe you a mad-person; you will only excite the person's indignation, elicit the person's contempt; 371 the person will propose to you, in own turn, to adopt own peculiar opinions; 372 after much reasoning, you will treat each other as absurd beings, ridiculously opinionated, pertinaciously stubborn: and the person will display the least folly, who shall first yield.

373 But if the adversaries become heated in the dispute, which always happens, when they suppose the matter important, 374 or when they would defend the cause of their own self-love; 375 from thence their passions sharpen, they grow angry, quarrels are provoked, they hate each other, and end by reciprocal injury. 376 It is thus, that for opinions, which no human can demonstrate, we see the Brahmin despised; the Mahommedan hated; the Pagan held in contempt; 377 that they oppress and disdain each with the most rancorous animosity: the Christian burns the Jew at what is called an 'auto-de-fe', because you clings to the faith of your parents: 378 the Roman Catholic condemns the Protestants to the flames, and makes a conscience of massacring them in cold blood: 379 this re-acts in their turn; sometimes the various sects of Christians league together against the incredulous Turk, 380 and for a moment suspend their own bloody disputes that they may chastise the enemies to the true faith: 381 then, having glutted their revenge, return with redoubled fury, to wreak over again their infuriated vengeance on each other.

382 If the imaginations of humans were the same, the chimeras which they bring forth would be everywhere the same; 383 there would be no disputes among them on this subject, if they all dreamt in the same manner; 384 great numbers of human beings would be spared, if human occupied own mind with

objects capable of being known, 385 of which the existence was proved, of which human was competent to discover the true qualities, by sure, by reiterated experience. 386 Systems of Philosophy are not subject to dispute but when their principles are not sufficiently proved; 387 by degrees experience, in pointing out the truth and detecting their errors, terminates these quarrels. 388 There is no variance among geometricians upon the principles of their science; it is only raised, when their suppositions are false, or their objects too much complicated. 389 Theologians find so much difficulty in agreeing among themselves, simply, because, in their contests, they divide without ceasing, not known and examined propositions, but prejudices with which they have been imbued in their youth-- in the schools-- by each other's books. 390 They are perpetually reasoning, not upon real objects, of which the existence is demonstrated, but upon imaginary systems of which they have never examined the reality; 391 they found these disputes, not upon averred experience, or constant facts, 392 but upon gratuitous suppositions, which each endeavour to convince the other are without solidity. 393 Finding these ideas of long standing, that few people, refuse to admit them, they take them for incontestable truths, that ought to be received merely upon being announced; 394 whenever they attach great importance to them, they irritate themselves against the temerity of those who have the audacity to doubt, or even to examine them.

395 If prejudice had been laid aside, it would perhaps have been discovered that many of those objects, which have given birth to the most shocking, the most sanguinary disputes among people, were mere phantoms; 396 which a little examination would have shown to be unworthy their notice: 397 the priests of Apollo would have been harmless, if human had examined for oneself, without prejudice, the tenets they held forth: 398 you would have found, that you were fighting, that you were cutting your neighbour's

throat, for words void of sense; 399 or, at the least, you would have learned to doubt your right to act in the manner you did; 400 you would have renounced that dogmatical, that imperious tone you assumed, by which you would oblige your fellow to unite with yourself in opinion. 401 The most trifling reflection would have shown you the necessity of this diversity in your notions, of this contrariety in your imagination, which depends upon your Natural conformation diversely modified: 402 which necessarily has an influence over your thoughts, over your will, and over your actions. 403 In short, if you had consulted morals, if you had fallen back upon reason, everything would have conspired to prove to you, that beings who call themselves rational, were made to think variously; 404 on that account were designed to live peaceable with each other, to love each other, to lend each other mutual succours 405 whatever may be their opinions upon subjects, either impossible to be known, or to be contemplated under the same point of view: 406 everything would have joined in evidence to convince you of the unreasonable tyranny, of the unjust violence, of the useless cruelty of those people of blood, 407 who persecute, who destroy humankind, in order that they may mould human to their own peculiar opinions; 408 everything would have conducted mortals to mildness, to indulgence, to toleration; 409 virtues, unquestionably of more real importance, much more necessary to the welfare of society, than the marvellous speculations by which it is divided, 410 by which it is frequently hurried on to sacrifice to a maniacal fury, the pretended enemies to these revered flights of the imagination.

411 From this it must be evident, of what importance it is to morals to examine the ideas, to which it has been agreed to attach so much worth; 412 to which human is continually sacrificing one's own peculiar happiness; to which human is immolating the tranquillity of nations, at the irrational command of fanatical cruel guides. 413 Let you fall back on your own experience; let

you return to Nature; let you occupy yourself with reason; 414 let you consult those objects that are real, which are useful to your permanent felicity; 415 let you study Nature's laws; let you study yourself; let you consult the bonds which unite you to your fellow mortals; 416 let you examine the fictitious bonds that enchain you to the most baneful prejudices.

417 If human imagination must always feed itself with illusions, if human remains steadfast in one's own opinions, if human prejudices are dear to oneself, 418 let you at least permit others to ramble in their own manner, or seek after truth as best suits their inclination; 419 but let you always recollect, that all the opinions-- all the ideas-- all the systems-- all the wills-- all the actions of human, are the necessary consequence of human own nature, 420 of your temperament, of your organisation, and of those causes, either transitory or constant, which modify hint: 421 in short, that human is not more a free agent to think than to act.

OF THE SYSTEM OF HUMAN'S FREE AGENCY

Paul Henri Thiery (Baron D'Holbach)

36 Those who have pretended that the soul is distinguished from the body, is immaterial, draws its ideas from its own peculiar source, acts by its own energies without the aid of any exterior object; 2 by a consequence of their own system, have enfranchised it from those physical laws, according to which all beings of which we have a knowledge are obliged to act. 3 They have believed that the soul is mistress of its own conduct, is able to regulate its own peculiar operations; has the faculty to determine its will by its own natural energy; 4 in a word, they have pretended human is a free agent.

5 It has been already sufficiently proved, that the soul is nothing more than the body, considered relatively to some of its functions, more concealed than others: 6 it has been shown, that this soul, even when it shall be supposed immaterial, is continually modified conjointly with

the body; is submitted to all its motion; 7 that without this it would remain inert and dead: 8 that, consequently, it is subjected to the influence of those material, to the operation those physical causes, which give impulse to the body; 9 of which the mode of existence, whether habitual or transitory, depends upon the material elements by which it is surrounded; 10 that form its texture; that constitute its temperament; that enter into it by the means of the aliments; that penetrate it by their subtility; 11 the faculties which are called intellectual, and those qualities which are styled moral, have been explained in a manner purely physical; entirely natural: 12 in the last place, it has been demonstrated, that all the ideas, all the systems, all the affections, all the opinions, whether true or false, which human forms to oneself, are to be attributed to your physical powers; are to be ascribed to your material senses. 13 Thus human is a being purely physical; in whatever manner you are considered, you are connected to universal Nature: 14 submitted to the necessary, to the immutable laws that She imposes on all the beings She contains, according to their peculiar essences; 15 conformable to the respective properties with which, without consulting them, She endows each particular species. 16 Human's life is a line that Nature commands you to describe upon the surface of the earth: without you ever being able to swerve from it even for an instant. 17 Human is born without one’s own consent; human’s organisations does in no wise depend upon yourself; human’s ideas come to you involuntarily; 18 human’s habits are in the power of those who cause you to contract them; human is unceasingly modified by causes, whether visible or concealed, over which you have no control; 19 give the hue to human way of thinking, and determine your manner of acting. 20 Human is good or bad-- happy or miserable-- wise or foolish-- reasonable or irrational, without human’s will going for anything in these various states.

21 Nevertheless, in despite of the shackles by which human is bound, it is pretended you are a free agent, 22 or that independent of the causes by which human is moved, you determines your own will; regulates your own condition. 23 However slender the foundation of this opinion, of which everything ought to point out to you the error; 24 it is current at this day for an incontestable truth, and believed enlightened; 25 it is the basis of religion, which has been incapable of imagining how human could either merit reward or deserve punishment if you were not a free agent. 26 Society has been believed interested in this system, because an idea has gone abroad, 27 that if all the actions of human were to be contemplated as necessary, the right of punishing those who injure their associates would no longer exist. 28 At length human vanity accommodated itself to an hypothesis which, unquestionable, appears to distinguish human from all other physical beings, 29 by assigning to yourself the special privilege of a total independence of all other causes; 30 but of which a very little reflection would have shown you the absurdity or even the impossibility.

31 As a part, subordinate to the great whole, human is obliged to experience its influence. 32 To be a free agent it were needful that each individual was of greater strength than the entire of Nature; 33 or, that you were out of this Nature: who, always in action Herself, obliges all the beings She embraces, to act, and to concur to Her general motion; 34 or, as it has been said elsewhere, to conserve Her active existence, 35 by the motion that all beings produce in consequence of their particular energies, which result from their being submitted to fixed, eternal, and immutable laws. 36 In order that human might be a free agent, it were needful that all beings should lose their essences; 37 it is equally necessary that human itself should no longer enjoy physical sensibility; that human should neither know good nor evil; pleasure nor pain; 38 but if this was the case, from that moment human would no longer be in a state

to conserve oneself, or render your existence happy; 39 all beings would become indifferent to you; you would no longer have any choice; you would cease to know what you ought to love; what it was right you should fear; 40 you would not have any acquaintance with that which you should seek after; or with that which it is requisite you should avoid. 41 In short, human would be an unnatural being; totally incapable of acting in the manner we behold. 42 It is the actual essence of human to tend to your own well-being; to be desirous to conserve your existence; 43 if all the motion of human machine springs as a necessary consequence from this primitive impulse; 44 if pain warns you of that which you ought to avoid; 45 if pleasure announces to you that which you should desire; 46 if it is in your essence to love that which either excites delight, or, that from which you expects agreeable sensations; 47 to hate that which makes you either fear contrary impressions; or, that which afflicts you with uneasiness; 48 it must necessarily be, that you will be attracted by that which you deems advantageous; 49 that your will shall be determined by those objects which you judges useful; 50 that you will be repelled by those beings which you believes prejudicial, either to your habitual, or to your transitory mode of existence; by that which you considers disadvantageous. 51 It is only by the aid of experience, that human acquires the faculty of understanding what you ought to love; of knowing what you ought to fear. 52 Are your organs sound? Your experience will be true: are they unsound? it will be false: in the first instance you will have reason, prudence, foresight; 53 you will frequently foresee very remote effects; you will know, that what you sometimes contemplates as a good, may possibly become an evil, by its necessary or probable consequences: 54 that what must be to yourself a transient evil, may by its result procure you a solid and durable good. 55 It is thus experience enables you to foresee that the amputation of a limb will cause you painful

sensation, 56 you consequently is obliged to fear this operation, and you endeavours to avoid the pain; 57 but if experience has also shown you, that the transitory pain this amputation will cause you may be the means of saving your life; 58 the preservation, of your existence being of necessity dear to yourself, 59 you are obliged to submit oneself to the momentary pain with a view to procuring a permanent good, by which it will be overbalanced.

60 The will, as we have elsewhere said, is a modification of the brain, by which it is disposed to action or prepared to give play to the organs. 61 This will is necessarily determined by the qualities, good or bad, agreeable or painful, of the object or the motive that acts upon your senses; 62 or of which the idea remains with you, and is resuscitated by your memory. 63 In consequence, you acts necessarily; your action is the result of the impulse you receives either from the motive, from the object, or from the idea, which has modified your brain, or disposed your will. 64 When you does not act according to this impulse, it is because there comes some new cause, some new motive, some new idea, which modifies your brain in a different manner, 65 gives you a new impulse, determines your will in another way; by which the action of the former impulse is suspended: 66 thus, the sight of an agreeable object, or its idea, determines your will to set yourself in action to procure it; 67 but if a new object or a new idea more powerfully attracts you, it gives a new direction to your will, annihilates the effect of the former, and prevents the action by which it was to be procured. 68 This is the mode in which reflection, experience, reason, necessarily arrests or suspends the action of human's will; 69 without this, you would, of necessity, have followed the anterior impulse which carried you towards a then desirable object. 70 In all this you always act according to necessary laws, from which you have no means of emancipating yourself.

71 If, when tormented with violent thirst, you figures to yourself an idea,

72 or really perceives a fountain, whose limpid streams might cool your feverish habit, 73 are you sufficient master of yourself to desire or not to desire the object competent to satisfy so lively a want? 74 It will no doubt be conceded, that it is impossible you should not be desirous to satisfy it; 75 but it will be said,-- If at this moment it is announced to you, the water you so ardently desires is poisoned, you will, notwithstanding your vehement thirst, abstain from drinking it; 76 and it has, therefore, been falsely concluded that you are a free agent. 77 The fact, however, is, that the motive in either case is exactly the same: your own conservation. 78 The same necessity that determined you to drink, before you knew the water was deleterious, upon this new discovery, equally determines you not to drink; 79 the desire of conserving yourself, either annihilates or suspends the former impulse; the second motive becomes stronger than the preceding; 80 that is, the fear of death, or the desire of preserving yourself, necessarily prevails over the painful sensation caused by your eagerness to drink. 81 But, it will be said, if the thirst is very parching, an inconsiderate person, without regarding the danger, will risqué swallowing the water. 82 Nothing is gained by this remark: in this case, the anterior impulse only regains the ascendency; 83 you are persuaded, that life may possibly be longer preserved, or that you shall derive a greater good by drinking the poisoned water, than by enduring the torment, 84 which, to your mind, threatens instant dissolution: thus, the first becomes the strongest, and necessarily urges you on to action. 85 Nevertheless, in either case, whether you partakes of the water, or whether you does not, the two actions will be equally necessary; 86 they will be the effect of that motive which finds itself most puissant; which consequently acts in a most coercive manner upon your will.

87 This example will serve to explain the whole phenomena of the human will. 88 This will, or rather the brain, finds itself in the same situation as a bowl, which although it has received

an impulse that drives it forward in a straight line, 89 is deranged in its course, whenever a force, superior to the first, obliges it to change its direction. 90 The person who drinks the poisoned water, appears a mad-person; but the actions of fools are as necessary as those of the most prudent individuals. 91 The motives that determine the voluptuary, that actuate the debauchee to risk their health, are as powerful, their actions are as necessary, as those which decide the wise person to manage one's own. 92 But, it will be insisted, the debauchee may be prevailed on to change own conduct; 93 this does not imply that one is a free agent; but, that motives may be found sufficiently powerful to annihilate the effect of those that previously acted upon oneself; 94 then these new motives determine your will to the new mode of conduct you may adopt, as necessarily as the former did to the old mode.

95 Human is said to deliberate when the action of the will is suspended; 96 this happens when two opposite motives act alternately upon yourself. 97 To deliberate, is to hate and to love in succession; it is to be alternately attracted and repelled; it is to be moved sometimes by one motive, sometimes by another. 98 Human only deliberates when you does not distinctly understand the quality of the objects from which you receives impulse, 99 or when experience has not sufficiently apprised you of the effects, more or less remote, which your actions will produce. 100 Human would take the air, but the weather is uncertain; you deliberates in consequence; you weighs the various motives that urge your will to go out or to stay at home; 101 you are at length determined by that motive which is most probable; this removes your indecision, which necessarily settles your will either to remain within or to go abroad: 102 this motive is always either the immediate or ultimate advantage you finds or thinks you finds in the action to which you are persuaded.

103 Human's will frequently fluctuates between two objects, of which either the presence or the

ideas move you alternately: 104 human waits until one has contemplated the objects or the ideas they have left in your brain; which solicit you to different actions; 105 human then compares these objects or ideas: 106 but even in the time of deliberation, during the comparison, pending these alternatives of love and hatred, which succeed each other sometimes with the utmost rapidity, you are not a free agent for a single instant; 107 the good or the evil which you believes you finds successively in the objects, are the necessary motives of these momentary wills; 108 of the rapid motion of desire or fear that you experiences as long as your uncertainty continues. 109 From this it will be obvious, that deliberation is necessary; that uncertainty is necessary; 110 that whatever part you takes, in consequence of this deliberation, it will always necessarily be that which you have judged, whether well or ill, is most probable to turn to your advantage.

111 When the soul is assailed by two motives that act alternately upon it, or modify it successively, it deliberates; 112 the brain is in a sort of equilibrium, accompanied with perpetual oscillations, sometimes toward one object, sometimes towards the other, until the most forcible carries the point, 113 and thereby extricates it, from this state of suspense, in which consists the indecision of your own will. 114 But when the brain is simultaneously assailed by causes equally strong, that move it in opposite directions; 115 agreeable to the general law of all bodies, when they are struck equally by contrary powers, it stops, it is in 'nisu'; 116 it is neither capable to will nor to act; it waits until one of the two causes has obtained sufficient force to overpower the other, 117 to determine its will, to attract it in such a manner that it may prevail over the efforts of the other cause.

118 This mechanism, so simple, so natural, suffices to demonstrate, why uncertainty is painful; why suspense is always a violent state for human. 119 The brain, an organ so delicate, so mobile, experiences such rapid modifications, that it is fatigued; 120

or when it is urged in contrary directions, by causes equally powerful, it suffers a kind of compression, 121 that prevents the activity which is suitable to the preservation of the whole, which is necessary to procure what is advantageous to its existence. 122 This mechanism will also explain the irregularity, the indecision, the inconstancy of human; 123 and account for that conduct, which frequently appears an inexplicable mystery, which indeed it is, under the received systems. 124 In consulting experience, it will be found that the soul is submitted to precisely the same physical laws as the material body. 125 If the will of each individual, during a given time, was only moved by a single cause or passion, nothing would be more easy than to foresee your actions; 126 but human's heart is frequently assailed by contrary powers, by adverse motives, which either act on you simultaneously or in succession; 127 then your brain, attracted in opposite directions, is either fatigued, or else tormented by a state of compression, which deprives it of activity. 128 Sometimes it is in a state of incommodious inaction; sometimes it is the sport of the alternate shocks it undergoes. 129 Such, no doubt, is the state in which human finds oneself, when a lively passion solicits you to the commission of crime, whilst fear points out to you the danger by which it is attended: 130 such, also, is the condition of you whom remorse, by the continued labour of your distracted soul, prevents from enjoying the objects you have criminally obtained.

131 If the powers or causes, whether exterior or interior, acting on the mind of human, tend towards opposite points, your soul, is well as all other bodies, will take a mean direction between the two; 132 in consequence of the violence with which human's soul is urged, your condition becomes sometimes so painful that your existence is troublesome: 133 you have no longer a tendency to your own peculiar conservation; you seeks after death, as a sanctuary against yourself-- as the only remedy to your despair: 134

it is thus we behold humans, miserable and discontented, voluntarily destroy themselves, whenever life becomes insupportable. 135 Human is competent to cherish one's own existence, no longer than life holds out charms to you; 136 when you are wrought upon by painful sensations, or drawn by contrary impulsions, human natural tendency is deranged, you are under the necessity to follow a new route; 137 this conducts you to your own end, which it even displays to yourself as the most desirable good. 138 In this manner may be explained, the conduct of those melancholy beings, whose vicious temperaments, whose tortured consciences, whose chagrin, whose ennui, sometimes determine them to renounce life.

139 The various powers, frequently very complicated, that act either successively or simultaneously upon the brain of human, 140 which modify you so diversely in the different periods of your existence, are the true causes of that obscurity in morals, 141 of that difficulty which is found, when it is desired to unravel the concealed springs of your enigmatical conduct. 142 The heart of human is a labyrinth, only because it very rarely happens that we possess the necessary gift of judging it; 143 from whence it will appear, that your circumstances, your indecision, your conduct, whether ridiculous, or unexpected, are the necessary consequences of the changes operated in yourself; 144 are nothing but the effect of motives that successively determine your will; which are dependent on the frequent variations experienced by your machine. 145 According to these variations, the same motives have not, always, the same influence over your will, the same objects no longer enjoy the faculty of pleasing you; your temperament has changed, either for the moment, or forever. 146 It follows as a consequence, that your taste, your desires, your passions, will change; 147 there can be no kind of uniformity in your conduct, nor any certitude in the effects to be expected.

148 Choice by no means proves the free-agency of human; human only deliberates when you does not yet know which to choose of the many objects that move you, 149 human is then in an embarrassment, which does not terminate, until your will as decided by the greater advantage you believes be shall find in the object you chooses, or the action you undertakes. 150 From whence it may be seen that choice is necessary, because human would not determine for an object, or for an action, if you did not believe that you should find in it some direct advantage. 151 That human should have free-agency, it were needful that you should be able to will or choose without motive; 152 or, that you could prevent motives coercing your will. 153 Action always being the effect of human's will once determined, as human's will cannot be determined but by a motive, which is not in your own power, 154 it follows that you are never the master of the determination of your own peculiar will; 155 that consequently you never acts as a free agent. 156 It has been believed that human was a free agent, because you had a will with the power of choosing; 157 but attention has not been paid to the fact, that even your will is moved by causes independent of yourself, 158 is owing to that which is inherent in your own organisation, or which belongs to the nature of the beings acting on yourself. 159 Indeed, human passes a great portion of one's life without even willing. Human will attends the motive by which it is determined. 160 If you was to render an exact account of everything you does in the course of each day, from rising in the morning to lying down at night, you would find, that not one of your own actions have been in the least voluntary; 161 that they have been mechanical, habitual, determined by causes you were not able to foresee, to which you were either obliged to, yield, or with which you were allured to acquiesce; 162 you would discover, that all the motives of your labours, of your amusements, of your discourses, of your thoughts, have been necessary; 163 that they have evidently either seduced you or

drawn you along. 164 Is human the master of willing, not to withdraw your hand from the fire when you fears it will be burnt? 165 Or has you the power to take away from fire the property which makes you fear it? 166 Is human the master of not choosing a dish of meat which you knows to be agreeable, or analogous to your palate; of not preferring it to that which you knows to be disagreeable or dangerous? 167 It is always according to your sensations, to your own peculiar experience, or to your suppositions, that you judges of things either well or ill; 168 but whatever may be your judgment, it depends necessarily on your mode of feeling, whether habitual or accidental, and the qualities you finds in the causes that move you, which exist in despite of you.

169 All the causes which by your will is actuated, must act upon you in a manner sufficiently marked, 170 to give you some sensation, some perception, some idea, whether complete or incomplete, true or false; 171 as soon as your will is determined, you must have felt, either strongly or feebly; if this was not the case you would have determined without motive: 172 thus, to speak correctly, there are no causes which are truly indifferent to the will: however faint the impulse you receives, 173 whether on the part of the objects themselves, or on the part of their images or ideas, as soon as your will acts, the impulse has been competent to determine you. 174 In consequence of a slight, of a feeble impulse, the will is weak, it is this weakness of the will that is called indifference. 175 Human's brain with difficulty perceives the sensation, it has received; it consequently acts with less vigour, either to obtain or remove the object or the idea that has modified it. 176 If the impulse is powerful, the will is strong, it makes you act vigorously, to obtain or to remove the object which appears to you either very agreeable or very incommodious.

177 It has been believed human was a free agent, because it has been imagined that your soul could at will recall ideas, which sometimes suffice to check your most unruly desires.

178 Thus, the idea of a remote evil frequently prevents you from enjoying a present and actual good: 179 thus, remembrance, which is an almost insensible, a slight modification of your brain, annihilates, at each instant, the real objects that act upon your will. 180 But human is not master of recalling to oneself own ideas at pleasure; their association is independent of you; 181 they are arranged in your brain, in despite of you, without your own knowledge, where they have made an impression more or less profound; 182 your memory itself depends upon your organisation; its fidelity depends upon the habitual or momentary state in which you finds yourself; 183 when your will is vigorously determined to some object or idea that excites a very lively passion in you, those objects or ideas that would be able to arrest your action no longer present themselves to your mind; 184 in those moments your eyes are shut to the dangers that menace you, of which the idea ought to make you forbear; 185 human marches forward headlong towards the object by whose image you are hurried on; reflection cannot operate upon you in any way; 186 human sees nothing but the object of own desires; the salutary ideas which might be able to arrest your progress disappear, or else display themselves either too faintly or too late to prevent your acting. 187 Such is the case with all those who, blinded by some strong passion, are not in a condition to recall to themselves those motives, 188 of which the idea alone, in cooler moments, would be sufficient to deter them from proceeding; 189 the disorder in which they are, prevents their judging soundly; 190 render them incapable of foreseeing the consequence of their actions; precludes them from applying to their experience; from making use of their reason; natural operations, which suppose a justness in the manner of associating their ideas; 191 but to which their brain is then not more competent, in consequence of the momentary delirium it suffers, than their hand is to write whilst they are taking violent exercise.

192 Human's mode of thinking is necessarily determined by your manner of being; it must, therefore, depend on your natural organisation, and the modification your system receives independently of your will. 193 From this we are obliged to conclude, that human's thoughts, human's reflections, human's manner of viewing things, of feeling, of judging, of combining ideas, is neither voluntary nor free. 194 In a word, that human soul is neither mistress of the motion excited in it, nor of representing to itself, when wanted, those images or ideas that are capable of counterbalancing the impulse it receives. 195 This is the reason why human, when in a passion, ceases to reason; at that moment reason is as impossible to be heard, as it is during an ecstasy, or in a fit of drunkenness. 196 The wicked are never more than people who are either drunk or mad: if they reason, it is not until tranquillity is re-established in their machine; 197 then, and not till then, the tardy ideas that present themselves to their mind, enable them to see the consequence of their actions, 198 and give birth to ideas, that bring on them that trouble, which is designated shame, regret, remorse.

199 The errors of philosophers on the free-agency of human, have arisen from their regarding your will as the primum mobile, the original motive of your actions; 200 for want of recurring back, they have not perceived the multiplied, the complicated causes, which, independently of you, give motion to the will itself, 201 or which dispose and modify your brain, whilst you are purely passive in the motion you receives. 202 Is human the master of desiring or not desiring an object that appears desirable to yourself?

203 Without doubt it will be answered, No: but human is the master of resisting own desire, if you reflects on the consequences. 204 But, I ask, is human capable of reflecting on these consequences when your soul is hurried along by a very lively passion -- 205 which entirely depends upon your natural organisation, and the causes by which you are modified? 206 Is it in

human's power to add to these consequences all the weight necessary to counterbalance your desire? 207 Is human the master of preventing the qualities which render an object desirable from residing in it? 208 I shall be told, you ought to have learned to resist your passions; to contract a habit of putting a curb on your desires. 209 I agree to it without any difficulty: but in reply, I again ask, Is human nature susceptible of this modification? 210 Does human boiling blood, human unruly imagination, the igneous fluid that circulates in human's veins, permit you to make, enable you to apply true experience in the moment when it is wanted? 211 And, even when human temperament has capacitated you, have you education, the examples set before you, the ideas with which you have been inspired in early life, been suitable to make you contract this habit of repressing your own desires? 212 Have not all these things rather contributed to induce human to seek with avidity, to make you actually desire those objects which you say you ought to resist.

213 The ambitious person cries out,-- You will have me resist my passion, but have they not unceasingly repeated to you, that rank, honours, power, are the most desirable advantages in life? 214 Have you not seen your fellow-citizens envy them-- the nobles of your country sacrifice everything to obtain them? 215 In the society in which you live, are you not obliged to feel, that if you are deprived of these advantages, you must expect to languish in contempt, to cringe under the rod of oppression?

216 The miser says,-- You forbid me to love money, to seek after the means of acquiring it: 217 Alas! Does not everything tell me, that in this world money is the greatest blessing; that it is amply sufficient to render me happy? 218 In the country I inhabit, do I not see all my fellow-citizens covetous of riches? 219 But do I not also witness that they are little scrupulous in the means of obtaining wealth? 220 As soon as they are enriched by the means

which you censure, are they not cherished, considered, and respected? 221 By what authority, then, do you object to my amassing treasure? 222 What right have you to prevent my using means, which although you call them sordid and criminal, I see approved by the sovereign? 223 Will you have me renounce my happiness?

224 The voluptuary argues, -- You pretend that I should resist my desires; but was I the maker of my own temperament, which unceasingly invites me to pleasure? 225 You call my pleasures disgraceful; but in the country in which I live, do I not witness the most dissipated people enjoying the most distinguished rank? 226 Do I not behold, that no one is ashamed of adultery but the person it has outraged? 227 Do not I see people making trophies of their debaucheries, boasting of their libertinism, rewarded, with applause?

228 The choleric person vociferates, -- You advise me to put a curb on my passions; to resist the desire of avenging myself: but can I conquer my nature? 229 Can I alter the received opinions of the world? 230 Shall I not be forever disgraced, infallibly dishonoured in society, if I do not wash out, in the blood of my fellow-creature, the injuries I have received?

231 The zealous enthusiast exclaims,-- You recommend to me mildness, you advise me to be tolerant, to be indulgent to the opinions of my fellow-people; but is not my temperament violent? 232 Do I not ardently love my God? Do they not assure me that zeal is pleasing to Him; that sanguinary inhuman persecutors have been His friends? 233 That those who do not think as I do are God's enemies? 234 I wish to render myself acceptable in His sight; I therefore adopt the means you reprobate.

235 In short, the actions of human are never free; they are always the necessary consequence of your temperament, of the received ideas, of the notions, either true or false, 236 which you have formed to yourself of happiness: of your

opinions, strengthened by example, forfeited by education, consolidated by daily experience. 237 So many crimes are witnessed on the earth, only because everything conspires to render human vicious, to make human criminal; 238 very frequently, the superstitions you have adopted, your government, your education, the examples set before you, irresistibly drive you on to evil: 239 under these circumstances morality preaches virtue to you in vain. 240 In those societies where vice is esteemed, where crime is crowned, where venality is constantly recompensed, where the most dreadful disorders are punished, 241 only in those who are too weak to enjoy the privilege of committing them with impunity; 242 the practice of virtue is considered nothing more than a painful sacrifice of fancied happiness. 243 Such societies chastise, in the lower orders, those excesses which they respect in the higher ranks; 244 and frequently have the injustice to condemn those in penalty of death, whom public prejudices, maintained by constant example, have rendered criminal.

245 Human, then, is not a free agent in any one instant of your life; 246 you are necessarily guided in each step by those advantages, whether real or fictitious, that you attaches to the objects by which your passions are roused: 247 these passions themselves are necessary in a being who, unceasingly tends towards your own happiness; 248 their energy is necessary, since that depends on your temperament; 249 your temperament is necessary, because it depends on the physical elements which enter into your composition; 250 the modification of this temperament is necessary, as it is the infallible result, the inevitable consequence of the impulse you receives from the incessant action of moral and physical beings.

251 In despite of these proofs of the want of free-agency in human, so clear to unprejudiced minds, 252 it will, perhaps, be insisted upon with no small feeling of triumph, that if it be proposed to anyone to move or not to move your hand, 253 an action

in the number of those called indifferent, you evidently appears to be the master of choosing; 254 from which it is concluded, evidence has been offered of your free-agency. 255 The reply is, this example is perfectly simple; human in performing some action which you are resolved on doing, does not by any means prove your free-agency: 256 the very desire of displaying this quality, excited by the dispute, becomes a necessary motive which decides your will either for the one or the other of these actions: 257 what deludes you in this instance, or that which persuades you that you are a free agent at this moment, is, that you does not discern the true motive which sets you in action; 258 which is neither more nor less than the desire of convincing your opponent: 259 if in the heat of the dispute you insists and asks, "Am I not the master of throwing myself out of the window?" 260 I shall answer, No; that whilst you preserves your reason, there is not even a probability that the desire of proving your free-agency, will become a motive sufficiently powerful, to make you sacrifice your life to the attempt; 261 if, notwithstanding this, to prove human is a free agent, you should actually precipitate yourself from the window, 262 it would not be a sufficient warranty to conclude you acted freely, but rather that it was the violence of your temperament which spurred you on to this folly. 263 Madness is a state that depends upon the heat of the blood, not upon the will. 264 A fanatic or a hero, braves death as necessarily as a more phlegmatic person or a coward flies from it. 265 There is, in point of fact, no difference between the person who is cast out of the window by another, and the person who throws oneself out of it, 266 except that the impulse in the first instance comes immediately from without, whilst that which determines the fall in the second case, springs from within your own peculiar machine, having its more remote cause also exterior.

267 When Mutius Scaevola held his hand in the fire, he was as much acting under the influence of necessity, caused by interior motives,

that urged him to this strange action, as if his arm had been held by strong men; 268 pride, despair, the desire of braving his enemy, a wish to astonish him, an anxiety to intimidate him, were the invisible chains that held his hand bound to the fire. 269 The love of glory, enthusiasm for their country, in like manner, caused Codrus and Decius to devote themselves for their fellow citizens. 270 The Indian Calanus and the philosopher Peregrinus were equally obliged to burn themselves, by the desire of exciting the astonishment of the Grecian assembly.

271 It is said that free-agency is the absence of those obstacles competent to oppose themselves to the actions of human, or to the exercise of your faculties: 272 it is pretended that you are a free agent, whenever, making use of these faculties, you produces the effect you have proposed to yourself. 273 In reply to this reasoning, it is sufficient to consider that it in no wise depends upon yourself to place or remove the obstacles that either determine or resist you; 274 the motive that causes your action is no more in your own power than the obstacle that impedes you, 275 whether this obstacle or motive be within your own machine or exterior of your person: 276 you are not master of the thought presented to your mind which determines your will; this thought is excited by some cause independent of yourself.

277 To be undeceived on the system of your free-agency, human has simply to recur to the motive by which your will is determined, you will always find this motive is out of your own control. 278 It is said, that in consequence of an idea to which the mind gives birth, human acts freely if one encounters no obstacle. 279 But the question is, what gives birth to this idea in your brain? Have you the power either to prevent it from presenting itself, or from renewing itself in your brain? 280 Does not this idea depend either upon objects that strike you exteriorly and in despite of yourself, or upon causes that without your knowledge act within you and

modify your brain? 281 Can you prevent your eyes, cast without design upon any object whatever, from giving you an idea of this object, from moving your brain? 282 Human is not more master of the obstacles; they are the necessary effects of either interior or exterior causes, which always act according to their given properties. 283 A person insults a coward, who is necessarily irritated against the person's insulter, 284 but your will cannot vanquish the obstacle that cowardice places to the object of your desire, which is, to resent the insult; 285 because your natural conformation, which does not depend upon you, prevents you having courage. 286 In this case the coward is insulted in despite of you, and against your will is obliged patiently to brook the insult you have received.

287 The partisans of the system of free-agency appear ever to have confounded constraint with necessity. 288 Human believes one acts as a free agent, every time you does not see anything that places obstacles to your actions; 289 you does not perceive that the motive which causes you to will is always necessary, is ever independent of yourself. 290 A prisoner loaded with chains is compelled to remain in prison, but you is not a free agent, you is not able to resist the desire to emancipate yourself; 291 your chains prevent you from acting, but they do not prevent you from willing; 292 you would save yourself if they would loose your fetters, but you would not save yourself as a free agent, fear or the idea of punishment would be sufficient motives for your action.

293 Human may therefore cease to be restrained, without, for that reason, becoming a free agent: 294 in whatever manner you acts, human will act necessarily; according to motives by which you shall be determined. 295 Human may be compared to a heavy body, that finds itself arrested in its descent by any obstacle whatever: 296 take away this obstacle, it will gravitate or continue to fall; but who shall say this dense body is free to fall or not? 297 Is not its descent the necessary effect of its

own specific gravity? 298 The virtuous Socrates submitted to the laws of his country, although they were unjust; notwithstanding the doors of his gaol were left open to him he would not save himself; but in this he did not act as a free agent; 299 the invisible chains of opinion, the secret love of decorum, the inward respect for the laws, even when they were iniquitous, the fear of tarnishing his glory, kept him in his prison: 300 they were motives sufficiently powerful, with this enthusiast for virtue, to induce him to wait death with tranquillity; 301 it was not in his power to save himself, because he could find no potential motive to bring himself to depart, even for an instant, from those principles to which his mind was accustomed.

302 Human, says he, frequently acts against own inclination, from whence you have falsely concluded you are a free agent; 303 when you appears to act contrary to your inclination, you are determined to it by some motive sufficiently efficacious to vanquish this inclination. 304 A sick man, with a view to his cure, arrives at conquering his repugnance to the most disgusting remedies: 305 the fear of pain, the dread of death, then become necessary and intelligent motives; consequently, this sick man cannot be said, with truth, by any means, to act freely.

306 When it is said, that human is not a free agent, it is not pretended to compare human to a body moved by a simple impulsive cause: 307 you contains within yourself causes inherent to your existence; 308 you are moved by an interior organ, which has its own peculiar laws; which is itself necessarily determined, 309 in consequence of ideas formed from perceptions, resulting from sensations, which it receives from exterior objects. 310 As the mechanism of these sensations, of these perceptions, and the manner they engrave ideas on the brain of human, are not known to you, because you are unable to unravel all these motions; 311 because you cannot perceive the chain of operations in your soul, or the

motive-principle that acts within yourself, 312 you supposes yourself a free agent; which, literally translated, signifies that you moves yourself by yourself; that a person determines oneself without cause; 313 when a person rather ought to say, you are ignorant how or for why you acts in the manner you does. 314 It is true the soul enjoys an activity peculiar to itself, but it is equally certain that this activity would never be displayed if some motive or some cause did not put it in a condition to exercise itself, 315 at least it will not be pretended that the soul is able either to love or to hate without being moved, without knowing the objects, without having some idea of their qualities. 316 Gunpowder has unquestionably a particular activity, but this activity will never display itself, unless fire be applied to it; this, however, immediately sets in motion.

317 It is the great complication of motion in human, it is the variety of your action, it is the multiplicity of causes that move you, 318 whether simultaneously or in continual succession, that persuades a person you are a free agent: 319 if all human motions were simple, if the causes that move human did not confound themselves with each other, if they were distinct, if human machine was less complicated, 320 you would perceive that all your actions were necessary, because you would be enabled to recur instantly to the cause that made yourself act. 321 A person who should be always obliged to go towards the west would always go on that side, but you would feel extremely well, that in so going you was not a free agent: 322 if human had another sense, as your actions or your motion augmented by a sixth would be still more varied, much more complicated, 323 you would believe yourself still more a free agent than you does with your own five senses.

324 It is, then, for want of recurring to the causes that move you, for want of being able to analyse, 325 from not being competent to decompose the complicated motion of your machine, that human believes oneself a free agent; 326 it is only upon your own

ignorance that you founds the profound yet deceitful notion you have of your free-agency, 327 that you builds those opinions which you brings forward as a striking proof of your pretended freedom of action. 328 If, for a short time, each person was willing to examine your own peculiar actions, to search out their true motives, to discover their concatenation, 329 you would remain convinced that the sentiment you have of your natural free-agency is a chimera that must speedily be destroyed by experience.

330 Nevertheless, it must be acknowledged that the multiplicity, the diversity of the causes which continually act upon human, frequently without even your knowledge, render it impossible, 331 or at least extremely difficult, for you to recur to the true principles of your own peculiar actions, much less the actions of others; 332 they frequently depend upon causes so fugitive, so remote from their effects, and which, superficially examined, appear to have so little analogy, 333 so slender a relation with them, that it requires singular sagacity to bring them into light. 334 This is what renders the study of the moral human a task of such difficulty; this is the reason why human's heart is an abyss, of which it is frequently impossible for you to fathom the depth. 335 Human is, then, obliged to content oneself with a knowledge of the general and necessary laws by which the human heart is regulated; 336 for the individuals of one's own species these laws are pretty nearly the same, they vary only in consequence of the organisation that is peculiar to each, and of the modification it undergoes; 337 this, however, is not, cannot be rigorously the same in any two. 338 It suffices to know that by your essence human tends to conserve oneself, to render your existence happy: 339 this granted, whatever may be your actions, if you recurs back to this first principle, to this general, this necessary tendency of your will, you never can be deceived with regard to your motives. 340 Human, without doubt, for want of cultivating reason, being destitute of experience,

frequently deceives oneself upon the means of arriving at this end; 341 sometimes the means you employs are unpleasant to your fellows, because they are prejudicial to their interests; 342 or else those of which you avails yourself appear irrational, because they remove you from the end to which you would approximate: 343 but whatever may be these means, they have always necessarily and invariably for object, either an existing or imaginary happiness; 344 are directed to preserve you in a state analogous to your mode of existence, to your manner of feeling, to your way of thinking; whether durable or transitory. 345 It is from having mistaken this truth, that the greater number of moral philosophers have made rather the romance, than the history of the human heart; 346 they have attributed the actions of human to fictitious causes; at least they have not sought out the necessary motives of your conduct. 347 Politicians and judicial-legislators have been in the same state of ignorance; 348 or else impostors have found it much shorter to employ imaginary motive-powers, than those which really have existence: 349 they have rather chosen to make human wander out of one's way, to make human tremble under incommodious phantoms, 350 than guide human to virtue by the direct road to happiness; notwithstanding the conformity of the latter with the natural desires of your heart. 351 So true it is, that error can never possibly be useful, to the human species.

352 However this may be, human either sees or believes you sees, much more distinctly, the necessary relation of effects with their causes in natural philosophy than in the human heart; 353 at least you sees in the former sensible causes constantly produce sensible effects, ever the same, when the circumstances are alike. 354 After this, human hesitates not to look upon physical effects as necessary, 355 whilst you refuses to acknowledge necessity in the acts of the human will; 356 these human has, without any just foundation, attributed to a motive-power that acts independently by its own peculiar

energy, 357 that is capable of modifying itself without the concurrence of exterior causes, and which is distinguished from all material or physical beings. 358 Agriculture is founded upon the assurance afforded by experience, 359 that the earth, cultivated and sown in a certain manner, when it has otherwise the requisite qualities, will furnish grain, fruit, and flowers, either necessary for subsistence or pleasing to the senses. 360 If things were considered without prejudice, it would be perceived, that in morals education is nothing more than the agriculture of the mind; 361 that like the earth, by reason of its natural disposition, of the culture bestowed upon it, of the seeds with which it is sown, of the seasons, more or less favourable, that conduct it to maturity, 362 we may be assured that the soul will produce either virtue or vice; moral fruit that will be either salubrious for human or baneful to society. 363 Morals is the science of the relations that subsist between the minds, the wills, and the actions of humans; 364 in the same manner that geometry is the science of the relations that are found between bodies. 365 Morals would be a chimera, it would have no certain principles, if it was not founded upon the knowledge of the motives 366 which must necessarily have an influence upon the human will, and which must necessarily determine the actions of human beings.

367 If in the moral as well as in the physical world, a cause of which the action is not interrupted be necessarily followed by a given effect, 368 it flows consecutively that a reasonable education, grafted upon truth, founded upon wise laws,-- 369 that honest principles instilled during youth, virtuous examples continually held forth, esteem attached solely to merit, recompense awarded to none but good actions, 370 contempt regularly visiting vice, shame following falsehood as its shadow, rigorous chastisements applied without distinction to crime, are causes that would necessarily act on the will of human; 371 that would determine the greater number of human species to exhibit virtue, to

love it for its own sake, to seek after it as the most desirable good, as the surest road to the happiness you so ardently desires. 372 But if, on the contrary, superstition, politics, example, public opinion, all labour to countenance wickedness, to train human viciously; 373 if, instead of fanning your virtues, they stifle good principles; if, instead of directing your studies to own advantage, they render your education either useless or unprofitable; 374 if this education itself, instead of grounding yourself in virtue, only inoculates you with vice; if, instead of inculcating reason, it imbues you with prejudice; 375 if, instead of making you enamoured of truth, it furnishes you with false notions; if, instead of storing your mind with just ideas drawn from experience, it fills you with dangerous opinions; 376 if, instead of fostering mildness and forbearance, it kindles in your breast only those passions which are incommodious to yourself and hurtful to others; 377 it must be of necessity, that the will of the greater number shall determine them to evil; shall render them unworthy, make them baneful to society. 378 Many authors have acknowledged the importance of a good education, that youth was the season to feed the human heart with wholesome diet; 379 but they have not felt, that a good education is incompatible, nay, impossible, with the superstition of human, 380 since this commences with giving your mind a false bias: that it is equally inconsistent with arbitrary government, 381 because this always dreads lest you should become enlightened, and is ever sedulous to render yourself servile, mean, contemptible, and cringing; 382 that it is incongruous with laws that are not founded in equity, that are frequently bottomed on injustice; 383 that it cannot obtain with those received customs that are opposed to good sense; 384 that it cannot exist whilst public opinion is unfavourable to virtue; 385 above all, that it is absurd to expect it from incapable instructors, from masters with weak minds, who have only the ability to infuse into their scholars those false ideas with which they are themselves

infected. 386 Here, without doubt, is the real source from whence springs that universal corruption, that wide-spreading depravity, of which moralists, with great justice, so loudly complain; 387 without, however, pointing out those causes of the evil, which are true as they are necessary: instead of this, they search for it in human nature, 388 say it is corrupt, blame human for loving oneself, and for seeking after your own happiness, insist that you must have supernatural assistance, some marvellous interference, to enable you to become good: 389 this is a very prejudicial doctrine for human, it is directly subversive of human's true happiness; 390 by teaching human to hold oneself in contempt, it tends necessarily to discourage you; it either makes human sluggish, or drives human to despair whilst waiting for this grace: 391 is it not easy to be perceived, that you would always have it if you was well educated; if you was honestly governed? 392 There cannot well exist a wilder or a stranger system of morals, than that of the theologians who attribute all moral evil to an original sin, and all moral good to the pardon of it. 393 It ought not to excite surprise if such a system is of no efficacy; what can reasonably be the result of such an hypothesis? 394 Yet, notwithstanding the supposed, the boasted free-agency of human, it is insisted that nothing less than the Author of Nature itself is necessary to destroy the wicked desires of human's heart: 395 but, alas! No power whatever is found sufficiently efficacious to resist those unhappy propensities, 396 which, under the fatal constitution of things, the most vigorous motives, as before observed, are continually infusing into the will of human; 397 no agency seems competent to turn the course of that unhappy direction these are perpetually giving to the stream of your natural passions. 398 Human is, indeed, incessantly exhorted to resist these passions, to stifle them, and to root them out of own heart; 399 but is it not evident they are necessary to human's welfare? Can it not be perceived they are inherent in human nature? Does not experience prove

them to be useful to human conservation, 400 since they have for object, only to avoid that which may be injurious to human; to procure that which may be advantageous to human's mode of existence? 401 In short, is it not easy to be seen, that these passions, well directed, that is to say, carried towards objects that are truly useful, that are really interesting to you, 402 which embrace the happiness of others, would necessarily contribute to the substantial, to the permanent well-being of society?

403 Theologians themselves have felt, they have acknowledged the necessity of the passions: 404 many of the fathers of the church have broached this doctrine; among the rest Father Senault has written a book expressly on the subject: 405 the passions of human are like fire, at once necessary to the wants of life, suitable to ameliorate the condition of humanity, 406 and equally capable of producing the most terrible ravages, the most frightful devastation.

407 Everything becomes an impulse to the will; a single word frequently suffices to modify a person for the whole course of one's life, to decide for ever your propensities; 408 an infant who has burned own finger by having approached it too near the flame of a lighted taper, is warned from thence, that you ought to abstain from indulging a similar temptation; 409 a person, once punished and despised for having committed a dishonest action, is not often tempted to continue so unfavourable a course. 410 Under whatever point of human is considered, you never acts but after the impulse given to your will, 411 whether it be by the will of others, or by more perceptible physical causes. 412 The particular organisation decides the nature of the impulse; souls act upon souls that are analogous; inflamed, fiery imaginations, act with facility upon strong passions; 413 upon imaginations easy to be inflamed, the surprising progress of enthusiasm; the hereditary propagation of superstition; 414 the transmission of

religious errors from race to race, the excessive ardour with which human seizes on the marvellous, 415 are effects as necessary as those which result from the action and re-action of bodies.

416 In despite of the gratuitous ideas which human has formed to oneself on your pretended free-agency; 417 in defiance of the illusions of this suppose intimate sense, which, contrary to your own experience, persuades you that you are master of your own will,-- 418 all human's institutions are really founded upon necessity: on this, as on a variety of other occasions, practice throws aside speculation. 419 Indeed, if it was not believed that certain motives embraced the power requisite to determine the will of human, 420 to arrest the progress of your passions, to direct them towards an end, to modify yourself; of what use would be the faculty of speech? 421 What benefit could arise from education itself? 422 What does education achieve, save give the first impulse to the human will, make human contract habits, oblige human to persist in them, furnish human with motives, whether true or false, to act after a given manner? 423 When the father either menaces his son with punishment, or promises him a reward, is he not convinced these things will act upon his will? 424 What does legislation attempt, except it be to present to the citizens of a state those motives which are supposed necessary to determine them to perform some actions 425 that are considered worthy; to abstain from committing others that are looked upon as unworthy? 426 What is the object of morals, if it be not to show human that your interest exacts you should suppress the momentary ebullition of your passions, 427 with a view to promote a more certain happiness, a more lasting well-being, than can possibly result from the gratification of your transitory desires? 428 Does not the religion of all countries suppose the human race, together with the entire of Nature, 429 submitted to the irresistible will of a necessary being, who regulates their condition after the eternal laws of immutable wisdom? 430 Is not

God the absolute master of their destiny? Is it not this divine being who chooses and rejects? 431 The anathemas fulminated by religion, the promises it holds forth, are they not founded upon the idea of the effects they will necessarily produce upon humankind? 432 Is not human brought into existence without one's own knowledge? 433 Is human not obliged to play a part against own will? 434 Does not either human happiness or human misery depend on the part one plays?

435 All religion has been evidently founded upon Fatalism. 436 Among the Greeks they supposed people were punished for their necessary faults, as may be seen in Orestes, in Oedipus, who only committed crimes predicted by the oracles. 437 It is rather singular that the theological defenders of the doctrine of free-agency, which they endeavour to oppose to that of predestination,-- 438 which according to them is irreconcilable with Christianity, inasmuch as it is a false and dangerous system,-- 439 should not have been aware that the doctrines of the fall of angels, original sin, the small number of the elect, the system of grace, were most incontestably supporting, by the most cogent arguments, a true system of fatalism.

440 Education, then, is only necessity shown to children: legislation is necessity shown to the members of the body politic: morals is the necessity of the relations subsisting between humans, shown to reasonable beings: 441 in short, human grants necessity in everything for which you believes you have certain, unerring experience: 442 that of which you does not comprehend the necessary connection of causes with their effects you styles probability: 443 you would not act as you does, if you was not convinced, or, at least, if you did not presume you was, that certain effects will necessarily follow your actions. 444 The moralist preaches reason, because you believes it necessary to human: the philosopher writes, because you believes truth must, sooner or later, prevail over falsehood: 445 tyrants and fanatical priests necessarily hate truth, despise

reason, because they believe them prejudicial to their interests: 446 the sovereign, who strives to terrify crime by the severity of own laws, but who nevertheless, from motives of state policy sometimes renders it useful and even necessary to own purposes, 447 presumes the motives you employs will be sufficient to keep your subjects within bounds. 448 All reckon equally upon the power or upon the necessity of the motives they make use of; 449 each individual flatters oneself, either with or without reason, that these motives will have an influence on the conduct of humankind. 450 The education of human is commonly so defective, so inefficacious, so little calculated to promote the end you have in view, because it is regulated by prejudice: 451 even when this education is good, it is but too often speedily counteracted, by almost everything that takes place in society. 452 Legislation and politics are very frequently iniquitous, and serve no better purpose than to kindle passions in the bosom of human, which once set afloat, they are no longer competent to restrain. 453 The great art of the moralist should be, to point out to human, to convince those who are entrusted with the sacred office of regulating your will, 454 that their interests are identified; that their reciprocal happiness depends upon the harmony of their passions; 455 that the safety, the power, the duration of empires, necessarily depend on the good sense diffused among the individual members; 456 on the truth of the notions inculcated in the mind of the citizens, on the moral goodness that is sown in their hearts, on the virtues that are cultivated in their breasts; 457 religion should not be admissible, unless it truly fortified, unless it really strengthened these motives. 458 But in the miserable state into which error has plunged a considerable portion of the human species, human, for the most part, is seduced to be wicked: 459 human injures own fellow-creature as a matter of conscience, because the strongest motives are held out to oneself to be persecuting; 460 because human institutions invite

you to the commission of evil, under the lure of promoting your own immediate happiness. 461 In most countries superstition renders human a useless being, makes human an abject slave, causes human to tremble under its terrors, 462 or else turns human into a furious fanatic, who is at once cruel, intolerant, and inhuman: 463 in a great number of states arbitrary power crushes human, obliges human to become a cringing sycophant, renders human completely vicious: 464 in those despotic states the law rarely visits crime with punishment, except in those who are too feeble to oppose its course? 465 Or when it has become incapable of restraining the violent excesses to which a bad government gives birth. 466 In short, rational education is neglected; a prudent culture of the human mind is despised; 467 it depends, but too frequently, upon bigoted, superstitious priests, who are interested in deceiving human, and who are sometimes impostors; 468 or else upon parents or masters without understanding, who are devoid of morals, who impress on the ductile mind of their scholars those vices with which they are themselves tormented; 469 who transmit to them the false opinions, which they believe they have an interest in making them adopt.

470 All this proves the necessity of falling back to human's original errors, and recurring to the primitive source of your wanderings, 471 if it be seriously intended to furnish you with suitable remedies for such enormous maladies: 472 it is useless to dream of correcting your mistakes, of curing you of your own depravity, until the true causes that move your will are unravelled; 473 until more real, more beneficial, more certain motives are substituted for those which are found so inefficacious; 474 which prove so dangerous both to society and to yourself. 475 It is for those who guide the human will, who regulate the condition of nations, who hold the real happiness of human in their grasp, to seek after these motives,-- 476 with which reason will readily furnish them-- which experience will enable them to

apply with success: 477 even a good book, by touching the heart of a great prince, may become a very powerful cause 478 that shall necessarily have an influence over the conduct of a whole people, and decide upon the felicity of a portion of the human race.

479 From all that has been advanced in this chapter, it results, that in no one moment of your existence human is a free agent: 480 you are not the architect of your own conformation; this, human holds from Nature, human has no control over one's own ideas, or over the modification of one's own brain; 481 these are due to causes, that, in despite of human, very frequently without your own knowledge, unceasingly act upon yourself; 482 you are not the master of not loving that which you finds amiable; of not coveting that which appears to yourself desirable; 483 human is not capable of refusing to deliberate, when you are uncertain of the effects certain objects will produce upon yourself; 484 human cannot avoid choosing that which you believes will be most advantageous to yourself: 485 in the moment when your will is determined by your choice, you are not competent to act otherwise than you does: 486 in what instance, then, are you the master of your own actions? In what moment is you a free agent?

487 That which a human is about to do is always a consequence of that which you have been-- of that which you are-- of that which you have done up to the moment of the action: 488 human's total and actual existence, considered under all its possible circumstances, contains the sum of all the motives to the action you are about to commit; 489 this is a principle, the truth of which no thinking, being will be able to refuse accrediting: 490 human's life is a series of necessary moments; your conduct, whether good or bad, virtuous or vicious, useful or prejudicial, either to yourself or to others, is a concatenation of action, 491 a chain of causes and effects, as necessary as all the moments of your existence. 492 To live, is to exist in a necessary mode during the points of

its duration, which succeed each other necessarily: 493 to will, is to acquiesce or not in remaining such as you are: 494 to be free, is to yield to the necessary motives that you carries within yourself.

495 If you understood the play of your organs, if you was able to recall to yourself all the impulsions they have received, all the modifications they have undergone, all the effects they have produced, 496 you would perceive, that all your actions are submitted to that fatality which regulates your own particular system, 497 as it does the entire system of the universe: 498 no one effect in yourself, any more than in Nature, produce itself by chance; 499 this, as has been before proved, is a word void of sense.

500 All that passes in human, all that is done by human, as well as all that happens in Nature, or that is attributed to Her, is derived from necessary laws, 501 which produce necessary effects; from whence necessarily flow others. 502 Fatality is the eternal, the immutable, the necessary order established in Nature, 503 or the indispensible connection of causes that act with the effects they operate. 504 Conforming to this order, heavy bodies fall, light bodies rise; 505 that which is analogous in matter, reciprocally attracts; that which is heterogeneous, mutually repels; 506 human congregates themselves in society, modifies each your fellow, becomes either virtuous or wicked; 507 either contributes to your mutual happiness, or reciprocates your misery; 508 either loves your neighbour, or hates your companion necessarily; according to the manner in which the you acts upon the other. 509 From whence it may be seen, that the same necessity which regulates the physical, also regulates the moral world: 510 in which everything is in consequence submitted to fatality. 511 Human, in running over, frequently without your own knowledge, often in despite of yourself, the route which Nature has marked out for you, resembles a swimmer who is obliged to follow the current that carries you along; 512 you believes yourself a free agent,

because you sometimes consents, sometimes does not consent, to glide with the stream; which, notwithstanding, always hurries you forward; 513 you believes yourself the master of your own condition, because you are obliged to use your arms under the fear of sinking.

514 The false ideas human has formed to oneself upon free-agency, are in general thus founded: 515 there are certain events which you judges necessary; 516 either because you sees they are effects that are constantly, are invariably linked to certain causes, which nothing seems to prevent; 517 or because you believes you have discovered the chain of causes and effects that is put in play to produce those events: 518 whilst you contemplates as contingent, other events, of whose causes you are ignorant; 519 the concatenation of which you does not perceive; with whose mode of acting you are unacquainted: 520 but in Nature, where everything is connected by one common bond, there exists no effect without a cause. 521 In the moral as well as in the physical world, everything that happens is a necessary consequence of causes, either visible or concealed; 522 which are, of necessity, obliged to act after their peculiar essences. 523 In human, free-agency is nothing more than necessity contained within yourself.

AN EXAMINATION OF THE OPINION WHICH PRETENDS THAT THE SYSTEM OF FATALISM IS DANGEROUS

Paul Henri Thiery (Baron D'Holbach)

37 For a being whose essence obliges you to have a constant tendency to own conservation, to continually seek to render yourself happy, experience is indispensible: 2 without it you cannot discover truth, which is nothing more, as has been already said, than a knowledge of the constant relations which subsist between human, 3 and those objects that act upon you; according to your experience you denominates those that contribute to your permanent welfare useful and salutary; 4 those

that procure you pleasure, more or less durable, you calls agreeable. 5 Truth itself becomes the object of your desires, only when you believe it is useful; you dread it, whenever you presume it will injure you. 6 But has truth the power to injure human? Is it possible that evil can result to human from a correct understanding of the relations you have with other beings? 7 Can it be true, that you can be harmed by becoming acquainted with those things, of which, for your own happiness, you are interested in having a knowledge? 8 No: unquestionably not. It is upon its utility that truth founds its worth; upon this that it builds its rights; 9 sometimes it may be disagreeable to individuals-- it may even appear contrary to their interests-- but it will ever be beneficial to them in the end; 10 it will always be useful to the whole human species; it will eternally benefit the great bulk of humankind; 11 whose interests must forever remain distinct from those of people, who, duped by their own peculiar passions, believe their advantage consists in plunging others into error.

12 Utility, then, is the touchstone of human systems, the test of your opinions, the criterion of the actions of human; 13 it is the standard of the esteem, the measure of the love you owes to truth itself: 14 the most useful truths are the most estimable: those truths which are most interesting for human species, you styles eminent; 15 those of which the utility limits itself to the amusement of some individuals who have not correspondent ideas, 16 similar modes of feeling, wants analogous to your own, you either disdains, or else calls them barren.

17 It is according to this standard, that the principles laid down in this work, ought to be judged. 18 Those who are acquainted with the immense chain of mischief produced on the earth by erroneous systems of superstition, 19 will acknowledge the importance of opposing to them systems more accordant with truth, schemes drawn from Nature, sciences founded on experience. 20 Those who are, or believe they are,

interested in maintaining the established errors, will contemplate, with horror, the truths here presented to them: 21 in short, those infatuated mortals, who do not feel, or who only feel very faintly, the enormous load of misery brought upon humankind by metaphysical speculation; 22 the heavy yoke of slavery under which prejudice makes human groan, will regard all our principles as useless; 23 or, at most, as sterile truths, calculated to amuse the idle hours of a few speculators.

24 No astonishment, therefore, need be excited at the various judgments formed by human: your interests never being the same, any more than your notions of utility, 25 human condemns or disdains everything that does not accord with your own peculiar ideas. 26 This granted, let us examine, if in the eyes of the disinterested person, who is not entangled by prejudice-- 27 who is sensible to the happiness of own species-- who delights in truth-- the doctrine of fatalism be useful or dangerous? 28 Let us see if it is a barren speculation, that you not any influence upon the felicity of the human race? 29 At has been already shown, that it will furnish morals with efficacious arguments, with real motives to determine the will, supply state-governing with the true lever to raise the proper activity in the mind of human. 30 It will also be seen that it serves to explain in a simple manner the mechanism of human's actions; 31 to develop in an easy way the arcana of the most striking phenomena of the human heart: 32 on the other hand, if your ideas are only the result of unfruitful speculations, they cannot interest the happiness of the human species. 33 Whether you believe yourself a free agent, or whether you acknowledge the necessity of things, human always equally follows the desires imprinted on your soul; 34 which are to preserve your existence and render you happy. 35 A rational education, honest habits, wise systems, equitable laws, rewards uprightly distributed, punishments justly inflicted, will conduct human to happiness by making you virtuous; 36 while thorny speculations, filled

with difficulties, can at most only have an influence over people unaccustomed to think.

37 After these reflections, it will be very easy to remove the difficulties that are unceasingly opposed to the system of fatalism, 38 which so many people, blinded by their superstitious prejudices, are desirous to have considered as dangerous-- 39 as deserving of punishment-- as calculated to disturb public tranquillity-- as tending to unchain the passions-- to undermine the opinions human ought to have; and to confound your ideas of vice and of virtue.

40 The opposers of necessity, say, that if all the actions of human are necessary, no right whatever exists to punish bad ones, or even to be angry with those who commit them: 41 that nothing ought to be imputed to them; that the laws would be unjust if they should decree punishment for necessary actions; 42 in short, that under this system human could neither have merit nor demerit. 43 In reply, it may be argued, that, to impute an action to anyone, is to attribute that action to human; to acknowledge human for the author: 44 thus, when even an action was supposed to be the effect of an agent, and that agent necessity, the imputation would lie: 45 the merit or demerit, that is ascribed to an action are ideas originating in the effects, whether favourable or pernicious, that result to those who experience its operation; 46 when, therefore, it should be conceded, that the agent was necessity, it is not less certain, that the action would be either good or bad; 47 estimable or contemptible, to those who must feel its influence; in short that it would be capable of either eliciting their love, or exciting their anger. 48 Love and anger are modes of existence, suitable to modify, beings of the human species: 49 when, therefore, a person irritates oneself against one's fellow, you intends to excite your fear, or even to punish yourself, in order to deter you from committing that which is displeasing to yourself. 50 Moreover human anger is necessary; it is the result of human Nature; the consequence of your temperament.

51 The painful sensation produced by a stone that falls on the arm, does not displease the less, because it comes from a cause deprived of will; which acts by the necessity of its nature. 52 In contemplating human as acting necessarily, it is impossible to avoid distinguishing that mode of action or being which is agreeable, 53 which elicits approbation, from that which is afflicting, which irritates, which Nature obliges you to blame and to prevent. 54 From this it will be seen, that the system of fatalism, does not in any manner change the actual state of things, 55 and is by no means calculated to confound human's ideas of virtue and vice.

56 Human's nature always revolts against that which opposes it: 57 there are people so choleric, that they infuriate themselves even against insensible and inanimate objects; 58 reflection on their own impotence to modify these objects ought to conduct them back to reason. 59 Parents are frequently very much to be blamed for correcting their children with anger: 60 they should be contemplated as beings who are not yet modified; or who have, perhaps, been very badly modified by themselves: 61 nothing is more common in life, than to see people punish faults of which they are themselves the cause.

62 Laws are made with a view to maintain society; to uphold its existence; to prevent human associated, from injuring your neighbour; 63 they are therefore competent to punish those who disturb its harmony, or those who commit actions that are injurious to their fellows; 64 whether these associates may be the agents of necessity, or whether they are free agents, it suffices to know they are susceptible of modification, and are therefore submitted to the operation of the law. 65 Penal laws are, or ought to be, those motives which experience has shown capable of restraining the inordinate passions of human, 66 or of annihilating the impulse these passions give to your own will; 67 from whatever necessary cause human may derive these passions, the legislator proposes to arrest their effect, 68

when they takes suitable means, when they adopts proper methods, they are certain of success. 69 The Judge, in decreeing to crime, gibbets, tortures, or any other chastisement whatever, does nothing more than is done by the architect, 70 who in building a house, places gutters to carry off the rain, and prevent it from sapping the foundation.

71 Whatever may be the cause that obliges human to act, society possesses the right to crush the effects, 72 as much as the person whose land would be ruined by a river, has to restrain its waters by a bank: or even, if you are able, to turn its course. 73 It is by virtue of this right that society has the power to intimidate, the faculty to punish, with a view to its own conservation, those who may be tempted to injure it; 74 or those who commit actions which are acknowledged really to interrupt its repose; to be inimical to its security; repugnant to its happiness.

75 It will, perhaps, be argued, that society does not, usually, punish those faults in which the will has no share; 76 that, in fact, it punishes the will alone; that this it is which decides the nature of the crime, and the degree of its atrocity; 77 that if this will be not free, it ought not to be punished. 78 I reply, that society is an assemblage of sensible beings, susceptible of reason, who desire their own welfare; who fear evil, and seek after good. 79 These dispositions enable their will to be so modified or determined, that they are capable of holding such a conduct as will conduce to the end they have in view. 80 Education, the laws, public opinion, example, habit, fear, are the causes that must modify associated human, 81 influence your will, regulate your passions, restrain the actions of you who is capable of injuring the end of your association, and thereby make you concur to the general happiness. 82 These causes are of a nature to make impressions on every person, whose organisation, whose essence, whose sanity, places you in a capacity to contract the habits, 83 to imbibe the modes of thinking, to adopt the manner of acting, with which society is willing

to inspire you. 84 All the individuals of the human species are susceptible of fear, from whence it flows as a natural consequence, 85 that the fear of punishment, or the privation of the happiness you desires, are motives that must necessarily more or less influence your will, and regulate your actions. 86 If the person is to be found who is so badly constituted as to resist, whose organisation is so vicious as to be insensible to those motives which operate upon all your fellows, the person is not fit to live in society; 87 you would contradict the very end of your association: you would be its enemy; you would place obstacles to its natural tendency; 88 such rebellious disposition, such unsociable will, not being susceptible of that modification which is convenient to your own true interests and to the interests of your fellow-citizens; 89 these would unite themselves against such an enemy; and the law which is, or ought to be the expression of the general will, 90 would visit with condign punishment that refractory individuals upon whom the motives presented to them by society, had not the effect which it had been induced to expect: 91 in consequence, such an unsociable person would be chastised; would be rendered miserable, 92 and according to the nature of their crime they would be excluded from society as a being but little calculated to concur in its views.

93 If society has the right to conserve itself, it has also the right to take the means: 94 these means are the laws which present or ought to present to the will of human those motives which are most suitable to deter you from committing injurious actions. 95 If these motives fail of the proper effect, if they are unable to influence everyone, society, for its own peculiar good, is obliged to wrest from those the power of doing it further injury. 96 From whatever source your actions may arise, therefore, whether they are the result of free-agency, or whether they are the offspring of necessity, 97 society coerces you if, after having furnished you with motives, sufficiently powerful to act upon reasonable beings, 98 it perceives that these

motives have not been competent to vanquish your depraved nature. 99 It punishes you with justice, when the actions from which it dissuades you are truly injurious to society; 100 it has an unquestionable right to punish, when it only commands those things that are conformable to the end proposed by human in your association; 101 or defends the commission of those acts, which are contrary to this end; which are hostile to the nature of beings associated for their reciprocal advantage. 102 But, on the other hand, the law has not acquired the right to punish human: 103 if it has failed to present to human the motives necessary to have an influence over your will, it has not the right to coerce human if the negligence of society has deprived you of the means of subsisting; 104 of exercising your talents; of exerting your industry; of labouring for its welfare. 105 It is unjust, when it punishes those to whom it has, neither given an education, nor honest principles; 106 whom it has not enabled to contract habits necessary to the maintenance of society: it is unjust when it punishes them for faults which the wants of their nature, or the constitution of society has rendered necessary to them: 107 it is unjust, it is irrational, whenever it chastises them for having followed those propensities, which example, which public opinion, which the institutions, which society itself conspires to give them. 108 In short, the law is defective when it does not proportion the punishment to the real evil which society has sustained. 109 The last degree of injustice, the acme of folly is, when society is so blinded as to inflict punishment on those citizens who have served it usefully.

110 The penal laws, in exhibiting terrifying objects to human, who must be supposed susceptible of fear, presents you with motives calculated to have an influence over your will. 111 The idea of pain, the privation of liberty, the fear of death, are, to a being well constituted, in the full enjoyment of your faculties, 112 very puissant obstacles, that strongly oppose themselves to the impulse of

your unruly desires: 113 when these do not coerce your will, when they fail to arrest your progress, you are an irrational being; a mad-person; a being badly organised; 114 against whom society has the right to guarantee itself; against whom it has a right to take measures for its own security. 115 Madness is, without doubt, an involuntary, a necessary state; 116 nevertheless, no one feels it unjust to deprive the insane of their liberty, although their actions can only be imputed to the derangement of their brain. 117 The wicked are people whose brain is either constantly or transitorily disturbed; still they must be punished by reason of the evil they commit; 118 they must always be placed in the impossibility of injuring society: 119 if no hope remains of bringing them back to a reasonable conduct-- if every prospect of recalling them to their duty has vanished-- 120 if they cannot be made to adopt a mode of action conformable to the great end of association-- they must be forever excluded its benefits.

121 It will not be requisite to examine here, how far the punishments which society inflicts upon those who offend against it, may be reasonably carried. 122 Reason should seem to indicate that the law ought to show to the necessary crimes of human, all the indulgence that is compatible with the conservation of society. 123 The system of fatalism, as we have seen, does not leave crime unpunished; 124 but it is, at least, calculated to moderate the barbarity with which a number of nations punish the victims to their anger. 125 This cruelty becomes still more absurd, when experience has shown its inutility: 126 the habit of witnessing ferocious punishments familiarises criminals with the idea. 127 If it be true that society possesses the right of taking away the life of its members-- 128 if it be really a fact, that the death of a criminal, thenceforth useless, can be advantageous for society, which it will be necessary to examine, 129 humanity, at least, exacts that this death should not be accompanied with useless tortures; 130 with which

laws, perhaps in this instance too rigorous, frequently seem to delight in overwhelming their victim. 131 This cruelty seems to defeat its own end, it only serves to make the culprit, who is immolated to the public vengeance, suffer without any advantage to society; 132 it moves the compassion of the spectator, interests human in favour of the miserable offender who groans under its weight; 133 it impresses nothing upon the wicked, but the sight of those cruelties destined for you; 134 which but too frequently renders human more ferocious, more cruel, more the enemy of your associates: 135 if the example of death was less frequent, even without being accompanied with tortures, it would be more efficacious. 136 If experience was consulted, it would be found that the greater number of criminals only look upon death as a bad quarter of an hour. 137 It is an unquestionable fact, that a thief seeing you of your comrades, display a want of firmness under the punishment, 138 said to him: "Is not this what I have often told you, that in our business, we have one evil more than the rest of humankind?"

139 Robberies are daily committed, even at the foot of the scaffolds where criminals are punished. 140 In those nations, where the penalty of death is so lightly inflicted, has sufficient attention been paid to the fact, that society is yearly deprived of a great number of individuals who would be able to render it very useful service, 141 if made to work, and thus indemnify the community for the injuries they have committed? 142 The facility, with which the lives of people are taken away, proves the incapacity of counsellors; is an evidence of the negligence of legislators: 143 they find it a much shorter road, that it gives them less trouble to destroy the citizens than to seek after the means to render them better.

144 What shall be said for the unjust cruelty of some nations, in which the law, that ought to have for its object the advantage of the whole, appears to be made only for the security of the most powerful? 145 How shall we account for the inhumanity of those

societies, in which punishments the most disproportionate to the crime, unmercifully take away the lives of people, 146 whom the most urgent necessity, the dreadful alternative of famishing in a land of plenty, has obliged to become criminal? 147 It is thus that in a great number of civilized nations, the life of the citizen is placed in the same scales with money; 148 that the unhappy wretch who is perishing from hunger, who is writhing under the most abject misery, is put to death for having taken a pitiful portion of the superfluity of another whom you beholds rolling in abundance! 149 It is this that, in many otherwise very enlightened societies, is called justice, or making the punishment commensurate with the crime.

150 Let the human of humanity, whose tender feelings are alive to the welfare of own species-- 151 let the moralist, who preaches virtue, who holds out forbearance to human-- let the philosopher, who dives into the secrets of Nature-- 152 let the theologian say, ‘if this dreadful iniquity, this heinous sin, does not become yet more crying, when the laws decree the most cruel tortures for crimes to which the most irrational customs gave birth’-- 153 which bad institutions engender-- which evil examples multiply? 154 Is not this something like building a sorry, inconvenient hovel, and then punishing the inhabitant, 155 because they does not find all the conveniences of the most complete mansion, of the most finished structure? 156 Human, as at cannot be too frequently repeated, is so prone to evil, only because everything appears to urge you on to the commission of it, by too frequently showing you vice triumphant: 157 your education is void in a great number of states, perhaps defective in nearly all; 158 in many places you receives from society no other principles, save those of an unintelligible superstition; 159 which make but a feeble barrier against those propensities that are excited by dissolute manners; 160 which are encouraged by corrupt examples: in vain the law cries out to human: "abstain from the goods of thy

neighbour;" 161 their wants, more powerful, loudly declare to them that they must live: unaccustomed to reason, having never been submitted to a wholesome discipline, 162 you conceives you must do it at the expense of a society who has done nothing for you: 163 who condemns human to groan in misery, to languish in indigence: frequently deprived of the common necessaries requisite to support their existence, 164 which your essence, of which you are not the master, compels you to conserve. 165 Human compensates oneself by theft, human revenges oneself by assassination, human becomes a plunderer by profession, a murderer by trade; 166 human plunges into crime, and seeks at the risque of your own life, to satisfy those wants, whether real or imaginary, to which everything around you conspires to give birth. 167 Deprived of education, human has not been taught to restrain the fury of your own temperament-- to guide your own passions with discretion-- to curb your inclinations. 168 Without ideas of decency, destitute of the true principles of honour, human engages in criminal pursuits that injure your country: 169 which at the same time has been to human nothing more than a step-mother. 170 In the paroxysm of human's rage, in the exacerbation of human's mind, you loses sight of your neighbour's rights, you overlooks the gibbet, you forgets the torture; 171 human unruly desires have become too potent-- they have completely absorbed human's mind; 172 by a criminal indulgence they have given an inveteracy to human's habits which preclude you from changing them; 173 laziness has made human torpid: remorse has gnawed human peace; despair has rendered human blind; human rushes on to death; 174 and society is compelled to punish human rigorously, for those fatal, those necessary dispositions, which it has perhaps itself engendered in human's heart by evil example: 175 or which at least, it has not taken the pains seasonably to root out; which it has neglected to oppose by suitable motives-- 176 by those calculated to

give human honest principles--to excite human to industrious habits, to imbue human with virtuous inclinations. 177 Thus, society frequently punishes those propensities of which it is itself the author, or which its negligence has suffered to spring up in the mind of human: 178 it acts like those unjust fathers, who chastise their children for vices which they have themselves made them contract.

179 However unjust, however unreasonable this conduct may be, or appear to be, it is not the less necessary: 180 society, such as it is, whatever may be its corruption, whatever vices may pervade its institutions, like everything else in Nature, is willing to subsist; tends to conserve itself: 181 in consequence, it is obliged to punish those excesses which its own vicious constitution has produced: 182 in despite of its peculiar prejudices, notwithstanding its vices, it feels cogently that its own immediate security demands that it should destroy the conspiracies of those who make war against its tranquillity: 183 if these, hurried on by the foul current of their necessary propensities, disturb its repose-- 184 if, borne on the stream of their ill-directed desires, they injure its interests, this following the natural law, 185 which obliges it to labour to its own peculiar conservation, removes them out of its road; 186 punishes them with more or less rigour, according to the objects to which it attaches the greatest importance, or which it supposes best suited to further its own peculiar welfare: 187 without doubt, it deceives itself frequently, both upon these objects and the means; 188 but it deceives itself necessarily, for want of the knowledge calculated to enlighten it, with regard to its true interests; 189 for want of those, who regulate its movements possessing proper vigilance-- suitable talents-- the requisite virtue. 190 From this it will appear, that the injustice of a society badly constituted, and blinded by its prejudices, is as necessary, as the crimes of those by whom it is hostilely attacked-- by whose vices it is distracted. 191 The body politic,

when in a state of insanity, cannot act more consistently with reason, than you of its members whose brain is disturbed by madness.

192 It will still be said that these maxims, by submitting everything to necessity, must confound, or even destroy the notions human forms of justice and injustice; 193 of good and evil; of merit and demerit: I deny it. 194 Although human, in everything you does, acts necessarily, your actions are good, they are just, they are meritorious, every time they tend to the real utility of your fellows; 195 of the society of which you makes a part: they are, of necessity, distinguished from those which are really prejudicial to the welfare of your associates. 196 Society is just, it is good, it is worthy our reverence, when it procures for all its members, their physical wants, 197 when it affords them protection, when it secures their liberty, when it puts them in possession of their natural rights.

198 It is ill this that consists all the happiness of which the social compact is susceptible: 199 society is unjust, it is bad, it is unworthy of our esteem, when it is partial to a few, when it is cruel to the greater number: 200 it is then that it multiplies its enemies, obliges them to revenge themselves by criminal actions which it is under the necessity to punish. 201 It is not upon the caprices of political society that depend the true notions of justice and injustice-- 202 the right ideas of moral good and evil-- a just appreciation of merit and demerit; 203 it is upon utility, upon the necessity of things, which always forces human to feel that there exists a mode of acting on which you implicitly relies, 204 which you are obliged to venerate, which you cannot help approving either in your fellows, in yourself, or in society: 205 whilst there is another mode to which you cannot lend your confidence, which your nature makes you to hate, which your feelings compel you to condemn. 206 It is upon your own peculiar essence that human founds your ideas of pleasure and of pain-- of right and of wrong-- of vice and of virtue: 207 the only

difference between these is, that pleasure and pain make them instantaneously felt in human's brain; human becomes conscious of their existence upon the spot; 208 in the place of which, the advantages that accrue to you from justice, the benefit that you derives from virtue, frequently do not display themselves but after a long train of reflections-- 209 after multiplied experience and complicated attention; which many, either from a defect in their conformation, 210 or from the peculiarity of the circumstances under which they are placed, are prevented from making, or at least from making correctly.

211 By a necessary consequence of this truism, the system of fatalism, although it has frequently been so accused, does not tend to encourage human in crime, to make remorse vanish from your mind. 212 Human's propensities are to be ascribed to your nature; the use you makes of your passions depends upon your habits, upon your opinions, upon the ideas you have received in your education; 213 upon the examples held forth by your society in which you lives. These things are what necessarily decide your conduct. 214 Thus, when human temperament renders you susceptible of strong passions, you are violent in your desires, whatever may be your speculations.

215 Remorse is the painful sentiment excited in human by grief, caused either by the immediate or probable future effect of your indulged passions: 216 if these effects were always useful to yourself, you would not experience remorse; 217 but, as soon as human is assured that your actions render you hateful, that human's passions make you contemptible; 218 or, as soon as you fears you shall be punished in some mode or other, you becomes restless, discontented with yourself-- 219 you reproaches yourself with your own conduct-- you feels ashamed-- you fears the judgement of those beings whose affection you have learned to esteem-- in whose goodwill you finds your own comfort deeply interested. 220 Human's experience proves to you that the wicked person

is odious to all those upon whom your actions have any influence: 221 if these actions are concealed at the moment of commission, you knows it very rarely happens they remain so forever. 222 The smallest reflection convinces yourself that there is no wicked person who is not ashamed of your own conduct-- 223 who is truly contented with you-- who does not envy the condition of the good person-- 224 who is not obliged to acknowledge that you have paid very dearly for those advantages you are never able to enjoy, 225 without experiencing the most troublesome sensations, without making the most bitter reproaches against yourself; 226 then you feels ashamed, despises yourself, hates yourself, your conscience becomes alarmed, remorse follows in it train. 227 To be convinced of the truth of this principle it is only requisite to cast our eyes on the extreme precautions that tyrants and villains, who are otherwise sufficiently powerful not to dread the punishment of human, take to prevent exposure;-- 228 to what lengths they push their cruelties against some, to what meanness's they stoop to others of those who are able to hold them up to public scorn. 229 Have they not, then, a consciousness of their own iniquities? Do they not know that they are hateful and contemptible? Have they not remorse? Is their condition happy? 230 people well brought up acquire these sentiments in their education; which are either strengthened or enfeebled by public opinion, by habit, or by the examples set before them. 231 In a depraved society, remorse either does not exist, or presently disappears; 232 because, in all human's actions, it is ever the judgment of your fellow-people that human is obliged necessarily to regard. 233 Human never feels either shame or remorse for actions you sees approved, that are practised by the world.

234 Under corrupt governments, venal souls, avaricious being, mercenary individuals, do not blush either at meanness, robbery, or rapine, when it is authorised by example; 235 in licentious nations, no one blushes at adultery except the

husband, at whose expense it is committed; 236 in superstitious countries, people does not blush to assassinate their fellow for their opinions. 237 It will be obvious, therefore, that your remorse, as well as the ideas, whether right or wrong, which human has of decency, virtue, justice, are the necessary consequence of your temperament, modified by the society in which you lives: 238 assassins and thieves, when they live only among themselves, have neither shame nor remorse.

239 Thus, I repeat, all the actions of human are necessary those which are always useful, 240 which constantly contribute to the real, tend to the permanent happiness of own species, are called virtues, and are necessarily pleasing to all who experience their influence; 241 at least, if their passions or false opinions do not oblige them to judge in that manner which is but little accordant with the nature of things: 242 each person acts, each individual judges, necessarily, according to your own peculiar mode of existence-- 243 after the ideas, whether true or false, which you have formed with regard to your own happiness. 244 There are necessary actions which human is obliged to approve; there are others, that, in despite of yourself, you are compelled to censure; 245 of which the idea generates shame when your reflection permits you to contemplate them under the same point of view that they are regarded by your associates. 246 The virtuous person and the wicked person act from motives equally necessary: they differ simply in their organisation-- in the ideas they form to themselves of happiness: 247 we love the one necessarily-- we detest the other from the same necessity. 248 The law of human nature, which wills that a sensible being shall constantly labour to preserve yourself, 249 has not left to human the power to choose, or the free-agency to prefer pain to pleasure-- vice to utility-- crime to virtue. 250 It is, then, the essence of human that obliges you to discriminate those actions which are advantageous to yourself, 251 form those which are prejudicial to your

interest, from those which are baneful to your felicity.

252 This distinction subsists even in the most corrupt societies, in which the ideas of virtue, although completely effaced from their conduct, remain the same in their mind. 253 Let us suppose a matt, who had decidedly determined for villainy, who should say to you-- "It is folly to be virtuous in a society that is depraved, in a community that is debauched." 254 Let us suppose also, that you have sufficient address, the unlooked-for good fortune to escape censure or punishment, during a long series of years; 255 I say, that in despite of all these circumstances, apparently so advantageous for you, such a human has neither been happy nor contented with your own conduct, 256 such person has been in continual agonies-- ever at war with your own actions-- in a state of constant agitation. 257 How much pain, how much anxiety, has human not endured in this perpetual conflict with oneself? 258 How many precautions, what excessive labour, what endless solicitude, has human not been compelled to employ in this continued struggle; 259 how many embarrassments, how many cares, has human not experienced in this eternal wrestling with your associates, 260 whose penetration you dreads, whose scorn you fears will follow a true knowledge of your pursuits. 261 Demand of human what you thinks of yourself, you will shrink from the question. 262 Approach the bedside of this villain at the moment he is dying; ask him if he would be willing to recommence, at the same price, a life of similar agitation? 263 If he is ingenuous, he will avow that he has tasted neither repose nor happiness; that each crime filled him with inquietude-- 264 that reflection prevented him from sleeping-- that the world has been to him only one continued scene of alarm-- an uninterrupted concatenation of terror-- an everlasting, anxiety of mind;-- 265 that to live peaceably upon bread and water, appears to him to be a much happier, a more easy condition, than to possess riches, credit, reputation,

honours, on the same terms that he has himself acquired them. 266 If this villain, notwithstanding all his success, finds his condition so deplorable, 267 what must be thought of the feelings of those who have neither the same resources nor the same advantages to succeed in their criminal projects.

268 Thus, the system of necessity is a truth not only founded upon certain experience, 269 but, again, it establishes morals upon an immoveable basis. 270 Far from sapping the foundations of virtue, it points out its necessity; it clearly shows the invariable sentiments it must excite-- 271 sentiments so necessary, so strong, so congenial to human's existence, that all the prejudices of human-- all the vices of your institutions-- 272 all the effect of evil example, have never been able entirely to eradicate them from human's mind. 273 When you mistakes the advantages of virtue, it ought to be ascribed to the errors that are infused into you-- to the irrationality of your institutions: 274 all human wanderings are the fatal consequences of error,-- the necessary result of prejudices which have identified themselves with your existence. 275 Let it not, therefore, any longer be imputed to human nature that you have become wicked, but to those baneful opinions which you have imbibed with your mother's milk,-- 276 that have rendered you ambitious, avaricious, envious, haughty, arrogant, debauched, intolerant, obstinate, prejudiced, incommodious to your fellows, mischievous to yourself. 277 It is education that carries into your system the germ of those vices which necessarily torment you during the whole course of your life.

278 Fatalism is reproached with discouraging human-- with damping the ardour of your soul-- with plunging you into apathy-- with destroying the bonds that should connect you with society. 279 Its opponents say, "If everything is necessary, we must let things go on, and not be disturbed by anything." 280 But does it depend on human to be sensible or not? Is human master of feeling or not feeling pain? 281 If

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Nature has endowed human with a humane, with a tender soul, is it possible you should not interest yourself in a very lively manner, 282 in the welfare of beings whom you knows are necessary to your own peculiar happiness? 283 Human's feelings are necessary: they depend on your own peculiar nature, cultivated by education. 284 Human's imagination, prompt to concern itself with the felicity of your race, causes your heart to be oppressed at the sight of those evils your fellow-creature is obliged to endure,-- 285 makes human soul tremble in the contemplation of the misery arising from the despotism that crushes you-- 286 from the superstition that leads you astray-- from the passions that distract you in a state of warfare against your neighbour. 287 Although human knows that death is the fatal, the necessary period to the form of all beings, your soul is not affected in a less lively manner at the loss of a beloved wife,-- 288 at the demise of a child calculated to console your old age,-- at the final separation from an esteemed friend who had become dear to your own heart. 289 Although human is not ignorant that it is the essence of fire to burn, human does not believe you are dispensed from using your utmost efforts to arrest the progress of a conflagration. 290 Although you are intimately convinced that the evils to which you are a witness, are the necessary consequence of primitive errors with which your fellow-citizens are imbued, 291 you feels you ought to display truth to them, if Nature has given human the necessary courage; 292 under the conviction, that if they listen to it, it will, by degrees, become a certain remedy for their sufferings, 293 that it will produce those necessary effects which it is of its essence to operate.

294 If the speculations of human modify your conduct, if they change your temperament, you ought not to doubt that the system of necessity would have the most advantageous influence over yourself; 295 not only is it suitable to calm the greater part of your inquietude, but it will also contribute to inspire you with a useful submission, 296 a rational

resignation, to the decrees of a destiny with which your too great sensibility frequently causes you to be overwhelmed. 297 This happy apathy, without doubt, would be, desirable to those whose souls, too tender to brook the inequalities of life, 298 frequently render them the deplorable sport of their fate; or whose organs, too weak to make resistance to the buffettings of fortune, 299 incessantly expose them to be dashed in pieces under the rude blows of adversity.

300 But, of all the important advantages the human race would be enabled to derive from the doctrine of fatalism, 301 if human was to apply it to own conduct, none would be of greater magnitude, none of more happy consequence, none that would more efficaciously corroborate your happiness, 302 than that general indulgence, that universal toleration, that must necessarily spring from the opinion, that all is necessary. 303 In consequence, of the adoption of this principle, the fatalist, if you had a sensible soul, would commisserate the prejudices of your fellow-human-- 304 would lament over your wanderings-- would seek to undeceive you-- would try by gentleness to lead you into the right path, 305 without ever irritating yourself against your weakness, without ever insulting your misery. 306 Indeed, what right have we to hate or despise human for your opinions? 307 Human's ignorance, human's prejudices, human's imbecility, human's vices, human's passions, human's weakness, are they not the inevitable consequence of vicious institutions? 308 Are you not sufficiently punished by the multitude of evils that afflict you on every side? 309 Those despots who crush you with an iron sceptre, are they not continual victims to their own peculiar restlessness--

310 emancipated to their perpetual diffidence-- eternal slaves to their suspicions? 311 Is there one wicked individual who enjoys a pure, an unmixed, a real happiness? 312 Do not nations unceasingly suffer from their follies? Are they not the incessant dupes to their prejudices?

313 Is not the ignorance of chiefs, the ill-will they bear to reason, the hatred they have for truth, punished by the imbecility of their citizens, by the ruin of the states they govern? 314 In short, the fatalist would grieve to witness necessity each moment exercising its severe decrees upon mortals who are ignorant of its power, 315 or who feel its castigation, without being willing to acknowledge the hand from whence it proceeds; 316 you will perceive that ignorance is necessary, that credulity is the necessary result of ignorance-- 317 that slavery and bondage are necessary consequences of ignorant credulity-- that corruption of manners springs necessarily from slavery-- 318 that the miseries of society, the unhappiness of its members, are the necessary offspring of this corruption.

319 The fatalist, in consequence, of these ideas, will neither be a gloomy misanthrope, nor a dangerous citizen; 320 you will pardon in your brethren those wanderings, you will forgive them those errors-- which their vitiated nature, by a thousand causes, has rendered necessary-- 321 you will offer them consolation-- you will endeavour to inspire them with courage-- 322 you will be sedulous to undeceive them in their idle notions, in their chimerical ideas; 323 but you will never display against them bitterness of soul-- you will never show them that rancorous animosity which is more suitable, to make them revolt from your doctrines, than to attract them to reason;-- 324 you will not disturb the repose of society-- you will not raise the people to insurrection against the sovereign authority; 325 on the contrary, you will feel that the miserable blindness of the great, and the wretched perverseness, the fatal obstinacy of so many conductors of the people, are the necessary consequence of that flattery that is administered to them in their infancy-- 326 that feeds their hopes with allusive falsehoods-- of the depraved malice of those who surround them -- who wickedly corrupt them, that they may profit by their folly-- that they may take advantage of their weakness: 327 in short, that these things are the

inevitable effect of that profound ignorance of their true interest, in which everything strives to keep them.

328 The fatalist has no right to be vain of your peculiar talents; no privilege to be proud of your virtues; 329 you knows that these qualities are only the consequence of your natural organisation, modified by circumstances that have in no wise depended upon yourself. 330 Human will neither have hatred nor feel contempt for those whom Nature and circumstances have not favoured in a similar manner. 331 It is the fatalist who ought to be humble, who should be modest from principle: 332 Is human not obliged to acknowledge, that you possesses nothing that you have not previously received?

333 In fact, will not everything conduct to indulgence the fatalist whom experience has convinced of the necessity of things? 334 Will human not see with pain, that it is the essence of a society badly constituted, unwisely governed, enslaved to prejudice, attached to unreasonable customs, submitted to irrational laws, 335 degraded under despotism, corrupted by luxury, inebriated by false opinions, to be filled with trifling members; 336 to be composed of vicious citizens; to be made up of cringing slaves, who are proud of their chains; 337 of ambitious people, without idea of true glory; of misers and prodigals; of fanatics and libertines! 338 Convinced of the necessary connection of things, you will not be surprised to see that the supineness of their chiefs carries discouragement into their country, 339 or that the influence of their governors stirs up bloody wars by which it is depopulated, and causes useless expenditures that impoverish it; 340 that all these excesses united, is the reason why so many nations contain only people wanting happiness, without understanding to attain it; who are devoid of morals, destitute of virtue. 341 In all this human will contemplate nothing more than the necessary action and re-action of physics upon morals, of morals upon physics. 342 In short, all who acknowledge fatality, will

remain persuaded that a nation badly governed is a soil very fruitful in venomous reptiles-- very abundant in poisonous plants; 343 that these have such a plentiful growth as to crowd each other and choak themselves. 344 It is in a country cultivated by the hands of a Lycurgus, that you will witness the production of intrepid citizens, of noble-minded individuals, of disinterested people, who are strangers to irregular pleasures. 345 In a country cultivated by a Tiberius, you will find nothing but villains with depraved hearts, people with mean contemptible souls, despicable informers, execrable traitors. 346 It is the soil, it is the circumstances in which human finds oneself placed, that renders you either a useful object or a prejudicial being: 347 the wise person avoids the one, as you would those dangerous reptiles whose nature it is to sting and communicate their deadly venom; 348 you attaches yourself to the other, esteems them, loves them, as you does those delicious fruits with whose rich maturity your palate is pleasantly gratified, 349 with whose cooling juices you finds yourself agreeably refreshed: 350 you sees the wicked without anger-- you cherishes the good with pleasure-- you delights in the bountiful: 351 you knows full well that the tree which is languishing without culture in the arid, sandy desert, that is stunted for want of attention, leafless for want of moisture, 352 that has grown crooked from neglect, become barren from want of loam, whose tender bark is gnawed by rapacious beasts of prey, pierced by innumerable insects, 353 would perhaps have expanded far and wide its verdant boughs from a straight and stately stem, 354 have brought forth delectable fruit, have afforded from its luxuriant foliage under its lambent leaves an umbrageous refreshing retreat from the scorching rays of a meridian sun, 355 have offered beneath its swelling branches, under its matted tufts a shelter from the pitiless storm, 356 it its seed had been fortunately sown in a more fertile soil, placed in a more congenial climate, had experienced the fostering cares of a skilful cultivator.

357 Let it not then be said, that it is degrading human reduce your functions to a pure mechanism; 358 that it is shamefully to undervalue you, scandalously to abuse you, to compare you to a tree; to an abject vegetation. 359 The philosopher devoid of prejudice does not understand this language, invented by those who are ignorant of what constitutes the true dignity of human. 360 A tree is an object which, in its station, joins the useful with the agreeable; 361 it merits our approbation when it produces sweet and pleasant fruit; when it affords a favourable shade.

362 All machines are precious, when they are truly useful, when they faithfully perform the functions for which they are designed. 363 Yes, I speak it with courage, reiterate it with pleasure, the honest human, when you have talents, when you possesses virtue, 364 is, for the beings of your species, a tree that furnishes them with delicious fruit, that affords them refreshing shelter: 365 the honest human is a machine of which the springs are adapted to fulfil its functions in a manner that must gratify the expectation of all your fellows. 366 No, I should not blush, I should not feel degraded, to be a machine of this sort; 367 and my heart would leap with joy, if I could foresee that the fruit of my reflections would one day be useful to my race, consoling to my fellow-human.

368 Is not Nature herself a vast machine, of which the human species is but a very feeble spring? 369 I see nothing contemptible either in Her or Her productions; 370 all the beings who come out of Her hands are good, are noble, are sublime, whenever they co-operate to the production of another, 371 to the maintenance of harmony in the sphere where they must act. 372 Of whatever nature the soul may be, whether it is made mortal, or whether it be supposed immortal; 373 whether it is regarded as a spirit, or whether it be looked upon as a portion of the body; 374 it will be found noble, it will be estimated great, it will be ranked good, it will be considered sublime, 375 in a Socrates, in an

Aristides, in a Cato: it will be thought abject, it will be viewed as despicable, it will be called corrupt, 376 in a Claudius, in a Sejanus, in a Nero: its energies will be admired, we shall be delighted with its manner, fascinated with its efforts, 377 in a Shakespeare, in a Corneille, in a Newton, in a Montesquieu: its baseness will be lamented, when we behold mean, contemptible people, who flatter tyranny, or who servilely cringe at the foot of superstition.

378 All that has been said in the course of this work, proves clearly that everything is necessary; that everything is always in order, relatively to Nature; 379 where all beings do nothing more than follow the laws that are imposed on their respective classes. 380 It is part of Her plan, that certain portions of the earth shall bring forth delicious fruits, shall blossom beauteous flowers; 381 whilst others shall only furnish brambles, shall yield nothing but noxious vegetables: 382 She has been willing that some societies should produce wise humans, great heroes; that others should only give birth to abject souls, contemptible humans, without energy, destitute of virtue. 383 Passions, winds, tempests, hurricanes, volcanoes, wars, plagues, famines, diseases, death, are as necessary to Her eternal march as the beneficent heat of the sun, 384 the serenity of the atmosphere, the gentle showers of spring, plentiful years, peace, health, harmony, life: vice and virtue, darkness and light, and science are equally necessary; 385 the one are not benefits, the other are not evils, except for those beings whose happiness they influence by either favouring or deranging their peculiar mode of existence. 386 The whole cannot be miserable, but it may contain unhappy individuals.

387 Nature, then, distributes with the same hand that which is called order, and that which is called disorder; that which is called pleasure, and that which is called pain: 388 in short, She diffuses by the necessity of Her existence, good and evil in the world we inhabit.

389 Let not human, therefore, either arraign Her bounty, or tax Her with malice; 390 let you not imagine that

your feeble cries, your weak supplications, can never arrest Her colossal power, always acting after immutable laws; 391 let you submit silently to your condition; and when you suffers, let you not seek a remedy by recurring to chimeras that your own distempered imagination has created; 392 let you draw from the stores of Nature Herself, the remedies which She offers for the evil She brings upon you: 393 if She sends you diseases, let you search in Her bosom for those salutary productions to which She has given birth, which will cure them: 394 if She gives you errors, She also furnishes you with experience to counteract them; in truth, She supplies you with an antidote suitable to destroy their fatal effects. 395 If She permits human to groan under the pressure of their own vices, beneath the load of their follies, She also shows them in virtue, a sure remedy for their infirmities: 396 if the evils that some societies experience are necessary, when they shall have become too incommodious they will be irresistibly obliged to search for those remedies which Nature will always point out to them. 397 If this Nature has rendered existence insupportable, to some unfortunate beings, whom She appears to have selected for Her victims, still death, is a door that will surely be opened to them-- 398 that will deliver them from their misfortunes, although in their puny, imbecile, wayward judgment, they may be deemed impossible of cure.

399 Let not human, then, accuse Nature with being inexorable to you, since there does not exist in Her whole circle an evil for which She has not furnished the remedy, 400 to those who have the courage to seek it, who have the fortitude to apply it. 401 Nature follows general and necessary laws in all Her operations; 402 physical calamity and moral evil are not to be ascribed to Her want of kindness, but to the necessity of things.

403 Physical calamity is the derangement produced in human's organs by physical causes which human sees act: 404 moral evil is the

derangement produced in human by physical causes of which the action is to you a secret. 405 These causes always terminate by producing sensible effects, which are capable of striking your senses; 406 neither the thoughts nor the will of human ever show themselves, but by the marked effects they produce either in yourself 407 or upon those beings whom Nature has rendered susceptible of feeling their impulse. 408 Human suffers, because it is of the essence of some beings to derange the economy of your machine; 409 human enjoys, because the properties of some beings are analogous to your own mode of existence; 410 human is born, because it is of the nature of some matter to combine itself under a determinate form; 411 you lives, you acts, you thinks, because it is of the essence of certain combinations to maintain themselves in existence by given means for a season; 412 at length human dies, because a necessary law prescribes that all the combinations which are formed, shall either be destroyed or dissolve themselves. 413 From all this it results, that Nature is impartial to all its productions; 414 She submits human, like all other beings, to those eternal laws from which She has not even exempted Herself; 415 if She was to suspend these laws, even for an instant, from that moment disorder would reign in Her, system; Her harmony would be disturbed.

416 Those who wish to study Nature, must take experience for their guide; 417 this, and this only, can enable them to dive into Her secrets, to unravel by degrees, the frequently imperceptible woof of those slender causes, of which She avails Herself to operate the greatest phenomena: 418 by the aid of experience, human often discovers in Her properties, perceives modes of action entirely unknown to the ages which have preceded human; 419 those effects which your grandfathers contemplated as marvellous, which they regarded as supernatural efforts, looked upon as miracles, 420 have become familiar to you in the present day, and are at this moment contemplated as simple and natural

consequences, of which you comprehends the mechanism-- 421 of which you understands the cause-- of which you can unfold the manner of action. 422 Human, in fathoming Nature, has arrived at discovering the true causes of earthquakes; of the periodical motion of the sea; of subterraneous conflagrations; of meteors; of the electrical fluid, 423 the whole of which were considered by your ancestors, and are still so by the ignorant, by the uninformed, as indubitable signs of heaven's wrath. 424 Human's posterity, in following up, in rectifying the experience already made, will perhaps go further, and discover those causes which are totally veiled from present eyes. 425 The united efforts of the human species will one day perhaps penetrate even into the sanctuary of Nature, 426 and throw into light many of those mysteries which up to the present time She seems to have refused to all human researches.

427 In contemplating human under own true aspect; in quitting authority to follow experience; in laying aside error to consult reason; in submitting everything to physical laws, 428 from which human's imagination has vainly exerted its utmost power to withdraw them; 429 it will be found that the phenomena of the moral world follow exactly the same general rules as those of the physical; 430 that the greater part of those astonishing effects, which ignorance, aided by human prejudices, make you consider as inexplicable, and regard as wonderful, are natural consequences flowing from simple causes. 431 Human will find that the eruption of a volcano and the birth of a Tamerlane are to Nature the same thing; 432 in recurring to the primitive causes of those striking events which human beholds with consternation, which human contemplates with fearful alarm, 433 in falling back to the sources of those terrible revolutions, those frightful convulsions, those dreadful explosions that distract humankind, 434 lay waste the fairest works of Nature, ravage nations, and tear up society by the roots; 435 human will find the wills that compassed the most surprising changes, that

operated the most extensive alterations in the state of things, 436 that brought about the most unlooked-for events, were moved by physical causes, whose exility made human treat them as contemptible; 437 whose want of consequence in human's own purblind eyes led human to believe them utterly incapable to give birth to the phenomena whose magnitude strikes human with such awe, 438 whose stupendous range fills human with such amazement.

439 If human was to judge of causes by their effects, there would be no small causes in the universe. 440 In a Nature where everything is connected, where everything acts and re-acts, moves and changes, composes and decomposes, forms and destroys, 441 there is not an atom which does not play an important part-- that does not occupy a necessary station; 442 there is not an imperceptible particle, however minute, which, placed in convenient circumstances, does not operate the most prodigious effects.

443 If human was in a capacity to follow the eternal chain, to pursue the concatenated links, that connect with their causes all the effects you witnesses, without losing sight of anyone of its rings,-- 444 if human could unravel the ends of those insensible threads that give impulse to the thoughts, decision to the will, direction to the passions of those people who are called mighty, according to their actions, 445 you would find, they are true atoms which Nature employs to move the moral world; 446 that it is the unexpected but necessary function of these indiscernible particles of matter, 447 it is their aggregation, their combination, their proportion, their fermentation, which modifying the individual by degrees, 448 in despite of yourself, frequently without your own knowledge, make you think, will, and act, in a determinate, but necessary mode. 449 If, then, the will and the actions of this individual have an influence over a great number of other humans, here is the moral world in a state of the greatest combustion, 450 and

those consequences ensue which human contemplates with fearful wonder. 451 Too much acrimony in the bile of a fanatic-- blood too much inflamed in the heart of a conqueror-- 452 a painful indigestion in the stomach of a monarch-- a whim that passes in the mind of a woman-- are sometimes causes sufficient to bring on war-- 453 to send millions of people to the slaughter-- to root out an entire people-- to overthrow walls-- to reduce cities into ashes-- 454 to plunge nations into slavery-- to put a whole people into mourning-- to breed famine in a land-- to engender pestilence-- 455 to propagate calamity-- to extend misery-- to spread desolation far and wide upon the surface of our globe, through a long series of ages.

456 The dominant passion of an individual of the human species, when it disposes of the passions of many others, arrives at combining their will, 457 at uniting their efforts, and thus decides the condition of human. 458 It is after this manner that an ambitious, crafty, and voluptuous Arab, gave to his countrymen an impulse 459 of which the effect was the subjugation and desolation of vast countries in Asia, in Africa, and in Europe; 460 whose consequences were sufficiently potential to erect a new, extensive, but slavish empire; 461 to give a novel system of religion to millions of human beings; to overturn the altars of their former gods; 462 in short, to alter the opinions, to change the customs of a considerable portion of the population of the earth. 463 But in examining the primitive sources of this strange revolution, what were the concealed causes that had an influence over this man-- 464 that excited his peculiar passions, and modified his temperament? 465 What was the matter from the combination of which resulted a crafty, ambitious, enthusiastic, and eloquent man; 466 in short, a personage competent to impose on his fellow-creatures-- capable of making them concur in his most extravagant views. 467 They were, undoubtedly, the insensible particles of his blood; the imperceptible texture of his fibres;

the salts, more or less acrid, that stimulated his nerves; 468 the proportion of igneous fluid that circulated in his system. 469 From whence came these elements? It was from the womb of his mother; from the aliments which nourished him; from the climate in which he had his birth; from the ideas he received; 470 from the air which he respired; without reckoning a thousand inappreciable, a thousand transitory causes, 471 that in the instance given had modified, had determined the passions of this important being, who had thereby acquired the capacity to change the face of this mundane sphere.

472 To causes so weak in their principles, if in the origin the slightest obstacle had been opposed, these wonderful events, which have astounded human, would never have been produced. 473 The fit of an argue, the consequence of bile a little too much inflamed, had sufficed, perhaps, to have rendered abortive all the vast projects, of the legislator of the Mussulmen. 474 Spare diet, a glass of water, a sanguinary evacuation, would sometimes have been sufficient to have saved kingdoms.

475 It will be seen, then, that the condition of the human species, as well as that of each of its individuals, every instant depends on insensible causes, to which circumstances, frequently fugitive, give birth; 476 that opportunity develops, that convenience puts in action: 477 human attributes their effects to chance, whilst these causes operate necessarily, act according to fixed rules: 478 human has frequently neither the sagacity nor the honesty to recur to their true principles; 479 human regards such feeble motives with contempt, because human has been taught to consider them as incapable of producing such stupendous events. 480 They are, however, these motives, weak as they may appear to be, these springs, so pitiful in human's eyes, is which according to Her necessary laws, suffice in the hands of Nature to move the universe. 481 The conquests of a Gengis-Khan have nothing in them that is more strange to the eye

of a philosopher than the explosion of a mine, 482 caused in its principle by a feeble spark, which commences with setting fire to a single grain of powder; 483 this presently communicates itself to many millions of other contiguous grains, of which the united force, the multiplied powers, terminate by blowing up mountains, 484 overthrowing fortifications, or converting populous, well-built cities, into heaps of ruins. 485 Thus, imperceptible causes, concealed in the bosom of Nature, until the moment their action is displayed, frequently decide the fate of human.

486 The happiness or the wretchedness, the prosperity or the misery of each individual, as well as that of whole nations, are attached to powers 487 which it is impossible for human to foresee, which human cannot appreciate, of which human is incapable to arrest the action. 488 Perhaps at this moment atoms are amassing, insensible particles are combining, of which the assemblage shall form a sovereign, 489 who will be either the scourge or the saviour of a mighty empire. 490 Human cannot answer for their own destiny one single instant; 491 you have no cognisance of what is passing within yourself; you is ignorant of the causes which act in the interior of your machine; 492 you knows nothing of the circumstances that will give them activity: you is unacquainted with what may develop their energy; 493 it is, nevertheless, on these causes, impossible to be unravelled by you, that depends your condition in life. 494 Frequently, an unforeseen rencontre gives birth to a passion in human soul, of which the consequences shall, necessarily, have an influence over the person's felicity. 495 It is thus that the most virtuous person, by a whimsical combination of unlooked-for circumstances, may become in an instant the most criminal of your species.

496 This truth, without doubt, will be found frightful-- this fact will unquestionably appear terrible: 497 but at bottom, what has it more revolting than that which teaches human that an infinity of accidents,

as irremediable as they are unforeseen, may every instant wrest from human that life to which you is so strongly attached? 498 Fatalism reconciles the good person easily to death: 499 it makes human contemplate it as a certain means of withdrawing yourself from wickedness; 500 this system shows death, even to the happy people themselves, as a medium between them and those misfortunes which frequently terminate by poisoning their happiness; 501 that end with embittering the most fortunate existence.

502 Let human, then, submit to necessity: in despite of yourself it will always hurry you forward: let you resign yourself to Nature, 503 let you accept the good with which She presents you: let you oppose to the necessary evil which She makes you experience, those necessary remedies which She consents to afford you; 504 let you not disturb your mind with useless inquietude; let you enjoy with moderation, because you will find that pain is the necessary companion of excess: 505 let you follow the paths of virtue, because everything will prove to you, even in this world of perverseness, that it is absolutely necessary to render you estimable in the eyes of others, to make you contented with yourself.

506 Feeble, vain mortal, thou pretendest to be a free agent. Alas! dost thou not see all the threads which enchain thee? 507 Dost thou not perceive that they are atoms which form thee; that they are atoms which move thee; that they are circumstances independent of thyself, that modify thy being; 508 that they are circumstances over which thou hast not any control, that rule thy destiny? 509 In the puissant Nature that environs thee, shalt thou pretend to be the only being who is able to resist Her power? 510 Dost thou really believe that thy weak prayers will induce Her to stop in Her eternal march; 511 that thy sickly desires can oblige Her to change Her everlasting course?

OF THE IMMORTALITY OF THE SOUL

Paul Henri Thiery (Baron D'Holbach)

38 The reflections presented to the reader in this work, tend to show what ought to be thought of the human soul, as well as of its operations and faculties: 2 everything proves, in the most convincing manner, that it acts, that it moves according to laws similar to those prescribed to the other beings of Nature; 3 that it cannot be distinguished from the body; that it is born with it; that it grows up with it; that it is modified in the same progression; 4 in short, everything ought to make human conclude that it perishes with it. 5 This soul, as well as the body, passes through a state of weakness and infancy; 6 it is in this stage of its existence, that it is assailed by a multitude of modifications; 7 that it is stored with an infinity of ideas, which it receives from exterior objects through the medium of the organs; 8 that it amasses facts, that it collects experience, whether true or false, that it forms to itself a system of conduct, 9 according to which it thinks, in conformity with which it acts, from whence results either its happiness or its misery, its reason or its delirium, its virtues or its vices; 10 arrived with the body at its full powers, having in conjunction with it reached maturity, it does not cease for a single instant to partake in common of its sensations, 11 whether these are agreeable or disagreeable; it participates in all its pleasures; it shares in all its pains; 12 in consequence it conjointly approves or disapproves its state; like it, it is either sound or diseased; active or languishing; awake or asleep. 13 In old age human extinguishes entirely, your fibres become rigid, your nerves loose their elasticity, your senses are obtunded, your sight grows dim, your ears lose their quickness, your ideas become unconnected, your memory fails, your imagination cools: 14 what then becomes of your soul? Alas! it sinks down with the body; it gets benumbed as this loses its feeling; becomes sluggish as this decays in

activity; 15 like it, when enfeebled by years it fulfils its functions with pain; 16 this substance, which is deemed spiritual, which is considered immaterial, which it is endeavoured to distinguish from matter, undergoes the same revolutions, 17 experiences the same vicissitudes, submits to the same modifications, as does the body itself.

18 In despite of this proof of the materiality of the soul, of its identity with the body, so convincing to the unprejudiced, 19 some thinkers have supposed, that although the latter is perishable, the former does not perish: 20 that this portion of human enjoys the especial privilege of immortality; that it is exempt from dissolution: free from those changes of form all the beings in Nature undergo: 21 in consequence of this, human has persuaded the self, that this privileged soul does not die: 22 its immortality, above all, appears indubitable to those who suppose it spiritual: 23 after having made it a simple being, without extent, devoid of parts, totally different from anything of which you have a knowledge, 24 you pretended that it was not subjected to the laws of decomposition common to all beings, of which experience shows you the continual operation.

25 Human, feeling within yourself a concealed force, that insensibly produced action, that imperceptibly gave direction to the motion of your machine, 26 believed that the entire of Nature, of whose energies you are ignorant, with whose modes of acting you are unacquainted, owed its motion to an agent analogous to your own soul; 27 who acted upon the great macrocosm, in the same manner that this soul acted upon your body. 28 Human, having supposed yourself double, made Nature double also: 29 you distinguished Nature from Her own peculiar energy; you separated Her from Her mover, which by degrees you made spiritual. 30 Thus Nature, distinguished from Herself, was regarded as the soul of the world; and the soul of human was considered as opinions emanating from this universal soul. 31 This notion upon the origin of the soul is

of very remote antiquity. 32 It was that of the Egyptians, of the Chaldeans, of the Hebrews, of the greater number of the wise men of the east. 33 It should appear that Moses believed with the Egyptians the divine emanation of souls: 34 according to him, "God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul:" 35 nevertheless, the Catholic, at this day, rejects this system of divine emanation, seeing that it supposes the Divinity divisible: 36 which would have, been inconvenient to the Romish idea of purgatory, or to the system of everlasting punishment. 37 Although Moses, in the above quotation, seems to indicate that the soul was a portion of the Divinity, 38 it does not appear that the doctrine of the immortality of the soul was established in any one of the books attributed to him. 39 It was during the Babylonish captivity, that the Jews learned the doctrine of future rewards and punishments, taught by Zoroaster to the Persians, 40 but which the Hebrew legislator did not understand, or, at least, he left his people ignorant on the subject. 41 It was in those schools, that Pherecydes, Pythagoras, and Plato, drew up a doctrine so flattering to the vanity of human nature-- so gratifying to the imagination of mortals. 42 Human thus believed the self a portion of the Divinity; immortal, like the Godhead, in one part of the self: 43 nevertheless, subsequent religions have renounced these advantages, which they judged incompatible with the other parts of their systems; 44 they held forth that the Sovereign of Nature, or Her contriver was not the soul of human, 45 but, that, in virtue of your omnipotence, you created human souls, in proportion as you produced the bodies which they must animate; 46 and they taught, that these souls once produced, by an effect of the same omnipotence, enjoyed immortality.

47 However it may be with these variations upon the origin of souls, those who supposed them emanating from the Divinity, believed that after

the death of the body, which served them for an envelope, they returned, by refunding to their first source. 48 Those who, without adopting the opinion of divine emanation, admired the spirituality, believed the immortality of the soul, were under the necessity to suppose a region, 49 to find out an abode for these souls, which their imagination painted to them, each according to own fears, own hopes, own desires, and own prejudices.

50 Nothing is more popular than the doctrine of the immortality of the soul; nothing is more universally diffused than the expectation of another life. 51 Nature having inspired human with the most ardent love for your existence, the desire of preserving yourself for ever was a necessary consequence; 52 this desire was presently converted into certainty: from that desire of existing eternally which Nature has implanted in you, 53 he made an argument, to prove that human would never cease to exist. Abady says, "our soul has no useless desires, it naturally desires an eternal life;" 54 and by a very strange logic, he concludes that this desire could not fail to be fulfilled. 55 Cicero, before Abady, had declared the immortality of the soul to be an innate idea in human; 56 yet, strange to tell, in another part of his works he considers Pherecydes as the inventor of the doctrine. 57 However this may be, human, thus disposed, listened with avidity to those who announced to you systems so conformable to your wishes. 58 Nevertheless, you ought not to regard as supernatural the desire of existing, which always was, and always will be, of the essence human; 59 it ought not to excite surprise, if you received with eagerness an hypothesis that flattered your hopes, by promising that your desire would one day be gratified; 60 but let you beware how you concludes that this desire itself is an indubitable proof of the reality of this future life, with which at present you seems to be so much occupied. 61 The passion for existence is in human only a natural consequence of the tendency of a sensible being, 62 whose essence it is to be willing to conserve yourself: in the human

being it follows the energy of your soul-- 63 keeps pace with the force of your imagination--always ready to realise that which you strongly desires. 64 You desires the life of the body, nevertheless this desire is frustrated; wherefore should not the desire for the life of the soul be frustrated like the other? 65 The partisans of the doctrine of the immortality of the soul reason thus: "All humans desire to live forever, therefore they will live forever." 66 Suppose the argument retorted on them; would it be believed? If it was asserted, "All humans naturally desire to be rich; therefore all humans will one day be rich," 67 how many partisans would this doctrine find?

68 The most simple reflection upon the nature of your soul, ought to convince human that the idea of its immortality is only an illusion of the brain. 69 Indeed what is your soul, save the principle of sensibility? 70 What is it, to think, to enjoy, to suffer; is it not to feel? 71 What is life, except it be the assemblage of modifications, the congregation of motion, peculiar to an organised being? 72 Thus, as soon as the body ceases to live, its sensibility can no longer exercise itself; 73 when its sensibility is no more, it can no longer have ideas, nor in consequence thoughts. 74 Ideas, as we have proved, can only reach human through the senses; 75 now, how will they have it, that once deprived of your senses, you are yet capable of receiving sensations, of having perceptions, of forming ideas? 76 As they have made the soul of human a being separated from the animated body, wherefore have they not made life a being distinguished from the living body? 77 Life in a body is the totality of this motion; feeling and thought make a part of this motion: 78 thus it is reasonable to suppose, that in the dead human these motions will cease, like all the others.

79 Indeed, by what reasoning will it be proved, that this soul, which cannot feel, think, will, or act, but by aid of human's organs, can suffer pain, 80 be susceptible of pleasure, or even have a consciousness of its own

existence, 81 when the organs which should warn it of their presence are decomposed or destroyed? 82 Is it not evident, that the soul depends on the arrangement of the various parts of the body; 83 on the order with which these parts conspire to perform their functions; on the combined motion of the whole? 84 Thus the organic structure once destroyed, can it be reasonably doubted the soul will be destroyed also? 85 Is it not seen, that during the whole course of human life this soul is stimulated, changed, deranged, disturbed, by all the changes human's organs experience? 86 And yet it will be insisted, that this soul acts, thinks, subsists, when these same organs have entirely disappeared!

87 An organised being may be compared to a clock, which once broken, is no longer suitable to the use for which it was designed. 88 To say, that the soul shall feel, shall think, shall enjoy, shall suffer after the death of the body; is to pretend that a clock, shivered into a thousand pieces, will continue to strike the hour; 89 shall yet have the faculty of marking the progress of time. 90 Those who say, that the soul of human is able to subsist, notwithstanding the destruction of the body, evidently support the position, 91 that the modification of a body will be enabled to conserve itself after the subject is destroyed: 92 this on any other occasion would be considered as completely absurd.

93 It will be said that the conservation of the soul after the death of the body, is an effect of the Divine Omnipotence: 94 but this is supporting an absurdity by a gratuitous hypothesis. 95 It surely is not meant by Divine Omnipotence, of whatever nature it may be supposed, that a thing shall exist and not exist at the same time: 96 unless this be granted, it will be rather difficult to prove, that a soul shall feel and think without the intermediates necessary to thought.

97 Let them then, at least, forbear asserting, that reason is not wounded by the doctrine of the immortality of the soul; or by the expectation of a future life. 98 These notions, formed to flatter human, to disturb the

imagination of the uninformed, 99 who do not reason, cannot appear either convincing or probable to enlightened minds. 100 Reason, exempted from the illusions of prejudice, is, without doubt, wounded by the supposition of a soul, 101 that feels, that thinks, that is afflicted, that rejoices, that has ideas, without having organs; 102 that is to say, destitute of the only known medium, wanting all the natural means, by which, according to what we can understand, it is possible for it to feel sensations, have perceptions, or form ideas. 103 If it be replied, other means are able to exist, which are supernatural or unknown, 104 it may be answered, that these means of transmitting ideas to the soul, separated from the body, are not better known to, 105 or more within the reach of, those who suppose it, that they are of other humans. 106 It is, at least, very certain, it cannot admit even of a controversy, that all those who reject the system of innate ideas, cannot, 107 without contradicting their own principles, admit the doctrine of the immortality of the soul.

108 In defiance of the consolation that so many people pretend to find in the notion of an eternal existence; 109 in despite of that firm persuasion which such numbers of people assure us they have, that their souls will survive their bodies, 110 they seem so very much alarmed at the dissolution of this body, that they do not contemplate their end, 111 which they ought to desire as the period of so many miseries, but with the greatest inquietude; 112 so true it is, that the real, the present, even accompanied with pain, has much more influence over humankind, 113 than the most beautiful chimeras of the future; which you never views but through the clouds of uncertainty. 114 Indeed the most religious people, notwithstanding the conviction they express of a blessed eternity, do not find these flattering hopes sufficiently consoling to repress their fears; 115 to prevent their trembling, when they think on the necessary dissolution of their bodies. 116 Death was always, for mortals, the most

frightful point of view; 117 they regard it as a strange phenomenon, contrary to the order of things, opposed to Nature; 118 in a word, as an effect of the celestial vengeance, as the wages of sin. 119 Although everything proves to human that death is inevitable, you are never able to familiarise yourself with its idea; 120 you never thinks on it without shuddering; the assurance of possessing an immortal soul but feebly indemnifies you for the grief you feels in the deprivation of your perishable body. 121 Two causes contribute to strengthen your fears, to nourish your alarm; 122 the one is, that this death, commonly accompanied with pain, wrests from you an existence that pleases you-- 123 with which you are acquainted-- to which you are accustomed; 124 the other is the uncertainty of the state that must succeed your actual existence.

125 The illustrious Bacon has said, that "humans fear death for the same reason that children dread being alone in darkness." 126 Human naturally challenges everything with which you are unacquainted; 127 you are desirous to see clearly to the end, that you may guarantee yourself against those objects which may menace your safety; 128 that you may also be enabled to procure for yourself those which may be useful to you; 129 the person who exists cannot form to oneself any idea of non-existence; 130 as this circumstance disturbs you, for want of experience, your imagination sets to work; 131 this points out to you, either well or ill, this uncertain state: 132 accustomed to think, to feel, to be stimulated into activity, to enjoy society, you contemplates as the greatest misfortune, 133 a dissolution that will strip you of these objects, that will deprive you of those sensations which your present nature has rendered necessary to you; 134 you views with dismay a situation that will prevent your being warned of your own existence-- 135 that shall bereave you of your pleasures-- to plunge you into nothing. 136 In supposing it even exempt from pain, you always looks upon this nothing as an afflicting solitude--as an heap

of profound darkness; 137 you sees yourself in a state of general desolation; destitute of all assistance; and you feels keenly all the rigour of this frightful situation. 138 But does not a profound sleep help to give you a true idea of this nothing? 139 Does not that deprive you of everything? 140 Does it not appear to annihilate the universe to you, and you to the universe? 141 Is death anything more than a profound, a permanent steep? 142 It is for want of being able to form an idea of death that human dreads it; 143 if you could figure to yourself a true image of this state of annihilation, you would from thence cease to fear it; 144 but you are not able to conceive a state in which there is no feeling; 145 you therefore believes, that when you shall no longer exist, you will have the same feelings, the same consciousness of things, which, during your existence, appear so sad to your mind; 146 which your fancy paints in such gloomy colours. 147 Imagination pictures to you your funeral pomp--the grave they are digging for you--the lamentations that will accompany you to your last abode-- 148 the epicedium that surviving friendship may dictate; you persuades yourself that these melancholy objects will affect you as painfully even after your decease, 149 as they do in your present condition, in which you are in full possession of your senses.

150 Mortal, led astray by fear! after thy death thine eyes will see no more; thine ears will hear no longer; 151 in the depth of thy grave thou wilt no more be witness to this scene, which thine imagination, at present, represents to thee under such dismal colours; 152 thou wilt no longer take part in what shall be done in the world; thou wilt no more be occupied with what may befall thine inanimate remains, 153 than thou wast able to be the day previous to that which ranked thee among the beings of thy species. 154 To die is to cease to think; to lack feeling; no longer to enjoy; 155 to find a period to suffering; thine ideas will perish with thee; thy sorrows will not follow thee to the silent tomb. 156 Think of death, not to feed thy fears-- not to nourish thy

melancholy--but to accustom thyself to look upon it with a peaceable eye; 157 to cheer thee up against those false terrors with which the enemies to thy repose labour to inspire thee! 158 The fears of death are vain illusions, that must disappear as soon as we learn to contemplate this necessary event under its true point of view. 159 A great man has defined philosophy to be a meditation on death; 160 he is not desirous by that to have it understood that human ought to occupy the self sorrowfully with own end, with a view to nourish own fears; 161 on the contrary, you wishes to invite yourself to familiarise yourself with an object that Nature has rendered necessary to you; 162 to accustom yourself to expect it with a serene countenance. 163 If life is a benefit, if it be necessary to love it, it is no less necessary to quit it; 164 reason ought to teach you a calm resignation to the decrees of fate: 165 your welfare exacts that you should contract the habit of contemplating with placidity, of viewing without alarm, an event that your essence has rendered inevitable: 166 your interest demands that you should not brood gloomily over your misfortune; 167 that you should not, by continual dread, embitter your life; 168 the charms of which you must inevitably destroy, if you can never view its termination but with trepidation. 169 Reason and your interest then, concur to assure you against those vague terrors with which your imagination inspires you, in this respect. 170 If you was to call them to your assistance, they would reconcile you to an object that only startles you, because you have no knowledge of it; 171 because it is only shown to you with those hideous accompaniments with which it is clothed by superstition. 172 Let you then, endeavour to despoil death of these vain illusions, and you will perceive that it is only the sleep of life; 173 that this sleep will not be disturbed with disagreeable dreams; that an unpleasant awakening is never likely to follow it. 174 To die is to sleep; it is to enter into that state of insensibility in which you was previous to your birth; 175 before you

had senses; before you was conscious of your actual existence. 176 Laws, as necessary as those which gave you birth, will make you return into the bosom of Nature, 177 from whence you was drawn, in order to reproduce you afterwards under some new form, which it would be useless for you to know: 178 without consulting you, Nature places you for a season in the order of organised beings; 179 without your consent, She will oblige you to quit it, to occupy some other order.

180 Let you not complain then, that Nature is callous; 181 She only makes you undergo a law from which She does not exempt any one being She contains. 182 Human complains of the short duration of life-- of the rapidity with which time flies away; 183 yet the greater number of people do not know how to employ either time or life. 184 If all are born and perish-- if everything is changed and destroyed-- if the birth of a being is never more than the first step towards its end; 185 how is it possible to expect that human, whose machine is so frail, of which the parts are so complicated, the whole of which possesses such extreme mobility, should be exempted from the common law; 186 which decrees, that even the solid earth you inhabits shall experience change--shall undergo alteration--perhaps be destroyed!

187 Feeble, frail mortal! Thou pretendest to exist forever; 188 whit thou, then, that for thee alone eternal Nature shall change Her undeviating course? 189 Dost thou not behold in those eccentric comets with which thine eyes are sometimes astonished, that the planets themselves are subject to death? 190 Live then in peace for the season that Nature permits thee; if thy mind be enlightened by reason thou wilt die without terror!

191 Notwithstanding the simplicity of these reflections; nothing is more rare than the sight of people truly fortified against the fears of death: 192 the wise person turns pale at its approach; you have occasion to collect the whole force of your mind, to expect it with serenity. 193 It cannot then, furnish matter for

surprise, if the idea of death is so revolting to the generality of mortals; 194 it terrifies the young-- it redoubles the chagrin of the middle-aged-- it even augments the sorrow of the old, who are worn down with infirmity: 195 indeed the aged, although enfeebled by time, dread it much more than the young, who are in the full vigour of life; 196 the person of many lustres is more accustomed to live years as they roll over your head, confirm your attachment to existence; 197 nevertheless, long unwearied exertions weaken the powers of your mind; 198 labour, sickness, and pain, waste your animal strength; you have less energy; your volition becomes faint, superstitious terrors easily appal you; 199 at length disease consumes you; sometimes with excruciating tortures: 200 the unhappy wretch, thus plunged into misfortune, have, notwithstanding, scarcely ever dared to contemplate death; 201 which you ought to consider as the period to all your anguish.

202 If the source of this pusillanimity be sought, it will be found in your nature, which attaches you to life; 203 in that deficiency of energy in your soul, which hardly anything tends to corroborate, but which everything strives to enfeeble: 204 which superstition, instead of strengthening, contributes to bruise. 205 Almost all human institutions, nearly all the opinions of human, conspire to augment your fears; 206 to render your ideas of death more terrible; to make them more revolting to your feelings.

207 Indeed, superstition pleases itself with exhibiting death under the most frightful traits: 208 it represents it to human under the most disgusting colours; as a dreadful moment, which not only puts an end to your pleasures, but gives you up without defence to the strange rigour of a pitiless decree, which nothing can soften. 209 According to this superstition, the most virtuous person has reason to tremble for the severity of own fate; 210 is never certain of being happy; the most dreadful torments, endless punishments, await

the victim to involuntary weakness; 211 to the necessary faults of a short-lived existence; your infirmities, your momentary offences, the propensities that have been planted in your heart, 212 the errors of your mind, the opinions you have imbibed, even in the society in which you were born without your own consent, 213 the ideas you have formed, the passions you have indulged above all, you not being able to comprehend all the extravagant dogmas offered to your acceptance, 214 are to be implacably avenged with the most severe and never-ending penalties.

215 Ixion is forever fastened to your wheel; Sisyphus must to all eternity roll your stone without ever being able to reach the apex of your mountain; 216 the vulture must perpetually prey on the liver of the unfortunate Prometheus: 217 those who dare to think for themselves--those who have refused to listen to their enthusiastic guides-- 218 those who have not reverenced the oracles-- those who have had the audacity to consult their reason--those who have boldly ventured to detect impostors-- 219 those who have doubted the divine mission of the Phythonissa-- those who believe that Jupiter violated decency in his visit to Danae-- those who look upon Apollo as no better than a strolling musician-- those who think that Mahomet was an arch knave-- 220 are to smart everlastingly in flaming oceans of burning sulpher; 221 are to float to all eternity in the most excruciating agonies on seas of liquid brimstone, wailing and gnashing their teeth: 222 what wonder, then, if human dreads to be cast into these hideous gulfs; 223 if your mind loathes the horrific picture; if you wishes to defer for a season these dreadful punishments; 224 if you clings to an existence, painful as it may be, rather than encounter such revolting cruelties.

225 Such, then, are the afflicting objects with which superstition occupies its unhappy, its credulous disciples; 226 such are the fears which the tyrant of human thoughts points out to them as salutary. 227 In defiance Of the exility of the effect

which these notions produce oil the greater number, even of those who say they are, or who believe themselves persuaded, 228 they are held forth as the most powerful rampart that can be opposed to the irregularities of human. 229 Nevertheless, as will be seen presently, it will be found that these systems, or rather these chimeras, so terrible to behold, operate little or nothing on the larger portion of humankind, 230 who dream of them but seldom, never in the moment that passion, interest, pleasure, or example, hurries them along. 231 If these fears act, it is commonly on those, who have but little occasion to abstain from evil; they make honest hearts tremble, but fail of effect on the perverse. 232 They torment sensible souls, but leave those that are hardened in repose; 233 they disturb tractable, gentle minds, but cause no trouble to rebellious spirits: 234 thus they alarm none but those who are already sufficiently alarmed; they coerce only those who are already restrained.

235 These notions, then, impress nothing on the wicked; when by accident they do act on them, it is only to redouble the wickedness of their natural character-- 236 to justify them in their own eyes-- to furnish them with pretexts to exercise it without fear-- to follow it without scruple.

237 Indeed, the experience of a great number of ages has shown to what excess of wickedness, to what lengths, the passions of human have carried you, 238 when they have been authorised by the priesthood-- when they have been unchained by superstition-- or, at least, when you have been enabled to cover yourself with its mantle. 239 Human has never been more ambitious, never more covetous, never more crafty, never more cruel, never more seditious, 240 than when you have persuaded yourself that superstition permitted or commanded you to be so: 241 thus, superstition did nothing more than lend an invincible force to your natural passions, 242 which under its sacred auspices you could exercise with impunity, indulge without

remorse; 243 still more, the greatest villains, in giving free vent to the detestable propensities of their natural wickedness, have under its influence believed, that, by displaying an over-heated zeal, they merited well of heaven; 244 that they exempted themselves by new crimes, from that chastisement which they thought their anterior conduct had richly merited.

245 These, then, are the effects which what are called the salutary notions of superstition, produce on mortals. 246 These reflections will furnish an answer to those who say that, "If heaven was promised equally to the wicked as to the righteous, there would be found none incredulous of another life." 247 We reply, that, in point of fact, superstition does accord heaven to the wicked, 248 since it frequently places in this happy abode the most useless, the most depraved of people. 249 Is not Mahomet himself enthroned in the empyrean by this superstition? 250 If the calendar of the Romish saints was examined, would it be found to contain none but righteous, none but good people? 251 Does not Mahometanism cut off from all chance of future existence, consequently from all hope of reaching heaven, the female part of humankind? 252 Have the Jews exalted no one to the celestial regions, save the virtuous? 253 When the Jew is condemned to the devouring flames, do not the people who thus torture an unhappy wretch, whose only crime is adherence to the religion of their forefathers, expect to be rewarded for the deed with everlasting happiness? 254 Are they not promised eternal salvation for their orthodoxy? 255 Was Constantine, was St. Cyril, was St. Athanasius, was St. Dominic, worthy beatification? 256 Were Jupiter, Thor, Mercury, Woden, and a thousand others, deserving of celestial diadems? 257 Is erring, feeble person, with all your imbecilities, competent to form a judgment of the heavenly deserts of your fellows?

258 Can be, with your dim optics, with your limited vision, fathom the human heart? 259 Can you sound its depths, trace its meanderings, dive

into its recesses, with sufficient precision, 260 to determine who amongst your race is or is not possessed of the requisite merit to enjoy a blessed eternity? 261 Thus wicked people are held up as models by superstition, which as we shall see, sharpens the passions of evil-disposed people, 262 by legitimating those crimes, at which, without this sanction, they would shudder; which they would fear to commit; 263 or for which, at least, they would feel shame; for which they would experience remorse. 264 In short, the ministers of superstition furnish to the most profligate people the power of indulging their inflamed passions, 265 and then hold forth to them means of diverting from their own heads the thunderbolt that should strike their crimes, 266 by spreading before them fresh incentives to intolerant persecution, with the promise of a never-fading happiness. 267 With respect to the incredulous, without doubt, there may be amongst them wicked people, as well as amongst the most credulous; 268 but incredulity no more supposes wickedness, than credulity supposes righteousness. 269 On the contrary, the person who thinks, who meditates, knows far better the true motives to goodness, than you who suffers yourself to be blindly guided by uncertain motives, or by the interest of others. 270 Sensible people have the greatest advantage in examining opinions, which it is pretended must have an influence over their eternal happiness: 271 if these are found false, if they appear injurious to their present life, they will not therefore conclude, that they have not another life either to fear or to hope; 272 that they are permitted to deliver themselves up with impunity to vice, which would do an injury to themselves, 273 that would draw upon them the contempt of their neighbour, which would subject them to the anger of society: 274 the person who does not expect another life, is only more interested in prolonging one’s own existence in this; 275 in rendering yourself dear to your fellows, by cultivating virtue; 276 by performing all your duties with more strictness, in the only life

of which you have any knowledge: 277 you have made a great stride towards felicity, in disengaging yourself from those terrors which afflict others, which frequently prevent their acting. 278 Such a person has nothing to fear, but everything to hope; 279 if, contrary to what you are able to judge, there should be an hereafter existence, will not your actions have been so regulated by virtue, 280 will you not have so comported yourself in your present existence, as to stand a fair chance of enjoying in their fullest extent those felicities prepared for your species?

281 Superstition, in fact, takes a pride in rendering human slothful, in moulding you to credulity, in making you pusillanimous. 282 It is its principle to afflict you without intermission; to redouble in you the horrors of death: 283 ever ingenious in tormenting you, it has extended your inquietudes beyond even your own existence; 284 its ministers, the more securely to dispose of you in this world, invented, in future regions, a variety of rewards and punishments, 285 reserving to themselves the privilege of awarding these heavenly recompences to those who yielded most implicitly to their arbitrary laws; 286 of decreeing punishment to those refractory beings who rebelled against their power: 287 thus, according to them, Tantalus for divulging their secrets, must eternally fear, engulfed in burning sulphur, the stone ready to fall on your devoted head; 288 whilst Romulus was beatified and worshipped as a god under the name of Quirinus. 289 The same system of superstition caused the philosopher Callisthenes to be put to death, for opposing the worship of Alexander; 290 and elevated the monk Athanasius to be a saint in heaven. 291 Far from holding forth consolation to mortals, far from cultivating human's reason, far from teaching you to yield under the hands of necessity, 292 superstition, in a great many countries, strives to render death still more bitter to you; 293 to make its yoke sit heavy; to fill up its retinue with a multitude of hideous phantoms; to paint it in the

most frightful colours; to render its approach terrible: 294 by this means it has crowded the world with enthusiasts, whom it seduces by vague promises; with contemptible slaves, whom it coerces with the fear of imaginary evils: 295 it has at length persuaded human, that your actual existence is only a journey, by which you will arrive at a more important life: 296 this doctrine, whether it be rational or irrational, prevents you from occupying yourself with your true happiness; 297 from even dreaming of ameliorating your institutions, of improving your laws, of advancing the progress of science, of perfectioning your morals. 298 Vain and gloomy ideas have absorbed your attention: 299 you consents to groan under fanatical tyranny-- to writhe under political inflictions-- to live in error-- to languish in misfortune-- 300 in the hope, when you shall be no more, of being one day happier; 301 in the firm confidence, that after you have disappeared, your calamities, your patience, will conduct you to a never-ending felicity: 302 you have believed yourself submitted to cruel priests, who are willing to make you purchase your future welfare at the expense of everything most dear to your peace, most valuable to your existence here below: 303 they have pictured heaven as irritated against you, as disposed to appease itself by punishing you eternally, for any efforts you should make to withdraw yourself from, their power. 304 It is thus the doctrine of a future life has been made fatal to the human species: 305 it plunged whole nations into sloth, made them languid, filled them with indifference to their present welfare, 306 or else precipitated them, into the most furious enthusiasm, 307 which hurried them on to such lengths that they tore each other in pieces in order to merit the promised heaven.

308 It will be asked, perhaps, by what road has human been conducted to form to yourself these gratuitous ideas of another world? 309 I reply, that it is a truth human has no idea of a future life, they are the ideas of the past and the present that furnish your

imagination with the materials of which you constructs the edifice of the regions of futurity. 310 Hobbes says, "We believe that, that which is will always be, and that the same causes will have the same effects." 311 Human in your actual state, has two modes of feeling, one that you approves, another that you disapproves: 312 thus, persuaded that these two modes of feeling must accompany you, even beyond your present existence, 313 you placed in the regions of eternity two distinguished abodes, one destined to felicity, the other to misery: 314 the one must contain those who obey the calls of superstition, who believe in its dogmas; 315 the other is a prison, destined to avenge the cause of heaven, on all those who shall not faithfully believe the doctrines promulgated by the ministers of a vast variety of superstitions. 316 Has sufficient attention been paid to the fact that results as a necessary consequence from this reasoning; 317 which on examination will be found to have rendered the first place entirely useless, 318 seeing, that by the number and contradiction of these various systems, let human believe whichever you may, let you follow it in the most faithful manner, 319 still you must be ranked as an infidel, as a rebel to the Divinity, because you cannot believe in all; 320 and those from which you dissents, by a consequence of their own creed, condemn you to the prison-house?

321 Such is the origin of the ideas upon a future life, so diffused among humankind. 322 Everywhere may be seen an Elysium and a Tartarus; a Paradise and a Hell; 323 in a word, two distinguished abodes, constructed according to the imagination of the enthusiasts who have invented them, who have accommodated them to their own peculiar prejudices, 324 to the hopes, to the fears, of the people who believe in them. 325 The Indian figures the first of these abodes as one of in-action, of permanent repose, 326 because, being the inhabitant of a hot climate, they have learned to contemplate rest as the extreme of felicity: 327 the Mussulman promises himself

corporeal pleasures, similar to those that actually constitute the object of his research in this life: 328 each figures to himself, that on which he has learned to set the greatest value.

329 Of whatever nature these pleasures may be, human apprehended that a body was needful, in order that your soul might be enabled to enjoy the pleasures, or to experience the pains in reserve for you: 330 from hence the doctrine of the resurrection; 331 but as you beheld this body putrify, as you saw it dissolve, as you witnessed its decomposition, after death, 332 you was at a loss how to form anew what you conceived so necessary to your system 333 you therefore had recourse to the Divine Omnipotence, by whose interposition you now believes it will be effected. 334 This opinion, so incomprehensible, is said to have originated in Persia, among the Magi, and finds a great number of adherents, who have never given it a serious examination: 335 but the doctrine of the resurrection appears perfectly useless to all those, who believe in the existence of a soul that feels, thinks, suffers, and enjoys, after a separation from the body: 336 indeed, there are already sects who begin to maintain, that the body is not necessary; that therefore it will not be resurrected. 337 Like Berkeley, they conceive that "the soul has need neither of body nor any exterior being, either to experience sensations, or to have ideas:" 338 the Malebranchists, in particular, must suppose that the rejected souls will see everything in the Divinity; 339 will feel themselves burn, without having occasion for bodies for that purpose. 340 Others, incapable of elevating themselves to these sublime notions, believed, that under divers forms, human animated successively different animals of various species; 341 that you never ceased to be an inhabitant of the earth; such was the opinion of those who adopted the doctrine of Metempsychosis.

342 As for the miserable abode of souls, the imagination of fanatics, who were desirous of governing the people, 343 strove to assemble the most frightful images, to render it

still more terrible: 344 fire is of all beings that which produces in human the most pungent sensation; 345 not finding anything more cruel, the enemies to the several dogmas were to be everlastingly punished with this torturing element: 346 fire, therefore, was the point at which their imagination was obliged to stop. 347 The ministers of the various systems agreed pretty generally, that fire would one day avenge their offended divinities: 348 thus they painted the victims to the anger of the gods, or rather those who questioned their own creeds, 349 as confined in fiery dungeons, as perpetually rolling in a vortex of bituminous flames, as plunged in unfathomable gulphs of liquid sulphur, 350 making the infernal caverns resound with their useless groanings, with their unavailing gnashing of teeth.

351 But it will, perhaps, be enquired, how could human reconcile the self to the belief of an existence accompanied with eternal torments; 352 above all, as many according to their own superstitions had reason to fear it for themselves? 353 Many causes have concurred to make you adopt so revolting an opinion: 354 in the first place, very few thinking people have ever believed such an absurdity, when they have deigned to make use of their reason; 355 or, when they have accredited it, this notion was always counterbalanced by the idea of the goodness, by a reliance on the mercy, 356 which they attributed to their respective divinities: 357 in the second place, those who were blinded by their fears, never rendered to themselves any account of these strange doctrines, 358 which they either received with awe from their legislators, or which were transmitted to them by their fathers: 359 in the third place, each sees the object of own terrors only at a favourable distance: 360 moreover, superstition promises you the means of escaping the tortures you believes you have merited. 361 At length, like those sick people whom we see cling with fondness, even to the most painful life, human preferred the idea of an unhappy, though unknown existence, to that of non-existence,

362 which you looked upon as the most frightful evil that could befall you; 363 either because you could form no idea of it, or because your imagination painted to you this non-existence this nothing, as the confused assemblage of all evils. 364 A known evil, of whatever magnitude, alarmed you less-- 365 above all, when there remained the hope of being able to avoid it,-- than an evil of which you knew nothing, 366 upon which, consequently, your imagination was painfully employed, but to which you knew not how to oppose a remedy.

367 It will be seen, then, that superstition, far from consoling human upon the necessity of death, only redoubles your terrors, 368 by the evils with which it pretends your decease will be followed; 369 these terrors are so strong, that the miserable wretches who believe strictly in these formidable doctrines, pass their days in affliction, bathed in the most bitter tears. 370 What shall be said of an opinion so destructive to society, yet adopted by so many nations, 371 which announces to them, that a severe fate may at each instant take them unprovided; 372 that at each moment they are liable to pass under the most rigorous judgment? 373 What idea can be better suited to terrify human-- what more likely to discourage you--what more calculated to damp the desire of ameliorating your condition-- 374 than the afflicting prospect of a world always on the brink of dissolution; of a Divinity seated upon the ruins of Nature, ready to pass judgment on the human species? 375 Such are, nevertheless, the fatal opinions with which the mind of nations has been fed for thousands of years: 376 they are so dangerous, that if by a happy want of just inference, you did not derogate in your conduct from these afflicting ideas, you would fall into the most abject stupidity. 377 How could human occupy the self with a perishable world, ready every moment to crumble into atoms? 378 How dream of rendering yourself happy on earth, when it is only the porch to an eternal kingdom? 379 Is it then,

surprising, that the superstitions to which similar doctrines serve for a basis, have prescribed to their disciples a total detachment from things below-- 380 an entire renunciation of the most innocent pleasures; have given birth to a sluggishness, to a pusillanimity, to an abjection of soul, 381 to an in sociability, that renders you useless to yourself, dangerous to others? 382 If necessity did not oblige human to depart in your practice from these irrational systems-- 383 if your wants did not bring you back to reason, in despite of these superstitious doctrines-- 384 the whole world would presently become a vast desert, inhabited by some few isolated savages, who would not even have courage to multiply themselves. 385 What are these, but notions which you must necessarily put aside, in order that human association may subsist?

386 Nevertheless, the doctrine of a future life, accompanied with rewards and punishments, 387 has been regarded for a great number of ages as the most powerful, 388 or even as the only motive capable of coercing the passions of human; 389 as the sole means that can oblige you to be virtuous: 390 by degrees, this doctrine has become the basis of almost all religions and political systems, 391 so much so, that at this day it is said, this prejudice cannot be attacked without absolutely rending asunder the bonds of society. 392 The founders of superstition have made use of it to attach their credulous disciples; 393 legislators have looked upon it as the curb best calculated to keep humankind under discipline; 394 religion considers it necessary to your happiness; 395 many philosophers themselves have believed with sincerity, that this doctrine was requisite to terrify human, was the only means to divert you from crime: 396 notwithstanding, when the doctrine of the immortality of the soul first came out of the school of Plato; when it first diffused itself among the Greeks, it caused the greatest ravages; 397 it determined a multitude of people, who were discontented with their condition, to terminate their existence: 398

Ptolemy Philadelphus, king of Egypt, seeing the effect this doctrine, which at the present day is looked upon as so salutary, 399 produced on the brains of his subjects, prohibited the teaching of it under the penalty of death.

400 It must, indeed, be allowed that this doctrine has been of the greatest utility to those who have given superstitions to nations, 401 who at the same time made themselves its ministers; it was the foundation of their power, the source of their wealth, 402 the permanent cause of that blindness, the solid basis of those terrors, which it was their interest to nourish in the human race.

403 It was by this doctrine the priest became first the rival, then the master of kings: 404 it is by this dogma that nations are filled with enthusiasts inebriated with superstition, always more disposed to listen to its menaces, 405 than to the counsels of reasons, to the orders of the sovereign, to the cries of Nature, or to the laws of society. 406 Politics itself was enslaved to the caprice of the priest; 407 the temporal monarch was obliged to bend under the yoke of the monarch of superstition; 408 the one only disposed of this perishable world, the other extended his power into the world to come; 409 much more important for human than the earth, on which you are only a pilgrim, a mere passenger. 410 Thus the doctrine of another life placed the government itself in a state of dependence upon the priest; 411 the monarch was nothing more than your first subject; he was never obeyed, but when the two were in accord.

412 Nature in vain cried out to human, to be careful of your present happiness; 413 the priest ordered you to be unhappy, in the expectation of future felicity; 414 reason in vain exhorted you to be peaceable; 415 the priest breathed forth fanaticism, fulminated fury, obliged you to disturb the public tranquillity, 416 every time there was a question of the supposed interests of the invisible monarch of another life, and the real interests of your ministers in this.

417 Such is the fruit that politics has gathered from the doctrine of a

future life; 418 the regions of the world to come have enabled the priesthood to conquer the present world. 419 The expectation of celestial happiness, and the dread of future tortures, only served to prevent human from seeking after the means to render yourself happy here below. 420 Thus error, under whatever aspect it is considered, will never be more than a source of evil for humankind. 421 The doctrine of another life, in presenting to mortals an ideal happiness, will render them enthusiasts; 422 in overwhelming them with fears, it will make useless beings; generate cowards; form atrabilarious or furious people; 423 who will lose sight of their present abode, to occupy themselves with the pictured regions of a world to come, 424 with those dreadful evils which they must fear after their death.

425 If it be insisted that the doctrine of future rewards and punishments is the most powerful curb to restrain the passions of human, we shall reply by calling in daily experience. 426 If we only cast our eyes around, if for a moment we examine what passes in review before us, we shall see this assertion contradicted; 427 we shall find that these marvellous speculations do not in any manner diminish the number of the wicked, 428 because they are incapable of changing the temperament of human, of annihilating those passions which the vices of society engender in your heart. 429 In those nations who appear the most thoroughly convinced of this future punishment, may be seen assassins, thieves, crafty knaves, oppressors, adulterers, voluptuaries; 430 all these pretend they are firmly persuaded of the reality of an hereafter; 431 yet in the whirlwind of dissipation, in the vortex of pleasure, in the fury of their passions, they no longer behold this formidable future existence, 432 which in those moments has no kind of influence over their earthly conduct.

433 In short, in many of those countries where the doctrine of another life is so firmly established, that each individual irritates the self against whoever may have the temerity to combat the opinion, or

even to doubt it, 434 we see that it is utterly incapable of impressing anything on rulers who are unjust, who are negligent of the welfare of their people, 435 who are, debauched, on courtezans who are lewd in their habits, on covetous misers, on flinty extortioners who fatten on the substance of a nation, on women without modesty, 436 on a vast multitude of drunken, intemperate, vicious people, on great numbers even amongst those priests, whose function it is to preach this future state, 437 who are paid to announce the vengeance of heaven, against vices which they themselves encourage by their example. 438 If it be enquired of them, how they dare to give themselves up to such scandalous actions, which they ought to know are certain to draw upon them eternal punishment? 439 They will reply, that the madness of their passions, the force of their habits, the contagion of example, or even the power of circumstances, have hurried them along; 440 have made them forget the dreadful consequences in which their conduct is likely to involve them; 441 besides, they will say, that the treasures of the divine mercy are infinite; that repentance suffices to efface the foulest transgressions; 442 to cleanse the blackest guilt; to blot out the most enormous crimes: 443 in this multitude of wretched beings, who each after your own manner desolates society with your criminal pursuits, 444 you will find only a small number who are sufficiently intimidated by the fears of the miserable hereafter, to resist their evil propensities.

445 What did I say? These propensities are in themselves too weak to carry them forward without the aid of the doctrine of another life; 446 without this, the law and the fear of censure would have been motives sufficient to prevent them from rendering themselves criminal. 447 It is indeed, fearful, timorous souls, upon whom the terrors of another life make a profound impression; 448 human beings of this sort come into the world with moderate passions, are of a weakly organisation, possess a cool imagination; 449 it is not

therefore surprising, that in such people, who are already restrained by their nature, the fear of future punishment counterbalances the weak efforts of their feeble passions; 450 but it is by no means the same with those determined sinners, with those hardened criminals, with those people who are habitually vicious, 451 whose unseemly excesses nothing can arrest, who in their violence shut their eyes to the fear of the laws of this world, despising still more those of the other. 452 Nevertheless, how many people say they are, and even believe themselves, restrained by the fears of the life to come? 453 But, either they deceive us, or they impose upon themselves, by attributing to these fears, 454 that which is only the effect of motives much nearer at hand; such as the feebleness of their machine, the mildness of their temperament, the slender energy of their souls, 455 their natural timidity, the ideas imbibed in their education, the fear of consequences immediately resulting from criminal actions, the physical evils attendant on unbridled irregularities: 456 these are the true motives that restrain them; not the notions of a future life: 457 which people, who say they are most firmly persuaded of its existence, forget whenever a powerful interest solicits them to sin. 458 If for a time human would pay attention to what passes before your eyes, you would perceive that you ascribes to the fear of the gods that which is in reality only the effect of peculiar weakness, 459 of pusillanimity, of the small interest found to commit evil: 460 these people would not act otherwise than they do, if they had not this fear before them; 461 if, therefore you reflected, you would feel that it is always necessity that makes people act as they do.

462 Human cannot be restrained, when you does not find within yourself motives sufficiently powerful to conduct you back to reason. 463 There is nothing, either in this world or in the other, that can render you virtuous, 464 when an untoward organisation-- a mind badly cultivated-- a violent imagination--inveterate habits-- fatal

examples-- powerful interests-- invite you from every quarter to the commission of crime.

465 No speculations are capable of restraining the person who braves public opinion, who despises the law, 466 who is careless of its censure, who turns a deaf ear to the cries of conscience, whose power in this world places the self out of the reach of punishment; 467 in the violence of your transports, you will fear still less a distant futurity, 468 of which the idea always recedes before that which you believes necessary to your immediate interests, consistent with your present happiness. 469 All lively passions blind human to everything that is not its immediate object; 470 the terrors of a future life, of which your passions always possess the secret to diminish to you the probability, 471 can effect nothing upon the wicked person, who does not fear even the much nearer punishment of the law; 472 who sets at nought the assured hatred of those by whom you are surrounded. 473 Human, when you delivers yourself up to crime, sees nothing certain except the supposed advantage which attends it; 474 the rest always appear to you either false or problematical.

475 If human would but open own eyes, even for a moment, you would clearly perceive, that to effect anything upon hearts hardened by crime, you must not reckon upon the chastisement of an avenging Divinity, 476 which the self-love natural to human always shows you as pacified in the long run.

477 He who has arrived at persuading himself he cannot be happy without crime, will always readily deliver himself up to it, notwithstanding the menaces of religion. 478 Whoever is sufficiently blind not to read your infamy in your own heart, to see your own vileness in the countenances of your associates, 479 your own condemnation in the anger of your fellow-people, your own unworthiness in the indignation of the judges established to punish the offences you may commit: 480 such a person, I say, will never feel the impression your crimes shall make on the features of a judge, 481 that is

either hidden from your view, or that you only contemplates at a distance.
482 The tyrant who with dry eyes can hear the cries of the distressed, who with callous heart can behold the tears of a whole people, 483 of whose misery you are the cause, will not see the angry countenance of a more powerful master: 484 like another Menippus, you may indeed destroy yourself from desperation, to avoid reiterated reproach; 485 which only proves, that when a haughty, arrogant despot pretends to be accountable for your actions to the Divinity alone, it is because you fears your nation more than you does your God.
486 On the other hand, does not superstition itself, does not even religion, annihilate the effects of those fears which it announces as salutary? 487 Does it not furnish its disciples with the means of extricating themselves from the punishments with which it has so frequently menaced them? 488 Does it not tell them, that a sterile repentance will, even at the moment of death, disarm the celestial wrath; that it will purify the filthy souls of sinners? 489 Do not even the priests, in some superstitions, arrogate to themselves the right of remitting to the dying the punishment due to the crimes committed during the course of a disorderly life? 490 In short, do not the most perverse people, encouraged in iniquity, countenanced in debauchery, upheld in crime, reckon, even to the last moment, either upon the assistance of superstition, or upon the aid of religion, 491 that promises them the infallible means of reconciling themselves to the Divinity, whom they have irritated; 492 of avoiding the rigorous punishments pronounced against their enormities?
493 In consequence of these notions, so favourable to the wicked, so suitable to tranquillize their fears, 494 we see that the hope of an easy expiation, far from correcting human, engages you to persist, until death, in the most crying disorders.
495 Indeed, in despite of the numberless advantages which you are assured flows from the doctrine of a life to come, 496 in defiance of

its pretended efficacy to repress the passions of people, 497 do not the priests themselves, although so interested in the maintenance of this system, every day complain of its insufficiency?

498 They acknowledge, that mortals, who from their infancy they have imbued with these ideas, are not less hurried forward by their evil propensities-- 499 less sunk in the vortex of dissipation-- less the slaves to their pleasures--less captivated by bad habits-- less driven along by the torrent of the world-- less seduced by their present interest-- 500 which make them forget equally the recompence and the chastisement of a future existence. 501 In a word, the interpreters of superstition, the ministers of religion themselves, allow that their disciples, 502 for the greater part, conduct themselves in this world as if they had nothing either to hope or fear in another.

503 In short, let it be supposed for a moment, that the doctrine of eternal punishments was of some utility; 504 that it really restrained a small number of individuals; what are these feeble advantages compared to the numberless evils that flow from it? 505 Against one timid man whom this idea restrains, there are thousands upon whom it operates nothing; 506 there are thousands whom it makes irrational; whom it renders savage persecutors; whom it converts into fanatics; 507 there are thousands whose mind it disturbs; whom it diverts from their duties towards society; 508 there are an infinity whom it grievously afflicts, whom it troubles without producing any real good for their associates.

509 Notwithstanding so many are inclined to consider those who do not fall in with this doctrine as the enemies of society; 510 it will be found on examination that the wisest the most enlightened people of antiquity, as well as many of the moderns, 511 have believed not only that the soul is material and perishes with the body, but also that they have attacked without subterfuge the opinion of future everlasting punishments; 512 it will also be found that many of the systems, set up to establish the immortality of the soul,

are in themselves the best evidence that can be adduced of the futility of this doctrine; 513 if for a moment we only follow up the natural the just inferences that are to be drawn from them. 514 This sentiment was far from being, as some have supposed, peculiar to the Epicureans, 515 it has been adopted by philosophers of all sects, by Pythagoreans, by Stoics, by Peripatetics, by Academics; 516 in short by the most godly the most virtuous people of Greece and of Rome.

517 Pythagoras, according to Ovid, speaks strongly to the fact. 518 Timaeus of Locris, who was a Pythagorean, admits that the doctrine of future punishments was fabulous, 519 solely destined for the imbecility of the uninformed; but little calculated for those who cultivate their reason.

520 Aristotle expressly says, that "human has neither good to hope nor evil to fear after death." 521 Zeno, according to Cicero, supposed the soul to be an igneous substance, from whence he concluded it destroyed itself. 522 Cicero, the philosophical orator, who was of the sect of Academics, although he is not on all occasions, 523 in accord with himself, treats openly as fables the torments of Hell; and looks upon death as the end of everything for human.

524 Seneca, the philosopher, is filled with passages which contemplate death as a state of total annihilation, particularly in speaking of it to his brother: 525 and nothing can be more decisive of his holding this opinion, than what he writes to Marcia, to console him. 526 Seneca, the tragedian, explains himself in the same manner as the philosopher. 527 The Platonists, who made the soul immortal, could not have an idea of future punishments, 528 because the soul according to them was a portion of the divinity which after the dissolution of the body it returned to rejoin.

529 Epictetus has the same idea. In a passage reported by Arrian, he says, "but where are you going? It cannot be to a place of suffering: 530 you will only return to the place from whence you came; you are about to

be again peaceably associated with the elements from which you are derived. 531 That which in your composition, is of the nature of fire, will return to the element of fire; 532 that which is of the nature of earth, will rejoin itself to the earth; 533 that which is air, will re-unite itself with air; 534 that which is water, will resolve itself into water; 535 there is no Hell, no Acheron, no Cocytus, no Phlegethon."

536 In another place he says, "the hour of death approaches; but do not aggravate your evil, nor render things worse than they are: 537 represent them to yourself under their true point of view. 538 The time is come when the materials of which you are composed, go to resolve themselves into the elements from whence they were originally borrowed. 539 What is there that is terrible or grievous in that? 540 Is there anything in the world that perishes totally?"

541 The sage and pious Antoninus says, "he who fears death, either fears to be deprived of all feeling, or dreads to experience different sensations. 542 If you lose all feeling, you will no longer be subject either to pain or to misery. 543 If you are provided with other senses of a different nature, you will become a creature of a different species." 544 This great emperor further says, "that we must expect death with tranquillity, 545 seeing, that it is only a dissolution of the elements of which each animal is composed."

546 To the evidence of so many great people of Pagan antiquity, may be joined, that of the author of Ecclesiastes, 547 who speaks of death, and of the condition of the human soul, like an epicurean; 548 he says, "for that which befalleth the sons of humans, befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they have all one breath: so that a person hath no pre-eminence above a beast; for all is vanity. 549 All go unto one place; all are of the dust, and all turn to dust again." 550 And further, "wherefore I perceive that there is nothing better than that a human should rejoice in own works; 551 for that is your portion: for who

shall bring you to see what shall be after you."

552 In short, how can the utility or the necessity of this doctrine be reconciled with the fact, 553 that the great legislator of the Jews; who is supposed to have been inspired by the Divinity, should have remained silent on a subject, that is said to be of so much importance? 554 In the third chapter of Genesis, it is said, "In the sweat of thy face shalt thou eat bread, till thou return unto the ground; 555 for out of it wast thou taken: for dust thou art, and unto dust shalt thou return."

EDUCATION, MORALS, AND THE LAWS SUFFICE TO RESTRAIN HUMAN

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39 It is not then in an ideal world, existing nowhere perhaps, but in the imagination of human, that you must seek to collect motives calculated to make you act properly in this; 2 it is in the visible world that will be found incitements to divert you from crime; to rouse you to virtue.

3 It is in Nature,-- in experience, -- in truth, that you must search out remedies for the evils of your own species; 4 for motives suitable to infuse into the human heart, propensities truly useful to society; 5 calculated to promote its advantage; to conduce to the end for which it was designed.

6 If attention has been paid to what has been said in the course of this work, it will be seen that above all it is education that will best furnish the true means of rectifying the errors, 7 of recalling the wanderings of humankind. 8 It is this that should scatter the Seeds in your heart; cultivate the tender shoots; make a profitable use of your dispositions; 9 turn to account those faculties, which depend on your organisation: which should cherish the fire of your imagination, kindle it for useful objects; 10 damp it, or extinguish it for others; 11 in short, it is this which should make sensible souls contract habits which are advantageous for society and beneficial to the

individual. 12 Brought up in this manner, human would not have occasion for celestial punishments, to teach you the value of virtue; 13 you would not need to behold burning gulphs of brimstone under your feet, to induce you to feel horror for crime; 14 Nature without these fables, would teach much better what you owes to yourself; 15 the law would point out what you owes to the body politic, of which you are a member. 16 It is thus, that education grounded upon utility, would form valuable citizens to the state; 17 the depositaries of power would distinguish those whom education should have thus formed, 18 by reason of the advantages which they would procure for their country; they would punish those who should be found injurious to it; 19 it would make the citizens see, that the promises of reward which education held forth, the punishments denounced by morals, are by no means vain; 20 that in a state well constituted, virtue is the true, the only road to happiness; 21 talents the way to gain respect; that inutility conducts to misfortune: that crime leads to contempt.

22 A just, enlightened, virtuous, and vigilant government, who should honestly propose the public good, would have no occasion either for fables or for falsehoods, to govern reasonable subjects; 23 it would blush to make use of imposture, to deceive its citizens; who, instructed in their duties, would find their interest in submitting to equitable laws; 24 who would be capable of feeling the benefit these have the power of conferring on them; 25 it would feel, that habit is sufficient to inspire them with horror, even for those concealed crimes that escape the eyes of society; 26 it would understand that the visible punishments of this world impose much more on the generality of people, than those of an uncertain and distant futurity: 27 in short, it would ascertain that the sensible benefits within the compass of the sovereign power to distribute, touch the imagination of mortals more keenly, 28 than those vague recompences which are held forth to them in a future existence: 29 above

all, it would discover that those on whom these distant advantages do operate, would be still more attached to virtue by receiving their reward both here and hereafter.

30 Human is almost everywhere so wicked, so corrupt, so rebellious to reason, 31 only because you are not governed according to human nature, nor properly instructed in Nature's necessary laws: 32 you are almost in every climate fed with superstitious chimeras; submitted to masters who neglect your instruction or who seek to deceive you. 33 On the face of this globe, may be frequently witnessed unjust sovereigns, who, enervated by luxury, corrupted by flattery, depraved by licentiousness, 34 made wicked by impunity, devoid of talents, without morals, destitute of virtue, 35 are incapable of exerting any energy for the benefit of the states they govern; 36 they are consequently but little occupied with the welfare of their people; indifferent to their duties; of which indeed they are often ignorant. 37 Such governors suffer their whole attention to be absorbed by frivolous amusement; 38 stimulated by the desire of continually finding means to feed their insatiable ambition they engage in useless depopulating wars; 39 and never occupy their mind with those objects which are the most important to the happiness of their nation: 40 yet these weak people feel interested in maintaining the received prejudices, and visit with severity those who consider the means of curing them: 41 in short themselves deprived of that understanding, which teaches human that it is your interest to be kind, just, and virtuous; 42 they ordinarily reward only those crimes which their imbecility makes them imagine as useful to them; 43 they generally punish those virtues which are opposed to their own imprudent passions, but which reason would point out as truly beneficial to their interests. 44 Under such masters is it surprising that society should be ravaged; that weak beings should be willing to imitate them; 45 that perverse people should emulate each other in oppressing its members; in

sacrificing its dearest interests; in despoiling its happiness?

46 The state of society in such countries, is a state of hostility of the sovereign against the whole, of each of its members the one against the other. 47 Human is wicked, not because you are born so, but because you are rendered so; 48 the great, the powerful, crush with impunity the indigent and the unhappy; 49 these, at the risk of their lives seek to retaliate, to render back the evil they have received: 50 they attack either openly or in secret a country, who to them is a step-mother, who gives all to some of her children, and deprives the others of everything: 51 they punish it for its partiality, and clearly show that the motives borrowed from a life hereafter are impotent against the fury of those passions to which a corrupt administration has given birth; 52 that the terror of the punishments in this world are too feeble against necessity; 53 against criminal habits; against dangerous organisation uncorrected by education.

54 In many countries the morals of the people are neglected; 55 the government is occupied only with rendering them timid; with making them miserable.

56 Human is almost everywhere a slave; it must then follow of necessity, that you are base, interested, dissimulating, without honour, 57 in a word that you have the vices of the state of which you are a citizen. 58 Almost everywhere you are deceived; encouraged in ignorance; prevented from cultivating your reason; 59 of course you must be stupid, irrational, and wicked almost everywhere you sees vice applauded, and crime honoured; 60 thence you concludes vice to be a good; virtue, only a useless sacrifice of yourself: 61 almost every where you are miserable, therefore you injures your fellow-people in a fruitless attempt to relieve your own anguish: 62 it is in vain to show you heaven in order to restrain you; your views presently descend again to earth; you are willing to be happy at any price; 63 therefore, the laws which have neither provided for your

instruction, for your morals, nor your happiness, menace you uselessly; 64 you plunges on in your pursuits, and these ultimately punish you, for the unjust negligence of your legislators. 65 If politics more enlightened, did seriously occupy itself with the instruction, with the welfare of the people; 66 if laws were more equitable; if each society, less partial, bestowed on its members the care, the education, and the assistance which they have a right to expect; 67 if governments less covetous, and more vigilant, were sedulous to render their subjects more happy, there would not be seen such numbers of malefactors, of robbers, of murderers, who everywhere infest society; 68 they would not be obliged to destroy life, in order to punish wickedness; which is commonly ascribable to the vices of their own institutions: 69 it would be unnecessary to seek in another life for fanciful chimeras, which always prove abortive against the infuriate passions; against the real wants of human. 70 In short, if the people were instructed, they would be more happy; politics would no longer be reduced to the exigency of deceiving them, in order to restrain them; 71 nor to destroy so many unfortunates, for having procured necessaries, at the expense of their hard-hearted fellow-citizens.

72 When it shall be desired to enlighten human, let you always have truth laid before you. 73 Instead of kindling your imagination by the idea of those punishments that a future state has in reserve for you, let you be solaced-- 74 let you be succoured; or, at least, let you be permitted to enjoy the fruit of your labour-- 75 let not your substance be ravished from you by cruel imposts-- 76 let you not be discouraged from work, by finding all your labour inadequate to support your existence; 77 let you not be driven into that idleness, that will surely lead you on to crime: 78 let you consider your present existence, without carrying your views to that which may attend you after your death; 79 let your industry be excited-- let your talents be rewarded-- let you be rendered active, labourious, beneficent, and

virtuous, in the world you inhabits; 80 let it be shown to you, that your actions are capable of having an influence over your fellow-people. 81 Let you not be menaced with the tortures of a future existence when you shall be no more; 82 let you behold society armed against those who disturb its repose; 83 let you see the consequence of the hatred of your associates; let you learn to feel the value of their affection; 84 let you be taught to esteem yourself; let you understand, that to obtain it, you must have virtue; 85 above all, that the virtuous person in society has nothing to fear, but everything to hope.

86 If it be desired to form honest, courageous, industrious citizens, who may be useful to their country, let them beware of inspiring human from your infancy with an ill-founded dread of death; 87 of amusing your imagination with marvellous fables; 88 of occupying your mind with your destiny in a future life, quite useless to be known, which has nothing in common with your real felicity. 89 Let them speak of immortality to intrepid, noble souls; 90 let them show it as the price of their labours to energetic minds, who are solely occupied with virtue; 91 who springing forward beyond the boundaries of their actual existence-- 92 who, little satisfied with eliciting the admiration, with gaining the love of their contemporaries, are will also to wrest the homage, to secure the affection of future races. 93 Indeed, this is an immortality to which genius, talents, above all virtue, has a just right to pretend; 94 do not therefore let them censure-- do not let them endeavour to stifle so noble a passion in human; 95 which is founded upon your nature; which is so calculated to render you happy; from which society gather the most advantageous fruits.

96 The idea of being buried in total oblivion, of having nothing in common after your death with the beings of your species; 97 of losing all possibility of again having any influence over them, is a thought extremely painful to human; it is above all afflicting to those who possess an ardent imagination. 98

The desire of immortality, or of living in the memory of your fellow people, was always the passion of great souls; 99 it was the motive to the actions of all those who have played a great part on the earth. 100 Heroes whether virtuous or criminal, philosophers as well as conquerors, people of genius and people of talents, 101 those sublime personages who have done honour to their species, as well as those illustrious villains who have debased and ravaged it, have had an eye to posterity in all their enterprises; 102 have flattered themselves with the hope of acting upon the souls of humans, even when they themselves should no longer exist. 103 If human in general does not carry own views so far, you are at least sensible to the idea of seeing yourself regenerated in your children; 104 whom you knows are destined to survive you; to transmit your name; to preserve your memory; to represent you in society; 105 it is for them that you rebuilds your cottage; it is for them that you plants the tree which your eyes will never behold in its vigour; it is that they may be happy that you labours. 106 The sorrow which embitters the life of those rich people, frequently so useless to the world, when they have lost the hope of continuing their race, has its source in the fear of being entirely forgotten: 107 they feel that the useless person dies entirely. 108 The idea that your name will be in the mouths of people, the thought that it will be pronounced with tenderness, that it will be recollected with kindness, 109 that it will excite in their hearts favourable sentiments, is an illusion that is useful; is a vision suitable to flatter even those who know that nothing will result from it. 110 Human pleases the self with dreaming that you shall have power, that you shall pass for something in the universe, even after the term of your human existence; 111 you partakes by imagination in the projects, in the actions, in the discussions of future ages, and would be extremely unhappy if you believed yourself entirely excluded from their society. 112 The laws in all countries have entered into these views; they have so far been willing

to console their citizens for the necessity of dying, 113 by giving them the means of exercising their will, even for a long time after their death: 114 this condescension goes to that length, that the dead frequently regulate the condition of the living during a long series of years.

115 Everything serves to prove the desire in human of surviving yourself. 116 Pyramids, mausoleums, monuments, epitaphs, all show that you are willing to prolong your existence even beyond your decease. 117 You, are not insensible to the judgment of posterity; 118 it is for you the philosopher writes; it is to astonish you that the monarch erects sumptuous edifices, gorgeous palaces; 119 it is your praises, it is your commendations, that the great person already hears echo in your ears; 120 it is to you that the virtuous citizen appeals from unjust laws; from prejudiced contemporaries-- 121 happy chimera! generous illusion! mild vision! its power is so consoling, so bland, that it realises itself to ardent imaginations; 122 it is calculated to give birth, to sustain, to nurture, to mature enthusiasm of genius, constancy of courage, grandeur of soul, transcendency of talent; 123 its force is so gentle, its influence so pleasing, that it is sometimes able to repress the vices, to restrain the excesses of the most powerful people; 124 who are, as experience has shown, frequently very much disquieted for the judgment of their posterity; 125 from a conviction that this will sooner or later avenge the living of the foul injustice which they may be inclined to make them suffer.

126 No person, therefore, can consent to be entirely effaced from the remembrance of own fellows; 127 some people have not the temerity to place themselves above the judgment of the future human species, to degrade themselves in your eyes. 128 Where is the being who is insensible to the pleasure of exciting the tears of those who shall survive him or her; 129 of again acting upon their souls; of once more occupying their thoughts; of exercising upon them your power even from the bottom of your grave? 130 Let then eternal

silence be imposed upon those superstitious beings, upon those melancholy people, upon those furious bigots, 131 who censure a sentiment from which society derives so many real advantages; 132 let not humankind listen to those passionless philosophers who are willing to smother this great, this noble spring of your soul; 133 let you not be seduced by the sarcasms of those voluptuaries, who pretend to despise an immortality, towards which they lack the power to set forward; 134 the desire of pleasing posterity, of rendering your name agreeable to generations yet to come, is a respectable, a laudable motive, 135 when it causes you to undertake those things, of which the utility may be felt, of which the advantages may have an influence not only over your contemporaries, but also over nations who have not yet an existence. 136 Let you not treat as irrational, the enthusiasm of those beneficent beings, of those mighty geniuses, of those stupendous talents, whose keen, whose penetrating regards, have foreseen you even in their day; 137 who have occupied themselves for you; for your welfare; for your happiness; 138 who have desired your suffrage; who have written for you; who have enriched you by their discoveries; who have cured you of some of your errors. 139 Let you render them the homage which they have expected at your hands; 140 let you, at least, reverence their memory for the benefits you have derived from them; 141 let you treat their mouldering remains with respect, for the pleasure you receives from their labours; 142 let you pay to their ashes a tribute of grateful recollection, for the happiness they have been sedulous to procure for you. 143 Let you sprinkle with your tears, let you hallow with your remembrance, let you consecrate with your finest sensibilities, the urns of Socrates, of Phocion; of Archimedes; of Anaxarchus; 144 let you wash out the stain that their punishment has made on the human species; 145 let you expiate by your regret the Athenian ingratitude, the savage barbarity of Nicocreon; 146 let you learn by their example to dread superstitious

fanaticism; to hold political intolerance in abhorrence; 147 let you fear to harass merit; 148 let you be cautious how you insults virtue, in persecuting those who may happen to differ from you in your prejudices. 149 Let you strew flowers over the tombs of an Homer-- of a Tasso-- of a Shakespeare-- of a Milton-- of a Goldsmith; 150 let you revere the immortal shades of those happy geniuses, whose songs yet vibrate on your ears; whose harmonious lays excite in your soul the most tender sentiments; 151 let you bless the memory of all those benefactors to the people, who were the delight of the human race; 152 let you adore the virtues Of a Titus-- of a Trajan-- of an Antoninus-- of a Julian: 153 let you merit in your sphere, the eulogies of future ages; 154 let you always remember, that to carry with you to the grave the regret of your fellow people, you must display talents; evince integrity; practice virtue. 155 The funeral ceremonies of the most powerful monarchs, have rarely been wetted with the tears of the people, they have commonly drained them while living. 156 The names of tyrants excite the horror of those who bear them pronounced. 157 Tremble then cruel kings! ye who plunge your subjects into misery; 158 who bathe them with bitter tears-- who ravage nations-- who deluge the land with the vital stream-- who change the fruitful earth into a barren cemetery; 159 tremble for the sanguinary traits under which the future historian will paint you, to generations yet unborn: 160 neither your splendid monuments--your imposing victories--your innumerable armies, nor your sycophant courtiers, can prevent posterity from avenging their grandfathers; 161 from insulting your odious manes; from treating your execrable memories with scorn; 162 from showering their contempt on your transcendent crimes.

163 Not only human sees own dissolution with pain, but again, you wishes your death may be an interesting event for others. 164 But, as we have already said, you must have talents-- you must have beneficence--you must have virtue,

in order, that those who surround you, may interest themselves in your condition; 165 that those who survive you, may give regret to your ashes. 166 Is it, then, surprising if the greater number of people, occupied entirely with themselves, completely absorbed by their own vanity, devoted to their own puerile objects, 167 forever busied with the care of gratifying their vile passions, at the expense, perhaps, of their family happiness, 168 unheedful of the wants of a wife, unmindful of the necessity of their children, careless of the calls of friendship, 169 regardless of their duty to society, do not by their death excite the sensibilities of their survivors; or that they should be presently forgotten? 170 There is an infinity of monarchs of which history does not tell us anything, save that they have lived. 171 In despite of the inutility in which people for the most part pass their existence, maugre the little care they bestow, to render themselves dear to the beings who environ them; 172 notwithstanding the numerous actions they commit to displease their associates; 173 the self love of each individual, persuades you, that your death must be an interesting occurrence: 174 few people but think themselves an Euryalus in friendship, all expect to find a Nisus, 175 thus human's over-weening philauty shows you to say thus the order of things are overturned at your decease.

176 O mortal! feeble and vain! Dost thou not know the Sesostris's, the Alexanders, the Caesars are dead? 177 Yet the course of the universe is not arrested; the demise of those famous conquerors, afflicting to some few favoured slaves, was a subject of delight for the whole human race.

178 Dost thou then foolishly believe that thy talents ought to interest thy species, that they are of sufficient extent to put it into mourning at thy decease? 179 Alas! The Corneilles, the Lockes, the Newtons, the Boyles, the Harveys, the Montesquieus, the Sheridans are no more! 180 Regretted by a small number of friends, who have presently consoled themselves by their necessary avocations, their death was indifferent to the greater

number of their fellow citizens. 181 Darest thou then flatter thyself, that thy reputation, thy titles, thy riches, thy sumptuous repasts, thy diversified pleasures, will make thy funeral a melancholy event! 182 It will be spoken of by some few for two days, and do not be at all surprised: 183 learn that there have died in former ages, in Babylon, in Sardis, in Carthage, in Athens, in Rome, 184 millions of citizens more illustrious, more powerful, more opulent, more voluptuous, than thou art; 185 of whom, however, no one has taken care to transmit to thee even the names. 186 Be then virtuous, O man! in whatever station thy destiny assigns thee, and thou shalt be happy in thy life time; 187 do thou good and thou shalt be cherished; acquire talents and thou shalt be respected; 188 posterity shall admire thee, if those talents, by becoming beneficial to their interests, shall bring them acquainted with the name under which they formerly designated thy annihilated being. 189 But the universe will not be disturbed by thy loss; 190 and when thou comest to die, whilst thy wife, thy children, thy friends, fondly leaning over thy sickly couch, shall be occupied with the melancholy task of closing thine eyes, 191 thy nearest neighbour shall perhaps be exulting with joy!

192 Let not then human occupy yourself with your condition that may be to come, but let you sedulously endeavour to make yourself useful, to those with whom you lives; 193 let you for your own peculiar happiness render yourself dutiful to your parents-- faithful to your wife-- attentive to your children-- kind to your relations--- true to your friends-- lenient to your servants; 194 let you strive to become estimable in the eyes of your fellow citizens; 195 let you faithfully serve a country which assures to you your welfare; 196 let the desire of pleasing posterity, of meriting its applause, excite you to those labours that shall elicit their eulogies: 197 let a legitimate self-love, when you shall be worthy of it, make you taste in advance those commendations which you are willing to deserve; 198 let

you learn to love yourself-- to esteem yourself; 199 but never let you consent that concealed vices, that sacred crimes, shall degrade you in your own eyes; shall oblige you to be ashamed of your own conduct.

200 Thus disposed, let you contemplate your own decease with the same indifference, that it will be looked upon by the greater number of your fellows; 201 let you expect death with constancy; wait for it with calm resignation; 202 let you learn to shake off those vain terrors with which superstition, would overwhelm you; 203 let you leave to the enthusiast your vague hopes; to the fanatic your mad-brained speculations; 204 to the bigot those fears with which you ministers to your own melancholy; 205 but let your heart, fortified by reason, corroborated by a love of virtue, no longer dread a dissolution that will destroy all feeling.

206 Whatever may be the attachment human has to life, whatever may be your fear of death, it is every day witnessed, that habit, that opinion, that prejudice, are motives sufficiently powerful to annihilate these passions in your breast; 207 to make you brave danger; to cause you to hazard your existence. 208 Ambition, pride, jealousy, love, vanity, avarice, the desire of glory, that deference of opinion which is decorated with the sounding title of a point of honour, 209 have the efficacy to make you shut your eyes to danger; to laugh at peril; to push you on to death: 210 vexation, anxiety of mind, disgrace, want of success, softens to you its hard features; makes you regard it as a door that will afford you shelter from the injustice of humankind: 211 indigence, trouble, adversity, familiarises you with this death, so terrible to the happy. 212 The poor human, condemned to labour, inured to privations, deprived of the comforts of life, views its approach with indifference: 213 the unfortunate, when you are unhappy, when you are without resource, embraces it in despair; 214 the wretched accelerates its march as soon as you sees that happiness is no longer within your grasp.

NATURE

215 Human in different ages, in different countries, has formed opinions extremely various upon the conduct of those, who have had the temerity to put an end to their own existence. 216 Your ideas upon this subject, as upon all others, have taken their tone from your religion, 217 have been governed by your superstitious systems, have been modified by your political institutions. 218 The Greeks, the Romans, and other nations, which everything conspired to make intrepid, to render courageous, to lead to magnanimity, regarded as heroes, contemplated as Gods, those who voluntarily cut the thread of life. 219 In Hindoostan, the Brahmin yet knows how to inspire even women with sufficient fortitude to burn themselves upon the dead bodies of their husbands. 220 The Japanese, upon the most trifling occasion, takes no kind of difficulty in plunging a dagger into your bosom.

221 Among the people of western country, religion renders human less prodigal of life; it teaches that it is offensive to the Deity that you should destroy yourself. 222 Some moralists, abstracting the height of religious ideas, have held that it is never permitted to human to break the conditions of the covenant that you have made with society. 223 Others have looked upon suicide as cowardice; they have thought that it was weakness, 224 that it displayed pusillanimity, to suffer, yourself to be overwhelmed with the shafts of your destiny; 225 and have held that there would be much more courage, more elevation of soul, in supporting your afflictions, in resisting the blows of fate.

226 If nature be consulted upon this point, it will be found that all the actions of human, that feeble plaything in the hands of necessity, are indispensable; 227 that they depend on causes which move you in despite of yourself-- 228 that without your knowledge, make you accomplish at each moment of your existence some one of its decrees. 229 If the same power that obliges all intelligent beings to cherish their existence, renders that of human so painful, so cruel, that you finds it

insupportable you quits your species; 230 order is destroyed for you, you accomplishes a decree of Nature, that wills you shall no longer exist. 231 This Nature has laboured during thousands of years, to form in the bowels of the earth the iron that must number your days.

232 If the relation of human with Nature be examined, it will be found that your engagement was neither voluntary on your part, nor reciprocal on the part of Nature. 233 The volition of your will had no share in your birth; it is commonly against your will that you are obliged to finish life; 234 your actions are, as we have proved, only the necessary effects of unknown causes which determine your will. 235 You are, in the hands of Nature, that which a sword is in your own hands; 236 you can fall upon it without its being able to accuse you with breaking your engagements; or of stamping with ingratitude the hand that holds it: 237 human can only love own existence on condition of being happy; 238 as soon as the entire of Nature refuses you this happiness; as soon as all that surrounds you becomes incommodious to you, as soon as your melancholy ideas offer nothing but afflicting pictures to your imagination; you already exists no longer; 239 you are suspended in the void; you quits a rank which no longer suits you; in which you finds no one interest; 240 which offers you no protection; which overwhelms you with calamity; in which you can no more be useful either to yourself or to others.

241 If the covenant which unites human to society be considered, it will be obvious that every contract is conditional, must be reciprocal; 242 that is to say, supposes mutual advantages between the contracting parties. 243 The citizen cannot be bound to own country, to own associates, but by the bonds of happiness. Are these bonds cut asunder? 244 You are restored to liberty. Society, or those who represent it, do they use you with harshness, do they treat you with injustice, do they render your existence painful? 245 Does disgrace hold you out to the finger of scorn;

does indigence menace you in an obdurate world? 246 Perfidious friends, do they forsake you in adversity? An unfaithful wife, does she outrage your heart? Rebellious, ungrateful children, do they afflict your old age?

247 Have you placed your happiness exclusively on some object which it is impossible for you to procure? 248 Chagrin, remorse, melancholy, and despair, have they disfigured to you the spectacle of the universe? 249 In short, for whatever cause it may be: if you are not able to support your evils, you quits a world, 250 which from henceforth, is for you only a frightful desert you removes yourself for ever from a country you thinks no longer willing to reckon you amongst the number of her children-- 251 you quits a house that to your mind is ready to bury you under its ruins-- 252 you renounces a society, to the happiness of which you can no longer contribute; which your own peculiar felicity alone can render dear to you: 253 and could the person be blamed, who, finding yourself useless; who being without resources, in the town where destiny gave you birth, should quit it in chagrin, to plunge yourself in solitude? 254 Death appears to the wretched the only remedy for despair; 255 it is then the sword seems the only friend, the only comfort that is left to the unhappy: 256 as long as hope remains the tenant of your bosom-- as long as your evils appear to you at all supportable-- as long as you flatters yourself with seeing them brought to a termination-- 257 as long as you finds some comfort in existence, however slender, you will not consent to deprive yourself of life: 258 but when nothing any longer sustains in you the love of this existence, then to live, is to you the greatest of evils; to die, the only mode by which you can avoid the excess of despair. 259 This has been the opinion of many great people: Seneca, the moralist, whom Lactantius calls the divine Pagan, 260 who has been praised equally by St. Austin and St. Augustine, endeavours by every kind of

argument to make death a matter of indifference to human.

261 Cato has always been commended, because he would not survive the cause of liberty; for that he would not live a slave. 262 Curtius, who rode voluntarily into the gap, to save his country, has always been held forth as a model of heroic virtue. 263 Is it not evident, that those martyrs who have delivered themselves up to punishment, have preferred quitting the world to living in it contrary to their own ideals of happiness?

264 When Samson wished to be revenged on the Philistines, did he not consent to die with them as the only means? 265 If your country is attacked, do you not voluntarily sacrifice your lives in its defence?

266 That society who has not the ability, or who is not willing to procure human any one benefit, loses all its rights over its citizens; 267 Nature, when it has rendered your existence completely miserable, has in fact, ordered you to quit it: 268 in dying you does no more than fulfil one of Her decrees, as you did when you drew your first breath. 269 To you who is fearless of death, there is no evil without a remedy; for you who refuses to die, there yet exists benefits which attach you to this world; 270 in this case let you rally your powers-- let you oppose courage to a destiny that oppresses you-- let you call forth those resources with which Nature yet furnishes you; 271 Nature cannot have totally abandoned you, while She yet leaves you the sensation of pleasure; the hopes of seeing a period to your pains.

272 Human regulates own judgment on own fellows, only by your own peculiar mode of feeling; you deems as folly, you calls delirium all those violent actions which you believes but little commensurate with their causes; 273 or which appear to you calculated to deprive you of that happiness, towards which you supposes a being in the enjoyment of your senses, cannot cease to have a tendency: 274 you treats your associate as a weak creature, when you sees yourself affected with that which touches you but lightly; 275 or

when you are incapable of supporting those evils, which your self-love flatters you, you would yourself be able to endure with more fortitude. 276 You accuses with madness whoever deprives you of life, for objects that you thinks unworthy so dear a sacrifice; 277 you taxes yourself with phrenzy, because you have yourself learned to regard this life as the greatest blessing. 278 It is thus that you always erects yourself into a judge of the happiness of others-- of their mode of seeing-- of their manner of feeling: 279 a miser who destroys the self after the loss of own treasure, appears a fool in the eyes of those who is less attached to riches; 280 you does not feel, that without money, life to this miser is only a continued torture; that nothing in the world is capable of diverting the miser from own painful sensations: 281 the miser will proudly tell you, that in own place you had not done so much; 282 but to be exactly in the place of another person, it is needful to have your organisation-- your temperament-- your passions-- your ideas; 283 it is in fact needful to be that other; to be placed exactly in the same circumstances; to be moved by the same causes; 284 and in this case all people, like the miser, would sacrifice their life, after being deprived of the only source of their happiness.

285 You who deprives yourself of your existence, does not adopt this extremity, so repugnant to your natural tendency; 286 but when nothing in this world has the faculty of rejoicing you; when no means are left of diverting your affliction; when reason no longer acts; your misfortune whatever it may be, for you is real; 287 your organisation, be it strong, or be it weak, is your own, not that of another: 288 a person who is sick only in imagination, really suffers considerably; even troublesome dreams place you in a very uncomfortable situation. 289 Thus when a person kills the self, it ought to be concluded, that life, in the room of being a benefit, had become a very great evil to this individual; 290 that existence had lost all its charms in own eyes; that the

entire of Nature was to this person destitute of attraction; that it no longer contained anything that could seduce the self; 291 that after the comparison which one's own disturbed imagination had made of existence with non-existence, the latter appeared to the self preferable to the first.

292 Many will consider these maxims as dangerous; they certainly account why the unhappy cut the thread of life, in a manner not corresponding with the received prejudices; 293 but, nevertheless, it is a temperament soured by chagrin, a bilious constitution, a melancholy habit, a defect in the organisation, a derangement in the mind; 294 it is in fact necessity and not reasonable speculations, that breed in human the design of destroying the self. 295 Nothing invites you to this step so long as reason remains with you; or whilst you yet possesses hope, that sovereign balm for every evil: 296 as for the unfortunate, who cannot lose sight of own sorrows-- who cannot forget own pains-- who has own evils always present to own mind; 297 you are obliged to take counsel from these alone: besides, what assistance, what advantage can society promise to you, 298 from a miserable wretch reduced to despair; from a misanthrope overwhelmed with grief; from a wretch tormented with remorse, 299 who has no longer any motive to render you useful to others-- who has abandoned you-- who finds no more interest in preserving your life? 300 Frequently, those who destroy themselves are such, that had they lived, the offended laws must have ultimately been obliged to remove them from a society which they disgraced; from a country which they had injured.

301 As life is commonly the greatest blessing for human, it is to be presumed that you who deprives yourself of it, is compelled to it by an invincible force. 302 It is the excess of misery, the height of despair, the derangement of your brain, caused by melancholy, that urges human on to destroy the self. 303 Agitated by contrary impulsions, you are, as we have before said, obliged to follow a middle course that conducts you to

your death; 304 if human be not a free-agent, in any one instant of your life, you are again much less so in the act by which it is terminated.

305 It will be seen then, that you who kills yourself, does not, as it is pretended, commit an outrage on Nature. 306 You follows an impulse which has deprived you of reason; adopts the only means left you to quit your anguish; you goes out of a door which Nature leaves open to you; 307 you cannot offend in accomplishing a law of necessity: 308 the iron hand of this having broken the spring that renders life desirable to you; 309 which urged you to self-conservation, shows you that you ought to quit a rank or system where you finds yourself too miserable to have the desire of remaining. 310 Your country or your family have no right to complain of a member, whom it has no means of rendering happy; 311 from whom consequently they have nothing more to hope: 312 to be useful to either, it is necessary you should cherish your own peculiar existence; that you should have an interest in conserving yourself-- 313 that you should love the bonds by which you are united to others-- that you should be capable of occupying yourself with their felicity-- that you should have a sound mind. 314 That the suicide should repent of own precipitancy, you should outlive yourself, 315 you should carry with you into your future residence, your organs, your senses, your memory, your ideas, your actual mode of existing, your determinate manner of thinking.

316 In short, nothing is more useful for society, than to inspire human with a contempt for death; to banish from your mind the false ideas you have of its consequences. 317 The fear of death can never do more than make cowards; 318 the fear of its consequences will make nothing but fanatics or melancholy beings, who are useless to themselves, unprofitable to others. 319 Death is a resource that ought not by any means to be taken away from oppressed virtue; which the injustice of human frequently reduces to despair. 320 If human feared death less, you would neither be a slave nor superstitious;

321 truth would find defenders more zealous; the rights of humankind would be more hardily sustained; 322 virtue would be intrepidly upheld: error would be more powerfully opposed; tyranny would be banished from nations: cowardice nourishes it, fear perpetuates it. 323 In fact, human can neither be contented nor happy whilst your opinions shall oblige you to tremble.

HUMAN CANNOT BE HAPPY WITHOUT VIRTUE

Paul Henri Thiery (Baron D'Holbach)

40 Utility, as has been before observed, ought to be the only standard of the judgment of human. 2 To be useful, is to contribute to the happiness of your fellow creatures; to be prejudicial, is to further their misery. 3 This granted, let us examine if the principles we have hitherto established be prejudicial or advantageous, useful or useless, to the human race. 4 If human unceasingly seeks after own happiness, you can only approve of that which procures for you your object, or furnishes you the means by which it is to be obtained.

5 What has been already said will serve in fixing our ideas upon what constitutes this happiness: 6 it has been already shown that it is only continued pleasure: 7 but in order that an object may please, it is necessary that the impressions it makes, the perceptions it gives, the ideas which it leaves, in short, that the motion it excites in human should be analogous to your organisation; 8 conformable to your temperament; assimilated to your individual nature:--modified as it is by habit, determined as it is by an infinity of circumstances, 9 it is necessary that the action of the object by which you are moved, or of which the idea remains with you, far from enfeebling you, 10 far from annihilating your feelings, should tend to strengthen you; 11 it is necessary, that without fatiguing your mind, exhausting your faculties, or deranging your organs, this object should impart to your machine that degree of activity for which it

continually has occasion. 12 What is the object that unites all these qualities? 13 Where is the human whose organ are susceptible of continual agitation without being fatigued; without experiencing a painful sensation; without sinking? 14 Human is always willing to be warned of own existence in the most lively manner, as long as you can be so without pain. 15 What do I say? Human consents frequently to suffer, rather than not feel. 16 Human accustoms the self to a thousand things which at first must have affected you in a disagreeable manner; 17 but which frequently end either by converting themselves into wants, or by no longer affecting you any way: 18 of this truth tobacco, coffee, and above all brandy furnish examples: this is the reason you runs to see tragedies; that you witnesses the execution of criminals. 19 In short, the desire of feeling, of being powerfully moved, appears to be the principle of curiosity; 20 of that avidity with which human seizes on the marvellous; of that earnestness with which you clings to the supernatural; of the disposition you evinces for the incomprehensible. 21 Where, indeed, can you always find objects in Nature capable of continually supplying the stimulus requisite to keep you in activity, 22 that shall be ever proportioned to the state of your own organisation; which your extreme mobility renders subject to perpetual variation? 23 The most lively pleasures are always the least durable, seeing they are those which exhaust you most.

24 That person should be uninterruptedly happy, it would be requisite that your powers were infinite; 25 it would require that to your mobility you joined a vigour, attached a solidity, which nothing could change; 26 or else it is necessary that the objects from which you receives impulse, should either acquire or lose properties, 27 according to the different states through which your machine is successively obliged to pass; 28 it would need that the essences of beings should be changed in the same proportion as your dispositions; 29 should be submitted to the

continual influence of a thousand causes, which modify you without your knowledge, and in despite of yourself. 30 If, at each moment, your machine undergoes changes more or less marked, which are ascribable to the different degrees of elasticity, of density, of serenity of the atmosphere; 31 to the portion of igneous fluid circulating through your blood; to the harmony of your organs; to the order that exists between the various parts of your body; 32 if, at every period of your existence, your nerves have not the same tensions, your fibres the same elasticity, your mind the same activity, your imagination the same ardour, 33 it is evident that the same causes in preserving to you only the same qualities, cannot always affect you in the same manner. 34 Here is the reason why those objects that please you in one season displease you in another: these objects have not themselves sensibly changed; 35 but your organs, your dispositions, your ideas, your mode of seeing, your manner of feeling, have changed:-- such is the source of human's inconstancy.

36 If the same objects are not constantly in that state competent to form the happiness of the same individual, it is easy to perceive that they are yet less in a capacity to please all humans; 37 or that the same happiness cannot be suitable to all. 38 Beings already various by their temperament, unlike in their faculties, diversified in their organisation, 39 different in their imagination, dissimilar in their ideas, of distinct opinions, of contrary habits, 40 which an infinity of circumstances, whether physical or moral, have variously modified, must necessarily form very different notions of happiness. 41 Those of a MISER cannot be the same as those of a PRODIGAL; those of a VOLUPTUARY, the same as those of one who is PHLEGMATIC; 42 those of an intemperate, the same as those of a rational person, who husbands your health. 43 The happiness of each, is in consequence composed of your natural organisation, and of those circumstances, of those habits, of

those ideas, whether true or false, that have modified you: 44 this organisation and these circumstances, never being the same in any two people, it follows, that what is the object of one person's views, must be indifferent, or even displeasing to another; 45 thus, as we have before said, no one can be capable of judging of that which may contribute to the felicity of own fellow human.

46 Interest is the object to which each individual according to own temperament and your own peculiar ideas, attaches your welfare; 47 from which it will be perceived that this interest is never more than that which each contemplates as necessary to your happiness. 48 It must, therefore, be concluded, that no human is totally without interest. 49 That of the miser to amass wealth; that of the prodigal to dissipate it: the interest of the ambitious is to obtain power; 50 that of the modest philosopher to enjoy tranquillity; the interest of the debauchee is to give the self up, without reserve, to all sorts of pleasure; 51 that of the prudent person, to abstain from those which may injure the self: the interest of the wicked is to gratify own passions at any price: 52 that of the virtuous to merit by own conduct the love, to elicit by own actions the approbation of others; to do nothing that can degrade the self in one's own eyes.

53 Thus, when it is said that Interest is the only motive of human actions; it is meant to indicate that each person labours after one's own manner, to one's own peculiar happiness; 54 that you places it in some object either visible or concealed; either real or imaginary; that the whole system of your conduct is directed to its attainment. 55 This granted, no human can be called disinterested; this appellation is only applied to those of whose motives we are ignorant; or whose interest we approve.

56 Thus the person who finds a greater pleasure in assisting own friends in misfortune than preserving in own coffers useless treasure, is called generous, faithful, and disinterested; 57 in like manner all

humans are denominated disinterested, who feel their glory far more precious than their fortune. 58 In short, all humans are designated disinterested who place their happiness in making sacrifices which human considers costly, 59 because you does not attach the same value to the object for which the sacrifice is made.

60 Human frequently judges very erroneously of the interest of others, either because the motives that animate them are too complicated for you to unravel; 61 or because to be enabled to judge of them fairly, it is needful to have the same eyes, the same organs the same passions, the same opinions: 62 nevertheless, obliged to form your judgment of the actions of humankind, by their effect on yourself, you approves the interest that actuates them whenever the result is advantageous for your species: 63 thus, you admires valour, generosity, the love of liberty, great talents, virtue, you then only approves of the objects in which the beings you applauds have placed their happiness; 64 you approves these dispositions even when you are not in a capacity to feel their effects; but in this judgment you are not yourself disinterested; 65 experience, reflection, habit, reason, have given you a taste for morals, and you finds as much pleasure in being witness to a great and generous action, 66 as the person of virtue finds in the sight of a fine picture of which you are not the proprietor.

67 You who has formed to yourself a habit of practising virtue, is a person who has unceasingly before your eyes the interest that you have in meriting the affection, 68 in deserving the esteem, in securing the assistance of others, as well as to love and esteem yourself: 69 impressed with these ideas which have become habitual to you, you abstains even from concealed crimes, since these would degrade you in your own eyes: 70 you resembles a person who having from own infancy contracted the habit of cleanliness, would be painfully affected at seeing the self dirty, even when no one should witness it. 71 The honest person is one to whom truth has

shown your interest or your happiness in a mode of acting that others are obliged to love, are under the necessity to approve for their own peculiar interest.

72 These principles, duly developed, are the true basis of morals; nothing is more chimerical than those which are founded upon imaginary motives placed out of Nature; 73 or upon innate sentiments; which some speculators have regarded as anterior to human's experience; 74 as wholly independant of those advantages which result to you from its use: 75 it is the essence of human to love yourself; to tend to your own conservation; to seek to render your existence happy: 76 thus interest, or the desire of happiness, is the only real motive of all your actions; 77 this interest depends upon your natural organisation, rests itself upon your wants, is bottomed upon your acquired ideas, springs from the habits you have contracted: 78 you are without doubt in error, when either a vitiated organisation or false opinions show you your welfare in objects either useless or injurious to yourself, as well as to others; 79 you marches steadily in the paths of virtue when true ideas have made you rest your happiness on a conduct useful to your species; 80 in that which is approved by others; which renders you an interesting object to your associates. 81 Morals would be a vain science if it did not incontestably prove to human that your interest consists in being virtuous. 82 Obligation of whatever kind, can only be founded upon the probability or the certitude of either obtaining a good or avoiding an evil.

83 Indeed, in no one instant of your duration, can a sensible, an intelligent being, either lose sight of your own preservation or forget your own welfare; 84 you owes happiness to yourself; but experience quickly proves to you, that bereaved of assistance, quite alone, left entirely to yourself, you cannot procure all those objects which are requisite to your felicity: 85 you lives with sensible, with intelligent beings, occupied like yourself with their own peculiar happiness; 86 but capable of assisting you, in obtaining those

objects you most desires; you discovers that these beings will not be favourable to your views, 87 but when they find their interest involved; from which you concludes, that your own happiness demands, 88 that your own wants render it necessary you should conduct yourself at all times in a manner suitable to conciliate the attachment, 89 to obtain the approbation, to elicit the esteem, to secure the assistance of those beings who are most capacitated to further your designs. 90 You perceives, that it is human who is most necessary to the welfare of human: 91 that to induce you to join in your interests, you ought to make your find real advantages in recording your projects: 92 but to procure real advantages to the beings of the human species, is to have virtue; 93 the reasonable person, therefore, is obliged to feel that it is your interest to be virtuous. 94 Virtue is only the art of rendering yourself happy, by the felicity of others. 95 The virtuous person is one who communicates happiness to those beings who are capable of rendering your own condition happy; 96 who are necessary to your conservation; who have the ability to procure you a felicitous existence.

97 Such, then, is the true foundation of all morals; merit and virtue are founded upon the nature of human; have their dependence upon your wants. 98 It is virtue alone that can render you truly happy: without virtue society can neither be useful nor indeed subsist; 99 it can only have real utility when it assembles beings animated with the desire of pleasing each other, and disposed to labour to their reciprocal advantage: 100 there exists no comfort in those families whose members are not in the happy disposition to lend each other mutual succours; 101 who have not a reciprocity of feeling that stimulates them to assist one another; 102 that induces them to cling to each other, to support the sorrows of life; to unite their efforts, to put away those evils to which Nature has subjected them; 103 the conjugal bonds, are sweet only in proportion as they identify the interest of two beings, united by the want of

legitimate pleasure; 104 from whence results the maintenance of political society, and the means of furnishing it with citizens. 105 Friendship has charms only when it more particularly associates two virtuous beings; that is to say, animated with the sincere desire of conspiring to their reciprocal happiness. 106 In short, it is only by displaying virtue, that human can merit the benevolence, can win the confidence, can gain the esteem, of all those with whom you have relation; 107 in a word, no human can be independently happy.

108 Indeed, the happiness of each human individual depends on those sentiments to which you gives birth, 109 on those feelings which you nourishes in the beings amongst whom your destiny has placed you; 110 grandeur may dazzle them; power may wrest from them an involuntary homage; force may compel an unwilling obedience; 111 opulence may seduce people, may attract venal souls; but it is humanity, it is benevolence, it is compassion, it is equity, that unassisted by these, can without efforts obtain for you, 112 from those by whom you are surrounded, those delicious sentiments of attachments, those soothing feelings of tenderness, those sweet ideas of esteem, of which all reasonable people feel the necessity. 113 To be virtuous then, is to place your interest in that which accords with the interest of others; 114 it is to enjoy those benefits, to partake of that pleasure which you yourself diffuses over your fellows. 115 You whom, your nature, your education, your reflections, your habits, have rendered susceptible of these dispositions, 116 and to whom your circumstances have given you the faculty of gratifying them, becomes an interesting object to all those who approach you: 117 you enjoys every instant, you reads with satisfaction the contentment, you contemplates with pleasure the joy which you have diffused over all countenances: 118 your conjugal partner, your children, your friends, your workers greet you with gay, serene faces, indicative of that content, harbingers of that peace,

which you recognises for your own work: 119 everything that environs you is ready to partake your pleasures; to share your pains; cherished, respected, looked up to by others, 120 everything conducts you to agreeable reflections; you knows the rights you have acquired over their hearts; 121 you applauds yourself for being the source of a felicity that captivates all the world; 122 your own condition, your sentiments of self-love, become an hundred times more delicious when you sees them participated by all those with whom your destiny has connected you. 123 The habit of virtue creates for you no wants but those which virtue itself suffices to satisfy; 124 it is thus that virtue is always its own peculiar reward, that it remunerates itself with all the advantages which it incessantly procures for others.

125 It will be said, and perhaps even proved, that under the present constitution of things, virtue far from procuring the welfare of those who practice it frequently plunges human into misfortune; 126 often places continual obstacles to your felicity; that almost every where it is without recompence. 127 What do I say? A thousand examples could be adduced as evidence, that in almost every country it is hated, persecuted, obliged to lament the ingratitude of human nature. 128 I reply with avowing, that by a necessary consequence of the errors of your race, virtue rarely conducts human to those objects in which the uninformed make their happiness consist. 129 The greater number of societies, too frequently ruled by those whose ignorance makes them abuse their power,-- 130 whose prejudices render them enemies of virtue,--who flattered by sycophants, secure in the impunity their actions enjoy, commonly lavish their esteem, bestow their kindness, on none but the most unworthy objects; 131 reward only the most frivolous, recompense none but the most prejudicial qualities; and hardly ever accord that justice to merit which is unquestionably its due. 132 But the truly honest person, is neither ambitious of remuneration, nor

sedulous of the suffrages of a society thus badly constituted: 133 contented with domestic happiness, you seeks not to augment relations, which would do no more than increase your danger; 134 you knows that a vitiated community is a whirlwind, with which an honest person cannot co-order the self: 135 you therefore steps aside; quits the beaten path, by continuing in which you would infallibly be crushed. 136 You does all the good of which you are capable in your sphere; you leaves the road free to the wicked, who are willing to wade through its mire; 137 you laments the heavy strokes they inflict on themselves; you applauds mediocrity that affords you security: you pities those nations made miserable by their errors,-- 138 rendered unhappy by those passions which are the fatal but necessary consequence; you sees they contain nothing but wretched citizens, 139 who far from cultivating their true interest, far from labouring to their mutual felicity, far from feeling the real value of virtue, 140 unconscious how dear it ought to be to them, do nothing but either openly attack, or secretly injure it; 141 in short, who detests a quality which would restrain their disorderly propensities.

142 In saying that virtue is its own peculiar reward, it is simply meant to announce, that in a society whose views were guided by truth, trained by experience, conducted by reason, each individual would be acquainted with own real interests; 143 would understand the true end of association; would have sound motives to perform own duties; find real advantages in fulfilling them; 144 in fact, it would be convinced, that to render yourself solidly happy, you should occupy your actions with the welfare of your fellows; 145 by their utility merit their esteem, elicit their kindness, and secure their assistance.

146 In a well-constituted society, the government, the laws, education, example, would all conspire to prove to the citizen, that the nation of which you forms a part, is a whole that cannot be happy, that cannot subsist without virtue; 147 experience would, at each step, convince you that the welfare of its parts can only

result from that of the whole body corporate; 148 justice would make you feel, that no society, can be advantageous to its members, 149 where the volition of wills in those who act, is not so conformable to the interests of the whole, as to produce an advantageous re-action.

150 But, alas! by the confusion which the errors of human have carried into your ideas: 151 virtue disgraced, banished, and persecuted, finds not one of those advantages it has a right to expect: 152 human is indeed shown those rewards for it in a future life, of which you are almost always deprived in your actual existence. 153 It is thought necessary to deceive, considered proper to seduce, right to intimidate you, in order to induce you to follow that virtue which everything renders incommodious to you; 154 you are fed with distant hopes, in order to solicit you to practice virtue, while contemplation of the world makes it hateful to you; 155 you are alarmed by remote terrors, to deter you from committing evil, which your associates paint as amiable; which all conspires to render necessary.

156 It is thus that politics, thus that superstition, by the formation of chimeras, by the creation of fictitious interests pretend to supply those true, those real motives which Nature furnishes,-- 157 which experience would point out,-- which an enlightened government should hold forth,-- which the law ought to enforce,-- which instruction should sanction,-- which example should encourage,-- which rational opinions would render pleasant. 158 Human, blinded by own passions, not less dangerous than necessary, led away by precedent, authorised by custom, enslaved by habit, 159 pays no attention to these uncertain promises, is regardless of the menaces held out; 160 the actual interests of your immediate pleasures, the force of your passions, the inveteracy of your habits, always rise superior to the distant interests pointed out in your future welfare, 161 or the remote evils with which you are threatened; which always appear doubtful,

whenever you compares them with present advantages.

162 Thus superstition, far from making human virtuous by principle, does nothing more than impose upon you a yoke as severe as it is useless; 163 it is borne by none but enthusiasts, or by the pusillanimous; who, without becoming better, tremblingly champ the feeble bit put into their mouth; 164 who are either rendered unhappy by their opinions, or dangerous by their tenets; 165 indeed, experience, that faithful monitor, incontestably proves, that superstition is a dyke inadequate to resist the torrent of corruption, to which so many accumulated causes give an irresistible force: 166 Nay more, does not this superstition itself augment the public disorder, by the dangerous passions which it lets loose, by the conduct which it sanctions, by the actions which it consecrates? 167 Virtue, in almost every climate, is confined to some few rational souls, who have sufficient strength of mind to resist the stream of prejudice; 168 who are contented by remunerating themselves with the benefits they diffuse over society: 169 whose temperate dispositions are gratified with the suffrages of a small number of virtuous approvers; 170 in short, who are detached from those frivolous advantages which the injustice of society but too commonly accords only to baseness, 171 which it rarely bestows, except to intrigue, with which in general it rewards nothing but crime.

172 In despite of the injustice that reigns in the world, there are, however, some virtuous people in the bosom even of the most degenerate nations; 173 notwithstanding the general depravity, there are some benevolent beings, still enamoured of virtue; 174 who are fully acquainted with its true value; who are sufficiently enlightened to know that it exacts homage even from its enemies; 175 who to use the language of ECCLESIASTES, "rejoice in their own works;" 176 who are, at least, happy in possessing contented minds, who are satisfied with concealed pleasures, those internal recompences of which no earthly

power is competent to deprive them. 177 The honest person acquires a right to the esteem, has a just claim to the veneration, wins the confidence, gains the love, even of those whose conduct is exposed by a contrast with your own. 178 In short, vice is obliged to cede to virtue; of which it blushingly, though unwillingly, acknowledges the superiority. 179 Independent of this ascendancy so gentle, of this superiority so grand, of this pre-eminence so infallible, 180 when even the whole universe should be unjust to you, when even every tongue should cover you with venom, when even every arm should menace you with hostility, 181 there yet remains to the honest person the sublime advantage of loving your own conduct; the ineffable pleasure of esteeming yourself; the unalloyed gratification of diving with satisfaction into the recesses of your own heart; 182 the tranquil delight of contemplating your own actions with that delicious complacency that others ought to do, if they were not hood-winked. 183 No power is adequate to ravish from you the merited esteem of yourself; no authority is sufficiently potent to give it to you when you deserves it not; 184 the mightiest monarch cannot lend stability to this esteem, when it is not well founded; 185 it is then a ridiculous sentiment: it ought to be considered, it really is "vanity and vexation of spirit," it is not wisdom, but folly in the extreme; 186 it ought to be censured when it displays itself in a mode that is mortifying to its neighbour, in a manner that is troublesome to others; 187 it is then called ARROGANCE; it is called VANITY; 188 but when it cannot be condemned, when it is known for legitimate when it is discovered to have a solid foundation, 189 when it bottoms itself upon talents, when it rises upon great actions that are useful to the community, when it erects its edifice upon virtue; 190 even though society should not set these merits at their just price, it is NOBLE PRIDE, ELEVATION OF MIND, and GRANDEUR OF SOUL.

191 Of what consequence then, is it to listen to those superstitious beings,

those enemies to human's happiness, who have been desirous of destroying it, even in the inmost recesses of their own heart; 192 who have prescribed to you hatred of your follower; who have filled you with contempt for yourself; 193 who pretend to wrest from the honest person that self-respect which is frequently the only reward that remains to virtue, in a perverse world.

194 To annihilate in you this sentiment, so full in justice, this love of yourself, is to break the most powerful spring, to weaken the most efficacious stimulus, that urges you to act right; 195 that spurs you on to do good to your fellow mortals. 196 What motive, indeed, except it be this, remains for you in the greater part of human societies? 197 Is not virtue discouraged? Is not honesty contemned? Is not audacious crime encouraged? Is not subtle intrigue eulogised? Is not cunning vice rewarded? 198 Is not love of the public weal taxed as folly; exactitude in fulfilling duties looked upon as a bubble? 199 Is not compassion laughed to scorn? ARE NOT TRAITORS DISTINGUISHED BY PUBLIC HONOURS? 200 Is not negligence of morals applauded,-- sensibility derided,-- tenderness scoffed,-- conjugal fidelity jeered,-- sincerity despised,-- inviolable friendship treated with ridicule: 201 while seduction, adultery, hard-heartedness, punic faith, avarice, and fraud, stalk forth unabashed, decked in gorgeous array, lauded by the world? 202 Human must have motives for action: you neither acts well nor ill, but with a view to your own happiness: 203 that which you judges will conduce to this "consummation so devoutly to be wished," you thinks your interest; you does nothing gratuitously; 204 when reward for useful actions is withheld from you, you are reduced either to become as abandoned as others, or else to remunerate yourself with your own applause.

205 This granted; the honest person can never be completely unhappy; you can never be entirely deprived of the recompence which is your due; 206 virtue is competent to repay you

for all the benefits you may bestow on others; can amply make up to you all the happiness denied you by public opinion; 207 but nothing can compensate to you the want of virtue. 208 It does not follow that the honest person will be exempted from afflictions: like, the wicked, you are subject to physical evils; 209 you may pine in indigence; you may be deprived of friendship; you may be worn down with disease; you may frequently be the subject of calumny; you may be the victim to injustice; you may be treated with ingratitude; you may be exposed to hatred; 210 but in the midst of all your misfortunes, in the very bosom of your sorrows, in the extremity of your vexation, you finds support in yourself; 211 you are contented with your own conduct; you respects yourself; you feels your own dignity; you knows the equity of your rights; 212 you consoles yourself with the confidence inspired by the justness of your cause; you cheers yourself amidst the most sullen circumstances. 213 These supports are not calculated for the wicked; they avail you nothing: equally liable with the honest person to infirmities, 214 equally submitted to the caprices of your destiny, equally the sport of a fluctuating world, you finds the recesses of your own heart filled with dreadful alarms; 215 diseased with care; cankered with solitude; corroded with regret; gnawed by remorse; you dies within yourself; your conscience sustains you not but loads you with reproach; 216 your mind, overwhelmed, sinks beneath its own turpitude; your reflection is the bitter dregs of hemlock; 217 maddening anguish holds you to the mirror that shows you your own deformity; that recalls unhallowed deeds; gloomy thoughts rush on your too faithful memory; 218 despondence benumbs you; your body, simultaneously assailed on all sides, bends under the storm of your own unruly passions; 219 at last despair grapples you to her filthy bosom, you flies from yourself. 220 The honest person is not an insensible Stoic; virtue does not procure impassibility; honesty gives no exemption from misfortune, 221

but it enables you to bear cheerly up against it; to cast off despair, to keep your own company: 222 if you are infirm, if you are worn with disease, you have less to complain of than the vicious being who is oppressed with sickness, who is enfeebled by years; 223 if you are indigent, you are less unhappy in your poverty; 224 if you are in disgrace, you can endure it with fortitude, you are not overwhelmed by its pressure, like the wretched slave to crime.

225 Thus the happiness of each individual depends on the cultivation of your own temperament; 226 Nature makes both the happy and the unhappy; 227 it is culture that gives value to the soil Nature has formed; it is instruction that makes the fruit it produces palatable; It is reflection that makes it useful. 228 For human to be happily born, is to have received from Nature a sound body, organs that act with precision-- 229 a just mind, a heart whose passions are analogous, whose desires are conformable to the circumstances in which your destiny has placed you: 230 Nature, then, has done everything for you, when She has joined to these faculties the quantum of vigour, 231 the portion of energy, sufficient to enable you to obtain those Proper things, which your station, your mode of thinking, your temperament, have rendered desirable. 232 Nature has made you a fatal present, when She has filled your sanguinary vessels with an over-heated fluid; 233 when She has given you an imagination too active; when She has infused into you desires too impetuous; 234 when you have a hankering after objects either impossible or improper to be obtained under your circumstances; 235 or which you least you cannot procure without those incredible efforts, that either place your own welfare in danger or disturb the repose of society. 236 The most happy person, is commonly one who possesses a peaceful soul; who only desires those things which you can procure by labour, suitable to maintain your activity; 237 which you can obtain without causing those shocks, that are either too violent for society, or troublesome to your

associates. 238 A philosopher whose wants are easily satisfied, who is a stranger, to ambition, who is contented with the limited circle of a small number of friends, 239 is, without doubt a being much more happily constituted than an ambitious conqueror, 240 whose greedy imagination is reduced to despair by having only one world to ravage. 241 You who is happily born, or whom Nature has rendered susceptible of being conveniently modified, is not a being injurious to society: 242 it is generally disturbed by people who are unhappily born, whose organisation renders them turbulent; who are discontented with their destiny; 243 who are inebriated with their own licentious passions; who are infatuated with their own vile schemes; who are smitten with difficult enterprises; 244 who set the world in combustion, to gather imaginary benefits in order to attain which they must inflict the heaviest curses on humankind, but in which they make their own happiness consist. 245 An ALEXANDER requires the destruction of empires, nations to be deluged with blood, cities to be laid in ashes, its inhabitants to be exterminated, 246 to content that passion for glory, of which you have formed to yourself a false idea; but which your too ardent imagination, your too vehement mind anxiously thirsts after: 247 for a DIOGENES there needs only a tub with the liberty of appearing whimsical; 248 a SOCRATES wants nothing but the pleasure of forming disciples to virtue.

249 Human by your organisation is a being to whom motion is always necessary; you must therefore always desire it: 250 this is the reason why too much facility In procuring the objects of your search, renders them quickly insipid. 251 To feel happiness, it is necessary to make efforts to obtain it; 252 to find charms in its enjoyment, it is necessary that the desire should be whetted by obstacles; 253 you are presently disgusted with those benefits which have cost you but little pains. 254 The expectation of happiness, the labour requisite to procure it, the varied prospects it holds forth, the

multiplied pictures which your imagination forms to you, supply your brain with that motion for which it has occasion; 255 this gives impulse to your organs, puts your whole machine into activity, exercises your faculties, sets all your springs in play, 256 in a word, puts you into that agreeable activity, for the want of which the enjoyment of happiness itself cannot compensate you. 257 Action is the true element of the human mind; as soon as it ceases to act, it falls into disgust, sinks into lassitude. 258 Your soul has the same occasion for ideas, your stomach has for aliment.

259 Thus the impulse given you by desire, is itself a great benefit; it is to the mind what exercise is to the body; without it you would not derive any pleasure in the aliments presented to you; 260 it is thirst that renders the pleasure of drinking so agreeable; 261 life is a perpetual circle of regenerated desires and wants satisfied: repose is only a pleasure to you who labours; it is a source of weariness, the cause of sorrow, the spring of vice to you who has nothing to do. 262 To enjoy without interruption is not to enjoy anything: the person who has nothing to desire is certainly more unhappy than you who suffers.

263 These reflections, grounded upon experience, drawn from the fountain of truth, ought to prove to human, that good as well as evil depends on the essence of things. 264 Happiness to be felt cannot be continued. 265 Labour is necessary, to make intervals between your pleasures; 266 your body has occasion for exercise, to co-order you with the beings who surround you; 267 your heart must have desires; trouble alone can give you the right relish of your welfare; it is this which puts in the shadows, this which furnishes the true perspective to the picture of human life. 268 By an irrevocable law of your destiny, human is obliged to be discontented with own present condition; 269 to make efforts to change it; to reciprocally envy that felicity which no individual enjoys perfectly. 270 Thus the poor person envies the opulence of your richer neighbour, although this is frequently

more unhappy than your needy maligner; 271 thus the rich person views with pain the advantages of a poverty, which you sees active, healthy, and frequently jocund, even in the bosom of penury.

272 If human was perfectly contented, there would no longer be any activity in the world; 273 it is necessary that you should desire; it is requisite that you should act; it is incumbent you should labour, in order that you may be happy: such is the course of Nature of which the life consists in action. 274 Human societies can only subsist, by the continual exchange of those things in which human places own happiness. 275 The poor person is obliged to desire, you are necessitated to labour, that you may procure what you knows is requisite to the preservation of your existence; 276 the primary wants given to you by Nature, are to nourish you, clothe you, lodge you, and propagate your species; have you satisfied these? 277 You are quickly obliged to create others entirely new; or rather, your imagination only refines upon the first; 278 you seeks to diversify them; you are willing to give them fresh zest; arrived at opulence, when you have run over the whole circle of wants, when you have completely exhausted their combinations, you falls into disgust. 279 Dispensed from labour, your body amasses humours; destitute of desires, your heart feels a languor; 280 deprived of activity, you are obliged to participate your riches, with beings more active, more labourious than yourself: 281 these, following their own peculiar interests, take upon themselves the task of labouring for your advantage; 282 of procuring for your means to satisfy your want; of ministering to your caprices, in order to remove the languor that oppresses you. 283 It is thus the great, the rich excite the energies, give play to the activity, rouse the faculties, spur on the industry of the indigent; these labour to their own peculiar welfare by working for others: 284 thus the desire of ameliorating your condition, renders human necessary to your fellow human; 285 thus wants, always regenerating, never

satisfied, are the principles of life,-- the soul of activity,-- the source of health,-- the basis of society. 286 If each individual was competent to the supply of one's own exigencies, there would be no occasion for you to congregate in society; 287 but it is your wants, your desires, your whims, that place you in a state of dependence on others: 288 these are the causes that each individual, in order to further your own peculiar interest, is obliged to be useful to those, who have the capability of procuring for you the objects which you yourself has not. 289 A nation is nothing more than the union of a great number of individuals, connected with each other by the reciprocity of their wants; by their mutual desire of pleasure. 290 The most happy person is one who has the fewest wants, and who has the most numerous means of satisfying them. 291 The person who would be truly rich, has no need to increase own fortune, it suffices you should diminish your wants.

292 In the individuals of the human species, as well as in political society, the progression of wants, is a thing absolutely necessary; 293 it is founded upon the essence of human, it is requisite that the natural wants once satisfied, should be replaced by those which you calls Imaginary, or wants of the Fancy: 294 these become as necessary to your happiness as the first. 295 Custom, which permits the native American to go quite naked, obliges the more civilised inhabitant of Europe to clothe themselves; 296 the poor person contents the self with very simple attire, which equally serve you for winter and for summer, for autumn and for spring; 297 the rich person desires to have garments suitable to each mutation of these seasons; 298 you would experience pain if you had not the convenience of changing your raiment with every variation of your climate; 299 you would be wretched if you was obliged to wear the same habiliments in the heat of summer, which you uses in the winter; 300 in short, you would be unhappy if the expense and variety of your costume did not display to the surrounding multitude your opulence, mark your rank,

announce your superiority. 301 It is thus habit multiplies, the wants of the wealthy; 302 it is thus that vanity itself becomes a want which sets a thousand hands in, motion, a thousand heads to work, who are all eager to gratify its cravings; 303 in short, this very vanity procures for the necessitous human, the means of subsisting at the expense of your opulent neighbours. 304 You who is accustomed to pomp, who is used to ostentatious splendour, whose habits are luxurious, whenever you are deprived of these insignia of opulence, to which you have attached the idea of happiness, finds yourself just as unhappy as the needy wretch who has not wherewith to cover your nakedness. 305 The civilised nations of the present day were in their origin savages composed of erratic tribes,-- 306 mere wanderers who were occupied with war; employed in, the chace; painfully obliged to seek precarious subsistence by hunting in those woods which the industry of their successors has cleared; 307 which their labour has covered with yellow waving ears of nutritious corn; in time they have become stationary: they first applied themselves to Agriculture, afterwards to commerce: 308 by degrees they have refined on their primitive wants, extended their sphere of action, given birth to a thousand new wants, imagined a thousand new means to satisfy them; 309 this is the natural course, the necessary progression, the regular march of active beings, who cannot live without feeling; who to be happy, must of necessity diversify their sensations. 310 In proportion as human's wants multiply the means to satisfy them becomes more difficult, you are obliged to depend on a greater number of your fellow creatures; 311 your interest obliges you to rouse their activity; to engage them to concur with your views; 312 consequently you are obliged to procure for them those objects by which they can be excited; 313 you are under the necessity of contenting their desires, which increase like your own, by the very food that satisfies them. 314 The savage needs

only put forth own hand to gather the fruit that offers itself spontaneously to their reach: this you finds sufficient for your nourishment. 315 The opulent citizen of a flourishing society is obliged to set innumerable hands to work to produce the sumptuous repast; 316 the four quarters of the globe are ransacked to procure the far-fetched viands become necessary to revive your languid appetite; 317 the merchant, the sailor, the mechanic, leave nothing unattempted to flatter your inordinate vanity. 318 From this it will appear, that in the same proportion the wants of human are multiplied, you are obliged to augment the means to satisfy them. 319 Riches are nothing more than the measure of a convention, by the assistance of which human is enabled to make a great number of own fellows concur in the gratification of own desires; 320 by which you are capacitated to invite them, for their own peculiar interests, to contribute to your pleasures. 321 What, in fact, does the rich person do, except announce to the needy, that you can furnish them with the means of subsistence if they consent to lend themselves to your will? 322 What does the person in power, except show to others, that you are in a state to supply the requisites to render them happy? 323 Sovereigns, nobles, people of wealth, appear to be happy, only because they possess the ability, 324 are masters of the motives sufficient to determine a great number of individuals to occupy themselves with their respective felicity.

325 The more things are considered the more human will be convinced that your false opinion are the true source of your misery; 326 the clearer it will appear to you that happiness is so rare, 327 only because you attaches it to objects either indifferent or useless to your welfare; 328 which, when enjoyed, convert themselves into real evils; which afflict you; which become the cause of your misfortune. 329 Riches are indifferent in themselves, it is only by their application, by the purposes they compass, 330 that they either become objects of utility to human,

or are rendered prejudicial to your welfare. 331 Money, useless to the savage who understands not its value, is amassed by the miser, for fear it should be employed uselessly; 332 lest it should be squandered by the prodigal; or dissipated by the voluptuary; who make no other use of it than to purchase infirmities; to buy regret.

333 Pleasures are nothing for the person who is incapable of feeling them; 334 they become real evils when they are too freely indulged, when they are destructive to your health,-- 335 when they derange the economy of your machine,-- when they entail diseases on you and on your posterity,-- 336 when they make you neglect your duties,-- when they render you despicable in the eyes of others.

337 Power is nothing in itself, it is useless to human if you does not avail yourself of it to promote your own peculiar felicity, 338 by augmenting the happiness of your species; it becomes fatal to you as soon as you abuses it; it becomes odious whenever you employs it to render others miserable; 339 it is always the cause of your own misery whenever you stretches it beyond the due bounds prescribed by Nature.

340 For want of being enlightened on your true interest, the human who enjoys all the means of rendering the self completely happy, 341 scarcely ever discovers the secret of making those means truly subservient to one's own peculiar felicity: 342 the art of enjoying, is that which of all others is least understood; human should learn this art before you begins to desire; 343 the earth is covered with individuals who only occupy themselves with the care of procuring the means without ever being acquainted with the end. 344 All the world desire fortune, solicit power, seek after pleasure, yet very few, indeed, are those whom objects render truly happy.

345 It is quite natural in human, it is extremely reasonable, it is absolutely necessary, to desire those things which can contribute to augment the sum of your felicity. 346 Pleasure, riches, power, are objects worthy your ambition, deserving your most

strenuous efforts, when you have learned how to employ them; 347 when you have acquired the faculty of making them render your existence really more agreeable. 348 It is impossible to censure you who desires them, to despise you who commands them, but when to obtain them you employs odious means; 349 or when after you have obtained them you makes a pernicious use of them, injurious to yourself, prejudicial to others; 350 let you wish for power, let you seek after grandeur, let you be ambitious of reputation, when you can show just pretensions to them; 351 when you can obtain them, without making the purchase at the expense of your own repose, or that of the beings with whom you lives: 352 let you desire riches, when you knows how to make a use of them that is truly advantageous for yourself, really beneficial for others; 353 but never let you employ those means to procure them of which you may be ashamed; with which you may be obliged to reproach yourself; 354 which may draw upon you the hatred of your associates; or which may render you obnoxious to the castigation of society: 355 let you always recollect, that your solid happiness should rest its foundations upon its own esteem,-- upon the advantages you procures for others; 356 above all, never let you for a moment forget, that of all the objects to which your ambition may point, the most impracticable for a being who lives in society, is that of attempting to render you exclusively happy.

THE ERRORS OF HUMAN; UPON WHAT CONSTITUTES HAPPINESS

Paul Henri Thiery (Baron D'Holbach)

41 Reason by no means forbids human from forming capacious desires; 2 ambition is a passion useful to your species when it has for, its object the happiness of your race. 3 Great minds, elevated souls, are desirous of acting on an extended sphere; 4 geniuses who are powerful, beings who are enlightened, people who are beneficent, distribute very

widely their benign influence; 5 they must necessarily, in order to promote their own peculiar felicity, render great numbers happy. 6 So many nobles fail to enjoy true happiness only, because their feeble, narrow souls, are obliged to act in a sphere too extensive for their energies: 7 it is thus that by the supineness, the indolence, the incapacity of their chiefs, nations frequently pine in misery; 8 are often submitted to masters, whose exility of mind is as little calculated to promote their own immediate happiness, as it is to further that of their miserable subjects. 9 On the other hand, souls too vehement, too much inflamed, too active, are themselves tormented by the narrow sphere that confines them; 10 their ardour misplaced, becomes the scourge of the human race. 11 Alexander was a monarch who was equally injurious to the earth, equally discontented with own condition, as the indolent despot whom you dethroned. 12 The souls of neither were by any means commensurate with their sphere of action.

13 The happiness of human will never be more than the result of the harmony that subsists between your desires and your circumstances. 14 The sovereign power to you who knows not how to apply it to the advantage of your citizens, is as nothing; 15 it cannot even conduce to your own peculiar happiness. 16 If it renders you miserable, it is a real evil; if it produces the misfortune of a portion of the human race, it is a detestable abuse. 17 The most powerful princes are ordinarily such strangers to happiness, their subjects are commonly so unfortunate, 18 only because the first possess all the means of rendering themselves happy without ever giving them activity; 19 or because the only knowledge they have of them, is their abuse. 20 A wise person seated on a throne, would be the most happy of mortals. 21 A monarch is a person for whom own power, let it be of whatever extent, cannot procure other organs, other modes of feeling, than the meanest of own subjects; 22 if you have an advantage over them, it is by the grandeur, the

variety, the multiplicity of the objects with which you can occupy yourself; 23 which by giving perpetual activity to your mind, can prevent it from decay; from falling into sloth. 24 If your soul is virtuous, if your mind is expansive, your ambition finds continual food in the contemplation of the power you possesses, 25 to unite by gentleness, to consolidate by kindness, the will of your subjects with your own; 26 to interest them in your own conservation, to merit their affections,-- to draw forth the respect of strangers,-- to render luminous the page of history-- to elicit the eulogies of all nations-- to clothe the orphan,-- to dry the widow's tears. 27 Such are the conquests that reason proposes to all those whose destiny it is to govern the fate of empires; 28 they are sufficiently grand to satisfy the most ardent imagination, of a sublimity to gratify the most capacious ambition: 29 for a monarch they are paramount duties.--KINGS are the most happy of men, only because they have the power of making others happy; 30 because they possess the means of multiplying the causes of legitimate content with themselves.

31 The advantages of the sovereign power are participated by all those who contribute to the government of states. 32 Thus grandeur, rank, reputation, are desirable, are legitimate objects for all who are acquainted with the means of rendering them subservient to their own peculiar felicity; 33 they are useless, they are illegitimate to those ordinary people who have neither the energy nor the capacity to employ them in a mode advantageous to themselves; 34 they are detestable whenever to obtain them human compromises own happiness, when you implicates the welfare of society: 35 this society itself is in an error every time it respects people who only employ to its destruction, 36 a power, the exercise of which it ought never to approve but when it reaps from it substantial benefits.

37 Riches, useless to the miser, who is no more than their miserable gaoler; prejudicial to the debauchee, for whom they only procure

infirmities; 38 injurious to the voluptuary, to whom they only bring disgust-- whom they oppress with satiety; 39 can in the hands of the honest person produce unnumbered means of augmenting the sum of own happiness; 40 but before human covets wealth it is proper you should know how to employ it; 41 money is only a token, a representative of happiness; to enjoy it is so to use it as to make others happy: this is the great secret, this is the talisman, this is the reality. 42 Money, according to the compact of human, procures for you all those benefits you can desire; 43 there is only one, which it will not procure, that is, the knowledge how to apply it properly. 44 For human to have money, without the true secret how to enjoy it, is to possess the key of a commodious palace to which you are interdicted entrance; 45 to lavish it, prodigally, is to throw the key into the river; to make a bad use of it, is only to make it the means of wounding yourself. 46 Give the most ample treasures to the enlightened person, you will not be overwhelmed with them; 47 if you have a capacious mind, if you have a noble soul, you will only extend more widely your benevolence; 48 you will deserve the affection of a greater number of your fellow people; you will attract the love, you will secure the homage, of all those who surround you; 49 you will restrain yourself in your pleasures, in order that you may be enabled truly to enjoy them; 50 you will know that money cannot re-establish a soul worn out with enjoyment; 51 cannot give fresh elasticity to organs enfeebled by excess; cannot give fresh tension to nerves grown flaccid by abuse; cannot invigorate a body enervated by debauchery; 52 cannot corroborate a machine, from thenceforth become incapable of sustaining you, except by the necessity of privations; 53 you will know that the licentiousness of the voluptuary stifles pleasure in its source; that all the treasure in the world cannot renew your senses.

54 From this, it will be obvious, that nothing is more frivolous than the declamations of a gloomy philosophy against the desire of power; 55 nothing more absurd than

the rant of superstition against the pursuit of grandeur; 56 nothing more inconsistent than homilies against the acquisition of riches; 57 nothing more unreasonable than dogmas that forbid the enjoyment of pleasure. 58 These objects are desirable for human, whenever your situation allows you to make pretensions to them; 59 they are useful to society, conducive to public happiness, whenever you have acquired the knowledge of making them turn to your own real advantage; 60 reason cannot censure you, virtue cannot despise you, when in order to obtain them, you never travels out of the road of truth; 61 when in their acquisition, you wounds no one's interest; when you pursues only legitimate means: your associates will applaud you; your contemporaries will esteem you: 62 you will respect yourself, when you only employs their agency to secure your own happiness, and that of your fellows. 63 Pleasure is a benefit, it is of the essence of human to love, it is even rational when it renders your existence really valuable to yourself-- 64 when it does not injure you in your own esteem; when its consequences are not grievous to others. 65 Riches are the symbols of the great majority of the benefits of this life; they become a reality in the hands of the person who has the clew to their just application. 66 Power is the most sterling of all benefits, when you who is its depositary has received from Nature a soul sufficiently noble, 67 a mind sufficiently elevated, a heart sufficiently benevolent, faculties sufficiently energetic, 68 above all, when you have derived from education a true regard for virtue, 69 that sacred love for truth which enables you to extend your happy influence over whole nations; 70 which by this means you places in, a state of legitimate dependence on your will; 71 human only acquires the right of commanding people, when you renders them happy.

72 The right of human over one’s own fellow human can only be founded either upon the actual happiness you secures to others, or that which you gives others reason to

hope you will procure for them; 73 without this, the power you exercises would be violence, usurpation, manifest tyranny; 74 it is only upon the faculty of rendering others happy, that legitimate authority builds its structure; without this it is the "baseless fabric of a vision." 75 No person derives from Nature the right of commanding another; but it is voluntarily accorded to those, from whom you expect your welfare. 76 Government is the right of commanding, conferred on the sovereign only for the advantage of those who are governed. 77 Sovereigns are the defenders of the people, the guardians of the property, the protectors of the liberty of their subjects: 78 this is the price of their obedience; it is only on this condition these consent to obey; 79 government would not be better than a robbery whenever it availed itself of the powers confided to it, to render society unhappy. 80 The empire of religion is founded on the opinion human entertains of its having power to render nations happy; 81 government and religion are reasonable institutions; but only so, inasmuch as they equally contribute to the felicity of human: 82 it would be folly in you to submit yourself to a yoke from which there resulted nothing but evil. 83 It would be folly to expect that human should bind the self to misery; 84 it would be rank injustice to oblige you to renounce your rights without some corresponding advantage!

85 The authority which a father exercises over own family is only founded on the advantages which you are supposed to procure for it. 86 Rank, in political society, has only for its basis the real or imaginary utility of some citizens for which the others are willing to distinguish them-- agree to respect them-- consent to obey them. 87 The rich acquire rights over the indigent, the wealthy claim the homage of the needy, only by virtue of the welfare they are conditioned to procure them. 88 Genius, talents, science, arts, have rights over human, only in consequence of their utility; 89 of the delight they confer; of the advantages they procure for society.

NATURE

90 In a word, it is happiness, it is the expectation of happiness, it is its image that human cherishes-- that you esteems-- that you unceasingly adores. 91 Monarchs, the rich, the great, may easily impose on you, may dazzle you, may intimidate you, 92 but they will never be able to obtain the voluntary submission of your heart, which alone can confer upon them legitimate rights, 93 without they make you experience real benefits-- without they display virtue. 94 Utility is nothing more than true happiness; to be useful is to be virtuous; to be virtuous is to make others happy.

95 The happiness which human derives from them is the invariable, the necessary standard of your sentiments, 96 for the beings of your species; for the objects you desires; for the opinions you embraces; for those actions on which you decides. 97 You are the dupe of your prejudices every time you ceases to avail yourself of this standard to regulate your judgment. 98 You will never run the risk of deceiving yourself, when you shall examine strictly what is the real utility resulting to your species 99 from the religion, from the superstition, from the laws, from the institutions, from the inventions, from the various actions of all humankind.

100 A superficial view may sometimes seduce you; but experience, aided by reflection, will re-conduct you to reason, which is incapable of deceiving you. 101 This teaches you that pleasure is a momentary happiness, which frequently becomes an evil; 102 that evil is a fleeting trouble that frequently becomes a good: 103 it makes you understand the true nature of objects, enables you to foresee the effects you may expect; 104 it makes you distinguish those desires to which your welfare permits you to lend yourself, 105 from those to whose seduction you ought to make resistance. 106 In short, it will always convince you that the true interest of intelligent beings, who love happiness, who desire to render their own existence felicitous, 107 demands that they should root out all those phantoms, abolish all those

chimerical ideas, destroy all those prejudices, 108 which by traducing virtue, obstruct their felicity in this world.

109 If you consult experience, you will perceive that it is in illusions, in false opinions, rendered sacred by time, 110 that you ought to search out the source of that multitude of evils which almost everywhere overwhelms humankind. 111 From ignorance of natural causes, human has created imaginary causes; 112 not knowing to what cause to attribute thunder, human ascribed it to an imaginary being whom you called JUPITER; 113 imposture availing itself of this disposition, rendered these causes terrible to you; 114 these fatal ideas haunted you without rendering you better; made you tremble without either benefit to yourself or to others; 115 filled your mind with chimeras that opposed themselves to the progress of your reason; that prevented you from really seeking after your happiness. 116 Your vain fears rendered you the slave of those who deceived you, under pretence of consulting your welfare; 117 you committed evil, because they persuaded you that your gods demanded sacrifices; 118 you lived in misfortune, because they made you believe these gods condemned you to be miserable; 119 the slave of beings, to which your own imagination had given birth, you never dared to disentangle yourself from your chains; 120 the artful ministers of these divinities gave you to understand that stupidity, the renunciation of reason, sloth of mind, abjection of soul, were the sure means of obtaining eternal felicity.

121 Prejudices, not less dangerous, have blinded human upon the true nature of government. 122 Nations in general are ignorant of the true foundations of authority; 123 they dare not demand happiness from those leaders who are charged with the care of procuring it for them: 124 some have believed their sovereigns were gods disguised, who received with their birth the right of commanding the rest of humankind; 125 that they could at their pleasure dispose of the felicity of the people; that they were not accountable for

the misery they engendered. 126 By a necessary consequence of these erroneous opinions, politics have almost everywhere degenerated 127 into the fatal art of sacrificing the interests of the many, either to the caprice of an individual, or to some few privileged irrational beings.

128 In despite of the evils which assailed them, nations fell down in adoration before the idols they themselves had made: 129 foolishly respected the instruments of their misery; 130 had a stupid veneration for those who possessed the sovereign power of injuring them; obeyed their unjust will; lavished their blood; exhausted their treasure; 131 sacrificed their lives, to glut the ambition, to feed the cupidity to minister to the regenerated phantasms, to gratify the never-ending caprices of these people; 132 they bend the knee to established opinion, bowed to rank, yielded to title, to opulence, to pageantry, to ostentation: 133 at length victims to their prejudices, they in vain expected their welfare at the hands of people who were themselves unhappy from their own vices; 134 whose neglect of virtue, had rendered them incapable of enjoying true felicity; 135 who are but little disposed to occupy themselves with their prosperity: 136 under such chiefs their physical and moral happiness were equally neglected or even annihilated.

137 The same blindness may be perceived in the science of morals. 138 Superstition, which never had anything but ignorance for its basis, 139 which never had more than a disordered imagination for its guide, did not found ethics upon human's nature; 140 upon your relations with your fellows; upon those duties which necessarily flow from these relations; 141 it preferred, as more in unison with itself, founding them upon imaginary relations 142 which it pretended subsisted between you and those invisible powers it had so gratuitously imagined; 143 that were delivered by oracles which their priests had the address to make you believe spoke the will of the Divinity: 144 thus, TROPHONIUS, from his cave made affrightened mortals

tremble; shook the stoutest nerves; made them turn pale with fear; 145 his miserable, deluded supplicants, who were obliged to sacrifice to him, anointed their bodies with oil, bathed in certain rivers, 146 and after they had offered their cake of honey and received their destiny, became so dejected, so wretchedly forlorn, 147 that to this day their descendants, when they behold a malencholy human, exclaim, "He has consulted the oracle of Trophonius."

148 It was these invisible gods, which superstition always paints as furious tyrants, who were declared the arbiters of human's destiny; 149 the models of your conduct: when you was willing to imitate them, when you was willing to conform yourself to the lessons of their interpreters, 150 you became wicked, was an unsociable creature, an useless being or else a turbulent maniac-- a zealous fanatic. 151 It was these alone who profited by superstition, who advantaged themselves by the darkness in which they contrived to involve the human mind; 152 nations were ignorant of Nature; they knew nothing of reason; they understood no truth; they had only a gloomy superstition, without one certain idea of either morals or virtue. 153 When human committed evil against own fellow creature, you believed you had offended these gods; 154 but you also believed yourself forgiven, as soon as you had prostrated yourself before them; 155 as soon as you had by costly presents gained over the priest to your interest.

156 Thus superstition, far from giving a sure, far from affording a natural, far from introducing a known basis to morals, only rested it on an unsteady foundation; 157 made it consist in ideal duties impossible to be accurately understood. 158 What did I say? It first corrupted you, and your expiations finished by ruining yourself. 159 Thus when superstition was desirous to combat the unruly passions of human it attempted it in vain; 160 always enthusiastic, ever deprived of experience, it knew nothing of the true remedies: 161 those which it applied were disgusting, only suitable to make the sick revolt against them; 162 it made

them pass for divine, because they were not made of human; 163 they were inefficacious, because chimeras could effectuate nothing against those substantive passions to which motives more real, 164 impulsions more powerful, concurred to give birth, which everything conspired, to flourish in your heart.

165 The voice of superstition or of the gods, could not make itself heard amidst the tumult of society-- where all was in confusion-- 166 where the priest cried out to human, that you could not render yourself happy without injuring your fellow creatures, who happened to differ from you in opinion: 167 these vain clamours only made virtue hateful to you, because they always represented it as the enemy to your happiness; 168 as the bane of human pleasures: you consequently failed in the observation of your duties, because real motives were never held forth to induce you to make the requisite sacrifice; 169 the present prevailed over the future; the visible over the invisible; the known over the unknown: 170 human became wicked because everything informed human you must be so, in order to obtain the happiness after which you sighed.

171 Thus the sum of human misery was never diminished; on the contrary, it was accumulating either by your superstition, 172 by your government, by your education, by your opinions or by the institutions you adopted under the idea of rendering your condition more pleasant: 173 it not infrequently happened that the whole of these acted upon you simultaneously; you was then completely wretched. 174 It cannot be too often repeated, it is in error that human will find the true spring of those evils with which the human race is afflicted; 175 it is not Nature that renders you miserable; it is not Nature that makes you unhappy; 176 it is not an irritated Divinity who is desirous you should live in tears; it is not hereditary depravation that has caused you to be wicked; 177 it is to error, to long cherished, consecrated error, to error identified with your very existence, that these deplorable effects are to be ascribed.

NATURE

178 The sovereign good, so much sought after by some philosophers, announced with so much emphasis by others, 179 may be considered as a chimera, like unto that marvellous panacea which some adepts have been willing to pass upon humankind for an universal remedy. 180 All people are diseased; the moment of their birth delivers them over to the contagion of error; 181 but individuals are variously affected by it by a consequence of their natural organisation; of their peculiar circumstances. 182 If there is a sovereign remedy, which can be indiscriminately applied to the diseases of human, there is without doubt only ONE, 183 this catholic balsam is TRUTH, Which you must draw from Nature.

184 At the afflicting sight of those errors which blind the greater number of mortals-- 185 of those delusions which human is doomed to suck in with your mother's milk; 186 viewing with painful sensations those irregular desires, those disgusting propensities, by which you are perpetually agitated; 187 seeing the terrible effect of those licentious passions which torment you; of those lasting inquietudes which gnaw your repose; 188 of those stupendous evils, as well physical as moral, which assail you on every side: 189 the contemplator of humanity would be tempted to believe that happiness was not made for this world; 190 that any effort to cure those minds which everything unites to poison, would be a vain enterprise; 191 that it was an Augean stable, requiring the strength of another Hercules.

192 When you considers those numerous superstitions by which human is kept in a continual state of alarm-- 193 that divide you from your fellow-- that render you vindictive, persecuting, and irrational; 194 when you beholds the many despotic governments that oppress you; 195 when you examines those multitudinous, unintelligible, contradictory laws that torture you; the manifold injustice under which you groans; 196 when you turns your mind to the barbarous ignorance in which you are steeped, almost over

the whole surface of the earth; 197 when you witnesses those enormous crimes that debase society; 198 when you unmasks those rooted vices that render it so hateful to almost every individual; 199 you have great difficulty to prevent your mind from embracing the idea that misfortune is the only appendage of the human species; 200 that this world is made solely to assemble the unhappy; 201 that human felicity is a chimera, or at least a point so fugitive, that it is impossible it can be fixed.

202 Thus superstitious mortals, atrabilious people, beings nourished in melancholy, unceasingly see either Nature or its author exasperated against the human race; 203 they suppose that human is the constant object of heaven's wrath; 204 that you irritates it even by your desires: 205 that you renders yourself criminal by seeking a felicity which is not made for you: 206 struck with beholding that those objects which you covets in the most lively manner, are never competent to content your heart, 207 they have decried them as abominations, as things prejudicial to your interest, as odious to your gods; 208 they prescribe you abstinence from all search after them; that you should entirely shun them; 209 they have endeavoured to put to the rout all your passions, without any distinction even of those which are the most useful to yourself, 210 the most beneficial to those beings with whom you lives: 211 they have been willing that human should render the self insensible; 212 should become your own enemy; that you should separate yourself from your fellow creatures; 213 that you should renounce all pleasure; that you should refuse happiness; 214 in short, that you should cease to be a human, that you should become unnatural. 215 "Mortals!" have they said, "ye were born to be unhappy; the author of your existence has destined ye for misfortune; enter then into His views, and render yourselves miserable.

216 Combat those rebellious desires which have felicity for their object; 217 renounce those pleasures which it is your essence to love; 218 attach yourselves to nothing in this world;

by a society that only serves to inflame your imagination, to make you sigh after benefits you ought not to enjoy; 219 break up the spring of your souls; repress that activity that seeks to put a period to your sufferings; 220 suffer, afflict yourselves, groan, be wretched; such is for you the true road to happiness." 221 Blind physicians! Who have mistaken for a disease the natural state of human! they have not seen that your desires were necessary; 222 that your passions were essential to you; 223 that to defend yourself from loving legitimate pleasures; to interdict you from desiring them, is to deprive you of that activity which is the vital principle of society; 224 that to tell you to hate, to desire you to despise yourself, is to take from you the most substantive motive, that can conduct you to virtue. 225 It is thus, by its supernatural remedies, by its wretched panacea, superstition, far from curing those evils which render human decrepit, 226 which bend you almost to the earth, has only increased them; made them more desperate; 227 in the room of calming your passions, it gives them inveteracy; makes them more dangerous; renders them more venomous; 228 turns that into a curse which Nature has given you for your preservation; to be the means of your own happiness. 229 It is not by extinguishing the passions of human that you are to be rendered happier; it is by turning them into proper channels, by directing them towards useful objects, 230 which by being truly advantageous to yourself, must of necessity be beneficial to others.

231 In despite of the errors which blind the human race, in despite of the extravagance of human's superstition, 232 maugre the imbecility of your political institutions, notwithstanding the complaints, 233 in defiance of the murmurs you are continually breathing forth against your destiny, there are yet happy individuals on the earth. 234 Human has sometimes the felicity to behold sovereigns animated by the noble passion to render nations flourishing; 235 full of the laudable ambition to make their people happy; now and then you

encounters an ANTONINUS, a TRAJAN, a JULIAN, an ALFRED, a WASHINGTON; 236 you meets with elevated minds who place their glory in encouraging merit-- who rest their happiness in succouring indigence-- 237 who think it honourable to lend a helping hand to oppressed virtue: 238 you sees genius occupied with the desire of meriting the eulogies of posterity; 239 of eliciting the admiration of your fellow-citizens by serving them usefully, satisfied with enjoying that happiness you procures for others.

240 Let it not be believed that the human of poverty themselves are excluded from happiness: 241 mediocrity and indigence frequently procure for you advantages that opulence and grandeur are obliged to acknowledge; which title and wealth are constrained to envy: 242 the soul of the needy person, always in action, never ceases to form desires which your activity places within your reach; 243 whilst the rich, the powerful, are frequently in the afflicting embarrassment, of either not knowing what to wish for, 244 or else of desiring those objects which their listlessness renders it impossible for them to obtain. 245 The poor person's body, habituated to labour, knows the sweets of repose; 246 this repose of the body, is the most troublesome fatigue to you who is wearied with your idleness; 247 exercise, and frugality, procure for the one vigour, health, and contentment; 248 the intemperance and sloth of the other, furnish you only with disgust-- load you with infirmities. 249 Indigence sets all the springs of the soul to work; it is the mother of industry; from its bosom arises genius; 250 it is the parent of talents, the hot-bed of that merit to which opulence is obliged to pay tribute; to which grandeur bows its homage. 251 In short the blows of fate find in the poor person a flexible reed, who bends without breaking, 252 whilst the storms of adversity tear the rich person like the sturdy oak in the forest, up by the very roots.

253 Thus Nature is not a step-mother to the greater number of Her children. 254 You, whom fortune has placed in an obscure station is ignorant of that ambition which

devours the courtier; 255 knows nothing of the inquietude which deprives the intriguer of your rest; is a stranger to the remorse, an alien to the disgust, 256 is unconscious of the weariness of the human, who, enriched with the spoils of a nation, does not know how to turn them to own profit. 257 The more the body labours, the more the imagination reposes itself; 258 it is the diversity of the objects human runs over that kindles it; it is the satiety of those objects that causes you disgust; 259 the imagination of the indigent is circumscribed by necessity: you receives but few ideas: you are acquainted with but few objects: in consequence, you have but little to desire; 260 you contents yourself with that little: whilst the entire of Nature with difficulty suffices to satisfy the insatiable desires, 261 to gratify the imaginary wants of the human, plunged in luxury, who has run over and exhausted all common objects.

262 Those, whom prejudice contemplates; as the most unhappy of people, frequently enjoy advantages more real, happiness much greater, than those who oppress them-- 263 who despise them-- but who are nevertheless often reduced to the misery of envying them. 264 Limited desires are a real benefit: the person of meaner condition, in your humble fortune, desires only bread: 265 you obtain it by the sweat of your brow; you would eat it with pleasure if injustice did not sometimes render it bitter to you. 266 By the delirium of some governments, those who roll in abundance, without for that reason being more happy, 267 dispute with the cultivator even the fruits which the earth yields to the labour of your hands. 268 Princes sometimes sacrifice their true happiness, as well as that of their states, to these passions-- 269 to those caprices which discourage the people; which plunge their provinces in misery: which make millions unhappy, without any advantage to themselves. 270 Tyrants oblige the subjects to curse their existence; to abandon labour; take from them the courage of propagating a progeny who would be as unhappy as their fathers: 271

the excess of oppression sometimes obliges them to revolt; makes them avenge themselves by wicked outrages of the injustice it has heaped on their devoted heads: 272 injustice, by reducing indigence to despair, obliges it to seek in crime, resources, against its misery. 273 An unjust government, produces discouragement in the soul: 274 its vexations depopulate a country; under its influence, the earth remains without culture; 275 from thence is bred frightful famine, which gives birth to contagion and plague. 276 The misery of a people produce revolutions; soured by misfortunes, their minds get into a state of fermentation; the overthrow of an empire, is the necessary effect. 277 It is thus that physics and morals are always connected, or rather are the same thing.

278 If the bad morals of chiefs do not always produce such marked effects, at least they generate slothfulness, of which their effect is to fill society with mendicants; 279 to crowd it with malefactors; whose vicious course neither superstition nor the terror of the laws can arrest; 280 which nothing can induce to remain the unhappy spectators of a welfare they are not permitted to participate. 281 They seek a fleeting happiness at the expense even of their lives, 282 when injustice has shut up to them the road of labour, those paths of industry which would have rendered them both useful and honest.

283 Let it not then be said that no government can render all its subjects happy; 284 without doubt it cannot flatter itself with contenting the capricious humours of some idle citizens who are obliged to rack their imagination, to appease the disgust arising from lassitude: 285 but it can, and it ought to occupy itself with ministering to the real wants of the multitude, with giving a useful activity to the whole body politic. 286 A society enjoys all the happiness of which it is susceptible whenever the greater number of its members are wholesomely fed, decently clothed, comfortably lodged-- 287 in short when they can without an excess of toil beyond their strength, procure wherewith to satisfy those wants

which Nature has made necessary to their existence. 288 Their mind rests contented; as soon as they are convinced no power can ravish from them the fruits of their industry; 289 that they labour for themselves; that the sweat of their brow is for the immediate comfort of their own families. 290 By a consequence of human folly in some regions, whole nations are obliged to toil incessantly, 291 to waste their strength, to sweat under their burdens to undulate the air with their sighs, to drench the earth with their tears, 292 in order to maintain the luxury, to gratify the whims, to support the corruption of a small number of irrational beings; 293 of some few useless people to whom happiness has become impossible, because their bewildered imaginations no longer know any bounds. 294 It is thus that superstitious, thus that political errors have changed the fair face of Nature into a valley of tears.

295 For want of consulting reason, for want of knowing the value of virtue, for want of being instructed in their true interest, 296 for want of being acquainted with what constitutes solid happiness, in what consists real felicity, 297 the prince and the people, the rich and the poor, the great and the little, are unquestionably, frequently very far removed from content; 298 nevertheless if an impartial eye be glanced over the human race, it will be found to comprise a greater number of benefits than of evils.

299 No person is entirely happy, but you are so in detail; 300 those who make the most bitter complaints of the rigour of their fate, are however, held in existence by threads frequently imperceptible; 301 are prevented from the desire of quitting it by circumstances of which they are not aware. 302 In short, habit lightens to human the burden of one's own troubles; 303 grief suspended becomes true enjoyment; 304 every want is a pleasure in the moment when it is satisfied; 305 freedom from chagrin, the absence of disease, is a happy state which you enjoys secretly, without even perceiving it; 306 hope, which rarely abandons you

entirely, helps you to support the most cruel disasters. 307 The PRISONER laughs in own irons. The wearied VILLAGER returns singing to own cottage. 308 In short, the person who calls the self the most unfortunate, never sees death approach without dismay, at least, if despair has not totally disfigured Nature in your eyes.

309 As long as human desire the continuation of own being, you have no right to call yourself completely unhappy; 310 whilst hope sustains you, you still enjoys a great benefit. 311 If human was more just, in rendering to yourself an account of your pleasures, in estimating your pains, you would acknowledge that the sum of the first exceeds by much the amount of the last; 312 you would perceive that you keeps a very exact ledger of the evil, but a very unfaithful journal of the good: 313 indeed you would avow, that there are but few days entirely unhappy during the whole course of your existence. 314 Your periodical wants procure for you the pleasure of satisfying them; 315 your soul is perpetually moved by a thousand objects, of which, the variety, the multiplicity, the novelty, rejoices you, suspends your sorrows, divert your chagrin. 316 Your physical evils, are they violent? 317 They are not of long duration; they conduct you quickly to your end: the sorrows of your mind, when too powerful, conduct you to it equally. 318 At the same time Nature refuses you every happiness, She opens to you a door by which you quits life; does you refuse to enter it? 319 It is that you yet finds pleasure in existence. Are nations reduced to despair? Are they completely miserable? 320 They have recourse to arms; at the risque of perishing, they make the most violent efforts to terminate their sufferings.

321 Thus because you sees so many of your fellows cling to life, human ought to conclude they are not so unhappy as you thinks. 322 Then let you not exaggerate the evils of the human race, 323 but let you impose silence on that gloomy humour that persuades you these evils are without remedy; 324 let you only diminish by

degrees the number of your errors, your calamities will vanish in the same proportion; 325 you is not to conclude yourself infelicitous because your heart never ceases to form new desires, which you finds it difficult, sometimes impossible to gratify. 326 Since your body daily requires nourishment, let you infer that it is sound, that it fulfils its functions.

327 As long as you have desires, the proper deduction ought to be, that your mind is kept in the necessary activity; 328 you should gather from all this that passions are essential to you, that they constitute the happiness of a being who feels; 329 are indispensable to a human who thinks; are requisite to furnish you with ideas; 330 that they are a vital principle with a creature who must necessarily love that which procures you comfort, 331 who must equally desire that which promises you a mode of existence analogous to your natural energies. 332 As long as you exists, as long as the spring of your soul maintains its elasticity, this soul desires; 333 as long as it desires, you experiences the activity which is necessary to you; as long as you acts, so long you lives.

334 Human life may be compared to a river, of which the waters succeed each other, drive each other forward, and flow on without interruption; 335 these waters, obliged to roll over an unequal bed, encounter at intervals those obstacles which prevent their stagnation; 336 they never cease to undulate; sometimes they recoil, then again rush forward, thus continuing to run with more or less velocity, until they are restored to the ocean of Nature.

THOSE IDEAS WHICH ARE TRUE, OR FOUNDED UPON NATURE, ARE THE ONLY REMEDIES FOR THE EVILS OF HUMAN

Paul Henri Thiery (Baron D'Holbach)

42 Whenever human ceases to take experience for your guide, you falls into error. 2 Your errors become yet more dangerous, assume a more determined inveteracy, when they are clothed with the sanction of

superstition; 3 it is then that you hardly ever consents to return into the paths of truth; 4 you believes yourself deeply interested in no longer seeing clearly that which lies before you; 5 you fancies you have an essential advantage in no longer understanding yourself; 6 you supposes your happiness exacts that you should shut your eyes to truth.

7 If the majority of moral philosophers have mistaken the human heart-- if they have deceived themselves upon its diseases-- 8 if they have miscalculated the remedies that are suitable-- if the remedies they have administered have been inefficacious or even dangerous-- 9 it is because they have abandoned Nature--because they have resisted experience-- 10 because they have not had sufficient steadiness to consult their reason--because they have renounced the evidence of their senses-- 11 because they have only followed the caprices of an imagination either dazzled by enthusiasm or disturbed by fear; 12 because they have preferred the illusions it has held forth to the realities of Nature, who never deceives.

13 It is for want of having felt that an intelligent being cannot for an instant lose sight of your own peculiar conservation-- 14 of your particular interests, either real or fictitious-- 15 of your own welfare, whether permanent or transitory; 16 in short, of your happiness, either true or false. 17 It is for want of having considered that desires are natural, that passions are essential, that both the one and the other are motions necessary to the soul of human,-- 18 that the physicians of the human mind have supposed supernatural causes for your wanderings; 19 have only applied to your evils topical remedies, either useless or dangerous.

20 Indeed, in desiring you to stifle your desires, to combat your propensities, to annihilate your passions, they have done no more than give you sterile precepts, at once vague and impracticable; 21 these vain lessons have influenced no one; they have at most restrained some few mortals whom a quiet

imagination but feebly solicited to evil; 22 the terrors with which they have accompanied them have disturbed the tranquillity of those people who were moderate by their nature, 23 without ever arresting the ungovernable temperament of those who were inebriated by their passions, or hurried along; by the torrent of habit. 24 In short, the promises of superstition, as well as the menaces it holds forth, have only formed fanatics, 25 given birth to enthusiasts, who are either dangerous or useless to society, without ever making human truly virtuous; that is to say, useful to own fellow creatures.

26 These, empirics guided by a blind routine have, not seen that human as long as you exists, is obliged to feel, to desire, to have passions, 27 to satisfy them in proportion to the energy which your organisation has given you; 28 they have not perceived that education planted these desires in your heart-- that habit rooted them-- 29 that your government, frequently vicious, corroborated their growth-- 30 that public opinion stamped them with its approbation-- that experience render them necessary-- 31 that to tell people thus constituted to destroy their passions, was either to plunge them into despair or else to order them remedies too revolting for their temperament.

32 In the actual state of opulent societies, to say to a person who knows by experience that riches procure every pleasure, that you must not desire them; 33 that you must not make any efforts to obtain them; that you ought to detach yourself from them: is to persuade you to render yourself miserable. 34 To tell an ambitious person not to desire grandeur, not to covet power, which everything conspires to point out to you as the height of felicity, 35 is to order you to overturn at one blow the habitual system of your ideas; 36 it is to speak, to a deaf person. 37 To tell a lover of an impetuous temperament to stifle your passions for the object that enchants you, 38 is to make you understand, that you ought to renounce your happiness. 39 To oppose superstition

to such substantive, such puissant interests are to combat realities by chimerical speculations.

40 Indeed, if things were examined without prepossession, it would be found that the greater part of the precepts inculcated by superstition, 41 which fanatical dogmas hold forth, which, supernatural mortals gives to human, are as ridiculous as they are impossible to be put into practice.

42 To interdict passion to human, is to desire of you not to be a human creature; 43 to counsel an individual of a violent imagination to moderate own desires, is to advise you to change your temperament-- is to request your blood to flow more sluggishly. 44 To tell a person to renounce own habits, is to be willing that a citizen, accustomed to clothe the self, should consent to walk quite naked; 45 it would avail as much, to desire you to change the lineament of your face, to destroy your configuration, to extinguish your imagination, to alter the course of your fluids, 46 as to command you not to have passions which excite an activity analogous with your natural energy; 47 or to lay aside those which confirmed habit has made you contract; 48 which your circumstances, by a long succession of causes and effects, have converted into wants. 49 Such are, however, the so much boasted remedies which the greater number of moral philosophers apply to human depravity.

50 Is it, then surprising they do not produce the desired effect, or that they only reduce human to a state of despair 51 by the effervescence that results from the continual conflict which they excite between the passions of your heart and these fanciful doctrines; 52 between your vices and your virtues; between your habits and those chimerical fears with which superstition is at all times ready to overwhelm you? 53 The vices of society, aided by the objects of which it avails itself to what the desires of human, 54 the pleasures, the riches, the grandeur which your government holds forth to you as so many seductive magnets, 55 the advantage which education, the benefits which example, the interests

which public opinion render dear to you, 56 attract you on one side; whilst a gloomy morality, founded upon superstitious illusions, vainly solicit you on the other; 57 thus, superstition plunges you into misery; holds a violent struggle with your heart, without scarcely ever gaining the victory; 58 when by accident it does prevail against so many united forces, it renders you unhappy; it completely destroys the spring of your soul.

59 Passions are the true counterpoise to passions; then let you not seek to destroy them; 60 but let you endeavour to direct them; let you balance those which are prejudicial, by those which are useful to society. 61 Reason, the fruit of experience, is only the art of choosing those passions to which for your own peculiar happiness you ought to listen. 62 Education is the true art of disseminating the proper method of cultivating advantageous passions in the heart of human. 63 Legislation is the art of restraining dangerous passions; of exciting those which may be conducive to the public welfare. 64 Superstition is only the miserable art of planting the unproductive labour-- 65 of nourishing in the soul of human those chimeras, those illusions, those impostures, those incertitude from whence spring passions fatal to yourself as well as to others: 66 it is only by bearing up with fortitude against these that you can securely place yourself on the road to happiness. 67 True religion is the art of advocating truth-- of renouncing error-- of contemplating reality-- of drawing wisdom from experience-- 68 of cultivating human nature to own felicity, by teaching you to contribute to that of your associates; 69 in short it is reason, education, and legislation, united to further the great end of human existence, 70 by causing the passions of human to flow in a current genial to your own happiness.

71 Reason and morals cannot effect anything on humankind if they do not point out to each individual 72 that your true interest is attached to a conduct that is either useful to others or beneficial to yourself; 73 this

conduct to be useful must conciliate for you the benevolence, gain for you the favour of these beings who are necessary to your happiness: 74 it is then for the interest of humankind, for the happiness of the human race, 75 it is for the esteem of yourself, for the love of your fellows, for the advantages which ensue, 76 that education in early life should kindle the imagination of the citizen; 77 this is the true means of obtaining those happy results with which habit should familiarise you; which public opinion should render dear to your heart; 78 for which example ought continually to rouse your faculties; after which you should be taught to search with unceasing attention.

79 Government, by the aid of recompences ought to encourage you to follow this plan; 80 by visiting crime with punishment it ought to deter those who are willing to interrupt it.

81 Thus the hope of a true welfare, the fear of real evil, will be passions suitable to countervail those which by their impetuosity would injure society; 82 these last will at least become very rare, if instead of feeding human's mind with unintelligible speculations, in lieu of vibrating on your ears words void of sense, 83 you are only spoken to of realities, only shown those interests which are in unison with truth.

84 Human is frequently so wicked, only, because you almost always feel yourself interested in being so; 85 let you be more enlightened, more familiarised with truth, more accustomed to virtue, you will be made more happy; you will necessarily become better. 86 An equitable government, a vigilant administration, will presently fill the state with honest citizens; 87 it will hold forth to them present reasons for benevolence; real advantages in truth; palpable motives to be virtuous; 88 it will instruct them in their duties; it will foster them with its cares; it will allure them by the assurance of their own peculiar happiness; 89 its promises faithfully fulfilled-- its menaces regularly executed, will unquestionably have much more weight than those of a gloomy superstition, 90 which never

exhibits to their view other than illusory benefits, fallacious punishments, 91 which the person hardened in wickedness will doubt every time you finds an interest in questioning them: 92 present motives will tell more home to your heart than those which are distant and at best uncertain.

93 The vicious and the wicked are so common upon the earth, so pertinacious in their evil courses, so attached to their irregularities, 94 only because there are but few governments that make human feel the advantage of being just, the pleasure of being honest, the happiness of being benevolent on the contrary, 95 there is hardly any place where the most powerful interests do not solicit you to crime, 96 by favouring the propensities of a vicious organisation; by countenancing those appetencies which nothing has attempted to rectify or lead towards virtue.

97 A savage, who in own horde knows not the value of money, certainly would not commit a crime, 98 if when transplanted into civilized society, you should presently learn to desire it, should make efforts to obtain it, 99 and if you could without danger finish by stealing it; above all, if you had not been taught to respect the property of the beings who environ you. 100 The savages and the child are precisely in the same state; 101 it is the negligence of society, of those entrusted with their education, that renders both the one and the other wicked. 102 The son of a noble, from your infancy learns to desire power, at a riper age you becomes ambitious; 103 if you have the address to insinuate yourself into favour, you perhaps becomes wicked, 104 because in some societies you have been taught to know you may be so with impunity when you can command the ear of your sovereign. 105 It is not therefore Nature that makes human wicked, they are your institutions which determine you to vice. 106 The infant brought up amongst robbers, can generally become nothing but a malefactor; 107 if you had been reared with honest people, the

chance is you would have been a virtuous person.

108 If the source be traced of that profound ignorance in which human is with respect to your morals, to the motives that can give volition to your will, 109 it will be found in those false ideas which the greater number of speculators has formed to themselves, of human nature. 110 The science of morals has become an enigma which it is impossible to unrevel; 111 because human has made the self double; has distinguished own soul from own body; 112 supposed it of a nature different from all known beings, with modes of action, with properties distinct from all other bodies, 113 because you have emancipated this soul from physical laws, in order to submit it to capricious laws 114 emanating from people who have pretended they are derived from imaginary regions, placed at very remote distances: 115 metaphysicians seized upon these gratuitous suppositions, and by dint of subtilising them, have rendered them completely unintelligible.

116 These moralists have not perceived that motion is essential to the soul as well as to the living body; 117 that both the one and the other are never moved but by material, by physical objects; 118 that the want of each regenerate themselves unceasingly; 119 that the wants of the soul, as well as those of the body are purely physical; 120 that the most intimate, the most constant connection subsists between the soul and the body; 121 or rather they have been unwilling to allow that they ate only the same thing considered under different points of view.

122 Obstinate in their supernatural, unintelligible opinions, they have refused to open their eyes, 123 which would have convinced them that the body in suffering rendered the soul miserable; 124 that the soul afflicted undermined the body and brought it to decay; 125 that both the pleasures and agonies of the mind have an influence over the body, either plunge it into sloth or give it activity: 126 they have rather chosen to believe, that the soul draws its thoughts, whether pleasant or

gloomy, from its own peculiar sources, 127 while the fact is, that it derives its ideas only from material objects that strike on the physical organs; 128 that it is neither determined to gaiety nor led on to sorrow, but by the actual state, whether permanent or transitory, in which the fluids and solids of the body are found.

129 In short, they have been loath to acknowledge that the soul, purely passive, undergoes the same changes which the body experiences; 130 is only moved by its intervention; acts only by its assistance, receives its sensations, its perceptions, forms its ideas, 131 derives either its happiness or its misery from physical objects, through the medium of the organs of which the body is composed; 132 frequently without its own cognisance, often in despite of itself.

133 By a consequence of these opinions, connected with marvellous systems, or systems invented to justify them, they have supposed the human soul to be a free agent; 134 that is to say, that it has the faculty of moving itself; 135 that it enjoys the privilege of acting independent of the impulse received from exterior objects, through the organs of the body; 136 that regardless of these impulsions it can even resist them, and follow its own directions by its own energies; 137 that it is not only different in its nature from all other beings, but has a separate mode of action; 138 in other words, that it is an isolated point which is, not submitted to that uninterrupted chain of motion 139 which bodies communicate to each other in a nature, whose parts are always in action.

140 Smitten with their sublime notions, these speculators were not aware that in thus distinguishing the soul from the body and from all known beings, 141 they rendered it an impossibility to form any true ideas of it, either to themselves or to others: 142 they were unwilling to perceive the perfect analogy which is found between the manner of the soul's action and that by which the body is afflicted; 143 they shut their eyes to the necessary and continual correspondence which is found

between the soul and the body; 144 they perhaps did not perceive that like the body it is subjected to the motion of attraction and repulsion; 145 has an aptitude to be attracted, a disposition to repel, which is ascribable to qualities inherent in those physical substances, which give play to the organs of the body; 146 that the volition of its will, the activity of its passions, the continual regeneration of its desires, are never more than consequences of that activity 147 which is produced in the body by material objects which are not under its control; 148 that these objects render it either happy or miserable, active or languishing, contented or discontented, in despite of itself,-- 149 in defiance of all the efforts it is capable of making to render it otherwise; 150 they have rather chosen to seek in the heavens for unknown powers to set it in motion; 151 they have held forth to human distant, imaginary interests: 152 under the pretext of procuring for you future happiness, you have been prevented from labouring to own present felicity, 153 which has been studiously withheld from your knowledge: your regards have been fixed upon the heavens, that you might lose sight of the earth: 154 truth has been concealed from you; and it has been pretended you would be rendered happy by dint of terrors, always at an immense distance; 155 by means of shadows, with whose substances you could never come in contact; 156 of chimeras formed by your own bewildered imagination, which changed nearly as often as the governments to which you was submitted. 157 In short, hoodwinked by your fears, blinded by your own credulity, you was only guided through the flexuous paths of life, 158 by people blind as yourself, where both the one and the other were frequently lost in the maze.

A SUMMARY OF THE SYSTEM OF NATURE

Paul Henri Thiery (Baron D'Holbach)

43 From everything which has been hitherto said, it evidently results that all the errors of humankind, of

whatever nature they may be, arise from human's having renounced reason, 2 quitted experience, and refused the evidence of their senses that they might be guided by imagination, frequently deceitful; by authority, always suspicious. 3 Human will ever mistake own true happiness as long as you neglects to study Nature, 4 to investigate Her laws, to seek in Her alone the remedies for those evils which are the consequence of your errors: 5 you will be an enigma to yourself, as long as you shall believe yourself double; 6 that you are moved by an inconceivable spiritual power, of the laws and nature of which you are ignorant; 7 your intellectual, as well as your moral faculties, will remain unintelligible to you if you does not contemplate them with the same eyes as you does your corporeal qualities; 8 if you does not view them as submitted in everything to the same impulse, as governed by the same regulations.

9 The system of your pretended free agency is without support; 10 experience contradicts it every instant, and proves that you never ceases to be under the influence of necessity in all your actions; 11 this truth, far from being dangerous to human, far from being destructive of your morals, furnishes you with their true basis 12 by making you feel the necessity of those relations which subsists between sensible beings united in society: 13 who have congregated with a view of uniting their common efforts for their reciprocal felicity. 14 From the necessity of these relations, spring the necessity of your duties; 15 these point out to you the sentiments of love, which you should accord to virtuous conduct; 16 that aversion you should have for what is vicious; the horror you should feel for everything criminal.

17 From hence the true foundation of Moral Obligation will be obvious, which is only the necessity of taking means to obtain the end human proposes to the self by uniting in society; 18 in which each individual for your own peculiar interest, your own particular happiness, your own personal security, is obliged to

display dispositions 19 requisite to conciliate the affections of your associates; to hold a conduct suitable to the preservation of the community; to contribute by your actions to the happiness of the whole. 20 In a word, it is upon the necessary action and re-action of the human will upon the necessary attraction and repulsion of human's soul, that all your morals are bottomed: 21 it is the unison of your will, the concert of your actions, that maintains society; 22 it is rendered miserable by your discordance; it is dissolved by your want of union.

23 From what has been said, it may be concluded that the names under which human has designated the concealed causes acting in Nature, and their various effects, 24 are never more than necessity considered under different points of view, 25 with the original cause of which-- the great cause of causes-- you must ever remain ignorant. 26 It will be found that what you calls order, is a necessary consequence of causes and effects, 27 of which you sees, or believes you sees, the entire connection, the complete routine, which pleases you as a whole, when you finds it conformable to your existence.

28 In like manner it will be seen that what you calls confusion, is a consequence of like necessary causes and effects, 29 of which you loses the concatenation, which you therefore thinks unfavourable to yourself, or but little suitable to your being. 30 That you have designated by the names of Intelligence, those necessary causes that necessarily operate the chain of events which you comprises under the term order: 31 Divinity, those necessary but invisible causes which give play to Nature, in which everything acts according to immutable and necessary laws: 32 Destiny or fatality, the necessary connection of those unknown causes and, effects which you beholds in the world: 33 Chance, those effects which you are not able to foresee, or of which you are ignorant of the necessary connection, with their causes: 34 Intellectual and moral faculties, those effects and those modifications

necessary to an organised being, 35 whom you have supposed to be moved by an inconceivable agent; 36 who you have believed distinguished from your body, of a nature totally different from it, and which you have designated by the word SOUL. 37 In consequence, you have believed this agent immortal; not dissoluble like the body. 38 It has been shown that the marvellous doctrine of another life, is founded upon gratuitous suppositions, 39 contradicted by reflections, unsupported by experience, that may or may not be, without human's knowing anything on the subject.

40 It has been proved, that the hypothesis is not only useless to human's morals, but again, that it is calculated to palsy your exertions; 41 to divert you from actively pursuing the true road to your own happiness; 42 to fill you with romantic caprices; 43 to inebriate you with opinions prejudicial to your tranquillity; 44 in short, to lull to slumber the vigilance of legislators; 45 by dispensing them from giving to education, to the institutions, to the laws of society, all that attention, which it is the duty and for your interest they should bestow. 46 It must have been felt, that politics has unaccountably rested itself upon wrong opinions; 47 upon ideas little capable of satisfying those passions, which everything conspires to kindle in the heart of human; 48 who ceases to view the future, while the present seduces and hurries you along. 49 It has been shown, that contempt of death is an advantageous sentiment, calculated to inspire human's mind with courage; 50 to render you intrepid; to induce you to undertake that which may be truly useful to society; 51 in short, from what has preceded, it will be obvious, what is competent to conduct human to happiness, and also what are the obstacles that error opposes to your felicity.

52 Let us not then, be accused of demolishing prejudice, without edifying the mind; 53 with combating error without substituting truth; 54 with underrating the power of the great cause of causes; 55 with sapping at one and the same time the foundations of superstition and of

sound morals. 56 The last is necessary to human; it is founded upon your nature; 57 its duties are certain, they must last as long as the human race remains; 58 it imposes obligations on you, because, without it, neither individuals nor society could be able to subsist, either obtain or enjoy those advantages which Nature obliges them to desire.

59 Listen then, O human! To those morals which are established upon experience; which are grounded upon the necessity of things; 60 do not lend thine ear to those superstitions founded upon reveries; rested upon imposture; built upon the capricious whims of a disordered imagination. 61 Follow the lessons of those humane, those gentle morals, which conduct human to virtue, by the voice of happiness: 62 turn a deaf ear to the inefficacious cries of superstition, which renders human really unhappy; which can never make you reverence VIRTUE; 63 which renders truth hateful; which paints veracity in hideous colours; 64 in short, let you see if REASON, without the assistance of a rival, who prohibits its use, will not more surely conduct you towards that great end, 65 which is the object of your research, which is the natural tendency of all your views.

66 Indeed, what benefit has the human race hitherto drawn from those sublime, those supernatural notions with which superstition has fed mortals during so many ages? 67 All those phantoms conjured-- up by ignorance-- brooded by imagination; 68 all those hypothesis, subtile as they are irrational; from which experience is banished, 69 all those words devoid of meaning with which languages are crowded; 70 all those fantastical hopes; those panic terrors which have been brought to operate on the will of human; 71 what have they done? Has any or the whole of them rendered you better, more enlightened to your duties, more faithful in their performance? 72 Have those marvellous systems, or those sophistical inventions, by which they have been supported, carried conviction to your mind, reason into your conduct, virtue into your heart?

73 Have they led you to the least acquaintance with the great Cause of Causes? 74 Alas! it is a lamentable fact, that cannot be too often exposed, 75 that all these things have done nothing more than plunge the human understanding into that darkness from which it is difficult to be withdrawn; 76 sown in human's heart the most dangerous errors; of which it is scarcely possible to divest you; 77 given birth to those fatal passions, in which may be found the true source of those evils, with which your species is afflicted: 78 but have never enlightened your mind with truth, nor led you to that right healthy worship, which human best pays by a rational enjoyment of the faculties with which you are gifted.

79 Cease then, O mortal! to let thyself be disturbed with chimeras, 80 to let thy mind be troubled with phantoms which thine own imagination has created, or to which arch imposture has given birth. 81 Renounce thy vague hopes, disengage thyself from thine overwhelming fears, 82 follow without inquietude the necessary routine which Nature has marked out for thee; 83 strew the road with flowers if thy destiny permits; remove, if thou art able, the thorns scattered over it. 84 Do not attempt to plunge thy views into an impenetrable futurity; 85 its obscurity ought to be sufficient to prove to thee, that it is either useless or dangerous to fathom. 86 Think of making thyself happy in that existence which is known to thee: 87 if thou wouldst preserve thyself, be temperate, be moderate, be reasonable: 88 if thou seekest to render thy existence durable, be not prodigal of pleasure; 89 abstain from everything that can be hurtful to thyself, injurious to others: 90 be truly intelligent; that is to say, learn to esteem thyself, to preserve thy being, to fulfil that end which at each moment thou proposest to thyself.

91 Be virtuous, to the end that thou mayest render thyself solidly happy, 92 that thou mayest enjoy the affections, secure the esteem, partake of the assistance of those by whom thou art surrounded; 93 of those beings whom Nature has made

necessary to thine own peculiar felicity. 94 Even when they should be unjust, render thyself worthy of their applause, of thine own love, 95 and thou shalt live content, thy serenity shall not be disturbed, the end of thy career shall not slander thy life; 96 which will be exempted from remorse: death will be to thee the door to a new existence, a new order, 97 in which thou wilt be submitted, as thou art at present, to the eternal laws of Nature, 98 which ordains, that to LIVE HAPPY HERE BELOW, THOU MUST MAKE OTHERS HAPPY.

99 Suffer thyself then, to be drawn gently along thy journey, until thou shalt sleep peaceable on that bosom which has given thee birth: 100 if contrary to thine expectation, there should be another life of eternal felicity, thou canst not fail being a partaker. 101 For thou, wicked unfortunate! who art found in continual contradiction with thyself; 102 thou whose disorderly machine can neither accord with thine own peculiar nature, nor with that of thine associates, 103 whatever may be thy crimes, whatever may be thy fears of punishment in another life, thou art at least already cruelly punished in this? 104 Do not thy follies, thy shameful habits, thy debaucheries, damage thine health? 105 Dost thou not linger out life in disgust, fatigued with thine own excesses? 106 Does not listlessness punish thee for thy satiated passions? 107 Has not thy vigour, thy gaiety, thy content, already yielded to feebleness, crouched under infirmities, given place to regret? 108 Do not thy vices every day dig thy grave? 109 Every time thou hast stained thyself with crime, hast thou dared without horror to return into thyself, to examine thine own conscience? 110 Hast thou not found remorse, error, shame, established in thine heart? 111 Hast thou not dreaded the scrutiny of thy fellow human? 112 Hast thou not trembled when alone; unceasingly feared, that truth, so terrible for thee, should unveil thy dark transgressions, throw into light thine enormous iniquities? 113 Do not then any longer fear to part with thine existence, it will at least put an end to those richly merited torments thou

hast inflicted on thyself; 114 Death, in delivering the earth from an incommodious burthen, will also deliver thee from thy most cruel enemy, thyself.

THE ORIGIN OF HUMAN'S IDEAS UPON THE DIVINITY

Paul Henri Thiery (Baron D'Holbach)

44 If human possessed the courage, if we had the requisite industry to recur to the source of those opinions which are most deeply engraven in our brain; 2 if you rendered to yourself a faithful account of the reasons which make you hold these opinions as sacred; 3 if you coolly examined the basis of your hopes, the foundation of your fears, you would find that it very frequently happens, 4 those objects, or those ideas which move you most powerfully, either have no real existence, or are words devoid of meaning, 5 which terror has conjured up to explain some sudden disaster; 6 that they are often phantoms engendered by a disordered imagination, modified by ignorance; 7 the effect of an ardent mind distracted by contending passions, which prevent you from either reasoning justly, or consulting experience in your judgment; 8 that this mind often labours with a precipitancy that throws your intellectual faculties into confusion; that bewilders your ideas; 9 that consequently you gives a substance and a form to chimeras, to airy nothings, which you afterwards idolises from sloth, reverences from prejudice.

10 A sensible being placed in a Nature where every part is in motion, has various feelings, 11 in consequence of either the agreeable or disagreeable effects which you are obliged to experience from this continued action and re-action; 12 in consequence you either finds yourself happy or miserable; 13 according to the quality of the sensations excited in you, you will love or fear, seek after or fly from, the real or supposed causes of such marked effects operated on your machine. 14 But if you are ignorant

of Nature, if you are destitute of experience, you will frequently deceive yourself as to these causes; 15 for want of either capability or inclination to recur back to them, you will neither have a true knowledge of their energy, nor a clear idea of their mode of acting: 16 thus until reiterated experience shall have formed your ideas, until the mirror of truth shall have shown you the judgment you ought to make, 17 you will be involved in trouble, a prey to incertitude, a victim to credulity.

18 Human is a being who brings with the self nothing into the world, 19 save an aptitude to feeling in a manner more or less lively according to own individual organisation: 20 you have no innate knowledge of any of the causes that act upon you: 21 by degrees your faculty of feeling discovers to you their various qualities; you learns to judge of them; time familiarises you with their properties; 22 you attaches ideas to them, according to the manner in which they have affected you; 23 these ideas are correct or otherwise, in a ratio to the soundness of your organic structure: 24 your judgment is faulty or not, as these organs are either well or ill-constituted; 25 in proportion as they are competent to afford you sure and reiterated experience.

26 The first moments of human are marked by own wants; 27 that is to say, the first impulse you receives is to conserve your existence; 28 this you would not be able to maintain without the concurrence of many analogous causes: 29 these wants in a sensible being, manifest themselves by a general languor, 30 a sinking, a confusion in your machine, which gives you the consciousness of a painful sensation: 31 this derangement subsists, is even augmented, until the cause suitable to remove it re-establishes the harmony so necessary to the existence of the human frame.

32 Want, therefore, is the first evil human experiences; nevertheless it is requisite to the maintenance of your existence. 33 Was it not for this derangement of your body, which obliges you to furnish its remedy, 34

you would not be warned of the necessity of preserving the existence you have received. 35 Without wants human would be an insensible machine, similar to a vegetable; 36 like that you would be incapable of preserving yourself; you would not be competent to using the means required to conserve your being.

37 To your wants are to be ascribed your passions; your desires; the exercise of your corporeal functions; the play of your intellectual faculties: 38 they are your wants that oblige you to think; that determine your will, that induce you to act; 39 it is to satisfy them or rather to put an end to the painful sensations excited by their presence, 40 that according to your capacity, to the natural sensibility of your soul, to the energies which are peculiar to yourself, 41 you gives play to your faculties, exerts the activity of your bodily strength, or displays the extensive powers of your mind.

42 Your wants being perpetual, you are obliged to labour without relaxation, to procure objects competent to satisfy them. 43 In a word, it is owing to your multiplied wants that human's energy is kept in a state of continual activity: 44 as soon as you ceases to have wants, you falls into inaction--becomes listless-- declines into apathy-- 45 sinks into a languor that is incommodious to your feelings or prejudicial to your existence: 46 this lethargic state of weariness lasts until new wants, by giving you fresh activity, rouse your dormant faculties-- throw off your stupor-- re-animate your vigour, 47 and destroy the sluggishness to which you had become a prey.

48 From hence it will be obvious that evil is necessary to human; 49 without it you would neither be in a condition to know that which injures you; to avoid its presence; or to seek your own welfare: 50 without this stimulus, you would differ in nothing from insensible, unorganised beings: 51 if those evanescent evils which you calls wants, did not oblige you to call forth your faculties, 52 to set your energies in motion, to cull experience, to compare objects, to discriminate them, 53 to separate

those which have the capabilities to injure you, from those which possess the means to benefit you, 54 you would be insensible to happiness-- inadequate to enjoyment. 55 In short, without evil human would be ignorant of good; you would be continually exposed to perish like the leaf on a tree. 56 You would resemble an infant, who, destitute of experience, runs the risque of meeting your destruction at every step you takes, unguarded by your nurse.

57 What the nurse is to the child, experience is to the adult; 58 when either are wanting, these children of different lustres generally go astray: frequently encounter disaster. 59 Without evil you would be unable to judge of anything; 60 you would have no preference; your will would be without volition, you would be destitute of passions; 61 desire would find no place in your heart; you would not revolt at the most disgusting objects; you would not strive to put them away; 62 you would neither have stimuli to love, nor motives to fear anything; you would be an insensible automaton; you would no longer be a human.

63 If no evil had existed in this world, human would never have dreamt of those numerous divinities, to whom you have rendered such various modes of worship. 64 If Nature had permitted you easily to satisfy all your regenerating wants, 65 if She had given you none but agreeable sensations, your days would have uninterruptedly rolled on in one perpetual uniformity; 66 you would never have discovered your own nakedness; 67 you would never have had motives to search after the unknown causes of things-- to meditate in pain.

68 Therefore human, always contented, would only have occupied the self with satisfying own wants; 69 with enjoying the present, with feeling the influence of objects, that would unceasingly warn you of your existence in a mode that you must necessarily approve; 70 nothing would alarm your heart; everything would be analogous to your existence: 71 you would neither know fear, experience distrust, nor

have inquietude for the future: 72 these feelings can only be the consequence of some troublesome sensation, which must have anteriorly affected you, 73 or which by disturbing the harmony of your machine, has interrupted the course of your happiness; which has shown you that you are naked.

74 Independent of those wants which in human renew themselves every instant; which you frequently finds it impossible to satisfy; 75 every individual experiences a multiplicity of evils-- you suffers from the inclemency of the seasons-- you pines in penury-- 76 you are infected with plague-- you are scourged by war-- you are the victim of famine-- you are afflicted with disease-- you are the sport of a thousand accidents.

77 This is the reason why all humans are fearful; why the whole human race are diffident. 78 The knowledge you have of pain alarms you upon all unknown causes, that is to say, upon all those of which you have not yet experienced the effect; 79 this experience made with precipitation, or if it be preferred, by instinct, 80 places you on your guard against all those objects from the operation of which you are ignorant of what consequences may result to yourself.

81 Your inquietude is in proportion; your fears keep pace with the extent of the disorder which these objects produce in you; 82 they are measured by their rarity, that is to say, by the inexperience you have of them; 83 by the natural sensibility of the soul; and by the ardour of your imagination. 84 The more ignorant human is, the less experience you have, the more you are susceptible of fear; 85 solitude, the obscurity of a forest, silence, and the darkness of night, desolate ruins, the roaring of the wind, sudden confused noises, are objects of terror to all who are unaccustomed to these things.

86 The uninformed person is a child whom everything astonishes; who trembles at everything you encounters: 87 your alarms disappear, your fears diminish, your mind becomes calm, in proportion as experience familiarises you, more or less, with natural effects; 88 your fears cease entirely, as soon as you

understands, or believes you understands, the causes that act; or when you knows how to avoid their effects. 89 But if you cannot penetrate the causes which disturb you, 90 if you cannot discover the agents by whom you suffers, 91 if you cannot find to what account to place the confusion you experiences, 92 your inquietude augments; your fears redouble; your imagination leads you astray; 93 it exaggerates your evil; paints in a disorderly manner these unknown objects of your terror; magnifies their powers; 94 then making an analogy between them and those terrific objects, with whom you are already acquainted, 95 you suggests to yourself the means you usually takes to mitigate their anger; to conciliate their kindness; 96 you employs similar measures to soften the anger, to disarm the power, to avert the effects of the concealed cause 97 which gives birth to your inquietudes, which fills you with anxiety, which alarms your fears. 98 It is thus your weakness, aided by ignorance, renders you superstitious.

99 There are very few people, even in our own day, who have sufficiently studied Nature, 100 who are fully apprised of physical causes, or with the effects they must necessarily produce. 101 This ignorance, without doubt, was much greater in the more remote ages of the world, 102 when the human mind, yet in its infancy, had not collected that experience, taken that expansion, made those strides towards improvement, which distinguishes the present from the past. 103 Savages dispersed, erratic, thinly scattered up and down, knew the course of Nature either very imperfectly or not at all; 104 society alone perfects human knowledge: it requires not only multiplied but combined efforts to unravel the secrets of Nature. 105 This granted, all natural causes were mysteries to our wandering ancestors; the entire of Nature was an enigma to them; 106 all its phenomena was marvellous, every event inspired terror to beings who were destitute of experience; 107 almost everything they saw must have appeared to them strange,

unusual, contrary to their idea of the order of things.

108 It cannot then furnish matter for surprise, if we behold people in the present day trembling at the sight of those objects which have formerly filled their fathers with dismay. 109 Eclipse, comets, meteors, were, in ancient days, subjects of alarm to all the people of the earth: 110 these effects, so natural in the eyes of the sound philosopher, who has by degrees fathomed their true causes, 111 have yet the right, possess the power, to alarm the most numerous, to excite the fears of the least instructed part of modern nations. 112 The people of the present day, as well as their ignorant ancestors, find something marvellous, 113 believe there is a supernatural agency in all those objects to which their eyes are unaccustomed; 114 they consider all those unknown causes as wonderful, that act with a force of which their mind has no idea it is possible the known agents are capable. 115 The ignorant see wonders, prodigies, miracles, in all those striking effects of which they are unable to render themselves a satisfactory account; 116 all the causes which produce them they think supernatural; 117 this, however, really implies nothing more than that they are not familiar to them, 118 or that they have not hitherto witnessed natural agents, whose energy was equal to the production of effects so rare, 119 so astonishing, as those with which their sight has been appalled.

120 Besides the ordinary phenomena to which nations were witnesses without being competent to unravel the causes, 121 they have in times very remote from ours, experienced calamities, whether general or local, 122 which filled them with the most cruel inquietude; which plunged them into an abyss of consternation. 123 The traditions of all people, the annals of all nations, recall, even at this day, melancholy events, physical disasters, dreadful catastrophes, 124 which had the effect of spreading universal terror among our forefathers. 125 But when history should be silent on these stupendous revolutions, would not our own reflection on what passes under our

eyes be sufficient to convince us, 126 that all parts of our globe have been, and following the course of things, will necessarily be again violently agitated, overturned, changed, overflowed, in a state of conflagration?

127 Vast continents have been inundated, seas breaking their limits have usurped the dominion of the earth; 128 at length retiring, these waters have left striking, proofs of their presence, by the marine vestiges of shells, skeletons of sea fish, 129 which the attentive observer meets with at every step, in the bowels of those fertile countries we now inhabit-- 130 subterraneous fires have opened to themselves the most frightful volcanoes, whose craters frequently issue destruction on every side. 131 In short, the elements unloosed, have at various times, disputed among themselves the empire of our globe; 132 this exhibits evidence of the fact, by those vast heaps of wreck, those stupendous ruins spread over its surface.

133 What, then, must have been the fears of humankind, 134 who in those countries believed you beheld the entire of Nature armed against your peace, menacing with destruction your very abode? 135 What must have been the inquietude of a people taken thus unprovided, who fancied they saw Nature cruelly labouring to their annihilation? 136 Who beheld a world ready to be dashed into atoms; 137 who witnessed the earth suddenly rent asunder; whose yawning chasm was the grave of large cities, whole provinces entire nations?

138 What ideas must mortals, thus overwhelmed with terror, form to themselves of the irresistible cause that could produce such extended effects? 139 Without doubt they did not attribute these wide spreading calamities to Nature; neither did they conceive they were mere physical causes; 140 they could not suspect She was the author, the accomplice of the confusion She Herself experienced; 141 they did not see that these tremendous revolutions, these overpowering disorders, were the necessary result of Her immutable laws; 142 that they contributed to the general order by which She subsists;

143 that, in point of fact, there was nothing more surprising in the inundation of large portions of the earth, 144 in the swallowing up an entire nation, in a volcanic conflagration spreading destruction over whole provinces, 145 than there is in a stone falling to the earth, or the death of a fly; 146 that each equally has its spring in the necessity of things.

147 It was under these astounding circumstances, that nations, bathed in the most bitter tears, perplexed with the most frightful visions, 148 electrified with terror, not believing there existed on this mundane ball, causes sufficiently powerful to operate the gigantic phenomena that filled their minds with dismay, 149 carried their streaming eyes towards heaven, where their tremulous fears led them to suppose these unknown agents, 150 whose unprovoked enmity destroyed, their earthly felicity, could alone reside.

151 It was in the lap of ignorance, in the season of alarm, in the bosom of calamity, that humankind ever formed own first notions of the Divinity. 152 From hence it is obvious that your ideas on this subject are to be suspected, that your notions are in a great measure false, that they are always afflicting. 153 Indeed, upon whatever part of our sphere we cast our eyes, whether it be upon the frozen climates of the north, upon the parching regions of the south, 154 or under the more temperate zones, we everywhere behold the people when assailed by misfortunes, have either made to themselves national gods, 155 or else have adopted those which have been given them by their conquerors; 156 before these beings, either of their own creation or adoption, they have tremblingly prostrated themselves in the hour of calamity, soliciting relief; 157 have ignorantly attributed to blocks of stone, or to people like themselves, those natural effects which were above their comprehension; 158 the inhabitants of many nations, not contented with the national gods, made each to the self one or more gods, 159 which you supposed presided exclusively over your own household, from whom

you supposed you derived your own peculiar happiness, 160 to whom you attributed all your domestic misfortunes.

161 The idea of these powerful agents, these supposed distributors of good and evil, was always associated with that of terror; 162 their name was never pronounced without recalling to human's wind either your own particular calamities or those of your fathers. 163 In many places human trembles at this day, because your progenitors have trembled for thousands of years past. 164 The thought of your gods always awakened in human the most afflicting ideas. 165 If you recurred to the source of your actual fears, to the commencement of those melancholy impressions that stamp themselves in your mind when their name is announced, 166 you would find it in the conflagrations, in the revolutions, in those extended disasters, that have at various times destroyed large portions of the human race; 167 that overwhelmed with dismay those miserable beings who escaped the destruction of the earth; 168 these in transmitting to posterity, the tradition of such afflicting events, have also transmitted to you their fears; 169 have delivered down to their successors, those gloomy ideas 170 which their bewildered imaginations, coupled with their barbarous ignorance of natural causes, had formed to them of the anger of their irritated gods, 171 to which their alarm falsely attributed these sweeping disasters.

172 If the gods of nations had their birth in the bosom of alarm, it was again in that of despair that each individual formed the unknown power that you made exclusively for yourself. 173 Ignorant of physical causes, unpractised in their mode of action, unaccustomed to their effects, 174 whenever you experienced any serious misfortune, whenever you was afflicted with any grievous sensation, you was at a loss how to account for it; 175 you therefore attributed it to your household gods, to whom you made an immediate supplication for assistance, or rather for forbearance of further affliction: 176 this disposition in human has

been finely portrayed by Aesop in his fable of "the Waggoner and Hercules."

177 The motion which in despite of yourself was excited in your machine, your diseases, your troubles, your passions, your inquietude, 178 the painful alterations your frame underwent, without your being able to fathom the true causes; 179 at length death, of which the aspect in so formidable to a being strongly attached to existence, 180 were effects you looked upon either as supernatural, or else you conceived they were repugnant to your actual nature; 181 you attributed them to some mighty cause, which maugre all your efforts, disposed of you at each, moment.

182 Thus palsied with alarm, benumbed with terror, you pensively meditated upon your sorrows; 183 agitated with fear, you sought for means to avert the calamities that threatened you with destruction; 184 your imagination, thus rendered desperate by your endurance of evils which you found inevitable, formed to you those phantoms which you called gods; 185 before whom you trembled from a consciousness of your own weakness; 186 thus disposed, you endeavoured by prostration, by sacrifices, by prayers, to disarm the anger of these imaginary beings to which your trepidation had given birth; 187 whom your ignorantly imagined to be the cause of your misery, whom your fancy painted to you as endowed with the power of alleviating your sufferings: 188 it was thus in the extremity of your grief, in the exacerbation of your mind, weighed down with misfortune, that unhappy person fashioned those chimeras which filled you with the most gloomy ideas, 189 which you transmitted to your posterity, as the surest means of avoiding the evils to which you had been yourself subjected.

190 Human never judges of those objects of which you are ignorant, but through the medium of those which come within your knowledge: 191 thus human, taking yourself for the model, ascribed will, intelligence, design, projects, passions; 192 in a

word, qualities analogous to your own, to all those unknown causes of which you experienced the action. 193 As soon as a visible or supposed cause affects you in an agreeable manner, or in a mode favourable to your existence, you conclude it to be good, to be well intentioned towards you: 194 on the contrary, you judges all those to be bad in their nature, evilly disposed, to have the intention of injuring you, which cause you any painful sensations. 195 You attributes views, plans, a system of conduct like your own, to everything which to your limited ideas appears of itself to produce connected effects; 196 to act with regularity; to constantly operate in the same manner; that uniformly produces the same sensations in your own person. 197 According to these notions, which you always borrows from yourself, from your own peculiar mode of action, 198 you either loves or fears those objects which have affected you; you in consequence approaches them with confidence or timidity; 199 seeks after them or flies from them in proportion as the feelings they have excited are either pleasant or painful.

200 Having travelled thus far, you presently addresses them; you invokes their aid; prays to them for succour; 201 conjures them to cease your afflictions; to forbear tormenting you; 202 as you finds yourself sensible to presents, pleased with submission, you tries to win them to your interests by humiliation, by sacrifices; 203 you exercises towards them the hospitality you yourself loves; you gives them an asylum; you builds them a dwelling; you furnishes them with costly raiment; 204 you makes their altars smoke with delicious food; you proffers to their acceptance the earliest flowers of spring; the finest fruits of autumn; the rich grain of summer; 205 in short you sets before them all those things which you thinks will please them the most, because you yourself places the highest value on them. 206 These dispositions enable us to account for the formation of tutelary gods, of lares, of larvae, which every human makes to the self in savage and

unpolished nations. 207 Thus we perceive that weak superstitious mortals, ignorant of truth, devoid of experience, 208 regard as the arbiters of their fate, as the dispensers of good and evil, animals, stones, unformed inanimate substances, 209 which the effort of their heated imaginations transform into gods, whom they invest with intelligence, whom they clothe with desires, to whom they give volition.

210 Another disposition which serves to deceive the savage person, which will equally deceive those whom reason shall not enlighten on these subjects, is his attachment to omens; 211 or the fortuitous concurrence of certain effects, with causes which have not produced them; 212 the co-existence of these effects with certain causes, which have not the slightest connection with them, has frequently led astray very intelligent beings; 213 nations who considered themselves very enlightened; who have either been disinclined or unable to disentangle the one from the other: 214 thus the savage attributes bounty or the will to render you service, to any object whether animate or inanimate, 215 such as a stone of a certain form, a rock, a mountain, a tree, a serpent, an owl, 216 if every time you encounters these objects in a certain position, it should so happen that you are more than ordinarily successful in hunting, 217 that you should take an unusual quantity of fish, that you should be victorious in war, or that you should compass any enterprise whatever that you may at that moment undertake: 218 the same savage will be quite as gratuitous in attaching malice, wickedness, the determination to injure you, to either the same object in a different position, 219 or any others in a given posture, which may have met your eyes on those days when you shall have suffered some grievous accident, 220 have been very unsuccessful in your undertakings, unfortunate in the chace, disappointed in your draught of fish: 221 incapable of reasoning you connects these effects with causes, that reflection would convince you have nothing in common with each other; 222 that are entirely due to

physical causes, to necessary circumstances, over which neither yourself nor your omens have the least control: 223 nevertheless you finds it much easier to attribute them to these imaginary causes; 224 you therefore deifies them; looks upon them as either your guardian angels, or else as your most inveterate enemies.

225 Having invested them with supernatural powers, you becomes anxious to explain to yourself their mode of action; 226 your self-love prevents your seeking elsewhere for the model: thus you assigns them all those motives that actuate yourself; 227 you endows them with passions; you gives them design-- intelligence-- will-- 228 imagines they can either injure you or benefit you, as you may render them propitious or otherwise to your views: 229 you ends with worshipping them; with paying them divine honours; you appoints them priests; 230 or at least always consults them before you undertakes any object of moment: 231 such is their influence, that if they put on the evil position, you will lay aside the most important undertaking.

232 The savage in this is never more than an infant that is angry with the object that displeases the self; 233 just like the dog who gnaws the stone by which you have been wounded, without recurring to the hand by which it was thrown. 234 Such is the foundation of human's faith, in either happy or unhappy omens: 235 devoid of experience, unaccustomed to reason with precision, fearing to call in the evidence of truth, you looks upon them either as gods themselves, 236 or else as warnings given you by your other gods, to whom you attributes the faculties of sagacity and foresight, of which you are yourself miserably deficient.

237 Ignorance, when involved in disaster, when immersed in trouble, believes a stone, a reptile, a bird, much better instructed than yourself. 238 The slender observation of the ignorant only serves to render you more superstitious; 239 you sees certain birds announce by their flight, by their cries, certain changes in the weather, such as cold, heat,

rain, storms; 240 you beholds at certain periods, vapours arise from the bottom of some particular caverns? 241 Their needs nothing further to impress upon you the belief, that these beings possess the knowledge of future events; 242 enjoy the gifts of prophecy: you looks upon them as supernatural agents, employed by your gods: 243 it is thus you becomes the dupe to your own credulity.

244 If by degrees the truth flashing occasionally on your mind, experience and reflection arrive at undeceiving you, 245 with respect to the power, the intelligence, the virtues actually residing in these objects; 246 you at least supposes them put in activity by some secret, some hidden cause; 247 that they are the instruments, employed by some invisible agent, who is either friendly or inimical to your welfare. 248 To this concealed agent, therefore, you addresses yourself; 249 pays you your vows; implores your assistance; deprecates your wrath; seeks to propitiate you to your interests; is willing to soften your anger; 250 for this purpose you employs the same means, of which you avails yourself, either to appease or gain over the beings of your own species.

251 Societies in their origin, seeing themselves frequently afflicted by Nature, 252 supposed either the elements, or the concealed powers who regulated them, possessed a will, views, wants, desires, similar to their own. 253 From hence, the sacrifices imagined to nourish them; the libations poured out to them; the steams, the incense to gratify their olfactory nerves. 254 Their superstition led them to believe these elements or their irritated movers were to be appeased like irritated person, by prayers, by humiliation, by presents. 255 Their imagination was ransacked to discover the presents that would be most acceptable in their eyes; 256 to ascertain the oblations that would be most agreeable, the sacrifices that would most surely propitiate their kindness: 257 as these did not make known their inclinations, human differed with own fellow on those most suitable; 258 each followed own

disposition; or rather each offered what was most estimable in own eyes; 259 hence arose differences never to be reconciled the bitterest animosities; the most unconquerable aversions; the most, destructive jealousies! 260 Thus some brought the fruits of the earth, others offered sheaves of corn: 261 some strewed flowers over their fanes; some decorated them with the most costly jewels; 262 some served them with meats; others sacrificed lambs, heifers, bulls; 263 at length such was their delirium, such the wildness of their imaginations, that they stained their altars with human gore, 264 made oblations of young children immolated virgins, to appease the anger of these supposed deities.

265 The old people, as having the most experience, were usually charged with the conduct of these peace-offerings, 266 from whence, the name PRIEST; [Greek letters], presbos, in the Greek meaning an old person. 267 These accompanied them with ceremonies, instituted rites, used precautions by consulting omens; 268 adopted formalities, retraced to their fellow citizens the notions transmitted to them by their forefathers; 269 collected the observations made by their ancestors; repeated the fables they had received; added commentaries of their own; 270 subjoined supplications to the idols at whose shrine they were sacrificing.

271 It is thus the sacerdotal order was established; thus that public worship was established; by degrees each community formed a body of tenets to be observed by the citizens; 272 these were transmitted from race to race; held sacred out of reverence for their fathers; 273 at length it was deemed sacrilege to doubt these pandects in any one particular; even the errors, that had crept into them with time, were beheld with reverential awe; 274 you that ventured to reason upon them, was looked upon as an enemy to the commonwealth; 275 as one whose impiety drew down upon them the vengeance of these adored beings, to which alone imagination had given birth; 276 not contented with adopting the rituals, with following

the ceremonies invented by themselves, 277 one community waged war against another, to oblige it to receive their particular creeds; 278 which the old people who regulated them, declared would infallibly win them the favour of their tutelary deities: 279 thus very often to conciliate their favour, the victorious party immolated on the altars of their gods, the bodies of their unhappy captives; 280 frequently they carried their savage barbarity the length of exterminating whole nations, who happened to worship gods different from their own: 281 thus it frequently happened, that the friends of the serpent, when victorious, covered own altars with the mangled carcases of the worshippers of the stone, whom the fortune of war had placed in their hands: 282 such were the unformed, the precarious elements of which rude nations everywhere availed themselves to compose their superstitions: 283 they were always a system of conduct invented by imagination: conceived in ignorance, organised in misfortune, 284 to render the unknown powers, to whom they believed Nature was submitted, either favourable to their views, 285 or to induce them to cease those afflictions, which natural causes, for the wisest purposes, were continually heaping upon them; 286 thus some irascible, at the same time placable being, was always chosen for the basis of the adopted superstition; 287 it was upon these puerile tenets, upon these absurd notions, that the old people or the priests rested their doctrines; founded their rights; established their authority: 288 it was to render these fanciful beings friendly to the race of human, that they erected, temples, raised altars, loaded them with wealth; 289 in short, it was from such rude foundations, that arose the magnificent structure of superstition; 290 under which human trembled for thousands of years: which governed the condition of society, 291 which determined the actions of the people, gave the tone to the character, deluged the earth with blood, for such a long series of ages.

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292 But although these superstitions were originally invented by savages, they still have the power of regulating the fate of many civilised nations, 293 who are not less tenacious of their chimeras, than their rude progenitors. 294 These systems, so ruinous in their principles, have been variously modified by the human mind, 295 of which it is the essence, to labour incessantly on unknown objects; 296 it always, commences by attaching to these, a very first-rate importance, which it afterwards never dares coolly to examine.

297 Such was the course of human's imagination, in the successive ideas which you either formed to yourself, or which you received from your fathers, upon the divinity. 298 The first theology of human was grounded on fear, modelled by ignorance: either afflicted or benefitted by the elements, they adored these elements themselves; 299 by a parity of reasoning, if reasoning it can be called, you extended your reverence to every material, coarse object; 300 you afterwards rendered your homage to the agents you supposed presiding over these elements; 301 to powerful genii; to inferior genii; to heroes; to people endowed with either great or striking qualities.

302 Time, aided by reflection, with here and there a slight corruscation of truth, induced you in some places to relinquish your original ideas; 303 you believed you simplified the thing by lessening the number of your gods, but you achieved nothing by this towards attaining to the truth; 304 in recurring from cause to cause human finished by losing sight of everything; 305 in this obscurity, in this dark abyss, your mind still laboured, you formed new chimeras, you made new gods, or rather you formed a very complex machinery; 306 still, as before, whenever you could not account for any phenomenon that struck your sight, you was unwilling to ascribe it to physical causes; 307 and the name of your Divinity, whatever that might happen to be, was always brought in to supply your own ignorance of natural causes.

308 If a faithful account was rendered of human's ideas upon the Divinity, you would be obliged to acknowledge, 309 that for the most part the word God has been used to express the concealed, remote, unknown causes of the effects you witnessed; 310 that you applies this term when the spring of natural, the source of known causes ceases to be visible: 311 as soon as you loses the thread of these causes, or as soon as your mind can no longer follow the chain, you solves the difficulty, terminates your research, by ascribing it to your gods; 312 thus giving a vague definition to an unknown cause, at which either your idleness, or your limited knowledge, obliges you to stop.

313 When, therefore, you ascribes to your gods the production of some phenomenon, the novelty or the extent of which strikes you with wonder, 314 but of which your ignorance precludes you from unravelling the true cause, 315 or which you believes the natural powers with which you are acquainted are inadequate to bring forth; 316 does you, in fact, do anything more than substitute for the darkness of your own mind, 317 a sound to which you have been accustomed to listen with reverential awe? 318 Ignorance may be said to be the inheritance of the generality of humans; 319 these attribute to their gods not only those uncommon effects that burst upon their senses with an astounding force, 320 but also the most simple events, the causes of which are the most easy to be known to whoever shall be willing to meditate upon them. 321 In short, human has always respected those unknown causes, those surprising effects which your ignorance prevented you from fathoming.

322 But does this afford us one single, correct idea of the Divinity? 323 Can it be possible we are acting rationally, thus eternally to make Him the agent of our stupidity, of our sloth, of our want of information on natural causes? 324 Do we, in fact, pay any kind of adoration to this being, by thus bringing Him forth on every trifling occasion, to solve the difficulties ignorance throws in our

way? 325 Of whatever nature this great cause of causes may be, it is evident to the slightest reflection that He has been sedulous to conceal Himself from our view; 326 that He has rendered it impossible for us to have the least acquaintance with Him, except through the medium of Nature, which He has unquestionably rendered competent to everything: 327 this is the rich banquet spread before human; you are invited to partake, with a welcome you have no right to dispute; 328 to enjoy therefore is to obey; to be happy is to render that worship which must make you most acceptable; 329 to be happy yourself is to make others happy; to make others happy is to be virtuous; to be virtuous you must revere truth: 330 to know what truth is, you must examine with caution, scrutinise with severity, every opinion you adopts: 331 this granted, is it at all consistent with the majesty of the Divinity, is it not insulting to such a being to clothe Him with our wayward passions; 332 to ascribe to Him designs similar to our narrow view of things; to give Him our filthy desires; to suppose He can be guided by our finite conceptions; 333 to bring Him on a level with frail humanity, by investing Him with our qualities, however much we may exaggerate them; 334 to indulge an opinion that He can either act or think as we do; 335 to imagine He can in any manner resemble such a feeble play-thing, as is the greatest, the most distinguished human?

336 No! it is to degrade Him in the eye of reason; to violate every regard for truth; to set moral decency at defiance; to fall back into the depth of cimmerian darkness. 337 Let human therefore sit down cheerfully to the feast; let you contentedly partake of what you finds; 338 but let you not worry the Divinity with your useless prayers, with your shallow-sighted requests, 339 to solicit at your hands that which, if granted, would in all probability be the most injurious for yourself; 340 these supplications are, in fact, at once to say, that with our limited experience, with our slender knowledge, we better understand what is suitable to

our condition, 341 what is convenient to our welfare, than the mighty Cause of all causes who has left us in the hands of Nature: 342 it is to be presumptuous in the highest degree of presumption; 343 it is impiously to endeavour to lift up a veil which it is evidently forbidden human to touch; that even your most strenuous efforts attempt in vain.

344 It remains, then, to inquire, if human can reasonably flatter the self with obtaining a perfect knowledge of the power of Nature; 345 of the properties of the beings She contains; of the effects which may result from their various combinations? 346 Do we know why the magnet attracts iron? Are we better acquainted with the cause of polar attraction? 347 Are we in a condition to explain the phenomena of light, electricity, elasticity? 348 Do we understand the mechanism by which that modification of our brain, which we call volition, puts our arm or our legs into motion? 349 Can we render to ourselves an account of the manner in which our eyes behold objects, in which our ears receive sounds, in which our mind conceives ideas?

350 All we know upon these subjects is, that they are so. If then we are incapable of accounting for the most ordinary phenomena, which Nature daily exhibits to us, 351 by what chain of reasoning do we refuse to Her the power of producing other effects equally incomprehensible to us? 352 Shall we be more instructed, when every time we behold an effect of which we are not in a capacity to develop the cause, 353 we may idly say, this effect is produced by the power, by the will of God? 354 Undoubtedly it is the great Cause of causes must have produced everything; 355 but is it not lessening the true dignity of the Divinity, to introduce Him as interfering in every operation of Nature; nay, in every action of so insignificant a creature as human?

356 As a mere agent executing His own eternal, immutable laws; 357 when experience, when reflection, when the evidence of all we contemplate, warrants the idea, that this ineffable being has rendered

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Nature competent to every effect, 358 by giving Her those irrevocable laws, that eternal, unchangeable system, according to which all the beings She contains must eternally act? 359 Is it not more worthy the exalted mind of the GREAT PARENT OF PARENTS, ens entium, more consistent with truth, 360 to suppose that His wisdom in giving these immutable, these eternal laws to the macrocosm, foresaw everything that could possibly be requisite for the happiness of the beings contained in it; 361 that therefore He left it to the invariable operation of a system, which never can produce any effect 362 that is not the best possible that circumstances however viewed will admit: 363 that consequently the natural activity of the human mind, which is itself the result of this eternal action, was purposely given to human, 364 that you might endeavour to fathom, that you might strive to unravel, that you might seek out the concatenation of these laws, 365 in order to furnish remedies against the evils produced by ignorance.

366 How many discoveries in the great science of natural philosophy has humankind progressively made, 367 which the ignorant prejudices of our forefathers on their first announcement considered as impious, 368 as displeasing to the Divinity, as heretical profanations, which could only be expiated by the sacrifice of the enquiring individuals; 369 to whose labour their posterity owes such an infinity of gratitude? 370 Even in modern days we have seen a SOCRATES destroyed, a GALLILEO condemned, 371 whilst multitudes of other benefactors to humankind have been held in contempt by their uninformed cotemporaries, 372 for those very researches into Nature which the present generation hold in the highest veneration.

373 Whenever ignorant priests are permitted to guide the opinions of nations, science can make but a very slender progress: 374 natural discoveries will be always held inimical to the interest of bigoted superstitious people. 375 It may, to the minds of infatuated mortals, to

the shallow comprehension of prejudiced beings, appear very pious to reply on every occasion our gods do this, our gods do that; 376 but to the contemplative philosopher, to the person of reason, to the real adorers of the great Cause of causes, it will never be convincing, that a sound, a mere word, can attach the reason of things; 377 can have more than a fixed sense; can suffice to explain problems.

378 The word GOD is for the most part used to denote the impenetrable cause of those effects which astonish humankind; which human is not competent to explain. 379 But is not this wilful idleness? Is it not inconsistent with our nature? 380 Is it not being truly impious, to sit down with those fine faculties we have received, and give the answer of a child to everything we do not understand; 381 or rather which our own sloth, or our own want of industry has prevented us from knowing? 382 Ought we not rather to redouble our efforts to penetrate the cause of those phenomena which strike our mind? 383 Is not this, in fact, the duty we owe to the great, the universal Parent? 384 When we have given this answer, what have we said? -- Nothing but what everyone knows.

385 Could the great Cause of causes make the whole, without also making its part? 386 But does it of necessity follow that He executes every trifling operation, 387 when He has so noble an agent as His own nature, whose laws He has rendered unchangeable, 388 whose scale of operations can never deviate from the eternal routine He has marked out for Her and all the beings She embraces? 389 Whose secrets, if sought out, contain the true balsam of life-- the sovereign remedy for all the diseases of human.

390 When we shall be ingenuous with ourselves, we shall be obliged to agree that it was uniformly the ignorance in which our ancestors were involved, 391 their want of knowledge of natural causes, their unenlightened ideas on the powers of Nature, which gave birth to the gods they worshipped; 392 that it is, again, the impossibility which the greater

part of humankind find to withdraw themselves out of this ignorance, 393 the difficulty they consequently find to form to themselves simple ideas of the formation of things, 394 the labour that is required to discover the true sources of those events, which they either admire or fear, 395 that makes them believe these ideas are necessary to enable them to render an account of those phenomena, to which their own sluggishness renders them incompetent to recur. 396 Here, without doubt, is the reason they treat all those as irrational who do not see the necessity of admitting an unknown agent, 397 or some secret energy, which for want of being acquainted with Nature, they have placed out of Herself.

398 The phenomena of Nature necessarily breed various sentiments in human: 399 some you thinks favourable to you, some prejudicial, while the whole is only what it can be. 400 Some excite your love, your admiration, your gratitude; 401 others fill you with trouble, cause aversion, drive you to despair. 402 According to the various sensations you experiences, you either loves or fears the causes to which you attributes the effects, which produce in you these different passions: 403 these sentiments are commensurate with the effects you experiences; 404 your admiration is enhanced, your fears are augmented, 405 in the same ratio as the phenomena which strikes your senses are more or less extensive, more or less irresistible or interesting to you.

406 Human necessarily makes the self the centre of Nature; 407 indeed you can only judge of things, as you are yourself affected by them; 408 you can only love that which you thinks favourable to your being; 409 you hates, you fears everything which causes you to suffer: 410 in short, as we have seen in the former volume, you calls confusion everything that deranges the economy of your machine; 411 you believes all is in order, as soon as you experiences nothing but what is suitable to your peculiar mode of existence. 412 By a necessary consequence of these ideas, human firmly believes that the entire of

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Nature was made for you alone; 413 that it was only yourself which She had in view in all Her works; 414 or rather that the powerful cause to which this Nature was subordinate, had only for object human and your convenience, in all the stupendous effects which are produced in the universe.

415 If there existed on this earth other thinking beings besides human, they would fall exactly into similar prejudices with yourself; 416 it is a sentiment founded upon that predilection which each individual necessarily has for the self; 417 a predilection that will subsist until reason, aided by experience, in pointing out the truth, shall have rectified your errors.

418 Thus, whenever human is contented, whenever everything is in order with respect to yourself, 419 you either admires or loves the causes to which you believes you are indebted for your welfare; 420 when you becomes discontented with your mode of existence, you either fears or hates the cause which you supposes has produced these afflicting effects. 421 But your welfare confounds itself with your existence; 422 it ceases to make itself felt when it has become habitual, when it has been of long continuance; 423 you then thinks it is inherent to your essence; you concludes from it that you are formed to be always happy; 424 you finds it natural that everything should concur to the maintenance of your being.

425 It is by no means the same when you experiences a mode of existence that is displeasing to yourself: 426 the person who suffers is quite astonished at the change which your taken place in your machine; 427 you judges it to be contrary to the entire of Nature, because it is incommodious to your own particular nature; 428 you, imagines those events by which you are wounded, to be contrary to the order of things; 429 you believes that Nature is deranged every time She does not procure for you that mode of feeling which is suitable to your ideas: 430 you concludes from these suppositions that Nature, or rather

that the agent who moves Her; is irritated against you.

431 It is thus that human, almost insensible to good, feels evil in a very lively manner; 432 the first you believes natural, the other you thinks opposed to Nature. 433 You are either ignorant, or forgets, that you constitutes part of a whole, 434 formed by the assemblage of substances, of which some are analogous, others heterogeneous; 435 that the various beings of which Nature is composed, are endowed with a variety of properties, 436 by virtue of which they act diversely on the bodies who find themselves within the sphere of their action; 437 that some have an aptitude to attraction, whilst it is of the essence of others to repel; 438 that even those bodies that attract at one distance, repel at another; 439 that the peculiar attractions and repulsions of the particles of bodies perpetually oppose, invariably counteract the general ones of the masses of matter: 440 you does not perceive that these beings, as destitute of goodness, as devoid of malice, act only according to their respective essences; 441 follow the laws their properties impose upon them; without being in capacity to act otherwise than they do. 442 It is, therefore, for want of being acquainted with these things, that you looks upon the great Author of Nature, 443 the great Cause of causes, as the immediate cause of those evils to which you are submitted; 444 that you judges erroneously when you imagines that the Divinity is exasperated against you.

445 The fact is, human believes that your welfare is a debt due to you from Nature; 446 that when you suffers evil She does you an injustice; 447 fully persuaded that this Nature was made solely for yourself, 448 you cannot conceive She would make you, who is Her lord paramount, suffer, if She was not moved thereto by a power who is inimical to your happiness; 449 who has reasons with which you are unacquainted for afflicting, who has motives which you wishes to discover, for punishing you. 450 From hence it will be obvious, that

evil, much more than good, is the true motive of those researches which human has made concerning the Divinity-- 451 of those ideas which you have formed to yourself-- of the conduct you have held towards Him.

452 The admiration of the works of Nature, or the acknowledgment of its goodness, seem never alone to have determined the human species to recur painfully by thought to the source of these things; 453 familiarised at once with all those effects which are favourable to your existence, 454 you does not by any means give yourself the same trouble to seek the causes, 455 that you does to discover those which disquiet you, or by which you are afflicted. 456 Thus, in reflecting upon the Divinity, it was generally upon the cause of your evils that human meditated; 457 your meditations were fruitless, because the evil you experiences, as well as the good you partakes, are equally necessary effects of natural causes, 458 to which your mind ought rather to have bent its force, than to have invented fictitious causes of which you never could form to yourself any but false ideas; 459 seeing that you always borrowed them, from your own peculiar mariner of existing, acting, and feeling. 460 Obstinately refusing to see anything, but yourself, you never became acquainted with that universal Nature of which you constitute such a very feeble part.

461 The slightest reflection, however, would have been sufficient to undeceive you on these erroneous ideas. 462 Everything tends to prove that good and evil are modes of existence that depend upon causes by which a person is moved; 463 that a sensible being is obliged to experience them. 464 In a Nature composed of a multitude of beings infinitely varied, the shock occasioned by the collision of discordant matter must necessarily disturb the order, 465 derange the mode of existence of those beings who have no analogy with them: 466 these act in everything they do after certain laws, which are in themselves immutable; 467 the good or evil, therefore, which human experiences,

are necessary consequences of the qualities inherent to the beings, within whose sphere of action you are found.

468 Our birth, which we call a benefit, is an effect as necessary as our death, which we contemplate as an injustice of fate: 469 it is of the nature of all analogous beings to unite themselves to form a whole: 470 it is of the nature of all compound beings to be destroyed, or to dissolve themselves; 471 some maintain their union for a longer period than others; some disperse very quickly, as the ephemeron; some endure for ages, as the planets; 472 every being in dissolving itself gives birth to new beings; 473 these are destroyed in their turn; to execute the eternal, the immutable laws of a Nature that only exists by the continual changes that all its parts undergo.

474 Thus Nature cannot be accused of malice, since everything that takes place in it is necessary-- 475 is produced by an invariable system, to which every other being, as well as Herself, is eternally subjected. 476 The same igneous matter that in human is the principle of life, frequently becomes the principle of your destruction, 477 either by the conflagration of a city, the explosion of a volcano, or human mad passion for war. 478 The aqueous fluid that circulates through human machine, so essentially necessary to your actual existence, frequently becomes too abundant, and terminates you by suffocation; 479 is the cause of those inundations which sometimes swallow up both the earth and its inhabitants.

480 The air, without which you are not able to respire, is the cause of those hurricanes, of those tempests, which frequently render useless the labour of mortals. 481 These elements are obliged to burst their bonds, when they are combined in a certain manner; 482 their necessary but fatal consequences are those ravages, those contagions, those famines, those diseases, 483 those various scourges, against which human, with streaming eyes and violent emotions, vainly implores the aid of those powers who are deaf to your cries: 484 your prayers are never granted;

but the same necessity which afflicted you, the same immutable laws which overwhelmed you with trouble, 485 replaces things in the order you finds suitable to your species: a relative order of things which was, is, and always will be the only standard of your judgment.

486 Human, however, made no such simple reflections: 487 you either did not or would not perceive that everything in Nature acted by invariable laws; 488 you continued steadfast in contemplating the good of which you was partaker, as a favour; 489 in considering the evil you experienced, as a sign of anger in this nature, which you supposed to be animated by the same passions as yourself 490 or at least that it was governed by secret agents, who acted after your own manner, 491 who obliged it to execute their will, that was sometimes favourable, sometimes inimical to the human species.

492 It was to these supposed agents, with whom in the sunshine of your prosperity you was but little occupied, 493 that in the bosom of your calamity you addressed your prayers; 494 you thanked them, however, for their favours, fearing lest their ingratitude might farther provoke their fury: 495 thus when assailed by disaster, when afflicted with disease, you invoked them with fervour: 496 you required them to change in your favour the mode of acting which was the very essence of beings; 497 you was willing that to make the slightest evil you experienced cease, that the eternal chain of things might be broken; 498 and the unerring, undeviating course of Nature might be arrested.

499 It was upon such ridiculous pretensions, that were founded those supplications, those fervent prayers, 500 which mortals, almost always discontented with their fate, never in accord in their respective desires, addressed to their gods. 501 They were unceasingly upon their knees before the altars, were ever prostrate before the power of the beings, whom they judged had the right of commanding Nature; 502 who they supposed to have sufficient energy to divert Her course; 503 who they

considered to possess the means to make Her subservient to their particular views; 504 thus each hoped by presents, by humiliation, to induce them to oblige this Nature, to satisfy the discordant desires of their race.

505 The sick person, expiring in own bed, asks that the humours accumulated in own body should in an instant lose those properties which renders them injurious to own existence; 506 that by an act of their puissance, own gods should renew or recreate the springs of a machine worn out by infirmities. 507 The cultivators of a low swampy country, makes complaint of the abundance of rain with which their fields are inundated; 508 whilst the inhabitants of the hill, raises their thanks for the favours they receives, solicits a continuance of that which causes the despair of their neighbour. 509 In this, each is willing to have a god for the self, 510 and asks according to own momentary caprices, to own fluctuating wants, that the invariable essence of things, should be continually changed in own favour.

511 From this it must be obvious, that human every moment asks a miracle to be wrought in own support. 512 It is not, therefore, at all surprising that you displayed such ready credulity, 513 that you adopted with such facility the relation of the marvellous deeds which were universally announced to you as the acts of the power, 514 or the effects of the benevolence, of the various gods which presided over the nations of the earth: 515 these wonderful tales, which were offered to your acceptance, as the most indubitable proofs of the empire of these gods over Nature, 516 which human always found deaf to own entreaties, were readily accredited by you; 517 in the expectation, that if you could gain them over to your interest, this Nature, which you found so sullen, so little disposed to lend Herself to your views, would then be controlled in your own favour.

518 By a necessary consequence of these ideas, Nature was despoiled of all power; 519 She was contemplated only as a passive instrument, who acted at the will, 520 under the

influence of the numerous, all-powerful agents to whom the various superstitions had rendered Her subordinate. 521 It was thus for want of contemplating Nature under Her true point of view, that human has mistaken Her entirely, 522 that you believed Her incapable of producing anything by Herself; 523 that you ascribed the honour of all those productions, whether advantageous or disadvantageous to the human species, 524 to fictitious powers, whom you always clothed with your own peculiar dispositions, only you aggrandised their force. 525 In short, it was upon the ruins of Nature, that human erected the imaginary colossus of superstition, 526 that you reared the altars of a Jupiter, the temples of an Apollo.

527 If the ignorance of Nature gave birth to such a variety of gods, the knowledge of this Nature is calculated to destroy them. 528 As soon as human becomes enlightened, your powers augment, your resources increase in a ratio with your knowledge; 529 the sciences, the protecting arts, industrious application, furnish you assistance; 530 experience encourages your progress, truth procures for you the means of resisting the efforts of many causes, 531 which cease to alarm you as soon as you obtains a correct knowledge of them. 532 In a word, your terrors dissipate in proportion as your mind becomes enlightened, 533 because your trepidation is ever commensurate with your ignorance, and furnishes this great lesson, that human instructed by truth, cease to be superstitious.

OF MYTHOLOGY, AND THEOLOGY

Paul Henri Thiery (Baron D'Holbach)

45 The elements of Nature were, as we have shown, the first divinities of human; 2 you have generally commenced with adoring material beings; 3 each individual, as we have already said, as may be still seen in savage nations, made to the self a particular god, of some physical object, 4 which you supposed to be

the cause of those events, in which you was yourself interested; 5 you never wandered to seek out of visible Nature, the source either of what happened to yourself, or of those phenomena to which you was a witness. 6 As you everywhere saw only material effects, you attributed them to causes of the same genus; 7 incapable in your infancy of those profound reveries, of those subtle speculations, which are the fruit of time, the result of leisure, 8 you did not imagine any cause distinguished from the objects that met your sight, nor of any essence totally different from everything you beheld.

9 The observation of Nature was the first study of those who had leisure to meditate: 10 they could not avoid being struck with the phenomena of the visible world. 11 The rising and setting of the sun, the periodical return of the seasons, the variations of the atmosphere, 12 the fertility and sterility of the earth, the advantages of irrigation, the damage caused by floods, 13 the useful effects of fire, the terrible consequences of conflagration, 14 were proper and suitable objects to occupy their thoughts. 15 It was natural for them to believe that those beings they saw move of themselves, acted by their own peculiar energies; 16 according as their influence over the inhabitants of the earth was either favourable or otherwise, they concluded them to have either the power to injure them, or the disposition to confer benefits.

17 Those who first acquired the knowledge of gaining an ascendancy over human, 18 then savage, wandering, unpolished, or dispersed in woods, with but little attachment to the soil, 19 of which they had not yet learned to reap the advantage, were always more practised observers-- 20 individuals more instructed in the ways of Nature, than the people, or rather the scattered hordes, whom they found ignorant and destitute of experience: 21 their superior knowledge placed them in a capacity to render these services--to discover to them useful inventions, 22 which attracted the confidence of the unhappy beings to whom they came to offer an assisting hand; 23 savages who were naked, half

famished, exposed to the injuries of the weather, obnoxious to the attacks of ferocious beasts, dispersed in caverns, scattered in forests, 24 occupied with hunting, painfully labouring to procure themselves a very precarious subsistence, 25 had not sufficient leisure to make discoveries calculated to facilitate their labour, or to render it less incessant.

26 These discoveries are generally the fruit of society: 27 isolated beings, detached families, hardly ever make any discoveries-- scarcely ever think of making any. 28 The savage is a being who lives in a perpetual state of infancy, who never reaches maturity unless someone comes to draw them out of their misery. 29 At first repulsive, unsociable, intractable, they by degrees familiarises themselves with those who render them service; 30 once gained by their kindness, they readily lends them their confidence; in the end they goes the length of sacrificing to them their liberty.

31 It was commonly from the bosom of civilised nations that have issued those personages who have carried sociability, agriculture, art, laws, gods, superstition, forms of worship, 32 to those families or hordes as yet scattered; who united them either to the body of some other nations, or formed them into new nations, 33 of which they themselves became the leaders, sometimes the king, frequently the high priest, and often their god. 34 These softened their manners-- gathered them together-- taught them to reap the advantages of their own powers-- to render each other reciprocal assistance-- to satisfy their wants with greater facility.

35 In thus rendering their existence more comfortable, thus augmenting their happiness, they attracted their love; 36 obtained their veneration, acquired the right of prescribing opinions to them, 37 made them adopt such as they had either invented themselves, or else drawn up in the civilised countries from whence they came. 38 History points out to us the most famous legislators as people, who, enriched with useful knowledge they had gleaned in the

bosom of polished nations, 39 carried to savages without industry, needing assistance, those arts, of which, until then, these rude people were ignorant: 40 such were the Bacchus's, the Orpheus's, the Triptolemus's, the Numa's, the Zamolixis's; 41 in short, all those who first gave to nations their gods-- their worship-- the rudiments of agriculture, of science, of superstition, of jurisprudence, of religion.

42 It will perhaps be enquired, If those nations which at the present day we see assembled, were all originally dispersed? 43 We reply, that this dispersion may have been produced at various times, 44 by those terrible revolutions, of which it has before been remarked our globe has more than once been the theatre; 45 in times so remote, that history has not been able to transmit us the detail. 46 Perhaps the approach of more than one comet may have produced on our earth several universal ravages, 47 which have at each time annihilated the greater portion of the human species.

48 These hypotheses will unquestionably appear bold to those who have not sufficiently meditated on Nature, but to the philosophic enquirer they are by no means inconsistent. 49 There may not only have been one general deluge, but even a great number since the existence of our planet; 50 this globe itself may have been a new production in Nature; it may not always have occupied the place it does at present. 51 Whatever idea may be adopted on this subject, if it is very certain that, independent of those exterior causes, which are competent to totally change its face, 52 as the impulse of a comet may do, this globe contains within itself, a cause adequate to alter it entirely, 53 since, besides the diurnal and sensible motion of the earth, it has one extremely slow, almost imperceptible, by which everything must eventually be changed in it: 54 this is the motion from whence depends the precession of the equinoctial points, observed by Hipparchus and other mathematicians, now well

understood by astronomers; 55 by this motion, the earth must at the end of several thousand years change totally: 56 this motion will at length cause the ocean to occupy that space which at present forms the lands or continents.

57 From this it will be obvious that our globe, as well as all the beings in Nature, has a continual disposition to change. 58 This motion was known to the ancients, and was what gave rise to what they called their great year, 59 which the Egyptians fixed at thirty-six thousand five hundred and twenty-five years: 60 the Sabines at thirty-six thousand four hundred and twenty-five, whilst others have extended it to one hundred thousand, some even to seven hundred and fifty-three thousand years.

61 Again, to those general revolutions which our planet has at different times experienced, 62 may be added those that have been partial, such as inundations of the sea, earthquakes, subterraneous conflagrations, 63 which have sometimes had the effect of dispersing particular nations, and to make them forget all those sciences with which they were, before acquainted. 64 It is also probable that the first volcanic fires, having had no previous vent, were more central, and greater in quantity, before they burst the crust of earth; 65 as the sea washed the whole, it must have rapidly sunk down into every opening, 66 where, falling on the boiling lava, it was instantly expanded into steam, producing irresistible explosion: 67 whence it is reasonable to conclude, that the primaeval earthquakes were more widely extended, and of much greater force, than those which occur in our days. 68 Other vapours may be produced by intense heat, possessing a much greater elasticity, from substances that evaporate, such as mercury, diamonds; 69 the expansive force of these vapours would be much greater than the steam of water, 70 even at red hot heat consequently they may have had sufficient energy to raise islands, continents, or even to have detached the moon from the earth; 71 if the moon, as has been supposed by some

philosophers, was thrown out of the great cavity which now contains the South Sea; 72 the immense quantity of water flowing in from the original ocean, and which then covered the earth, 73 would much contribute to leave the continents and islands, which might be raised at the same time, above the surface of the water. 74 In later days we have accounts of huge stones falling, from the firmament, which may have been thrown by explosion from some distant earthquake, 75 without having been impelled with a force sufficient to cause them to circulate round the earth, and thus produce numerous small moons or satellites.

76 Those who were able to escape from the ruin of the world, filled with consternation, plunged in misery, were but little conditioned to preserve to their posterity a knowledge, 77 effaced by those misfortunes, of which they had been both the victims and the witnesses: 78 overwhelmed with dismay, trembling with fear, they were not able to hand down the history of their frightful adventures, except by obscure traditions; 79 much less to transmit to us the opinions, the systems, the arts, the sciences, anterior to these petrifying revolutions of our sphere. 80 There have been perhaps people upon the earth from all eternity; but at different periods they may have been nearly annihilated, 81 together with their monuments, their sciences, and their arts; 82 those who outlived these periodical revolutions, each time formed a new race of people, 83 who by dint of time, labour, and experience, have by degrees withdrawn from oblivion the inventions of the primitive races. 84 It is, perhaps, to these periodical revolutions of the human species, that is to be ascribed the profound ignorance 85 in which we see human yet plunged upon those objects that are the most interesting to you.

86 This is, perhaps, the true source of the imperfection of human knowledge-- 87 of the vices of human political institutions-- of the defect in human religion-- of the growth of superstition, over which terror has always presided; 88 here, in all

probability, is the cause of that puerile inexperience, of those jejune prejudices, which almost everywhere keep human in a state of infancy, 89 and which render you so little capable of either listening to reason or of consulting truth. 90 To judge by the slowness of human progress, by the feebleness of human advance, in a number of respects, we should be inclined to say, the human race has either just quitted its cradle, 91 or that human was never destined to attain the age of virility-- to corroborate your reason.

92 However it may be with these conjectures, whether the human race may always have existed upon the earth, whether it may have been a recent production of Nature, 93 whether the larger animals we now behold were originally derived from the smallest microscopic ones, who have increased in bulk with the progression of time, 94 or whether, as the Egyptian philosophers thought, humankind were originally hermaphrodites, who like the aphis produced the sexual distinction after some generations, 95 which was also the opinion of Plato, and seems to have been that of Moses, 96 who was educated amongst these Egyptians, as may be gathered from the 27th and 28th verses of the first chapter of GENESIS: 97 "So God created human in His own image, in the image of God He created them; male and female He created them-- 98 And GOD blessed them, and GOD said unto them, be fruitful, and multiply, and replenish the earth, and subdue it: 99 and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth:" 100 it is not therefore presuming too much to suppose, as the Egyptians were a nation very fond of explaining their opinions by hieroglyphics, 101 that that part which describes Eve as taken out of Adam's rib, was an hieroglyphic emblem: 102 showing that humankind was in the primitive state of both sexes, united, who was afterwards divided into males and females.

103 However, I say, this may be, it is extremely easy to recur to the origin of many existing nations: 104 we

shall find them always in the savage state; that is, to say, dispersed; composed of families detached from each other; of wandering, hordes; 105 these were collected together, approximated at the voice of some missionary or legislator, from whom they received great benefits, who gave them gods, opinions, and laws. 106 These personages, of whom the people newly congregated readily acknowledged the superiority, 107 fixed the national gods, leaving to each individual, those which one had formed to the self, according to one's own peculiar ideas, 108 or else substituting others brought from those regions, from whence they themselves had emigrated.

109 The better to imprint their lessons on the minds of their new subjects, these people became the guides, the priests, the sovereigns, the masters of these infant societies; 110 they formed discourses by which they spoke to the imagination of their willing auditors. 111 POETRY seem best adapted to strike the mind of these rude people, 112 to engrave on their memory those ideas with which they were willing to imbue them: its images, its fictions, its numbers, its rhyme its harmony, 113 all conspired to please their fancy, to render permanent the impressions it made: 114 thus, the entire of Nature, as well as all its parts, was personified, by its beautiful allegories: at its soothing voice, trees, stones, rocks, earth, air, fire, water, 115 by imagination took intelligence, held conversation with human, and with themselves; 116 the elements were deified by its songs, everything was figuratively detailed in harmonious lays.

117 The sky, which according to the then philosophy, was an arched concave, spreading over the earth, which was supposed to be a level plain;-- 118 for the doctrine of antipodes is of rather modern date-- was itself made a god; 119 was considered a more suitable residence, as making a greater distinction for these imaginary deities than the earth on which human resided. 120 Thus the firmament was filled with deities. 121 Time, under the name of Saturn, was pictured as the son of heaven; or Coelus by earth, called Terra, or

Thea; 122 he was represented as an inexorable divinity--naturally artful, who devoured his own children-- 123 who revenged the anger of his mother upon his father; for which purpose she armed him with a scythe, formed of metals drawn from her own bowels, 124 with which he struck Coelus, in the act of uniting himself to Thea, and so mutilated him, 125 that he was ever after incapacitated to increase the number of his children: 126 he was said to have divided the throne with Janus king of Italy, his reign seems to have been so mild, so beneficent, that it was called the golden age; 127 human victims were sacrificed on his altars, until abolished by Hercules, who substituted small images of clay.

128 Festivals in honour of this god, called Saturnalia, were instituted long antecedent to the foundation of Rome 129 they were celebrated about the middle of December, either on the 16th, 17th, or 18th; 130 they lasted in latter times several days, originally but one. 131 Universal liberty prevailed at the celebration, slaves were permitted to ridicule their masters-- 132 to speak freely on every subject-- no criminals were executed-- war never declared; 133 the priests made their human offerings with their heads uncovered; a circumstance peculiar to the Saturnalia, not adopted at other festivals.

134 The igneous matter, the etherial electric fluid, that invisible fire which vivifies Nature, that penetrates all beings, that fertilises the earth, 135 which is the great principle of motion, the source of heat, was deified under the name of Jupiter: 136 his combination with every being in Nature was expressed by own metamorphoses-- by the frequent adulteries imputed to him. 137 He was armed with thunder, to indicate he produced meteors, to typify the electric fluid that is called lightning. 138 He married the winds, which were designated under the name of Juno, therefore called the Goddess of the Winds, their nuptials were celebrated with great solemnity; 139 all the gods, the entire brute creation, the whole of humankind attended, 140 except one young woman named

Chelone, who laughed at the ceremonies, for which impiety she was changed by Mercury into a tortoise, and condemned to perpetual silence.

141 He was the most powerful of all the gods, and considered as the king and father both of gods and humans: 142 his worship was very extended, performed with greater solemnity, than that of any other god. 143 Upon his altars smoked goats, sheep, and white bulls, in which he is said to have particularly delighted; 144 the oak was rendered sacred to him, because he taught humankind to live upon acorns; 145 he had many oracles where his precepts were delivered, the most celebrated of these were at Dodona and Ammon in Lybia; 146 he was supposed to be invisible to the inhabitants of the earth; 147 the Lacedemonians erected his statue with four heads, thereby indicating, that he listened readily to the solicitations of every quarter of the earth.

148 Minerva is represented as having no mother, but to have come completely armed from his brains, when his head was opened by Vulcan; 149 by which it is meant to infer that wisdom is the result of this ethereal fluid. 150 Thus, following the same fictions, the sun, that beneficent star which has such a marked influence over the earth, became an Osiris, a Belus, a Mithras, an Adonis, an Apollo. 151 Nature, rendered sorrowful by his periodical absence, was an Isis, an Astarte, a Venus, a Cybele. 152 Astarte had a magnificent temple at Hieropolis served by three hundred priests, who were always employed in offering sacrifices. 153 The priests of Cybele, called Corybantes, also Galli, were not admitted to their sacred functions without previous mutilation. 154 In the celebration of their festivals these priests used all kinds of indecent expressions, beat drums, cymbals, and behaved just like mad-people: 155 his worship extended all over Phrygia, and was established in Greece under the name of Eleusinian mysteries. 156 In short, everything was personified: the sea was under the empire of Neptune; fire was adored by the Egyptians under the

name of Serapis; 157 by the Persians, under that of Ormus or Oromaze; and by the Romans, under that of Vesta and Vulcan.

158 Such was the origin of mythology: it may be said to be the daughter of natural philosophy, embellished by poetry; only destined to describe Nature and its parts. 159 If antiquity is consulted, it will be perceived without much trouble, 160 that these famous sages, those legislators, those priests, those conquerors, who were the instructors of infant nations, themselves adored active nature, 161 or the great whole considered relatively to its different operations or qualities; 162 that this was what they caused the ignorant savages whom they had gathered together to adore.

163 It was the great whole they deified; it was its various parts which they made their inferior gods; it was from the necessity of Her laws they made fate. 164 The Greeks called it Nature, a divinity who had a thousand names. 165 Varro says, "I believe that God is the soul of the universe, and that the universe is God." 166 Cicero says "that in the mysteries of Samothracia, of Lemnos, of Eleusis, it was Nature much more than the gods, they explained to the initiated." 167 Pliny says, "we must believe that the world, or that which is contained under the vast extent of the heavens, is the Divinity; even eternal, infinite, without beginning or end." 168 It was these different modes of considering Nature that gave birth to Polytheism, to idolatry. 169 Allegory masqued its mode of action: it was at length parts of this great whole, that idolatry represented by statues and symbols.

170 To complete the proofs of what has been said; to show distinctly that it was the great whole, the universe, the nature of things, which was the real object of the worship of Pagan antiquity, 171 hardly anything can be more decisive than the beginning of the hymn of Orpheus addressed to the god Pan. 172 "O Pan! I invoke thee, O powerful god! O universal Nature! The heavens, the sea, the earth, who nourish all, and the eternal fire, because these are thy members, O all powerful Pan," 173

Nothing can be more suitable to confirm these ideas, than the ingenious explanation which is given of the fable of Pan, as well as of the figure under which he is represented. 174 It is said, "Pan, according to the signification of his name, is the emblem by which the ancients have designated the great assemblage of things or beings: 175 he represents the universe; and, in the mind of the wisest philosophers of antiquity, he passed for the greatest and most ancient of the gods. 176 The features under which he is delineated form the portrait of Nature, and of the savage state in which She was found in the beginning. 177 The spotted skin of the leopard, which serves him for a mantle, imagined the heavens filled with stars and constellations. 178 His person was compounded of parts, some of which were suitable to a reasonable animal, that is to say, to human; 179 and others to the animal destitute of reason, such as the goat. 180 It is thus," says he, "that the universe is composed of an intelligence that governs the whole, and of the prolific, fruitful elements of fire, water, earth, air. 181 Pan, loved to drink and to follow the nymphs; this announces the occasion Nature has for humidity in all Her productions, 182 and that this god, like Nature, is strongly inclined to propagation. 183 According to the Egyptians, and the most ancient Grecian philosophers, Pan had neither father nor mother; 184 he came out of Demogorgon at the same moment with the Destinies, his fatal sisters; 185 a fine method of expressing that the universe was the work of an unknown power, and that it was formed after the invariable relations, the eternal laws of necessity; 186 but his most significant symbol, that most suitable to express the harmony of the universe, is his mysterious pipe, composed of seven unequal tubes, 187 but calculated to produce the nicest, the most perfect concord. 188 The orbs which compose the seven planets of our solar system, are of different diameters; 189 being bodies of unequal mass, they describe their revolutions round the sun in various periods; 190 nevertheless it is from

the order of their motion that results the harmony of the spheres".

191 Here then is the great macrocosm, the mighty whole, the assemblage of things adored and deified by the philosophers of antiquity; 192 whilst the uninformed stopped at the emblem under which this Nature was depicted; at the symbols under which its various parts, its numerous functions were personified; 193 his narrow mind, his barbarous ignorance, never permitted him to mount higher; 194 they alone were deemed worthy of being, initiated into the mysteries, who knew the realities masqued under these emblems. 195 Indeed, it is not to be doubted for an instant, that the wisest among the Pagans adored Nature; 196 which ethnic theology designated under a great variety of nomenclature, under an immense number of different emblems. 197 Apuleius, although a decided Platonist, accustomed to the mysterious, unintelligible notions of his master, 198 calls "Nature the parent of all; the mother of the elements, the first offspring of the world;" 199 again, "the mother of the stars, the parent of the seasons, and the governess of the whole world." 200 Nature was worshipped by many under the appellation of the mother of the gods.

201 Indeed, the first institutors of nations, and their immediate successors in authority, only spoke to the people by fables, allegories, enigmas, 202 of which they reserved to themselves the right of giving an explanation: 203 this, in fact, constituted the mysteries of the various worship paid to the Pagan divinities. 204 This mysterious tone they considered necessary, whether it was to mask their own ignorance, or whether it was to preserve their power over the uninformed, 205 who for the most part only respect that which is above their comprehension. 206 Their explications were generally dictated either by interest, or by a delirious imagination, frequently by imposture; 207 thus from age to age, they did no more than render Nature and its parts, which they had originally depicted, more unknown, until they completely lost sight of the

primitive ideas; 208 these were replaced by a multitude of fictitious personages, under whose features this Nature had primarily been represented to them.

209 The people, either unaccustomed to think, or deeply steeped in ignorance, adored these personages, 210 without penetrating into the true sense of the emblematical fables recounted to them. 211 These ideal beings, with material figures, in whom they believed there resided a mysterious virtue, a divine power, 212 were the objects of their worship, the source of their fears, the fountain of their hopes. 213 The wonderful, the incredible actions ascribed to these fancied divinities, were an inexhaustible fund of admiration, 214 which gave perpetual play to the fancy; which delighted not only the people of those days, but even the children of latter ages. 215 Thus were transmitted from age to age, those marvellous accounts, 216 which, although necessary to the existence of the power usurped by the ministers of these gods, did, in fact, nothing more than confirm the blindness of the ignorant: 217 these never supposed that it was Nature, its various operations, its numerous component parts-- 218 that it was the passions of human and your diverse faculties that lay buried under an heap of allegories; 219 they did not perceive that the passions and faculties of human nature were used as emblems, because human was ignorant of the true cause of the phenomena you beheld.

220 As strong passions seemed to hurry human along, in despite of yourself, they either attributed these passions to a god, or deified them; 221 frequently they did both: it was thus love became a deity; 222 that eloquence, poetry, industry, were transformed into gods, under the names of Hermes, Mercury, Apollo; 223 the stings of conscience were called the Furies: the people, bowed down in stupid ignorance, had no eyes but for these emblematical people, under which Nature was masked: 224 they attributed to their influence the good, to their displeasure the evil, which they experienced: 225 they entered into

every kind of folly, into the most delirious acts of madness, to render them propitious to their views; 226 thus, for want of being acquainted with the reality of things, their worship frequently degenerated into the most cruel extravagance, into the most ridiculous folly. 227 Thus it is obvious, that everything proves Nature and its various parts to have every where been the first divinities of human.

228 Natural philosophers studied these deities, either superficially or profoundly,-- 229 explained some of their properties, detailed some of their modes of action. 230 Poets painted them to the imagination of mortals, either in the most fascinating colours, or under the most hideous deformities; 231 embodied them--furnished them with reasoning faculties--recounted their exploits--recorded their will. 232 The statuary executed sometimes with the most enrapturing art, the ideas of the poets,-- gave substance to their shadows-- form to their airy nothings.

233 The priest decorated these united works with a thousand marvellous qualities-- with the most terrible passions-- with the most inconceivable attributes; 234 gave them, "a local habitation and a name." 235 The people adored them; prostrated themselves before these gods, who were neither susceptible of love or hatred, goodness, or malice; 236 they became persecuting, malevolent, cruel, unjust, in order to render themselves acceptable to powers generally described to them under the most odious features.

237 By dint of reasoning upon these emblems, by meditating upon Nature, thus decorated, or rather disfigured, 238 subsequent speculators no longer recollected the source from whence their predecessors had drawn their gods, nor the fantastic ornaments with which they had embellished them. 239 Natural philosophers and poets were transformed by leisure into metaphysicians and theologians; 240 tired with contemplating what they could have understood, they believed they had made an important

discovery by subtly distinguishing Nature from Herself-- 241 from Her own peculiar energies-- from Her faculty of action. 242 By degrees they made an incomprehensible being of this energy, which as before they personified, 243 this they called the mover of Nature, divided it into two, one congenial to human's happiness, the other inimical to your welfare; 244 these they deified in the same manner as they had before done Nature with Her various parts.

245 These abstract, metaphysical beings, became the sole object of their thoughts; were the subject of their continual contemplation; 246 they looked upon them as realities of the highest importance: 247 thus Nature quite disappeared; She was despoiled of Her rights; 248 She was considered as nothing more than an unwieldy mass, destitute of power; devoid of energy, as an heap of ignoble matter purely passive: 249 who, incapable of acting by Herself, was not competent to any of the operations they beheld, 250 without the direct, the immediate agency of the moving powers they had associated with Her: which they had made the fulcrum necessary to the action of the lever.

251 They either did not or would not perceive, that the great Cause of causes, ens entium, Parent of parents, had, in unravelling chaotic matter, 252 with a wisdom for which human can never be sufficiently grateful, with a sagacity which you can never sufficiently admire, 253 foreseen everything that could contribute not only to your own individual happiness, but also to that of all the beings in Nature; 254 that you had given this Nature immutable laws, according to which She is forever regulated; after which She is obliged invariably to act; 255 that human have described for Her an eternal course, from which it is not permitted Her to deviate, even for an instant; 256 that She is therefore, rendered competent to the production of every phenomena, not only that you beholds, but of an infinity that human have never yet contemplated; 257 that She needs not any exterior energy for this purpose, having received Her powers from a hand far

superior to any the feeble weak imagination of human is able to form; 258 that when this Nature appears to afflict you, it is only from the contraction of your own views, from the narrowness of your own ideas, that you judges; 259 that, in fact, what you considers the evils of Nature, are the greatest possible benefits you can receive, 260 if you was but in a condition to be acquainted with previous causes, with subsequent effects.

261 That the evils resulting to you from your own vices, have equally their remedies in this Nature, which it is your duty to study; 262 which if you does you will find, that the same omnipotent goodness, who gave Her irrefragable laws, also planted in Her bosom, balsams for all your maladies, whether physical or moral: 263 but that it is not given you to know what this great, this universal cause is, 264 for purposes of which you ought not to dispute the wisdom, when you contemplates the mighty wonders that surround you.

265 Thus human ever preferred an unknown power, to that of which you was enabled to have some knowledge, if you had only deigned to consult your experience; 266 but you presently ceases to respect that which you understands; to estimate those objects which are familiar to you: 267 you figures to yourself something marvellous in everything you does not comprehend; 268 your mind, above all, labours to seize upon that which appears to escape your consideration; 269 in default of experience, you no longer consults anything, but your imagination, which feeds you with chimeras.

270 In consequence, those speculators who have subtly distinguished Nature from Her own powers, have successively laboured to clothe the powers thus separated with a thousand incomprehensible qualities: 271 as they did not see this power, which is only a mode, they made it a spirit-- an intelligence-- an incorporeal being; 272 that is to say, of a substance totally different from everything of which we have a knowledge. 273 They never perceived that all their inventions, that all the words which they

imagined, only served to mask their real ignorance; 274 that all their pretended science was limited to saying, in what manner Nature acted, by a thousand subterfuges which they themselves found it impossible to comprehend.

275 Human always deceives the self for want of studying Nature; you leads yourself astray, every time you are disposed to go out of it; 276 you are always quickly necessitated to return; you are even in error when you substitutes words which you does not yourself understand, 277 for things which you would much better comprehend if you was willing to look at them without prejudice.

278 Can a theologian ingenuously believe the self more enlightened, for having substituted the vague words spirit, incorporeal substance, 279 to the more intelligible terms Nature, matter, mobility, necessity? 280 However this may be, these obscure words once imagined, it was necessary to attach ideas to them; 281 in doing this, you have not been able to draw them from any other source than the beings of this despised Nature, 282 which are ever the only beings of which you are enabled to have any knowledge. 283 Human, consequently, drew them up in the self; your own soul served for the model of the universal soul, of which indeed according to some it only formed a portion; 284 your own mind was the standard of the mind that regulated Nature; 285 your own passions, your own desires, were the prototypes of those by which you actuated this being; 286 your own intelligence was that from which you formed that of the mover of Nature; 287 that which was suitable to yourself, you called the order of Nature; 288 this pretended order was the scale by which you measured the wisdom of this being; 289 in short, those qualities which you calls perfections in yourself, were the archetypes in miniature, of the perfections of the being, 290 you thus gratuitously supposed to be the agent, who operated the phenomena of Nature.

291 It was thus, that in despite of all their efforts, the theologians were, perhaps always will be, true

Anthropomorphites. 292 A sect of this denomination appeared in 359, in Egypt, they held the doctrine that their god had a bodily shape. 293 Indeed it is very difficult, if not impossible to prevent human from making the self the sole model of own divinity. 294 Montaigne says "human is not able to be other than you are, nor imagine but after you capacity; 295 let you take what pains you may, you will never have a knowledge of any soul but your own." 296 Xenophanes said, "if the ox or the elephant understood either sculpture or painting, they would not fail to represent the divinity under their own peculiar figure 297 that in this, they would have as much reason as Polyclitus or Phidias, who gave Him the human form."

298 It was said to a very celebrated person that "God made human after His own image;" 299 "human has returned the compliment," replied the philosopher. 300 Indeed, human generally sees in own God, nothing but a human. 301 Let you subtilise as you will, let you extend your own powers as you may, let you swell your own perfections to the utmost, 302 you will have done nothing more than make a gigantic, exaggerated human, whom you will render illusory by dint of heaping together incompatible qualities. 303 You will never see in such a god, but a being of the human species, 304 in whom you will strive to aggrandise the proportions, until you have formed a being totally inconceivable.

305 It is according to these dispositions that you attributes intelligence, wisdom, goodness, justice, science, power, to your divinity, 306 because you are yourself intelligent; because you have the idea of wisdom in some beings of your own species; 307 because you loves to find in them ideas favourable to yourself: because you esteems those who display equity; 308 because you have a knowledge, which you holds more extensive in some individuals than yourself; 309 in short, because you enjoys certain faculties which depend on your own organisation. 310 You presently extends or exaggerates all these qualities in forming your god; 311 the sight of the

phenomena of Nature, which you feels you are yourself incapable of either producing or imitating, 312 obliges you to make this difference between the being you portrays and yourself; 313 but you knows not at what point to stop; you fears lest you should deceive yourself, 314 if you should see any limits to the qualities you assigns, the word infinite, therefore, is the abstract, the vague term which you uses to characterise them.

315 You says that His power is infinite, which signifies that when you beholds those stupendous effects which Nature produces, you have no conception at what point His power can rest; 316 that His goodness, His wisdom, His knowledge are infinite: 317 this announces that you are ignorant how far these perfections may be carried in a being whose power so much surpasses your own; 318 that He is of infinite duration, because you are not capable of conceiving He could have had a beginning or can ever cease to be; 319 because of this you considers a defect in those transitory beings of whom you beholds the dissolution, whom you sees are subjected to death. 320 You presumes the cause of those effects to which you are a witness, of those striking phenomena that assail your sight, is immutable, permanent, not subjected to change, 321 like all the evanescent beings whom you knows are submitted to dissolution, to destruction, to change of form.

322 This mover of Nature being always invisible to human, His mode of action being impenetrable, 323 you believe that, like your soul or the concealed principle which animates your own body, which you calls spiritual, a spirit, is the moving power of the universe; 324 in consequence you makes a spirit the soul, the life, the principle of motion in Nature. 325 Thus when by dint of subtilising, you have arrived at believing the principle by which your body is moved in a spiritual, immaterial substance, 326 you makes the spirit of the universe immaterial in like manner: 327 you makes it immense, although without extent; immoveable, although capable of

moving Nature: 328 immutable, although you supposes Him to be the author of all the changes, operated in the universe.

329 The idea of the unity of God, which cost Socrates his life, because the Athenians considered those Atheists who believed but in one, was the tardy fruit of human meditation. 330 Plato himself did not dare to break entirely the doctrine of Polytheism; 331 he preserved Venus, an all-powerful Jupiter, and a Pallas, who was the goddess of the country. 332 The sight of those opposite, frequently contradictory effects, which human saw take place in the world, 333 had a tendency to persuade him there must be a number of distinct powers or causes independent of each other. 334 He was unable to conceive that the various phenomena he beheld, sprung from a single, from an unique cause; 335 he therefore admitted many causes or gods, acting upon different principles; 336 some of which he considered friendly, others as inimical to his race.

337 Such is the origin of that doctrine, so ancient, so universal, which supposed two principles in Nature, 338 or two powers of opposite interests, who were perpetually at war with each other; 339 by the assistance of which he explained, that constant mixture of good and evil, that blending of prosperity with misfortune, 340 in a word, those eternal vicissitudes to which in this world the human being, is subjected. 341 This is the source of those combats which all antiquity has supposed to exist between good and wicked gods, 342 between an Osiris and a Typhoeus; between an Orosmadis and an Arimanis; between a Jupiter and the Titanes; 343 in these encounters human for your own peculiar interest always gave the palm of victory to the beneficent deity; 344 this, according to all the traditions handed down, ever remained in possession of the field of battle; 345 it was so far right, as it is evidently for the benefit of humankind that the good should prevail over the wicked.

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346 When, however, human acknowledged only one God, you generally supposed the different departments of Nature were confided to powers subordinate to your supreme orders, 347 under whom the sovereign of the gods discharged his care in the administration of the world. 348 These subaltern gods were prodigiously multiplied; each person, each town, each country, had their local, their tutelary gods; 349 every event, whether fortunate or unfortunate, had a divine cause; was the consequence of a sovereign decree; 350 each natural effect, every operation of Nature, each passion, depended upon a divinity, 351 which a theological imagination, disposed to see gods everywhere, mistaking Nature, either embellished or disfigured. 352 Poetry tuned its harmonious lays, on these occasions, exaggerated the details, animated its pictures; 353 credulous ignorance received the portraits with eagerness-- heard the doctrines with submission.

354 Such is the origin of Polytheism: 355 indeed the Greek word Theos, [Greek letters], is derived from Theaomai, [Greek letters], which implies to contemplate, or take a view of secret or hidden things. 356 Such are the foundations, such the titles of the hierarchy, which human established between the self and own gods, 357 because you generally believed you was incapable of the exalted privilege of immediately addressing yourself to the incomprehensible Being 358 whom you had acknowledged for the only sovereign of Nature, without even having any distinct idea on the subject: 359 such is the true genealogy of those inferior gods whom the uninformed place as a proportional means between themselves and the first of all other causes. 360 In consequence, among the Greeks and the Romans, we see the deities divided into two classes, 361 the one were called great gods, because the whole world were nearly in accord in deifying the most striking parts of Nature, such as the sun, fire; 362 the sea, time, these formed a kind of aristocratic order, who were distinguished from the

minor gods, or from the multitude of ethnic divinities, who were entirely local; 363 that is to say, were reverenced only in particular countries, or by individuals; 364 as in Rome, where every citizen had own familiar spirit, called lares; and household god, called penates.

365 Nevertheless, the first rank of these Pagan divinities, like the latter, were submitted to Fate, 366 that is, to destiny, which obviously is nothing more than Nature acting by immutable, rigorous, necessary laws; 367 this destiny was looked upon as the god of gods; it is evident, that this was nothing more than necessity personified; 368 that therefore it was a weakness in the heathens to fatigue with their sacrifices, to solicit with their prayers, 369 those divinities whom they themselves believed were submitted to the decrees of an inexorable destiny, of which it was never possible for them to alter the mandates. 370 But human, generally, ceases to reason, whenever your theological notions are either brought into question, or are the subject of your inquiry.

371 What has been already said, serves to show the common source of that multitude of intermediate powers, subordinate to the gods, but superior to human, with which you filled the universe: 372 they were venerated under the names of nymphs, demi-gods, angels, daemons, good and evil genii, spirits, heroes, saints. 373 Among the Romans they were called Dei medioxumi, intermediate angels; they were looked upon as intercessors, as mediators, as powers whom it was necessary to reverence, 374 in order either to obtain their favour, appease their anger, or divert their malignant intentions; 375 these constitute different classes of intermediate divinities, who became either the foundation of their hopes, the object of their fears, the means of consolation, 376 or the source of dread to those very mortals who only invented them 377 when they found it impossible to form to themselves distinct, perspicuous ideas of the incomprehensible Being who governed the world in chief; 378 or when they despaired of being able to

hold communication with Him directly.

379 Meditation and reflection diminished the number of those deities which composed the ethnic polytheism: 380 some who gave the subject more consideration than others, reduced the whole to one all-powerful Jupiter; 381 but still they painted this being in the most hideous colours, gave Him the most revolting features, 382 because they were still obstinately bent on making human, His action and His passions, the model: 383 this folly led them into continual perplexities, because it heaped together contradictory, incompatible, extravagant qualities; 384 it was quite natural it should do so: the limited views, the superficial knowledge, the irregular desires of frail, feeble mortals, were but little calculated to typify the mind of the real Divinity; 385 of that great Cause of causes, that Parent of parents, from whom everything must have emanated.

386 Although they persuaded themselves it was sinning to give Him rivals, yet they described Him as a jealous monarch who could not bear a division of empire; 387 thus taking the vanity of earthly princes for their emblem, as if it was possible such a being could have a competitor like a terrestrial monarch.

388 Not having contemplated the immutable laws with which He has invested Nature, 389 to which everything it contains is subjected, which are the result of the most perfect wisdom, 390 they were puzzled to account for the contrariety of those effects which their weak minds led them to suppose as evils; 391 seeing that sometimes those who fulfilled in the most faithful manner their duties in this life, were involved in the same ruin with the boldest, the most inconsiderate violaters: 392 thus in making Him the immediate agent, instead of the first author, the executive instead of the formative power, they caused him to appear capricious, 393 as unreasonably vindictive against His creatures, 394 when they ought to have known that His wisdom was unlimited, His kindness without bounds, 395 when He infused into Nature that power

which produces these apparently contradictory effects; 396 which, although they seem injurious to human's interests, are, if you was but capacitated to judge fairly, the most beneficial advantages that you can possibly derive. 397 Thus they made the Divinity appear improvident, by continually employing Him to destroy the work of His own hands: 398 they, in fact, taxed Him with impotence, by the perpetual non-performance of those projects of which their own imbecility, their own erring judgment, had vainly supposed Him to be the contriver.

399 To solve these difficulties, human created enemies to the Divinity, 400 who although subordinate to the supreme God, were nevertheless competent to disturb His empire, to frustrate His views. 401 Can anything be worse conceived, can anything be more truly derogatory to the great Parent of parents, than thus to make Him resemble a king, 402 who is surrounded with adversaries, willing to dispute with Him His diadem? 403 Such, however, is the origin of the Fable of the Titanes, or of the rebellious angels, whose presumption caused them to be plunged into the abyss of misery-- 404 who were changed into demons, or into evil genii: 405 these according to their mythology, had no other functions, than to render abortive the projects of the Divinity; 406 to seduce, to raise to rebellion, those who were His subjects. 407 Miserable invention, feeble subterfuge, for the vices of humankind, although decorated with all the beauty of language. 408 Can then sublimity of versification, the harmony of numbers, reconcile human 409 to the idea that the puny offspring of natural causes is adequate for a single instant to dispute the commands, to thwart the desires, 410 to render nugatory the decrees of a Being whose wisdom is of the most polished perfection; 411 whose goodness is boundless; whose power must be more capacious than the human mind can possibly conceive?

412 In consequence of this Fable of the Titanes, the monarch of Nature was represented as perpetually in a scuffle with the enemies He had

Himself created; 413 as unwilling totally to subdue those with whom these fabulists have described Him as dividing His authority-- partaking His supreme power. 414 This again was borrowed from the conduct of earthly monarchs, who, when they find a potent enemy, make a treaty with Him; 415 but this was quite unnecessary for the great Cause of causes; and only shows that human is utterly incapable of forming any other ideas 416 than those which you derives from the situation of those of your own race, or of the beings by whom you are surrounded.

417 According to this fable the subjects of the universal Monarch were never properly submitted to His authority; 418 like an earthly king, He was in a continual state of hostility, and punished those who had the misfortune to enter into the conspiracies of the enemies of His glory: 419 seeing that human legislators put forth laws, issued decrees, they established similar institutions for the Divinity; established oracles; 420 His ministers pretended, through these mysterious mediums, to convey to the people His heavenly mandates, to unveil His concealed intentions: 421 the ignorant multitude received these without examination, they did not perceive that it was human, and not the Divinity, who thus spoke to them; 422 they did not feel that it must be impossible for weak creatures to act contrary to the will of God.

423 The Fable of the Titanes, or rebellious angels, is extremely ancient; very generally diffused over the world; 424 it serves for the foundation of the theology of the Brachmins of Hindostan: 425 according to these, all living bodies are animated by fallen angels, who under these forms expiate their rebellion. 426 These contradictory notions were the basis of nearly all the superstitions of the world; 427 by these means they imagined they accounted for the origin of evil-- demonstrated the cause why the human species experience misery.

428 In short, the conduct of the most arbitrary tyrants of the earth was but too frequently brought forth, too often acted upon, 429 in forming the

character of the Divinity, held forth to the worship of human: 430 their imperfect jurisprudence was the source from whence they drew that which they ascribed to their god. 431 Pagan theology was remarkable for displaying in the character of their divinities the most dissolute vices; for making them vindictive; 432 for causing them to punish with extreme rigour those crimes which the oracles predicted; 433 to doom to the most lasting torments those who sinned without knowing their transgression; 434 to hurl vengeance on those who were ignorant of their obscure will, delivered in language which set comprehension at defiance; 435 unless it was by the priest who both made and fulminated it. 436 It was upon these unreasonable notions, that the theologians founded the worship which human ought to render to the Divinity.

437 Do not then let us be at all surprised if the superstitious human was in a state of continual alarm: 438 if you experienced trances-- if your mind was ever in the most tormenting dread; 439 the idea of your gods recalled to you unceasingly, that of a pitiless tyrant who sported with the miseries of your subjects; 440 who, without being conscious of their own wrong, might at each moment incur your displeasure: 441 you could not avoid feeling that although they had formed the universe entirely for human, yet justice did not regulate the actions of these powerful beings, or rather those of the priests; 442 but you also believed that their elevated rank placed them infinitely above the human species, that therefore they might afflict you at their pleasure.

443 It is then for want of considering good and evil as equally necessary; 444 it is for want of attributing them to their true causes, that human has created to the self fictitious powers, malicious divinities, respecting whom it is found so difficult to undeceive you. 445 Nevertheless, in contemplating Nature, you would have been able to have perceived, that physical evil is a necessary consequence of the peculiar properties of some beings; 446 you would have acknowledged that

plague, contagion, disease, are due to physical causes under particular circumstances; 447 to combinations, which, although extremely natural, are fatal to your species; 448 you would have sought--in the bosom of Nature Herself the remedies suitable to diminish these evils, 449 or to have caused the cessation of those effects under which you suffered: 450 you would have seen in like manner that moral evil was the necessary consequence of defective institutions; 451 that it was not to the Divinity, but to the injustice of your fellows you ought to ascribe those wars, that poverty, those famines, those reverses of fortune, 452 those multitudinous calamities, those vices, those crimes, under which you so frequently groans.

453 Thus to rid yourself of these evils you would not have uselessly extended your trembling hands towards shadows incapable of relieving you; 454 towards beings who were not the authors of your sorrows; 455 you would have sought remedies for these misfortunes in a more rational administration of justice-- 456 in more equitable laws--in more reasonable institutions--in a greater degree of benevolence towards your fellow human-- in a more punctual performance of your own duties.

457 As these gods were generally depicted to human as implacable to your frailties 458 as they denounced nothing but the most dreadful punishments against those who involuntarily offended, 459 it is not at all surprising that the sentiment of fear prevailed over that of love: 460 the gloomy ideas presented to your mind were calculated to make you tremble, without making you better; 461 an attention to this truth will serve to explain the foundation of that fantastical, irrational, frequently cruel worship, which was paid to these divinities; 462 you often committed the most cruel extravagancies against your own person, the most hideous crimes against the person of others, 463 under the idea that in so doing, you disarmed the anger, appeased the justice, recalled the clemency, deserved the mercy of your gods.

464 In general, the superstitious systems of human, your human and other sacrifices, your prayers, your ceremonies, your customs; 465 have had only for their object either to divert the fury of your gods, whom you believed you had offended; 466 to render them propitious to your own selfish views; 467 or to excite in them that good disposition towards yourself, which your own perverse mode of thinking made you imagine they bestowed exclusively on others: 468 on the other hand, the efforts, the subtilties of theology, have seldom had any other end, than to reconcile in the divinities it has portrayed, 469 those discordant ideas which its own dogmas has raised in the minds of mortals. 470 From what has preceded, it may fairly be concluded that ethnic theology undermined itself by its own inconsistencies; 471 that the art of composing chimeras may therefore with great justice be defined to be that of combining those qualities which are impossible to be reconciled with each other.

OF THE CONFUSED AND CONTRADICTORY IDEAS OF THEOLOGY

Paul Henri Thiery (Baron D'Holbach)

46 Everything that has been said, proves pretty clearly, that, in despite of all human efforts, human has never been able to prevent the self 2 from drawing together from own peculiar nature, the qualities you have assigned to the Being who governs the universe. 3 The contradictions necessarily resulting from the incompatible assemblage of these human qualities, 4 which cannot become suitable to the same subject, seeing that the existence of one destroys the existence of the other, have been shown:-- 5 the theologians themselves have felt the insurmountable difficulties which their divinities presented to reason: 6 they were so substantive, that as they felt the impossibility of withdrawing themselves out of the dilemma, 7 they endeavoured to prevent human from reasoning, by throwing your mind into confusion-- 8 by continually augmenting the

perplexity of those ideas, already so discordant, which they offered you of the gods. 9 By these means they enveloped them in mystery, covered them with dense clouds, and rendered them inaccessible to humankind: 10 thus they themselves became the interpreters, the masters of explaining, according either to their fancy or their interest, the ways of those enigmatical beings they made you adore. 11 For this purpose they exaggerated them more and more-- neither time nor space, nor the entire of Nature could contain their immensity-- 12 everything became an impenetrable mystery.

13 Although human has originally borrowed from the self the traits, the colours, the primitive lineaments of which you composed your gods; 14 although you have made them jealous, powerful, vindictive monarchs, yet your theology, by force of dreaming, entirely lost sight of human nature. 15 In order to render your divinities still more different from their creatures, it assigned them, over and above the usual qualities of human, 16 properties so marvellous, so uncommon, so far removed from everything of which human mind could form a conception, that you lost sight of them yourself. 17 From thence you persuaded yourself these qualities were divine, because you could no longer comprehend them; 18 you believed them worthy of your gods, because no person could figure to the self any one distinct idea of them.

19 Thus theology obtained the point of persuading human you must believe that which you could not conceive; 20 that you must receive with submission improbable systems; 21 that you must adopt, with pious deference, conjectures contrary to your reason; 22 that this reason itself was the most agreeable sacrifice you could make on the altars of your gods, who were unwilling you should use the gift they had bestowed upon you. 23 In short, it had made mortals implicitly believe that they were not formed to comprehend the thing of all others the most important to themselves. 24 Thus it is evident that superstition

founded its basis upon the absurd principle 25 that human is obliged to accredit firmly that which you are in the most complete impossibility of comprehending.

26 On the other hand, human persuaded the self that the gigantic, the truly incomprehensible attributes which were assigned to these celestial monarchs, 27 placed between them and their slaves a distance so immense, that these could not be by any means offended with the comparison; 28 that these distinctions rendered them still greater; made them more powerful, more marvellous, more inaccessible to observation. 29 Human always entertains the idea, that what you are not in a condition to conceive, in much more noble, much more respectable, than that which you have the capacity to comprehend. 30 The more a thing is removed from your reach, the more valuable it always appears.

31 These prejudices in human for the marvellous appear to have been the source that gave birth to those wonderful, unintelligible qualities with which superstition clothed these divinities. 32 The invincible ignorance of the human mind, whose fears reduced you to despair, engendered those obscure, vague notions, with which mythology decorated its gods. 33 You believed you could never displease them, provided you rendered them incommensurable; 34 impossible to be compared with anything, of which you had a knowledge; 35 either with that which was most sublime, or that which possessed the greatest magnitude.

36 From hence the multitude of negative attributes with which ingenious dreamers have successively embellished their phantoms, 37 to the end that they might more surely form a being distinguished from all others, 38 or which possessed nothing in common with that which the human mind had the faculty of being acquainted with: 39 they did not perceive that after all their endeavours, it was nothing more than exaggerated human qualities, which they thus heaped together, 40 with no more skill than a

painter would display who should delineate all the members of the body of the same size, taking a giant for dimension.

41 The theological attributes with which metaphysicians decorated these divinities, were in fact nothing but pure negations of the qualities found in human, 42 or in those beings of which you have a knowledge; 43 by these attributes their gods were supposed exempted from everything which they considered weakness or imperfection in human, or in the beings by whom you are surrounded: 44 they called every quality infinite, which has been shown is only to affirm, that unlike human, or the beings with whom you are acquainted, it is not circumscribed by the limits of space; 45 this, however, is what you can never in any manner comprehend, because you are yourself finite.

46 Hobbes in his Leviathan, says, "whatsoever we imagine is finite. Therefore there is no idea, or conception of anything we call infinite. 47 No person can have in own mind an image of infinite magnitude, nor conceive infinite swiftness, infinite time, infinite force, or infinite power. 48 When we say anything is infinite, we signify only, that we are not able to conceive the ends and bound of the thing named, having no conception of the thing, but of our own inability."

49 Sherlock says, "the word infinite is only a negation, which signifies that which has neither end, nor limits, nor extent, 50 and, consequently, that which has no positive and determinate nature, and is therefore nothing;" 51 he adds, "that nothing but custom has caused this word to be adopted, which without that, would appear devoid of sense, and a contradiction."

52 When it is said these gods are eternal, it signifies they have not had, like human or like everything that exists, a beginning, and that they will never have an end: 53 to say they are immutable, is to say, that unlike yourself or everything which you sees, they are not subject to change: 54 to say they are immaterial, is to advance, that their substance or essence is of a nature not

conceivable by yourself, 55 but which must from that very circumstance be totally different from everything of which you have cognisance.

56 It is from the confused collection of these negative qualities, that has resulted the theological gods; 57 those metaphysical wholes of which it is impossible for human to form to the self any correct idea. 58 In these abstract beings everything is infinity,--immensity,-- spirituality,-- omniscience,-- order,--wisdom,-- intelligence,-- omnipotence. 59 In combining these vague terms, or these modifications, the ethnic priests believed they formed something, 60 they extended these qualities by thought, and they imagined they made gods, whilst they only composed chimeras. 61 They imagined that these perfections or these qualities must be suitable to their gods, because they were not suitable to anything of which they had a knowledge; 62 they believed that incomprehensible beings must have inconceivable qualities. 63 These were the materials of which theology availed itself to compose those inexplicable shadows before which they commanded the human race to bend the knee.

64 Nevertheless, experience soon proved that beings so vague, so impossible to be conceived, so incapable of definition, so far removed from everything of which human could have any knowledge, 66 were but little calculated to fix your restless views; your mind requires to be arrested by qualities which you are capacitated to ascertain; 67 of which you are in a condition to form a judgment. 68 Thus after it had subtilised these metaphysical gods, after it had rendered them so different in idea, from everything that acts upon the senses, 69 theology found itself under the necessity of again assimilating them to human, from whom it had so far removed them: 70 it therefore again made them human by the moral qualities which it assigned them; 71 it felt that without this it would not be able to persuade humankind there could possibly exist any relation between you and such vague, ethereal,

fugitive, incommensurable beings; 72 that it would never be competent to secure for them your adoration.

73 It began to perceive that these marvellous gods were only calculated to exercise the imagination of some few thinkers, 74 whose minds were accustomed to labour upon chimerical subjects, or to take words for realities; 75 in short it found, that for the greater number of the material children of the earth it was necessary to have gods 76 more analogous to themselves, more sensible, more known to them. 77 In consequence these divinities were re-clothed with human qualities; 78 theology never felt the incompatibility of these qualities with beings it had made essentially different from human, 79 who consequently could neither have your properties, nor be modified like yourself. 80 It did not see that gods who were immaterial, destitute of corporeal organs, were neither able to think nor to act as material beings, 81 whose peculiar organisations render them susceptible of the qualities, the feelings, the will, the virtues, that are found in them.

82 The necessity it felt to assimilate the gods to their worshippers, to make an affinity between them, 83 made it pass over without consideration these palpable contradictions--this want of keeping in their portrait: 84 thus ethnic theology obstinately continued to unite those incompatible qualities, 85 that discrepancy of character, which the human mind attempted in vain either to conceive or to reconcile: 86 according to it, pure spirits were the movers of the material world; 87 immense beings were enabled to occupy space, without however excluding Nature; 88 immutable deities were the causes of those continual changes operated in the world: 89 omnipotent beings did not prevent those evils which were displeasing to them; 90 the sources of order submitted to confusion: in short, the wonderful properties of these theological beings every moment contradicted themselves.

91 There is not less discrepancy, less incompatibility, less discordance in

the human perfections, less contradiction in the moral qualities attributed to them, 92 to the end that human might be enabled to form to the self some idea of these beings. 93 These were all said to be eminently possessed by the gods, although they every moment contradicted each other: 94 by this means they formed a kind of patch-work character, heterogeneous beings, discrepant phenomena, entirely inconceivable to human, 95 because Nature had never constructed anything like them, whereby you was enabled to form a judgment. 96 Human was assured they were eminently good--that it was visible in all their actions.

97 Now goodness is a known quality, recognisable in some beings of the human species; 98 this is, above every other, a property you are desirous to find in all those upon whom you are in a state of dependence; 99 but you are unable to bestow the title of good on any among your fellows, 100 except their actions produce on you those effects which you approves-- that you finds in unison with your existence-- in conformity with your own peculiar modes of thinking. 101 It was evident, according to this reasoning, these ethnic gods did not impress human with this idea; 102 they were said to be equally the authors of human pleasures, as of human pains, which were to be either secured or averted by sacrifices: 103 thus when human suffered by contagion, when you was the victim of shipwreck, when your country was desolated by war, 104 when you saw whole nations devoured by rapacious earthquakes, when you was a prey to the keenest sorrows, 105 you at least was unable to conceive the bounty of those beings. 106 How could you perceive the beautiful order which they had introduced into the world, while you groaned under such a multitude of calamities? 107 How were you able to discern the beneficence of people whom you beheld sporting as it were with your species? 108 How could you conceive the consistency of those who destroyed that which you was assured they had taken such pains to establish, solely for your own peculiar happiness?

NATURE

109 But had your mind been properly enlightened, had you been taught to know, 110 that Nature, acting by unerring laws, produces all the phenomena you beholds as a necessary consequence of Her primitive impulse-- 111 that like the rest of Nature you was yourself subjected to the general operation-- 112 that no peculiar exemption had been made in your behalf-- that sacrifices were useless-- 113 that the great Parent of parents, equally mindful of all your creatures, had set in action with the most consummate wisdom an invariable system, 114 the apparent, casual evils of which were ever counterbalanced by the resulting good; 115 that without repining, it was your duty, your interest, to submit; 116 at the same time to examine with sedulity, to search with earnestness, into the recesses of this Nature for remedies to the sorrows you endured.

117 If you had been thus instructed, we should never behold you arraigning either the kindness, the wisdom, or the consistency of the gods; 118 you would neither have ascribed your sufferings to the malicious interference of inferior deities, 119 so derogatory to the divine majesty of the Great Cause of causes, 120 nor would you have taxed with either inconsistency or unkindness, that Nature which cannot act otherwise than She does. 121 Perhaps of all the ideas that can be infused into the mind of human, none is more really subversive of your true happiness, 122 none more incompatible with the reality of things, than that which persuades you that you are yourself a privileged being, 123 the king of a nature where everything is submitted to laws, the extent of which your finite mind cannot possibly conceive. 124 Even admitting it should ultimately turn out to be a fact, you have yet no one positive evidence to justify the assumption; 125 experience, which after all must always prove the best criterion for your judgment, 126 daily proves, that in everything you are subjected, like every other part of Nature, to those invariable decrees from which nothing that you beholds is exempted.

NATURE

127 Feeble monarch! of whom a grain of sand, some atoms of bile, some misplaced humours, destroy at once the existence and the reign: 128 yet thou pretendest everything was made for thee! Thou desirest that the entire of Nature should be thy domain, 129 and thou canst not even defend thyself from the slightest of Her shocks! 130 Thou makest to thyself a god for thyself alone; thou supposest that you unceasingly occupieth yourself only for thy peculiar happiness; 131 thou imaginest everything was made solely for thy pleasure; and, following up thy presumptuous ideas, thou hast the audacity to call Nature good or bad as thy weak intellect inclines: 132 thou darest to think that the kindness exhibited towards thee, in common with other beings, is contradicted by the evil genii thy fancy has created! 133 Dost thou not see that those beasts which thou supposes submitted to thine empire, frequently devour thy fellow-creatures; 134 that fire consumeth them; that the ocean swalloweth them up; 135 that those elements of which thou sometimes admirest the order, which sometimes thou accusest of confusion, frequently sweep them off the face of the earth; 136 dost thou not see that all this is necessarily what it must be; that thou art not in any manner consulted in any of this phenomena?

137 Indeed, according to thine own ideas, if thou wast to examine them with care, dost thou not admit that thy gods are the universal cause of all; 138 that they maintain the whole by the destruction of its parts. 139 Are they not then according to thyself, the gods of Nature-- of the ocean-- of rivers-- of mountains-- of the earth, 140 in which they occupiest, so very small a space-- of all those other globes that thou seest roll in the regions of space-- of those orbs that revolve round the sun that enlighteneth thee?

141 Cease, then, obstinately to persist in beholding nothing but thy sickly self in Nature; 142 do not flatter thyself that the human race, which reneweth itself, which disappeareth like the leaves on the trees, 143 can absorb all the care, can ingross all the tenderness of that universal

being, 144 who, according to thyself, properly understood, ruleth the destiny of all things. 145 Submit thyself in silence to mandates which thy unavailing prayers; can never change; to a wisdom which thy imbecility cannot fathom; 146 to the unerring shafts of a fate, which nothing but thine own vanity, aided by thy perverse ignorance, could ever question, being the best possible good that can befall thee! 147 Which if thou couldst alter, thou wouldst with thy defective judgment render worse!

148 What is the human race compared to the earth? What is this earth compared to the sun? 149 What is our sun compared to those myriads of suns which at immense distances occupy the regions of space? 150 not for the purpose of diverting thy weak eyes; not with a view to excite thy stupid admiration, as thou vainly imaginest; 151 since multitudes of them are placed out of the range of thy visual organs: but to occupy the place which necessity hath assigned them.

152 Mortal, feeble and vain! Restore thyself to thy proper sphere; acknowledge every where the effect of necessity; 153 recognise in thy benefits, behold in thy sorrows, the different modes of action 154 of those various beings endowed with such a variety of properties, which surround thee; of which the macrocosm is the assemblage; 155 and do not any longer suppose that this Nature, much less its great cause, can possess such incompatible qualities 156 as would be the result of human views or of visionary ideas, which have no existence but in thyself.

157 As long as theologians shall continue obstinately bent to make human the model of their gods; 158 as long as they shall pertinaciously undertake to explain the nature of these gods, 159 which they will never be able to do, but after human ideas, although they may associate the most heterogeneous properties, the most discrepant functions; 160 so long, I say, experience will contradict at every moment the beneficent views they attach to their divinities; 161 it will be in vain that they call them

good: 162 human reasoning thus, will never be able to find good but in those objects which impel you in a manner favourable to your actual mode of existence; 163 you always finds confusion in that which fills you with grievous sensations; 164 you calls evil everything that painfully affects you, even cursorily; 165 those beings that produce in you two modes of feeling, so very opposite to each other, you will naturally conclude are sometimes favourable, sometimes unfavourable to you; 166 at least, if you will not allow that they act necessarily, consequently are neither one nor the other, 167 you will say that a world where you experiences so much evil cannot be submitted to people who are perfectly good; 168 on the other hand, you will also assume that a world in which human receives so many benefits, cannot be governed by those who are without kindness. 169 Thus you are obliged to admit of two principles equally powerful, who are in hostility with each other; 170 or rather, you must agree that the same people are alternately kind and unkind; 171 this after all is nothing more than avowing they cannot be otherwise than they are; 172 in this case it would be useless to sacrifice to them-- to make solicitation; 173 seeing it would be nothing but destiny-- the necessity of things submitted invariable rules.

174 In order to justify these beings, constructed upon mortal principles, from injustice, in consequence of the evils the human species experience, 175 the theologian is reduced to the necessity of calling them punishments inflicted for the transgressions of human. 176 But then these general calamities include all people. 177 Some, at least, may be supposed not to have offended. 178 Thus you involves contradictions you finds it difficult to reconcile; 179 to effectuate this you makes your anthropomorphites immaterial-- incorporeal; 180 that is, you says they are the negation of everything of which you have a knowledge; 181 consequently, beings who can have no relation with corporeal beings: and this avails you no better, as will

be evident by reasoning on the subject.

182 To offend anyone, is to diminish the sum of your happiness; it is to afflict you, to deprive him of something, to make you experience a painful sensation. 183 How is it possible human can operate on such beings; 184 how can the physical actions of a material substance have any influence over an immaterial substance, devoid of parts, having no point of contact. 185 How can a corporeal being make an incorporeal being experience incommodious sensations? 186 On the other hand, justice, according to the only ideas human can ever form of it, supposes, a permanent disposition to render to what is due to each person; 187 the theologians will not admit that the beings they have jumbled together owe any thing to human; 188 they insists that the benefits they bestow are all the gratuitous effects of their own goodness; 189 that they have the right to dispose of the work of their hands according to their own pleasure; to plunge it if they please into the abyss of misery; 190 in short, that their volition is the only guide of their conduct. 191 It is easy to see, that according to human's idea of justice, this does not even contain the shadow of it; 192 that it is, in fact, the mode of action adopted by what he calls the most frightful tyrants. 193 How then can you be induced to call people just who act after this manner?

194 Indeed, while you sees innocence suffering, virtue in tears, crime triumphant, vice recompensed, and at the same time, is told the beings whom theology has invented are the authors, 195 you will never be able to acknowledge them to have justice. 196 But you will find no such contradictory qualities in Nature, where everything is the result of immutable laws: 197 you will at once perceive that these transient evils produce more permanent good; 198 that they are necessary to the conservation of the whole, or else result from modifications of matter, 199 which it is competent for you to change, by altering your own mode of action; a lesson that Nature

Herself teaches you when you are willing to receive Her instructions.
200 But to form gods with human passions, is to make them appear unjust; 201 to say that such beings chastise their friends for their own good, is at once to upset all the ideas you have either of kindness or unkindness: 202 thus the incompatible human qualities ascribed to these beings, do in fact destroy their existence. 203 If it be insisted they have the knowledge and power of human, only that they are more extended, 204 then it becomes a very natural reply, to say, since they know everything, they ought at least to restrain mischief; 205 because this would be the observation of human upon the action of own fellows;-- 206 if it be urged these qualities are similar to the same qualities possessed by human, then it may be fairly asked in what do they differ? 207 To this, if any answer be given, be what it may, it will still be only changing the language: 208 it will be invariably another method of expressing the same thing; 209 seeing that human with all your ingenuity, will never be able to describe properties but after yourself or those of the beings by whom you are surrounded.
210 Where is the person filled with kindness, endowed with humanity, who does not desire with all own heart to render own fellow creatures happy? 211 If these beings, as the theologians assert, really have human's qualities augmented, 212 would they not, by the same reasoning, exercise their infinite power to render them all happy? 213 Nevertheless, in despite of these theologists, we scarcely find anyone who is perfectly satisfied with own condition on earth: 214 for one mortal that enjoys, we behold a thousand who suffer; 215 for one rich person who lives in the midst of abundance, there are thousands of poor who want common necessaries: 216 whole nations groan in indigence, to satisfy the passions of some avaricious princes, of some few nobles, 217 who are not thereby rendered more contented-- who do not acknowledge themselves more fortunate on that account.

218 In short, under the dominion of these beings, the earth is drenched with the tears of the miserable. 219 What must be the inference from all this? That they are either negligent of, or incompetent to your happiness. 220 But the mythologists will tell you coolly, that the judgments of their gods are impenetrable! How do we understand this term? 221 Not to be taught-- not to be informed-- impervious-- not to be pierced: 222 in this case it would be an unreasonable question to inquire by what authority do you reason upon them? 223 How do you become acquainted with these impenetrable mysteries? 224 Upon what foundation do you attribute virtues which you cannot penetrate? 225 What idea do you form to yourself of a justice that never resembles that of human? 226 Or is it a truth that you yourself are not a human, but one of those impenetrable beings whom you say you represent?

227 To withdraw themselves from this, they will affirm that the justice of these idols are tempered with mercy, with compassion, with goodness: 228 these again are human qualities: what, therefore, shall we understand by them? What idea do we attach to mercy? 229 Is it not a derogation from the severe rules of an exact, a rigorous justice, which causes a remission of some part of a merited punishment? 230 Here hinges the great incompatibility, the incongruity of those qualities, especially when augmented by the word omni; 231 which shows how little suitable human properties are to the formation of divinities.

232 In a prince, clemency is either a violation of justice, or the exemption from a too severe law: 233 nevertheless, human approves of clemency in a sovereign, when its too great facility does not become prejudicial to society; 234 he esteems it, because it announces humanity, mildness, a compassionate, noble soul; qualities he prefers in his governors to rigour, cruelty, inflexibility: 235 besides, human laws are defective; they are frequently too severe; 236 they are not competent to foresee all the circumstances of every case: 237 the punishments they

decree are not always commensurate with the offence: 238 you therefore does not always think them just: but you feels very well, you understands distinctly, that when the sovereign extends their mercy, they relaxes from their justice-- 239 that if mercy be merited, the punishment ought not to take place-- that then its exercise is no longer clemency, but justice: 240 thus you feels, that in your fellow creatures these two qualities cannot exist at the same moment. 241 How then are you to form your judgment of beings who are represented to possess both in the extremest degree? 242 Is it not, in fact, announcing these beings to be people like ourselves, who act with our imperfections on an enlarged scale?

243 They then say, well, but in the next world these idols will reward you for all the evils you suffer in this: 244 this, indeed, is something to look to, if it could be contemplated alone; unmixed with all they have formerly asserted: 245 if we could also find that there was an unison of thinking on this point--if there was a reasonable comprehensible view of it held forth: 246 but alas! here again human pleasures, human feelings, are the basis on which these rewards are rested; 247 only they are promised in a way we cannot comprehend them; 248 houris, or females who are to remain forever virgins, notwithstanding the knowledge of human, are so opposed to all human comprehension, so opposite to all experience, 249 are such mystic assertions, that the human mind cannot possibly embrace an idea of them: 250 besides, this is only promised by one class of these beings; others affirm it will be altogether different: 251 in short, the number of modes in which this hereafter reward is promised to you, obliges human to ask the self one plain question, Which is the real history of these blissful abodes?

252 At this question you staggers-- you seeks for advice: each assures you that the other is in error-- 253 that your peculiar mode is that which will really have place; that to believe the other is a crime. 254 How are you to judge now? Take what course you will, you runs the chance of being

wrong; 255 you have no standard whereby to measure the correctness of these contradictory assurances; 256 your mind is held suspended; you feels the impossibility of the whole being right; you knows not that which you ought to elect! 257 Again, they have positively asserted these beings owe nothing to human: 258 how then are you to expect in a future life, a more real happiness than you enjoys in the present? 259 This they parry, by assuring you it is founded upon their promises, contained in their revealed oracles.

260 Granted: but are you quite certain these oracles have emanated from themselves? 261 If they are so different in their detail, may there not be reasonable ground for suspecting some of them are not authentic? 262 If there is, which are the spurious, which are the genuine? 263 By what rule are you to guide yourself in the choice; 264 how, with your frail methods of judging, are you to scrutinise oracles delivered by such powerful beings-- to discriminate the true from the false? 265 The ministers of each will give you an infallible method, one that, is according to their own asseveration, cannot err; 266 that is, by an implicit belief in the particular doctrine each promulgates.

267 Thus will be perceived the multitude of contradictions, the extravagant hypotheses which these human attributes, with which theology clothes its divinities, must necessarily produce. 268 Beings embracing at one time so many discordant qualities will always be undefinable-- 269 can only present a train of ideas calculated to displace each other; they will consequently ever remain beings of the imagination. 270 These beings, say their ministers, created the heavens, the earth, the creatures who inhabit it, to manifest their own peculiar glory; 271 they have neither rivals, nor equals in Nature; nothing which can be compared with them.

272 Glory is, again, a human passion: it is in human the desire of giving your fellow-creatures an high opinion of you; 273 this passion is laudable when it stimulates you to undertake great projects-- when it

determines you to perform useful actions-- 274 but it is very frequently a weakness attached to your nature; 275 it is nothing more than a desire to be distinguished from those beings with whom you compares yourself, without exciting you to one noble, one generous act. 276 It is easy to perceive that beings who are so much elevated above people, cannot be actuated by such a defective passion. 277 They say these beings are jealous of their prerogatives. 278 Jealousy is another human passion, not always of the most respectable kind: 279 but it is rather difficult to conceive the existence of jealousy with profound wisdom, unlimited power, and the perfection of justice.

280 Thus the theologians by dint of heaping quality on quality, aggrandising each as is added, 281 seem to have reduced themselves to the situation of a painter, who spreading all his colours upon his canvas together, 282 after thus blending them into an unique mass, loses sight of the whole in the composition. 283 They will, nevertheless, reply to these difficulties, that goodness, wisdom, justice, are in these beings qualities so pre-eminent, so distinct, 284 have so little affinity with these same qualities in human, that they are totally dissimilar-- have not the least relation.

285 Admit this to be the case, how then can you form to yourself any idea of these perfections, seeing they are totally unlike those with which you are acquainted? 286 They surely cannot mean to insinuate that they are the reverse of everything you understands; 287 because that would, in effect, bring them to a precise point which would not need any explanation; 288 it is therefore a matter of certainty this cannot be the case: 289 then if these qualities, when exercised by the beings they have described, are only human actions so obscured, so hidden, as not to be recognisable by human, 290 how can weak mortals pretend to announce them, to have a knowledge of them, to explain them to others? 291 Does then theology impart to the mind the ineffable boon of enabling it to conceive that which no human is

competent to understand? 292 Does it procure for its agents the marvellous faculty of having distinct ideas of beings composed of so many contradictory properties? 293 Does it, in fact, make the theologians themselves one of these incomprehensible beings?

294 They will impose silence, by saying the oracles have spoken; that through these mystical means they have made themselves known to mortals. 295 The next question would naturally be, when, where, or to whom have these oracles spoken? Where are these oracles? 296 An hundred voices raise themselves in the same moment; hands of Briaraeus are immediately stretched forth to show them in a number of discordant collections, 297 which each maintains, with an equal degree of vehemence, is the true code-- the only doctrine human ought to believe: 298 you runs them over, finds they scarcely agree in any one particular; but that in all the heaviest penalties are denounced against those who doubt the smallest part of any one of them.

299 These beings of consummate wisdom are made to speak an obscure, irrational language; 300 some of them, although their goodness is proclaimed, have been cruel and sanguinary; 301 others, although their justice is held forth, have been partial, unjust, capricious; 302 some, who are represented as all merciful, destine to the most hideous punishments the unhappy victims to their wrath: 303 examine any one of them more closely, you will find that they have never in any two countries held literally the same language: 304 that although they are said to have spoken in many places, that they have always spoken variously: 305 What is the necessary result? The human mind, incapable of reconciling such manifest contradictions, 306 unable to obtain from their ministers any corroborative evidence, that is not disputed by the others, falls into the strangest perplexity; 307 is involved in doubts, entangled in a labyrinth to which no clue is to be found.

308 Thus the relations, which are supposed to exist between human

and these theological idols, can only be founded on the moral qualities of these beings: 309 if these are not known to you, if you cannot in any manner comprehend them, they cannot by any ingenuity of argument serve you for models. 310 In order that they may be imitated, it is needful that these qualities were cognisable by the being who is to imitate them. 311 How can you imitate that goodness, that justice, that mercy, which does not resemble either your own, or anything you can conceive? 312 If these beings partake in nothing of that which forms human-- 313 if the properties they do possess, although different, are not within the reach of your comprehension-- 314 if, you cannot embrace the most distant idea of them, which the theologian assures you that you cannot, 315 how is it possible you can set about imitating them? How follow a conduct suitable to please them--to render yourself acceptable in their sight?

316 What can in effect be the motive of that worship, of that homage, of that obedience, which these beings are said to exact-- 317 which you are informed you should offer at their altars, if you does not establish it upon their goodness-- their veracity-- their justice: 318 in short, upon qualities which you are competent to understand? 319 How can you have clear, distinct ideas of those qualities, if they are no longer of the same nature as those which you have learned to reverence in the beings of your own species? 320 To this they will reply, because none of them ever admit the least doubt of the rectitude of their own individual creed, 321 that there can be no proportion between these idols and mortals, who are the work of their hands; 322 that it is not permitted to the clay to demand of the potter who has formed it, "why ye have fashioned me thus;"-- 323 but if there can be no common measure between the workman and his work-- if there can be no analogy between them, because the one is immaterial, the other corporeal, 324 how do they reciprocally act upon each other? How can the gross organs of the one,

comprehend the subtile quality of the other?

325 Reasoning in the only way you are capable, and it surely will never be seriously argued that you are not to reason, 326 will you not perceive that the earthen vase could only have received the form which it pleased the potter to give; 327 that if it is formed badly, if it is rendered inadequate to the use for which it was designed, the vase is not in this instance to be blamed; 328 the potter certainly has the power to break it; the vase cannot prevent you; it will neither have motives nor means to soften your anger; it will be obliged to submit to its destiny; 329 but you will not be able to prevent your mind from thinking the potter harsh in thus punishing the vase, 330 rather than by forming it anew, by giving it another figure, render it competent to the purposes you intended.

331 According to these notions the relations between human and these theological beings have no existence, 332 they owe nothing to you, are dispensed from showing you either goodness or justice; 333 that human, on the contrary, owes them everything: but contradictions appear at every step. 334 If these have promised by their oracles anything to human, it is rather difficult for you to believe, 335 that what is so solemnly promised does not belong to you if you fulfil the condition of the promise. 336 The difference a theologian may choose to find in these relations will hardly be convincing to a reasonable mind. 337 The duties of human towards these beings can, according to their own showing, have no other foundation than the happiness you expects from them: 338 thus the relation has a reciprocity, it is founded upon their goodness, upon their justice, it demands obedience on your part, a conduct suitable to the benefits you receives.

339 Thus, in whatever manner the theological system is viewed, it destroys itself. 340 Will theology never feel that the more it endeavours to exaggerate the human qualities, the less it exalts the beings it pictures; 341 the more incomprehensible it renders them,

the more it contributes to swell its own ocean of contradictions; 342 that to take human passions, mortal faculties at all, is perhaps the worst means it can pursue to form a perfect being; 343 but that if it must persist in this method, then the further they remove them from human, the more they debase you, the more they weaken the relations subsisting between them: 344 that in thus aggregating human properties, it should carefully abstain from associating in these pictures those qualities which human finds detestable in own fellows.

345 Thus, despotism in human is looked upon as an unjust, unreasonable power; 346 if it introduces such a quality into its portraits, it cannot rationally suppose them suitable to cultivate the esteem, to attract the voluntary homage of the human race: 347 if, however, the canvas be examined, we shall frequently be struck, with perceiving this the leading feature; 348 we shall equally find a want of keeping through the whole; 349 that shadows are introduced, where lights ought to prevail; that the colouring is incongruous-- the design without harmony.

350 The discrepancy of conduct which theology imputes to these idols, is not less remarkable than the contrariety of qualities it ascribes to them, 351 or the inconsistency of the passions with which it invests them; 352 sometimes, according to this, they are the friends to reason, desirous of the happiness of society; sometimes they are inimical to virtue; interdict the use of reason; 353 flattered with seeing society disturbed, they sometimes afflict human without you being able to guess the cause of their displeasure; 354 sometimes they are favourable to humankind-- at others, indisposed towards the human species: 355 sometimes they are represented as permitting crimes for the pleasure of punishing them-- at others, they exert all their power to arrest crime in its birth; 356 sometimes they elect a small number to receive eternal happiness, predestinating the rest to perpetual misery-- to everlasting torments; 357 at others, they throw

open the gates of mercy to all who choose to enter them; 358 sometimes they are portrayed as destroying the universe-- at others, as establishing the most beautiful order in the planet we inhabit; 359 sometimes they are held forth as countenancing deception-- at others, as having the highest reverence for truth-- as holding deceit in abomination. 360 This, again, is the necessary result of the human faculties, the mortal passions, the frail qualities of which they compose, 361 the beings they hold forth to the admiration, to the worship, to the homage of the world.

362 Perhaps the most fatal consequences have arisen from founding the moral character of these divinities upon that of human. 363 Those who first had the confidence to tell human that in these matters it was not permitted you to consult your reason, that the interests of society demanded its sacrifice, 364 evidently proposed to themselves to make you the sport of their own wantonness-- 365 to make you the blind instrument of their own unworthiness. 366 It is from this radical error that has sprung all those extravagances which the various superstitions have introduced upon the earth: 367 from hence has flowed that sacred fury which has frequently deluged it with blood: 368 here is the cause of those inhuman persecutions which have so often desolated nations: 369 in short, all those horrid tragedies which have been acted on the vast theatre of the world, 370 by command of the different ministers of the various systems, whose gods they have said ordained these shocking spectacles.

371 The theologians themselves have thus been the means, of calumniating the gods they pretended to serve, 372 under the pretext of exalting their name-- of covering them with glory; in this they may have been said to be true atheists, 373 since they seem only to have been anxious to destroy the idols they themselves had raised, by the actions they have attributed to them-- 374 which has debased them in the eye of reason-- rendered their existence more than doubtful to the human of humanity. 375 Indeed, it would require more than human

credulity to accredit the assertion that these beings ever could order the atrocities committed in their name. 376 Every time they have been willing to disturb the harmony of humankind-- whenever they have been desirous to render you unsociable, 377 they have cried out that their gods ordained that you should be so. 378 Thus they render mortals uncertain, make the ethical system fluctuate by founding it upon changeable, capricious idols, 379 whom they represent much more frequently cruel and unjust, than filled with bounty and benevolence.

380 However it may be, admitting if they will for a moment that their idols possess all the human virtues in an infinite degree of perfection, 381 we shall quickly be obliged to acknowledge that they cannot connect them with those metaphysical, theological, negative attributes, of which we have already spoken. 382 If these beings are spirits that are immaterial, how can they be able to act like human, who is a corporeal being? 383 Pure spirits, according to the only idea human can form of them, having no organs, no parts, cannot see anything; 384 can neither hear our prayers, attend to our solicitations, nor have compassion for our miseries.

385 They cannot be immutable, if their dispositions can suffer change: 386 they cannot be infinite, if the totality of Nature, without being them, can exist conjointly with them: 387 they cannot be omnipotent, if they either permit or do not prevent evil: 388 they cannot be omnipresent, if they are not every where: 389 they must therefore be in the evil as well as in the good. 390 Thus in whatever manner they are contemplated, under whatever point of view they are considered, the human qualities which are assigned to them, necessarily destroy each other; 391 neither can these same properties in any possible manner combine themselves with the supernatural attributes given to them by theology.

392 With respect to the revealed will of these idols, by means of their oracles, far from being a proof of their good will, of their commiseration for human, it would

rather seem evidence of their ill-will. 393 It supposes them capable of leaving humankind for a considerable season unacquainted with truths highly important to their interests; 394 these oracles communicated to a small number of chosen people, are indicative of partiality, of predilections, that are but little compatible with the common Father of the human race. 395 These oracles were ill imagined, since they tend to injure the immutability ascribed to these idols, 396 by supposing that they permitted human to be ignorant at one time of their will, whilst at another time they were willing you should be instructed on the subject. 397 Moreover, these oracles frequently predicted offences for which afterwards severe punishments were inflicted on those who did no more than fulfil them. 398 This, according to the reasoning of human, would be unjust. 399 The ambiguous language in which they were delivered, the almost impossibility of comprehending them, the inexplicable mysteries they contained, seemed to render them doubtful; 400 at least they are not consistent with the ideas human is capable of forming of infinite perfection: 401 but the fact clearly is, they were thus rendered capable of application to the contingency of events--could be made to suit almost any circumstances: 402 this would render it not a very improbable conjecture, that these oracles were solely delivered by the priests themselves.

403 If these were tried by the only test of which you have any knowledge-- YOUR REASON, it would naturally occur to the mind of human, 404 that mystery could never, on any occasion, be used in the promulgation of substantive decrees meant to operate on the obedience, to actuate the moral conduct of human: 405 it is quite usual with most legislators to render their laws as explicit as possible, to adapt them to the meanest understanding; 406 in short, it would be reckoned want of good faith in a government, to throw a thick, mysterious veil over the announcement of that conduct which

it wished its citizens to adopt; 407 they would be apt to think such a procedure was either meant to cover its own peculiar ignorance, or else to entrap them into a snare; 408 at best, it would be considered as furnishing a never-failing source of dispute, which a wise government would endeavour to avoid.

409 It will thus be obvious, that the ideas which theology has at various times, under various systems, held forth to human, 410 have for the most part been confused, discordant, incompatible, and have had a general tendency to disturb the repose of humankind. 411 The obscure notions, the vague speculations of these multiplied creeds, would be matter of great indifference, 412 if human was not taught to hold them as highly important to your welfare-- 413 if you did not draw from them conclusions pernicious to yourself-- 414 if you did not learn from these theologians that you must sharpen your asperity against those who do not contemplate them in the same point of view with yourself: 415 as you perhaps, then, will never have a common standard, a fixed rule, a regular graduated scale, whereby to form your judgment on these points-- 416 as all efforts of the imagination must necessarily assume divers shapes, undergo a variety of modifications, which can never be assimilated to each other, 417 it was little likely that humankind would at all times be able to understand each other on this subject; 418 much less that they would be in accord in the opinions they should adopt.

419 From hence that diversity of superstitions which in all ages have given rise to the most irrational disputes; 420 which have engendered the most sanguinary wars; which have caused the most barbarous massacres; 421 which have divided human from your fellow by the most rancorous animosities, that will perhaps never be healed; 422 because you have been impelled to consider the peculiar tenets you adopted, not only as immediately essential to your individual welfare, 423 but also as intimately connected with the happiness, closely interwoven with the tranquillity of the nation of which

you was a citizen. 424 That such contrariety of sentiment, such discrepancy of opinion should exist, is not in the least surprising; 425 it is, in fact, the natural result of those physical causes to which, as long as you exists, you are at all times submitted.

426 The person of a heated imagination cannot accommodate the self to the god of a phlegmatic, tranquil being: 427 the infirm, bilious, discontented, angry mortal, cannot view you under the same aspect as you who enjoys a sounder constitution,-- 428 as the individual of a gay turn, who enjoys the blessing of content, who wishes to live in peace. 429 An equitable, kind, compassionate, tender-hearted person, will not delineate to the self the same portrait of own god, 430 as the person who is of an harsh, unjust, inflexible, wicked character. 431 Each individual will modify own god after own peculiar manner of existing, after own mode of thinking, according to own particular mode of feeling. 432 A wise, honest, rational human will always figure to self own god as humane and just.

433 Nevertheless, as fear usually presided at the formation of those idols human set up for the object of own worship; 434 as the ideas of these beings were generally associated with that of terror as the recollections of sufferings, 435 which human attributed to them, often made you tremble; frequently awakened in your mind the most afflicting, reminiscence; 436 as it sometimes filled you with inquietude, sometimes inflamed your imagination, sometimes overwhelmed you with dismay, 437 the experience of all ages proves, that these vague idols became the most important of all considerations-- was the affair which most seriously occupied the human race: 438 that they everywhere spread consternation-- produced the most frightful ravages, by the delirious inebriation resulting from the opinions with which they intoxicated the mind. 439 Indeed, it is extremely difficult to prevent habitual fear, which of all human passions is the

most incommodious, from becoming a dangerous leaven; 440 which in the long run will sour, exasperate, and give malignancy to the most moderate temperament.

441 If a misanthrope, in hatred of your race, had formed the project of throwing human into the greatest perplexity,-- 442 if a tyrant, in the plenitude of your unruly desire to punish, had sought out the most efficacious means; 443 could either the one or the other have imagined that which was so well calculated to gratify their revenge, 444 as thus to occupy you unceasingly with objects not only unknown to you, but which no two of them should ever see with precisely the same eyes; 445 which notwithstanding they should be obliged to contemplate as the centre of all their thoughts-- 446 as the only model of their conduct-- as the end of all their actions-- as the subject of all their research-- as a thing of more importance to them than life itself; 447 upon which all their present felicity, all their future happiness, must necessarily depend? 448 Could the gods themselves, in their solicitude to punish the impious Prometheus, for having stolen fire from the sun, have imagined a more certain method of executing their wishes? 449 Was not Pandora's box, though stuffed with evils, trifling when compared with this? 450 That at least left hope, to the unfortunate Epimetheus; this effectually cut it off.

451 If human was subjected to an absolute monarch, to a sultan who should keep the self secluded from own subjects; 452 who followed no rule but own desires; who did not feel the self bound by any duty; 453 who could for ever punish the offences committed against the self; whose fury it was easy to provoke; 454 who was irritated even by the ideas, the thoughts of own subjects; whose displeasure might be incurred without even their own knowledge; 455 the name of such a sovereign would assuredly be sufficient to carry trouble, to spread terror, to diffuse consternation into the very souls of those who should hear it pronounced; 456 His idea would haunt them everywhere-- would

unceasingly afflict them--would plunge them into despair.

457 What tortures would not their mind endure to discover this formidable being, to ascertain the secret of pleasing Him! 458 What labour would not their imagination bestow, to discover what mode of conduct might be able to disarm His anger! 459 What fears would assail them, lest they might not have justly hit upon the means of assuaging His wrath! 460 What disputes would they not enter into upon the nature, the qualities of a ruler, equally unknown to them all! 461 What a variety of means would not be adopted, to find favour in His eyes; to avert His chastisement!

462 Such is the history of the effects superstition has produced upon the earth. 463 Human has always been panic-struck, because the systems adopted never enable you to form any correct opinion, any fixed ideas, upon a subject so material to your happiness; 464 because everything conspired either to give your ideas a fallacious turn, or else to keep your mind in the most profound ignorance; 465 when you was willing to set yourself right, when you was sedulous to examine the path which conducted to your felicity, 466 when you was desirous of probing opinions so consequential to your peace, involving so much mystery, yet combining both your hopes and your fears, 467 you was forbidden to employ the only proper method,--YOUR REASON, guided by your experience; 468 you was assured this would be an offence the most indelible.

469 If you asked, wherefore your reason had then been given you, since you was not to use it in matters of such high behest?-- 470 You was answered, those were mysteries of which none but the initiated could be informed; 471 that it sufficed for you to know, that the reason which you seemed so highly to prize, which you held in so much esteem, was your most dangerous enemy-- 472 your most inveterate, most determined foe.

473 Where can be the propriety of such an argument? Can it really be that reason is dangerous? 474 If so,

the Turks are justified in their predilection for mad-people: 475 but to proceed, you are told that you must believe in the gods, not question the mission of their priests; 476 in short, that you had nothing to do with the laws they imposed, but to obey them: 477 when you then required that these laws might at least be made comprehensible to you; that you might be placed in a capacity to understand them; 478 the old answer was returned, that they were mysteries; you must not inquire into them.

479 But where is the necessity for mystery in points of such vast importance? 480 You might, indeed, from time to time consult these oracles, when you was able to make the sacrifices demanded; 481 you would then receive precepts for your conduct: 482 these were always, however, given in such vague, indeterminate terms, that you had scarcely the chance of acting right. 483 At different times the same oracles delivered different opinions: thus you had nothing, steady; nothing permanent, whereby to guide your steps; 484 like a blind man left to himself in the streets, he was obliged to grope his way at the peril of his existence. 485 This will serve to show the urgent necessity there is for truth to throw its radiant lustre on systems big with so much importance; 486 that are so calculated to corroborate the animosities, to confirm the bitterness of soul, between those whom Nature intended should always act as brothers.

487 By the magical charms with which these idols were surrounded, the human species has remained either as if it was benumbed, in a state of stupid apathy, 488 or else you have become furious with fanaticism: 489 sometimes, desponding with fear, human cringed like a slave who bends under the scourge of an inexorable master, always ready to strike you; 490 you trembled under a yoke made too ponderous for your strength: 491 you lived in continual dread of a vengeance you was unceasingly striving to appease, without ever knowing when you had succeeded:

492 as you was always bathed in tears, continually enveloped in misery-- 493 as you was never permitted to lose sight of your fears-- as you was continually exhorted to nourish your alarm, 494 you could neither labour for your own happiness nor contribute to that of others; nothing could exhilarate you; 495 you became the enemy of yourself, the persecutor of your fellow-creatures, because your felicity here below was interdicted; 496 you passed your time in heaving the most bitter sighs; your reason being forbidden you, you fell into either a state of infancy or delirium, which submitted you to authority; 497 you was destined to this servitude from the hour you quitted your mother's womb, until that in which you was returned to your kindred dust; 498 tyrannical opinion bound you fast in her massive fetters; a prey to the terrors with which you was inspired, 499 you appeared to have come upon the earth for no other purpose than to dream-- 500 with no other desire than to groan--with no other motives than to sigh; 501 your only view seemed to be to injure yourself; to deprive yourself of every rational pleasure, to embitter your own existence; to disturb the felicity of others. 502 Thus, abject, slothful, irrational, you frequently became wicked, under the idea of doing honour to your gods; 503 because they instilled into your mind that it was your duty to avenge their cause, to sustain their honour, to propagate their worship.

504 Mortals were prostrate from race to race, before vain idols to which fear had given birth in the bosom of ignorance, during the calamities of the earth; 505 they tremblingly adored phantoms which credulity had placed in the recesses of their own brain, 506 where they found a sanctuary which time only served to strengthen; 507 nothing could undeceive them; nothing was competent to make them feel, it was themselves they adored-- 508 that they bent the knee before their own work-- that they terrified themselves with the extravagant pictures they had themselves delineated; 509 they obstinately persisted in prostrating

themselves, in perplexing themselves, in trembling; 510 they even made a crime of endeavouring to dissipate their fears; they mistook the production of their own folly; 511 their conduct resembled that of children, who having disfigured their own features, become afraid of themselves when a mirror reflects the extravagance they have committed. 512 These notions so afflicting for themselves, so grievous to others, have their epoch from the calamities of human; 513 they will continue, perhaps augment, until their mind, enlightened by discarded reason, illumined by truth, shall set in their true colours these various systems; 514 until reflection guided by experience, shall attach no more importance to them, than is consistent with the happiness of society; 515 until human, bursting the chains of superstition-- recalling to mind the great end of own existence-- taking a rational view of that which surrounds you, 516 shall no longer refuse to contemplate Nature under Her true character; 517 shall no longer persist in refusing to acknowledge She contains within Herself the cause of that wonderful phenomena which strikes on the dazzled optics of human: 518 until thoroughly persuaded of the weakness of their claim to the homage of humankind, 519 you shall make one pious, simultaneous, mighty effort, and overthrow the altars of Moloch and his priests.

EXAMINATION OF THE PROOFS OF THE EXISTENCE OF THE DIVINITY, AS GIVEN BY CLARKE

Paul Henri Thiery (Baron D'Holbach)

47 The unanimity of human in acknowledging the Divinity, is commonly looked upon as the strongest proof of your existence. 2 There is not, it is said, any people on the earth who have not some ideas, whether true or false, of an all-powerful agent who governs the world. 3 The rudest savages as well as the most polished nations, are equally obliged to recur by thought to the first cause of everything that exists; 4 thus it is affirmed, the cry of

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Nature Herself ought to convince us of the existence of the Godhead, 5 of which She has taken pains to engrave the notion in the minds of humans: they therefore conclude, that the idea of God is innate.

6 Perhaps there is nothing of which human should be more sedulously careful than permitting a promiscuous assemblage of right with wrong-- 7 of suffering false conclusions to be drawn from true propositions; 8 this will not improbably be found to be pretty much the case in this instance; 9 the existence of the great Cause of causes, the Parent of parents, does not, I think, admit of any doubt in the mind of anyone who has reasoned: 10 but, if this existence did not rest upon better foundations than the unanimity of human on this subject, 11 I am fearful it would not be placed upon so solid a rock as those who make this asseveration may imagine: 12 the fact is, human is not generally agreed upon this point; if you was, superstition could have no existence; 13 the idea of God cannot be innate, because, independent of the proofs offered on every side of the almost impossibility of innate ideas, 14 one simple fact will set such an opinion for ever at rest, 15 except with those who are obstinately determined not to be convinced by even their own arguments: 16 if this idea was innate, it must be everywhere the same; 17 seeing that that which is antecedent to human being, cannot have experienced the modifications of own existence, which are posterior.

18 Even if it were waived, that the same idea should be expected from all humankind, but that only every nation should have their ideas alike on this subject, 19 experience will not warrant the assertion, since nothing can be better established than that the idea is not uniform even in the same town; 20 now this would be an insuperable quality in an innate idea. 21 It not infrequently happens, that in the endeavour to prove too much, that which stood firm before the attempt, is weakened; 22 thus a bad advocate frequently injures a good cause, although you may not be able to overturn the rights on which it is rested. 23 It would, therefore,

perhaps, come nearer to the point if it was said, 24 "that the natural curiosity of humankind have in all ages, and in all nations, led human to seek after the primary cause of the phenomena you beholds; 25 that owing to the variations of your climate, to the difference of your organisation, the greater or less calamity you have experienced, 26 the variety of your intellectual faculties, and the circumstances under which you have been placed, 27 human has had the most opposite, contradictory, extravagant notions of the Divinity, 28 but that He has uniformly been in accord in acknowledging both the existence, and the wisdom of His work-- NATURE."

29 If disengaged from prejudice, we analyse this proof, we shall see that the universal consent of human, so diffused over the earth, 30 actually proves little more than that you have been in all countries exposed to frightful revolutions, experienced disasters, been sensible to sorrows of which you have mistaken the physical causes; 31 that those events to which you have been either the victim or the witness, have called forth your admiration or excited your fear; 32 that for want of being acquainted with the powers of Nature, for want of understanding Her laws, 33 for want of comprehending Her infinite resources, for want of knowing the effects She must necessarily produce under given circumstances, 34 you have believed these phenomena were due to some secret agent of which you have had vague ideas-- 35 to beings whom you have supposed conducted themselves after your own manner; who were operated upon by similar motives with yourself.

36 The consent then of human in acknowledging a variety of gods, proves nothing, 37 except that in the bosom of ignorance you have either admired the phenomena of Nature, or trembled under their influence; 38 that your imagination was disturbed by what you beheld or suffered; 39 that you have sought in vain to relieve your perplexity, upon the unknown cause of the phenomena you witnessed, which frequently

obliged you to quake with terror: 40 the imagination of the human race has laboured variously upon these causes, which have almost always been incomprehensible to you; 41 although everything confessed your ignorance, your inability to define these causes, yet you maintained that you was assured of their existence; 42 when pressed, you spoke of a spirit,-- a word to which it was impossible to attach any determinate idea-- 43 which taught nothing but the sloth, which evidenced nothing but the stupidity of those who pronounced it.

44 It ought, however, not to excite any surprise that human is incapable of forming any substantive ideas, 45 save of those things which act, or which have heretofore acted upon your senses; 46 it is very evident that the only objects competent to move your organs are material,-- 47 that none but physical beings can furnish you with ideas,-- 48 a truth which has been rendered sufficiently clear in the commencement of this work, not to need any further proof. 49 It will suffice therefore to say that the idea of God is not an innate, but an acquired notion; 50 that it is the very nature of this notion to vary from age to age; to differ in one country from another; to be viewed variously by individuals.

51 What do I say? It is, in fact, an idea hardly ever constant in the same mortal. 52 This diversity, this fluctuation, this change, stamps it with the true character of an acquired opinion. 53 On the other hand, the strongest proof that can be adduced that these ideas are founded in error, 54 is, that human by degrees has arrived at perfectioning all the sciences which have any known objects for their basis, whilst the science of theology has not advanced; 55 it is almost everywhere at the same point; people seem equally undecided on this subject; 56 those who have most occupied themselves with it, have effected but little; 57 they seem, indeed, rather to have rendered the primitive ideas human formed to the self on this head more obscure,-- to have involved in greater mystery all your original opinions.

58 As soon as it is asked of human, what are the gods before whom you prostrates yourself, forthwith your sentiments are divided. 59 In order that your opinions should be in accord, it would be requisite that uniform ideas, analogous sensations, 60 unvaried perceptions, should everywhere have given birth to your notions upon this subject: 61 but this would suppose organs perfectly similar, modified by sensations which have a perfect affinity: this is what could not happen: 62 because human, essentially different by your temperament, who is found under circumstances completely dissimilar, 63 must necessarily have a great diversity of ideas upon objects which each individual contemplates so variously.

64 Agreed in some general points, each made the self a god after own manner; you feared him, you served him, after your own mode. 65 Thus the god of one person, or of one nation, was hardly ever that of another person, or of another nation. 66 The god of a savage, foreign people, is commonly some material object, upon which the mind has exercised itself but little; 67 this god appears very ridiculous in the eyes of a more polished community, whose minds have laboured more intensely upon the subject. 68 A spiritual god, whose adorers despise the worship paid by the savage to a coarse, material object, is the subtle production of the brain of thinkers, 69 who, lolling in the lap of polished society quite at their leisure, have deeply meditated, have long occupied themselves with the subject. 70 The theological god, although for the most part incomprehensible, is the last effort of the human imagination; 71 it is to the god of the savage, what an inhabitant of the city of Sybaris, 72 where effeminacy and luxury reigned, where pomp and pageantry had reached their climax, clothed with a curiously embroidered purple habit of silk, 73 was to a person either quite naked, or simply covered with the skin of a beast perhaps newly slain.

74 It is only in civilised societies, that leisure affords the opportunity of dreaming-- that ease procures the

facility of reasoning; 75 in these associations, idle speculators meditate, dispute, form metaphysics: 76 the faculty of thought is almost void in the savage, who is occupied either with hunting, with fishing, 77 or with the means of procuring a very precarious subsistence by dint of almost incessant labour. 78 The generality of people, however, have not more elevated notions of the divinity, have not analysed Him more than the savage. 79 A spiritual, immaterial God, is formed only to occupy the leisure of some subtle people, who have no occasion to labour for a subsistence.

80 Theology, although a science so much vaunted, considered so important to the interests of human, is only useful to those who live at the expense of others; 81 or of those who arrogate to themselves the privilege of thinking for all those who labour. 82 This science becomes, in some polished societies, who are not on that account more enlightened, 83 a branch of commerce extremely advantageous to its professors; equally unprofitable to the citizens; 84 above all when these have the folly to take a very decided interest in their unintelligible system-- in their discordant opinions.

85 What an infinite distance between an unformed stone, an animal, a star, a statue, and the abstracted Deity, 86 which theology hath clothed with attributes under which it loses sight of Him itself! 87 The savage without doubt deceives the self in the object to which they addresses their vows; 88 like a child you are smitten with the first object that strikes your sight-- that operates upon you in a lively manner; 89 like the infant, your fears are alarmed by that from which you conceives you have either received an injury or suffered disgrace; 90 still your ideas are fixed by a substantive being, by an object which you can examine by your senses.

91 The Laplander who adores a rock,-- the negro who prostrates the self before a monstrous serpent, at least see the objects they adore. 92 The idolater falls upon the knees before a statue, in which you believes there resides some

concealed virtue, some powerful quality, which you judges may be either useful or prejudicial to yourself; 93 but that subtle reasoner, called a metaphysician, who in consequence of your unintelligible science, 94 believes you have a right to laugh at the savage, to deride the Laplander, to scoff at the negro, to ridicule the idolater, 95 doth not perceive that you are yourself prostrate before a being of your own imagination, of which it is impossible you should form to yourself any correct idea, 96 unless, like the savage, you re-enters into visible Nature, to clothe you with qualities capable of being brought within the range of your comprehension.

97 For the most part the notions on the Divinity, which obtain credit even at the present day, are nothing more than a general terror diversely acquired, variously modified in the mind of nations, 98 which do not tend to prove anything, save that they have received them from their trembling, ignorant ancestors. 99 These gods have been successively altered, decorated, subtilised, by those thinkers, those legislators, those priests, who have meditated deeply upon them; 100 who have prescribed systems of worship to the uninformed; who have availed themselves of their existing prejudices, to submit them to their yoke; 101 who have obtained a dominion over their mind, by seizing on their credulity,-- by making them participate in their errors,-- by working on their fears; 102 these dispositions will always be a necessary consequence of human's ignorance, when steeped in the sorrows of your heart.

103 If it be true, as asserted, that the earth has never witnessed any nation so unsociable, so savage, 104 to be without some form of religious worship-- who did not adore some god-- but little will result from it respecting the Divinity. 105 The word GOD, will rarely be found to designate more than the unknown cause of those effects which human has either admired or dreaded. 106 Thus, this notion so generally diffused, upon which so much stress

is laid; will prove little more than that human in all generations has been ignorant of natural causes,-- 107 that you are been incompetent, from some cause or other, to account for those phenomena which either excited your surprise or roused your fears.

108 If at the present day a people cannot be found destitute of some kind of worship, entirely without superstition, 109 who do not acknowledge a God, who have not adopted a theology more or less subtle, 110 it is because the uninformed ancestors of these people have all endured misfortunes-- have been alarmed by terrifying effects, which they have attributed to unknown causes-- 111 have beheld strange sights, which they have ascribed to powerful agents, whose existence they could not fathom; 112 the details of which, together with their own bewildered notions, they have handed down to their posterity who have not given them any kind of examination.

113 It will readily be allowed, that the universality of an opinion by no means proves its truth. 114 Do we not see a great number of ignorant prejudices, a multitude of barbarous errors, even at the present day, receive the almost universal sanction of the human race? 115 Are not nearly all the inhabitants of the earth imbued with the idea of magic-- 116 in the habit of acknowledging occult powers-- given to divination-- believers in enchantment-- the slaves to omens-- supporters of witchcraft-- thoroughly persuaded of the existence of ghosts? 117 If some of the most enlightened people are cured of these follies, they still find very zealous partisans in the greater number of humankind, who accredits them with the firmest confidence. 118 It would not, however, be concluded by people of sound sense, in many instances not by the theologians themselves, 119 that therefore these chimeras actually have existence, although sanctioned with the credence of the multitude.

120 Before Copernicus, there was no one who did not believe that the earth was stationary, that the sun described its annual revolution round

it. 121 Was, however, this universal consent of human upon a principle of astronomical science, which endured for so many thousand years, less an error on that account? 122 Yet to have doubted the truth of such a generally-diffused opinion, one that had received the sanction of so many learned people-- 123 that was clothed with the sacred vestments of so many ages of credulity-- 124 that had been adopted by Moses, acknowledged by Solomon, accredited by the Persian magi-- that Elijah himself had not refuted-- 125 that had obtained the fiat of the most respectable universities, the most enlightened legislators, the wisest kings, the most eloquent ministers; 126 in short, a principle that embraced all the stability that could be derived from the universal consent of all ranks: 127 to have doubted, I say, of this, would at one period have been held as the highest degree of profanation, as the most presumptuous scepticism, as an impious blasphemy, 128 that would have threatened the very existence of that unhappy country from whose unfortunate bosom such a venomous, sacrilegious mortal could have arisen.

129 It is well known what opinion was entertained of Gallileo for maintaining the existence of the antipodes. 130 Pope Gregory excommunicated as atheists, all those who gave it credit. 131 Thus each person has own God: But do all these gods exist? 132 In reply it will be said, somewhat triumphantly, each person hath own ideas of the sun, do all these suns exist? 133 However narrow may be the pass by which superstition imagines it has thus guarded its favourite hypothesis, nothing will perhaps be more easy than the answer: 134 the existence of the sun is a fact verified by the daily use of the senses; 135 all the world see the sun; no one bath ever said there is no sun; nearly all humankind have acknowledged it to be both luminous and hot: 136 however various may be the opinions of human, upon this luminary, no one has ever yet pretended there was more than one attached to our planetary system.

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137 But we may perhaps be told, there is a wide difference between that which can be contemplated by the visual organs, 138 which can be understood by the sense of feeling, and that which does not come under the cognisance of any part of the organic structure of human. 139 We must confess theology here has the advantage; that we are unable to follow it through its devious sinuosities; amidst its meandering labyrinths: 140 but then it is the advantage of those who see sounds, over those who only hear them; 141 of those who hear colours, over those who only see them; 142 of the professors of a science, where everything is built upon laws inverted from those common to the globe we inhabit; 143 over those common understandings, who cannot be sensible to anything that does not give an impulse to some of their organs.

144 If human, therefore, had the courage to throw aside own prejudices, which everything conspires to render as durable as the self-- 145 if divested of fear you would examine coolly-- 146 if guided by reason you would dispassionately view the nature of things, the evidence adduced in support of any given doctrine; 147 you would, at least, be under the necessity to acknowledge, that the idea of the Divinity is not innate--that it is not anterior to your existence-- 148 that it is the production of time, acquired by communication with your own species-- 149 that, consequently, there was a period when it did not actually exist in human: 150 you would see clearly, that you holds it by tradition from those who reared you: 151 that these themselves received it from their ancestors: 152 that thus tracing it up, it will be found to have been derived in the last resort, from ignorant savages, who were our first fathers and mothers.

153 The history of the world will show that crafty legislators, ambitious tyrants, blood-stained conquerors, have availed themselves of the ignorance, the fears, the credulity of own progenitors, 154 to turn to their own profit an idea to which they rarely attached any other

substantive meaning than that of submitting them to the yoke of their own domination. 155 Without doubt there have been mortals who have dreamed they have seen the Divinity. 156 Mahomet, I believe, boasted he had a long conversation with the Deity, who promulgated to him the system of the Mussulmans. 157 But are there not thousands, even of the theologians, who will exhaust their breath, and fatigue their lungs with vociferating this man was a liar; 158 whose object was to take advantage of the simplicity, to profit by the enthusiasm, to impose on the credulity of the Arabs; 159 who promulgated for truths, the crazy reveries of own distempered imagination?

160 Nevertheless, is it not a truth, that this doctrine of the crafty Arab, is at this day the creed of millions, transmitted to them by their ancestors, rendered sacred by time, 161 read to them in their mosques, adorned with all the ceremonies of superstitious worship; 162 of which the inhabitants of a vast portion of the earth do not permit themselves for an instant to doubt the veracity; 163 who, on the contrary, hold those who do not accredit it as dogs, as infidels, as beings of an inferior rank, of meaner capacities than themselves? 164 Indeed that person, even if one were a theologian, would not experience the most gentle treatment from the infuriated Mahometan, 165 who should to your face venture to dispute the divine mission of your prophet.

166 Thus the ancestors of the Turk have transmitted to their posterity, those ideas of the Divinity which they manifestly received from those who deceived them; 167 whose impositions, modified from age to age, subtilised by the priests, clothed with the reverential awe inspired by fear, 168 have by degrees acquired that solidity, received that corroboration, attained that veteran stability, 169 which is the natural result of public sanction, backed by theological parade.

170 The word God is, perhaps, among the first that vibrate on the ear of human; 171 it is reiterated to you incessantly; you are taught to lisp it

with respect; to listen to it with fear; to bend the knee when it is reverberated: 172 by dint of repetition, by listening to the fables of antiquity, by hearing it pronounced by all ranks and persuasions, you seriously believes all people bring the idea with them into the world; 173 you thus confounds a mechanical habit with instinct; 174 whilst it is for want of being able to recall to yourself the first circumstances under which your imagination was awakened by this name; 175 for want of recollecting all the recitals made to you during the course of your infancy; 176 for want of accurately defining what was instilled into you by your education; 177 in short, because your memory does not furnish you with the succession of causes that have engraven it on your brain, 178 that you believes this idea is really inherent to your being; innate in all your species.

179 Iamblicus, indeed, who was a Pythagorean philosopher not in the highest repute with the learned world, although one of those visionary priests in some estimation with theologians,-- 180 at least if we may venture to judge by the unlimited draughts they have made on the bank of own doctrines-- 181 who was unquestionably a favourite with the emperor Julian, says, "that anteriorly to all use of reason, the notion of the gods is inspired by Nature, 182 and that we have even a sort of feeling of the Divinity, preferable to the knowledge of Him." 183 It is, however, uniformly by habit, that human admires, that you fears a being, whose name you have attended to from your earliest infancy. 184 As soon as you hears it uttered, you without reflection mechanically associates it with those ideas with which your imagination has been filled by the recitals of others; 185 with those sensations which you have been instructed to accompany it. 186 Thus, if for a season human would be ingenuous with the self, 187 you would concede that in the greater number of your race, the ideas of the gods, and of those attributes with which they are clothed, 188 have their foundation,

take their rise in, are the fruit of the opinions of your fathers, 189 traditionally infused into you by education-- confirmed by habit-- corroborated by example-- enforced by authority.

190 That it very rarely happens you examines these ideas; that they are for the most part adopted by inexperience, propagated by tuition, rendered sacred by time, 191 inviolable from respect to your progenitors, reverenced as forming part of those institutions you have most learned to value. 192 You thinks you have always had them, because you have had them from your infancy; 193 you considers them indubitable, because you are never permitted to question them-- because you never have the intrepidity to examine their basis.

194 If it had been the destiny of a Brachman, or a Mussulman, to have drawn own first breath on the shores of Africa, 195 they would adore, with as much simplicity, with as much fervour, the serpent reverenced by the Negroes, as they does the God their own metaphysicians have offered to their reverence. 196 They would be equally indignant if anyone should presumptuously dispute the divinity of this reptile, 197 which human would have learned to venerate from the moment one quitted the womb of own mother, as the most zealous, enthusiastic fakir, 198 when the marvellous wonders of own prophet should be brought into question; 199 or as the most subtile theologian when the inquiry turned upon the incongruous qualities with which you have decorated your gods. 200 Nevertheless, if this serpent god of the Negro should be contested, they could not at least dispute His existence.

201 Simple as may be the mind of this dark son of Nature, uncommon as may be the qualities with which you have clothed your reptile, 202 you still may be evidenced by all who choose to exercise their organs of sight; not so with the theologian; 203 you absolutely questions the existence of every other god but that which you yourself has formed; 204 which is questioned in its turn by your brother metaphysician. 205 They

are by no means disposed to admit the proofs offered by each other. 206 Descartes, Paschal, and Doctor Samuel Clarke himself, have been accused of atheism by the theologians of their time. 207 Subsequent reasoners have made use of their proofs, and even given them as extremely valid. 208 Doctor Bowman published a work, in which he pretends all the proofs hitherto brought forward are crazy and fragile: 209 he of course substitutes his own; which in their turn have been the subject of animadversion. 210 Thus it would appear these theologians are not more in accord with themselves than they are with Turks or Pagans. 211 They cannot even agree as to their proofs of existence: 212 from age to age new champions arise, new evidence is adduced, the old discarded, or treated with contempt; 213 profound philosophers, subtle metaphysicians, are continually attacking each other for their ignorance on a point of the very first importance. 214 Amidst this variety of discussion, it is very difficult for simple winds, for those who steadily search after truth, 215 who only wish to understand what they believe, to find a point upon which they can fix with reliance-- 216 a standard round which they may rally without fear of danger-- 217 a common measure that may serve them for a beacon to avoid the quicksands of delusion--the sophistry of polemics.

218 People of very great genius have successively miscarried in their demonstrations; 219 have been held to have betrayed their cause by the weakness of the arguments by which they have supported it; 220 by the manner in which they have attempted to establish their positions. 221 Thus many of them, when they believed they had surmounted a difficulty, had the mortification to find they had only given birth to an hundred others. 222 They seem, indeed, not to be in a capacity to understand each other, 223 or to agree among themselves, when they reason upon the nature and qualities of beings created by such a variety of imaginations, which each contemplates diversely, 224 upon

which the natural self-love of each disputant induces you to reject with vehement indignation everything that does not fall in with your own peculiar mode of thinking-- 225 that does not quadrate either with your superstition or your ignorance, or sometimes with both.

226 The opponents of Clarke charge him with begging the question in his work on ‘The Being and Attributes of God’. 227 They say he has pretended to prove this existence a-priori, which they deem impossible, seeing there is nothing anterior to the first of causes; 228 that therefore it can only be proved ‘a posteriori’, that is to say, by its effects. 229 Law, in his Inquiry into the Ideas of Space, Time, Immensity, has attacked him very triumphantly, 230 for this manner of proof, which is stated to be so very repugnant to the school-people. 231 His arguments have been treated with no more ceremony by Thomas D'Aquinas, John Scott, and others of the schools. 232 At the present day I believe he is held in more respect-- that his authority outweighs that of all his antagonists together. 233 Be that as it may, those who have followed him have done nothing more than either repeat his ideas, or present his evidence under a new form. 234 Tillotson argues at great length, but it would be rather difficult to understand which side of the question he adopts on this momentous subject; 235 whether he is a Necessitarian, or among the opposers of Fatalism.

236 Speaking of human, he says, "human is liable to many evils and miseries, which you can neither prevent or redress; 237 you are full of wants, which you cannot supply, 238 and compassed about with infirmities which you cannot remove, 239 and obnoxious to dangers which you can never sufficiently provide against: 240 you are apt to grieve for what you cannot help, and eagerly to desire what you are never able to obtain." 241 If the proofs of Clarke, who has drawn them up in twelve propositions, are examined with attention, 242 I think they may be fairly shielded from the reproach with which they have been loaded; 243 it does not appear that he has

proved his positions a priori, but a-posteriori, according to rule. 244 It seems clear, however, that he has mistaken the proof of the existence of the effects, for the proof of the existence of the cause: 245 but here he seems to have more reason than his critics, who in their eagerness to prove that Clarke has not conformed to the rules of the schools, would entirely overlook the best, 246 the surest foundation whereon to rest the existence of the Great Cause of causes, that Parent of Parents, 247 whose wisdom shines so manifestly in Nature, of which Clarke's work may be said to be such a masterly evidence.

248 We shall follow, step by step, the different propositions in which this learned divine develops the received opinions upon the Divinity; 249 which, when applied to Nature, will be found to be so accurate, so correct, 250 as to leave no further room to doubt either the existence or the wisdom of Her great author, thus proved through Her own existence. 251 Dr. Clarke sets out with saying: "1st. Something has existed from all eternity." 252 This proposition is evident-- hath no occasion for proofs. 253 Matter has existed from all eternity, its forms alone are evanescent; 254 matter is the great engine used by Nature to produce all Her phenomena, or rather it is Nature Herself. 255 We have some idea of matter, sufficient to warrant the conclusion that this has always existed.

256 First, that which exists, supposes existence essential to its being. 257 That which cannot, annihilate itself, exists necessarily; 258 it is impossible to conceive that that which cannot cease to exist, or that which cannot annihilate itself, could ever have had a beginning. 259 If matter cannot be annihilated, it could not commence to be. 260 Thus we say to Dr. Clarke, that it is matter, it is Nature, acting by Her own peculiar energy, of which no particle is ever in an absolute state of rest, which hath always existed. 261 The various material bodies which this Nature contains often change their form, their combination, their properties, their mode of action: 262 but their

principles or elements are indestructible-- have never been able to commence. 263 What this great scholar actually understands, when he makes the assertion "that an eternal duration is now actually past," is not quite so clear; 264 yet he affirms, "that not to believe it would be a real and express contradiction." 265 We may, however, safely admit his argument, "that when once any proposition is clearly demonstrated to be true, 266 it ought not to disturb us that there be perhaps some perplexing difficulties on the other side, 267 which merely for want of adequate ideas of the manner of the existence of the things demonstrated, are not easily to be cleared."

268 2nd, "There has existed from eternity someone unchangeable and independent Being." 269 We may fairly inquire what is this Being? Is it independent of its own peculiar essence, or of those properties which constitute it such as it is? 270 We shall further inquire, if this Being, whatever it may be, can make the other beings which it produces, 271 or which it moves, act otherwise than they do, according to the properties which it has given them? 272 And in this case we shall ask, if this Being, such as it may be supposed to be, does not act necessarily; 273 if it is not obliged to employ indispensible means to fulfil its designs, to arrive at the end which it either has, or may be supposed to have in view? 274 Then we shall say, that Nature is obliged to act after Her essence; 275 that everything which takes place in Her is necessary; but that She is independent of Her forms.

276 A person is said to be independent, when you are determined in your actions only by the general causes which are accustomed to move you; 277 you are equally said to be dependent on another, when you cannot act but in consequence of the determination which this last gives you. 278 A body is dependent on another body when it owes to it its existence, and its mode of action. 279 A being existing from eternity cannot owe your existence to any other being; 280 you cannot then be dependent upon Him, except you owes your action to Him; 281 but it is

evident that an eternal or self-existent Being contains in your own nature everything that is necessary for you to act: 282 then, matter being eternal, is necessarily independent in the sense we have explained; 283 of course it hath no occasion for a mover upon which it ought to depend.

284 This eternal Being is also immutable, if by this attribute be understood that He cannot change His nature; 285 but if it be intended to infer by it that He cannot change His mode of action or existence, it is without doubt deceiving themselves, 286 since even in supposing an immaterial being, they would be obliged to acknowledge in Him different modes of being, different volitions, different ways of acting; 287 particularly if He was not supposed totally deprived of action, in which case He would be perfectly useless.

288 Indeed it follows of course that to change your mode of action you must necessarily change your manner of being. 289 From hence it will be obvious, that the theologians, in making their gods immutable, render them immoveable, consequently they cannot act. 290 An immutable being, could evidently neither have successive volition, nor produce successive action; 291 if this being hath created matter, or given birth to the universe, there must have been a time in which He was willing that this matter, this universe, should exist; 292 and this time must have been preceded by another time, in which He was willing that it might not yet exist.

293 If God be the author of all things, as well as of the motion and of the combinations of matter, He is unceasingly occupied in producing and destroying; 294 in consequence, He cannot be called immutable, touching His mode of existing. 295 The material world always maintains itself by motion, and the continual change of its parts; 296 the sum of the beings who compose it, or of the elements which act in it, is invariably the same; 297 in this sense the immutability of the universe is much more easy of comprehension, 298 much more demonstrable than that of

another being to whom, they would attribute all the effects, all the mutations which take place.

299 Nature is not more to be accused of mutability, on account of the succession of its forms, than the eternal Being is by the theologians, by the diversity of his decrees. 300 Here we shall be able to perceive that, supposing the laws by which Nature acts to be immutable, 301 it does not require tiny of these logical distinctions to account for the changes that take place: 302 the mutation which results, is, on the contrary, a striking proof of the immutability of the system which produces them; 303 and completely brings Nature under the range of this second proposition as stated by Dr. Clarke.

304 3dly, "That unchangeable and independent Being which has existed from eternity without any eternal cause of its existence, must be self-existent, that is, necessarily existing." 305 This proposition is merely a repetition of the first; we reply to it by inquiring, Why matter, which is indestructible, should not be self-existent? 306 It is evident that a being who had no beginning, must be self-existent; 307 if He had existed by another, He would have commenced to be; consequently He would not be eternal.

308 4thly, "What the substance or essence of that Being which is self-existent, or necessarily existing, is, we have no idea; neither is it at all possible for us to comprehend it." 309 Dr. Clarke would perhaps have spoken more correctly if he had said his essence is impossible to be known: 310 nevertheless, we shall readily concede that the essence of matter is incomprehensible, 311 or at least that we conceive it very feebly by the manner in which we are affected by it; 312 but without this we should be less able to conceive the Divinity, who would then be impervious on any side. 313 Thus it must necessarily be concluded, that it is folly to argue upon it, since it is by matter alone we can have any knowledge of Him; 314 that is to say, by which we can assure ourselves of His existence,-- by which we can at all guess at His qualities. 315 In short

we must conclude, that everything related of the Divinity, either proves Him material, 316 or else proves the impossibility in which the human mind will always find itself, of conceiving any being different from matter; 317 without extent, yet omnipresent; immaterial, yet acting upon matter; spiritual, yet producing matter; immutable, yet putting everything in activity.

318 Indeed it must be allowed that the incomprehensibility of the Divinity does not distinguish Him from matter; 319 this will not be more easy of comprehension when we shall associate it with a being much less comprehensible than itself; 320 we have some slender knowledge of it through some of its parts. 321 We do not certainly know the essence of any being, if by that word we are to understand that which constitutes its peculiar nature. 322 We only know matter by the sensations, the perceptions, the ideas which it furnishes; 323 it is according to these that we judge it to be either favourable or unfavourable, following the particular disposition of our organs. 324 But when a being does not act upon any part of our organic structure, it does not exist for us; 325 we cannot, without exhibiting folly, without betraying our ignorance, without falling into obscurity, either speak of its nature, or assign its qualities; 326 our senses are the only channel by which we could have formed the slightest idea of it; 327 these not having received any impulse, we are, in point of fact, unacquainted with its existence.

328 The incomprehensibility of the Divinity ought to convince human that it is a point at which you are bound to stop; 329 indeed you are placed in a state of utter incapacity to proceed: 330 this, however, would not suit with those speculators who are willing to reason upon Him continually, to show the depth of their learning,-- 331 to persuade the uninformed they understand that which is incomprehensible to all humans; by which they expect to be able to submit Him to their own views. 332 Nevertheless, if the Divinity be incomprehensible, It would not be straining a point

beyond its tension, 333 to conclude that a priest, or metaphysician, did not comprehend Him better than other people: 334 it is not, perhaps, either the wisest or the surest way to become acquainted with Him, to represent Him to ourselves, by the imagination of a theologian.

335 5thly, "Though the substance, or essence of the self-existent Being, is in itself absolutely incomprehensible to us, 336 yet many of the essential attributes of His nature are strictly demonstrable, as well as His existence. 337 Thus, in the first place, the self-existent Being must of necessity be eternal." 338 This proposition differs in nothing from the first, except Dr. Clarke does not here understand that as the self-existent Being had no beginning, he can have no end. 339 However this may be, we must ever inquire, why this should not be matter? 340 We shall further observe, that matter not being capable of annihilation, exists necessarily, consequently will never cease to exist; 341 that the human mind has no means of conceiving how matter should originate from that which is not itself matter: 342 is it not obvious, that matter is necessary; 343 that there is nothing, except its powers, its arrangement, its combinations, which are contingent or evanescent?

344 The general motion is necessary, but the given motion is not so; 345 only during the season that the particular combinations subsist, of which this motion is the consequence, or the effect: 346 we may be competent to change the direction, to either accelerate or retard, to suspend or arrest, a particular motion, 347 but the general motion can never possibly be annihilated. 348 Human, in dying, ceases to live; that is to say, you no longer either walks, thinks, or acts in the mode which is peculiar to human organisation: 349 but the matter which composed your body, the matter which formed your mind, does not cease to move on that account: it simply becomes susceptible of another species of motion.

350 6thly, "The self-existent Being must of necessity be infinite and

omnipresent." 351 The word infinite presents only a negative idea-- which excludes all bounds: 352 it is evident that a being who exists necessarily, who is independent, cannot be limited by anything which is out of Himself; 353 He must consequently be His own limits; in this sense we may say He is infinite. 354 Touching what is said of His omnipresence, it is equally evident that if there be nothing exterior to this being, 355 either there is no place in which He must not be present, or that there will be only Himself and the vacuum.

356 This granted, I shall inquire if matter exists; if it does not at least occupy a portion of space? 357 In this case, matter, or the universe, must exclude every other being who is not matter, from that place which the material beings occupy in space. 358 In asking whether the gods of the theologians be by chance the abstract being which they call the vacuum or space, they will reply, “No!” 359 They will further insist, that their gods, who are not matter, penetrate that which is matter. 360 But it must be obvious, that to penetrate matter, it is necessary to have some correspondence with matter, consequently to have extent; 361 now to have extent, is to have one of the properties of matter.

362 If the Divinity penetrates matter, then He is material; by a necessary deduction He is inseparable from matter; then if He is omnipresent, He will be in everything. 363 This, the theologians will not allow: they will say it is a mystery; 364 by which I shall understand that they are themselves ignorant how to account for their own positions; 365 this will not be the case with making Nature act after immutable laws; 366 She will of necessity be everywhere, in my body, in my arm, in every other material being, because matter composes them all. 367 The Divinity who has given this invariable system, will without any incongruous reasoning, without any subterfuge, be also present everywhere, 368 inasmuch as the laws He has prescribed will unchangeably act through the whole; this does not seem inconsistent with reason to suppose.

369 7th, "The Self-existent Being must of necessity be but one." 370 If there be nothing exterior to a being who exists necessarily, it must follow that He is unique. 371 It will be obvious that this proposition is the same with the preceding one; at least, if they are not willing to deny the existence of the material world.

372 8th, "The self-existent and original Cause of all things, must be an intelligent being." 373 Here Dr. Clarke most unquestionably assigneth a human quality: 374 intelligence is a faculty appertaining to organised or animated beings, of which we have no knowledge out of these beings. 375 To have intelligence, it is necessary to think; to think, it is requisite to have ideas; to have ideas, supposes senses; 376 when senses exist they are material; when they are material, they cannot be a pure spirit, in the language of the theologian.

377 The necessary Being who comprehends, who contains, who produces animated beings, contains, includes, and produceth intelligence. 378 But has the great whole a peculiar intelligence, which moveth it, which maketh it act, 379 which determineth it in the mode that intelligence moves and determines animated bodies; 380 or rather, is not this intelligence the consequence of immutable laws, 381 a certain modification resulting from certain combinations of matter, 382 which exists under one form of these combinations, but is wanting under another form? 383 This is assuredly what nothing is competent absolutely, and demonstrably to prove.

384 Human having placed yourself in the first rank in the universe, has been desirous to judge of everything after what you saw within yourself, 385 because you hath pretended that in order to be perfect it was necessary to be like yourself. 386 Here is the source of all your erroneous reasoning upon Nature--the foundation of your ideas upon your gods. 387 You have therefore concluded, perhaps not with the most polished wisdom, that it would be indecorous in yourself, injurious to the Divinity, 388 not to invest Him

with a quality which is found estimable in human-- which you prizes highly-- 389 to which you attaches the idea of perfection-- which you considers as a manifest proof of superiority. 390 You sees your fellow-creature is offended when you are thought to lack intelligence; 391 you therefore judges it to be the same with the Divinity. 392 You denies this quality to Nature, because you considers Her a mass of ignoble matter, incapable of self-action; 393 although She contains and produces intelligent beings. But this is rather a personification of an abstract quality, than an attribute of the Deity, 394 with whose perfections, with whose mode of existence, you cannot by any possible means become acquainted according to the fifth proposition of Dr. Clarke himself.

395 It is in the earth that is engendered those living animals called worms; yet we do not say the earth is a living creature. 396 The bread which human eats, the wine that you drinks, are not themselves thinking substances; 397 yet they nourish, sustain, and cause those beings to think, who are susceptible of this modification of their existence. 398 It is likewise in Nature, that is formed intelligent, feeling, thinking beings; 399 yet it cannot be rationally said, that Nature feels, thinks, and is intelligent after the manner of these beings, who nevertheless spring out of Her bosom.

400 How! Cries the metaphysician, the subtilising philosopher, what! Refuse to the Divinity, those qualities we discover in His creatures? 401 Must, then, the work be more perfect than the workman? Shall God, who made the eye, not Himself see? Shall God, who formed the ear, not Himself hear! 402 This at a superficial view appears insuperable: 403 but are the questioners, however triumphantly they may make the inquiry, themselves aware of the length this would carry them, even if their queries were answered with the most unqualified affirmative? 404 Have they sufficiently reflected on the tendency of this mode of reasoning?

405 If this be admitted as a postulatum, are they prepared to follow it in all its extent?

406 Suppose their argument granted, what is to be done with all those other qualities upon which human does not set so high a value? 407 Are they also to be ascribed to the Divinity, because we do not refuse Him qualities possessed by His creatures? 408 By a parity of reasoning we should attach faculties that would be degrading to the Divinity. 409 Thus it ever happens with those who travel out of the limits of their own knowledge; they involve themselves in perpetual contradictions which they can never reconcile; 410 which only serve to prove that in arguing upon points, on which universal ignorance prevails, 411 the result is constantly that all the deductions made from such unsteady principles, must of necessity be at war with each other, in hostility with themselves.

412 Thus, although we cannot help feeling the profound wisdom, that must have dictated the system we see act with such uniformity, with such constancy, with such astonishing power, 413 we cannot form the most slender idea of the particular nature of that wisdom; 414 because if we were for an instant to assimilate it to our own, weak and feeble as it is, we should from that instant be in a state of contradiction; 415 seeing we could not then avoid considering the evil we witness, the sorrow we experience, as a dereliction of this wisdom, 416 which at least proves one great truth, that we are utterly incapable of forming an idea of the Divinity. 417 But in contemplating things as our own experience warrants in whatever we do understand, 418 in considering Nature as acting by unchangeable laws, we find good and evil necessarily existing, without at all involving the wisdom of the great Cause of causes; 419 who thus has no need to remedy that, which the further progress of the eternal system will regulate of itself, 420 or which industry and patient research on our parts will enable us to discover the means of futurely avoiding.

421 9th, "The self-existent and original Cause of all things, is not a necessary agent, but a being endued with liberty and choice." 422 Human is called free, when you finds within yourself motives that determine you to action, 423 or when your will meets no obstacle to the performance of that to which your motives have determined you. 424 The necessary Being of which question is here made, doth He find no obstacles to the execution of the projects which are attributed to Him? 425 Are you willing, adopting their own hypothesis, that evil should be committed, or can you not prevent it? 426 In this latter case you are not free; 427 if your will does meet with obstacles, if you are willing to permit evil; then you suffers human to restrain own liberty, by deranging your projects; 428 if you have not these projects, then they are themselves in error who ascribe them to you.

429 How will the metaphysicians draw themselves out of this perplexing intricacy? 430 The further a theologian goes, whilst considering your gods as possessed of human qualities, as acting by mortal motives, the more you flounders-- 431 the greater the mass of contradiction you heaps together: 432 thus if it be asked of you, can God reward crime, punish virtue, you will immediately answer, “No!” 433 In this answer you will have truth: but then this truth, and the freedom which is ascribed to Him, cannot, according to human ideas, exist together; 434 because if this being cannot love vice, cannot hate virtue, and it is evident He cannot, He is in fact not more free than humans themselves.

435 Again, God is said to have made a covenant with His creatures; 436 now it is the very essence of a covenant to restrict choice; and that being must be considered a necessary agent who is under the necessity of fulfilling any given act. 437 As it is impossible to suppose the Divinity can act irrationally, it must be conceded that as He made these laws, He is Himself obliged to follow them: 438 because if He was not, as we must again suppose He does

nothing without a good reason, 439 He would thereby imply, that the mode of action He adopted would be wiser; which would again involve a contradiction. 440 The theologians fearing, without doubt, to restrain the liberty of the Divinity, have supposed it was necessary that He should not be bound by His own laws, 441 in which they have shown somewhat more ignorance of their subject than they imagined.

442 10th, "The self-existent Being, the supreme Cause of all things, must of necessity have infinite power." 443 As Nature is adequate to produce everything we see-- as She contains the whole united power of the universe, Her power has consequently no limits: 444 the being who conferred this power cannot have less. 445 But if the ideas of the theologians were adopted, this power would not appear quite so unlimited; 446 since, according to them, human is a free agent, consequently has the means of acting contrary to this power, which at once sets a boundary to it. 447 An equitable monarch is perhaps nothing less than they are a free agent; 448 when they believes themselves bound to act conformably to the laws, which they have sworn to observe, or which they cannot violate without wounding their justice. 449 The theologians are people who may be very fairly estimated neuter; because they destroys with one hand what they establishes with the other.

450 11th, "The Supreme Cause and Author of all things, must of necessity be infinitely wise." 451 As Nature produces all things by certain immutable laws, it will require no great difficulty to allow that She may be infinitely wise: 452 indeed, whatever side of the argument may be taken, this fact will result as a necessary consequence. 453 It will hardly admit of a question that all things are produced by Nature: 454 if, therefore, we do not allow Her wisdom to be first rate, it would be an insult to the Divinity, who gave Her Her system. 455 If the theologian themselves are to take the lead, they also admits that Nature operates under the immediate auspices of their gods; 456 whatever She does, must

then, according to their own showing, be executed with the most polished wisdom. 457 But the theologians are not satisfied with going thus far: they will insist, not only that they knows what these things are, but also that they knows the end they have in view: 458 this, unfortunately, is the rock they splits upon.

459 According to their own admission, the ways of God are impenetrable to human. 460 If we grant their position, what is the result? Why, that it is at random they speaks. 461 If these ways are impenetrable, by what means did they acquire their knowledge of them? How did they discover the end proposed by the Deity? 462 If they are not impenetrable, they then can be equally known to other people as to themselves. 463 The theologian would be puzzled to show they have any more privileges in Nature than their fellow mortals.

464 Again, if they have asserted these things to be impenetrable, when they are not so, they are then in the situation that they has themselves placed Mahomet: 465 he is no longer worthy of being attended to, because he has swerved from veracity. 466 It certainly is not very consistent with the sublime idea of the Divinity that He should be clothed with that weak, vain passion of human, called glory: 467 the being who had the faculty of producing such a system as it operated in Nature, could hardly be supposed to have such a frivolous passion as we know this to be in our fellows: 468 and as we can never reason but after what we do know, it would appear nothing can be more inconsistent than thus continually heaping together our own feeble, inconsistent views, 469 and then supposing the great Cause of causes acts by such futile rules.

470 12th, "The supreme Cause and Author of all things must of necessity be a being of infinite goodness, justice, and truth, 471 and all other moral perfections, such as become the supreme governor and judge of the world." 472 We must again repeat that these are human qualities drawn from the model of human; 473 they only suppose a

being of the human species, who should be divested of what we call imperfections: 474 this is certainly the highest point of view in which our finite minds are capable of contemplating the Divinity: 475 but as this being has neither species nor cause, consequently no fellow creatures, He must necessarily be of an order so different to human, 476 that human faculties can in no wise be appropriately assigned to Him.

477 The idea of perfection, as human understands it, is an abstract, metaphysical, negative idea, of which you have no archetype whereby to form a judgment: 478 you would call that a perfect being, who, similar to yourself, was wanting in those qualities which you finds prejudicial to Him; 479 but such a being would after all be no more than a human. 480 It is always relatively to yourself, to your own mode of feeling and of thinking, that a thing is either perfect or imperfect; 481 it is according to this, that in your eyes a thing is more or less useful or prejudicial; agreeable or disagreeable.

482 Justice includes all moral perfections. 483 One of the most prominent features of justice, in the ideas of human, is the equity of the relations subsisting between beings, founded upon their mutual wants. 484 According to the theologian, their gods owe nothing to human. How then does they measure out His ideas of justice? 485 For a monarch to say he owed nothing to his subjects, would be considered, even by this theologian himself, as rank injustice; 486 because he would expect the fulfilment of duties on their part, without exercising those which devolved upon himself.

487 Duties, according to the only idea human can form of them, must be reciprocal. 488 It is rather stretching the human capabilities, to understand the relations between a pure spirit and material beings-- 489 between finity and infinity-- between eternal beings and those which are transitory: 490 thus it is, that metaphysics hold forth an inconceivable being by the very attributes with which they clothe Him; 491 for either He has these

attributes, or He has them not: 492 whether He has them or has them not, human can only understand them after own powers of comprehension. 493 If you does at all understand them, you cannot have the slightest idea of justice unaccompanied by duties, 494 which are the very basis, the superstructure, the pillars upon which this virtue rests. 495 Whether we are to view it as self-love or ignorance in the theologian, that they thus dresses up their gods after themselves, 496 it certainly was not the happiest effort of their imagination to work by an inverse rule: 497 for, according to them, the qualities they describes are all the negation of what they calls them.

498 Doctor Clarke himself stumbles a little upon these points; he insists upon free agency, and uses this extraordinary method to support his argument; 499 he says, "God is, by necessity, a free agent: and he can no more possibly cease to be so, than he can cease to exist. 500 He must of necessity, every moment chooses to act, or choose to forbear acting; because two contradictories cannot possibly be true at once. 501 Human also is by necessity, not in the nature of things, but through God's appointment, a free agent. 502 And it is no otherwise in your power to cease to be such, than by depriving yourself of life." 503 Will Doctor Clarke permit us to put one simple question: If to be obligated to do a certain given thing, is to be free, what is it to be coerced? 504 Or if two contradictories cannot be true at once, by what rule of logic are we to measure the idea of that freedom which arises out of necessity.

505 Supposing necessity to be what Dr. Johnson, --using Milton as his authority-- says it is, "compulsion," "fatality," 506 would it be considered a human was less restrained in own actions because you was only compelled to do what was right? 507 The restraint would undoubtedly be beneficial to you, but it would not therefore render you more a free agent. 508 If the Divinity cannot love wickedness, cannot hate goodness,-- and surely the theologians themselves will not pretend He can,--

509 then the power of choice has no existence as far as these two things are concerned; 510 and this upon Clarke's own principle, because two contradictories cannot be true at once. 511 Nothing could, I think, appear a greater contradiction, than the idea that the Great Cause of causes could by any possibility love vice: 512 if such a monstrous principle could for a moment have existence, there would be an end of all the foundations of religion. 513 The Doctor is very little happier in reasoning upon immateriality. 514 He says, by way of illustrating his argument, "that it is possible to infinite power to create an immaterial cogitative substance, endued with a power of beginning motion, and with a liberty of will or choice."

515 Again, "that immaterial substances are not impossible; or, that a substance immaterial is not a contradictory notion. 516 Now, whoever asserts that it is contradictory, must affirm that whatever is not matter is nothing; 517 and that, to say anything exists which is not matter, is saying that there exists something which is nothing, 518 which in other words is plainly this,-- that whatever we have not an idea of, is nothing, and impossible to be." 519 It could, I am apt to believe, never have entered into any reasonable mind that a thing was impossible because you could have no idea of it:-- 520 many things, on the contrary, are possible, of which we have not the most slender notion: 521 but it does not, I presume, flow consecutively out of this admission, that therefore everything is, which is not impossible.

522 Doctor Clarke then, rather begs the question on this occasion. 523 In the schools it is never considered requisite to prove a negative; 524 indeed, this is ranked by logicians amongst those things impossible to be, 525 but it is considered of the highest importance to soundness of argument, to establish the affirmative by the most conclusive reasoning. 526 Taking this for granted, we will apply the doctor's own reasoning. He says, "Nothing is that of which everything, can truly be affirmed. 527

So that the idea of nothing, if I may so speak, is absolutely the negative of all ideas; 528 the idea, therefore, either of a finite or infinite nothing is a contradiction in terms."

529 To affirm, of a thing with truth, it must be necessary to be acquainted with that thing. 530 To have ideas, as we have already proved, it is necessary to have perceptions; to have perceptions, it is requisite to have sensations; to have sensations, requires organs. 531 An idea cannot be, and not be, at the same moment: the idea of substance, it will scarcely be denied, is that of a thing solid, real, according to Dryden; 532 capable of supporting accidents, according to Watts; something of which we can say that it is, according to Davies; body, corporeal nature, according to Newton; 533 the idea of immaterial, according to Hooker, is incorporeal. 534 How then am I to understand immaterial substance? Is it not, according to these definitions, that which cannot couple together?

535 If a thing be immaterial, it cannot be a substance; if a substance, it cannot be immaterial: 536 those I apprehend will not have many ideas, who do not see this is a complete negative of all ideas. 537 If, therefore, on the outset, the doctor cannot find words, by which he can convey the idea of that of which he is so desirous to prove the existence, 538 by what chain of reasoning does he flatter himself that he is to be understood? 539 He will endeavour to draw out of this dilemma, by assuring as there are things which we can neither see nor touch, but which do not the less exist on that account. 540 Granted: but from thence we can neither reason upon them, nor assign them qualities; 541 we must at least either feel them or something like them, before we can have any idea of them: 542 this, however, would not prove they were not substances, nor that substances can be immaterial.

543 A thing may with great possibility exist of which we have no knowledge, and yet be material; 544 but I maintain until we have a knowledge of it, it exists not for us, any more than colours exist for a person born blind; 545 the person who has sight knows they do exist,

can describe them to own dark neighbour; 546 from this description the blind person may form some idea of them by analogy with what he or she already knows; 547 or, perhaps, having a finer tact than own neighbour, one may be enabled to distinguish them by their surfaces; 548 it would, therefore, be bad reasoning in the person born blind, to deny the existence of colours; 549 because although these colours may have no relation with the senses in the absence of sight, they have with those who have it in their power to see and to know them: 550 this blind person, however, would-appear a little ridiculous if one undertook to define them with all their gradations of shade; with all their variations under different masses of light.

551 Again, if those who were competent to discriminate these modifications of matter called colours, were to define them to this blind person, as those modifications of matter called sound, 552 would the blind person be able to have any conception of them? 553 It certainly would not be wise in you to aver, that such a thing as colorific sound had no existence, was impossible; 554 but at least you would be very justifiable in saying, they appeared contradictions, because you had some ideas of sound which did not at all aid you in forming those of colour; 555 you would not, perhaps, be very inconclusive if you suspected the competency of your informer to the definition attempted, 556 from your inability to convey to you in any distinct, understood terms, your own ideas of colours.

557 The theologian is a blind person, who would explain to others who are also blind, the shades and colours of a portrait whose original he has not even stumbled upon in the dark. 558 There is nothing incongruous in supposing that everything which has existence is matter; 559 but it requires the complete inversion of all our ideas, to conceive that which is immaterial; 560 because, in point of fact, this would be a quality of which "nothing can with truth be affirmed."

561 It is, indeed true, that Plato, who was a great creator of chimeras, says, 562 "those who admit nothing but

what they can see and feel, are stupid ignorant beings, who refuse to admit the reality of the existence of invisible things." 563 With all due deference to such an authority, we may still venture to ask, is there then no difference, no shade, no gradation, between an admission of possibilities and the proof of realities. 564 Theology would then be the only science in which it is permitted to conclude that a thing is, as soon as it is possible to be.

565 Will the assertion of either Clarke or Plato stand absolutely in place of all evidence? 566 Would they themselves permit such to be convincing if used against them? 567 The theologians evidently hold this Platonic, this dogmatical language; they have dreamed the dreams of their master; 568 perhaps if they were examined a little, they would be found nothing more than the result of those obscure notions, 569 those unintelligible metaphysics, adopted by the Egyptian, Chaldean, and Assyrian priests, among whom Plato drew up his philosophy. 570 If, however, philosophy means that which we are led to suppose it does, by the great John Locke, it is "a system by which natural effects are explained."

571 Taken in this sense we shall be under the necessity of agreeing, that the Platonic doctrines in no wise merit this distinction, 572 seeing he has only drawn the human mind from the contemplation of visible Nature, 573 to plunge it into the unfathomable depths of invisibility-- of intangibility-- of suppositious speculation, where it can find little other food except chimeras or conjecture. 574 Such a philosophy is rather fantastical, yet it would seem we are required to subscribe to its positions 578 without being allowed to compare them with reason, to examine them through the medium of experience, to try the gold by the action of fire: 579 thus we have in abundance the terms spirits, incorporeal substances, invisible powers, supernatural effects, innate ideas, mysterious virtues, possessed by demons, 580 which render our senses entirely useless, which put to flight everything like experience; 581

while we are gravely told that "nothing is that, of which nothing can truly be affirmed." 582 Whoever may be willing to take the trouble of reading the works of Plato and his disciples, such as Proclus, Iamblicus, Plotinus, and others, 583 will not fail to find in them almost every doctrine, every metaphysical subject of the theologian; 584 in fact, the theurgy of many of the modern superstitions, which for the most part seems to be little more than a slight variation of that adopted by the ethnic priests. 585 Dreamers have not had that variety in their follies, that has generally been imagined.

586 That some of these things should be extensively admitted, by no means affords proof of their existence. 587 Nothing appears more facile than to make humankind admit the greatest absurdities, under the imposing name of mysteries; 588 after having imbued you from your infancy with maxims calculated to hoodwink your reason-- to lead you astray-- 589 to prevent you from examining that which you are told you must believe. 590 Of this there cannot well exist a more decisive proof than the great extent of country, 591 the millions of human beings who faithfully and without examination have adopted the idle dreams, the rank absurdities, of that arch impostor Mahomet.

592 However this may be, we shall be obliged again to reply to Plato, and to those of his followers who impose upon us the necessity of believing that which we cannot comprehend, 593 that, in order to know that a thing exists, it is at least necessary to have some idea of it; 594 that this idea can only come to us by the medium of our senses; 595 that consequently everything of which our senses do not give us a knowledge, is in fact nothing for us; and can only rest upon our faith; 596 upon that admission which is pretty generally, even by the theologians themselves, considered as rather a sandy foundation whereon to erect the altar of truth: 597 that if there be an absurdity in not accrediting the existence of that which we do not know, there is no less extravagance in assigning it qualities; 598 in

reasoning upon its properties; in clothing it with faculties, which may or may not be suitable to its mode of existence; 599 in substituting idols of our own creation; in combining incompatible attributes, which will neither bear the test of experience nor the scrutiny of reason; 600 and then endeavouring to make the whole pass current by dint of the word infinite, which we will now examine.

601 Infinite, according to Dennis, means "boundless, unlimited." Doctor Clarke thus describes it:-- 602 he says, "The self-existent being must be a most simple, unchangeable incorruptible being; without parts, figure, motion, divisibility, or any other such properties as we find in matter. 603 For all these things do plainly and necessarily imply finiteness in their very notion, and are utterly inconsistent with complete infinity." 604 Ingenuously, is it possible for human to form any true notion of such a quality? The theologians themselves acknowledge you cannot. 605 Further, the Doctor allows, "That as to the particular manner of your being infinite, or everywhere present, in opposition to the manner of created things being present in such or such finite places, 606 this is as impossible for our finite understandings to comprehend or explain, as it is for us to form an adequate idea of infinity."

607 What is this, then, but that which no person can explain or comprehend? 608 If it cannot be comprehended, it cannot be detailed; if it cannot be detailed, it is precisely "that of which nothing can with truth be affirmed;" and this is Dr. Clarke's own explanation of nothing. 609 Indeed, is not the human mind obliged by its very nature to join limited quantities to other quantities, which it can only conceive as limited, 610 in order to form to itself a sort of confused idea of something beyond its own grasp, without ever reaching the point of infinity, which eludes every attempt at definition? 611 Then it would appear that it is an abstraction, a mere negation of limitation.

612 Our learned adversary seems to think it strange that the existence of

incorporeal, immaterial substances, the essence of which we are not able to comprehend, should not be generally accredited. 613 To enforce this belief, he says, "There is not so mean and contemptible a plant or animal, that does not confound the most enlarged understanding, upon earth: 614 Nay, even the simplest and plainest of all inanimate beings have their essence or substance hidden from us in the deepest and most impenetrable obscurity."

615 We shall reply to him, First, That the idea of an immaterial substance; or being without extent, is only an absence of ideas, a negation of extent, as we have already shown; 616 that when we are told a being is not matter, they speak to us of that which is not, and do not teach us that which is; 617 because by insisting that a being is such, that it cannot act upon any of our senses, they, in fact, inform us that we have no means of assuring ourselves whether such being exists or not.

618 Secondly, We shall avow without the least hesitation, that people of the greatest genius, of the most indefatigable research, are not acquainted with the essence of stones, plants, animals, 619 nor with the secret springs which constitute some, which make others vegetate or act: 620 but then at least we either feel them or see them; our senses have a knowledge of them in some respects; we can perceive some of their effects; 621 we have something whereby to judge of them, either accurately or inaccurately; 622 we can conceive that which is matter, however varied, however subtle, however minute, by analogy with other matter; 623 but our senses cannot compass that which is immaterial on any side; 624 we cannot by any possible means understand it; we have no means whatever of ascertaining its existence; consequently we cannot even form an idea of it; 625 such a being is to us an occult principle, or rather a being which imagination has composed, by deducting from it every known quality.

626 If we are ignorant of the intimate combination of the most material beings, we at least discover, with the

aid of experience, some of their relations with ourselves: 627 we have a knowledge of their surface, their extent, their form, their colour, their softness, their density; 628 by the impressions they make on our senses, we are capable of discriminating them-- of comparing them-- of judging of them in some manner-- of seeing them-- 629 of either avoiding or courting them, according to the different modes in which we are affected by them; 630 we cannot apply any of these tests to immaterial beings; to spirits; neither can those people who are unceasingly talking to humankind of these inconceivable things.

631 Thirdly, We have a consciousness of certain modifications in ourselves, which we call sentiment, thought, will, passions: 632 for want of being acquainted with our own peculiar essence; for want of precisely understanding the energy of our own particular organisation, 633 we attribute these effects to a concealed cause, distinguished from ourselves; 634 which the theologians call a spiritual cause, inasmuch as it appears to act differently from our body. 635 Nevertheless, reflection, experience, everything by which we are enabled to form any kind of judgment, proves that material effects can only emanate from material causes. 636 We see nothing in the universe but physical, material effects, these can only be produced by analogous causes; 637 it is, then certainly more rational to attribute them to Nature Herself, 638 of which we may know something, if we will but deign to meditate Her with attention, rather than to spiritual causes, 639 of which we must for ever remain ignorant, let us study them as long as we please.

640 If incomprehensibility be not a sufficient reason for absolutely denying the possibility of immateriality, it certainly is not of a cogency to establish its existence; 641 we shall always be less in a capacity to comprehend a spiritual cause, than one that is material; 642 because materiality is a known quality; spirituality is an occult, an unknown quality; 643 or rather it is a mode of

speech of which we avail ourselves to throw a veil over our own ignorance. 644 We are repeatedly told that our senses only bring us acquainted with the external of things; 645 that our limited ideas are not capable of conceiving immaterial beings: 646 we agree frankly to this position; but then our senses do not even show us the external of these immaterial substances, 647 which the theologians will nevertheless attempt to define to us; upon which they unceasingly dispute among themselves; 648 upon which even until this day they are not in perfect unison with each other. 649 The great John Locke in his familiar letters, says, "I greatly esteem all those who faithfully defend their opinions; 650 but there are so few people who, according to the manner they do defend them, appear fully convinced of the opinions they profess, 651 that I am tempted to believe there are more sceptics in the world than are generally imagined."

652 Abady, one of the most strenuous supporters of immaterialism, says, "The question is not what incorporeity is, but whether it be." 653 To settle this disputable point, it were necessary to have some data whereon to form our judgment; 654 but how assure ourselves of the existence of that, of which we shall never be competent to have a knowledge? 655 If we are not told what this is; if some tangible evidence be not offered to the human mind; 656 how shall we feel ourselves capacitated to judge whether or not its existence be even possible? 657 How form an estimate of that picture whose colours elude our sight, whose design we cannot perceive, 658 whose features have no means of becoming familiar to our mind, whose very canvas refuses itself to our all research, 659 of which the artist himself can afford no other idea, no other description, but that it is, although he himself can neither show us how or where!

660 We have seen the ruinous foundations upon which people have hitherto erected this fanciful idea of immateriality; 661 we have examined the proofs which they have offered, if proofs they can be called, in

support of their hypothesis; 662 we have sifted the evidence they have been willing to have accredited, in order to establish their position; 663 we have pointed out the numberless contradictions that result from their want of union on this subject, 664 from the irreconcilable qualities with which they clothe their imaginary system. 665 What conclusion, then, ought fairly, rationally, consistently, to be drawn from the whole? 666 Can we, or can we not admit their argument to be conclusive, such as ought to be received by beings who think themselves sane? 667 Will it allow any other inference than that it has no existence; that immateriality is a quality hitherto unproved; 668 the idea of which the mind of human has no means of compassing? 669 Still they will insist, "there are no contradictions between the qualities which they attribute to these immaterial substances; 670 but there is a difference between the understanding of human and the nature of these substances."

671 This granted, are they nearer the point at which they labour? 672 What standard is it necessary human should possess, to enable you to judge of these substances? 673 Can they show the test that will lead to an acquaintance with them? 674 Are not those who have thus given loose to their imagination, who have given birth to this system, themselves humans? 675 Does not the disproportion, of which they speak with such amazing confidence, attach to themselves as well as to others? 676 If it needs an infinite mind to comprehend infinity-- to form an idea of incorporeity-- can the theologians themselves boast they are in a capacity to understand it? 677 To what purpose then is it they speak of these things to others? 678 Why do they attempt descriptions of that which they allow to be indescribable? 679 Human, who will never be an infinite being, will never be able to conceive infinity; 680 if, then, you have hitherto been incompetent to this perfection of knowledge, can you reasonably flatter yourself you will ever obtain it; 681 can you hope under any circumstances to conquer that which

according to the showing of all is unconquerable?

682 Nevertheless it is pretended, that it is absolutely necessary to know these substances: 683 but how prove the necessity of having a knowledge of that which is impossible to be known? 684 We are then told that good sense and reason are sufficient to convince us of its existence: 685 this is taking new ground, when the old has been found untenable: 686 for we are also told that reason is a treacherous guide; one that frequently leads us astray; 687 that in religious matters it ought not to prevail: at least then they ought to show us the precise time when we must resume this reason. 688 Shall we consult it again, when the question is, whether what they relate is probable; 689 whether the discordant qualities which they unite are consistently combined; 690 whether their own arguments have all that solidity which they would themselves wish them to possess? 691 But we have strangely mistaken them if they are willing that we should recur to it upon these points; 692 they will instead, insist we ought blindly to be directed by that which they vouchsafe to inform us; 693 that the most certain road to happiness is to submit in all things to that which they have thought proper to decide on the nature of things, 694 of which they avow their own ignorance, when they assert them to be beyond the reach of mortals.

695 Thus it would appear that when we should consent to accredit these mysteries, it would never arise of our own knowledge; 696 seeing this can no otherwise obtain but by the effect of demonstrable evidence; 697 it would never arise from any intimate conviction of our minds; but it would be entirely on the word of the theologians themselves, that we should ground our faith; that we should yield our belief. 698 If these things are to the human species what colours are to the person born blind, they have at least no existence with relation to ourselves. 699 It will avail the blind person nothing to tell you these colours have no less existence, because you cannot see them. 700 But what shall we say of that portrait

whose colours the blind person attempts to explain, whose features you are willing we should receive upon your authority, 701 whose proportions are to be taken from your description, merely because we know you cannot behold them?

702 The Doctor, although unwilling to relinquish his subject, removes none of the difficulty when he asks, 703 "Are our five senses, by an absolute necessity in the nature of the thing, all and the only possible ways of perception? 704 And is it impossible and contradictory there should be any being in the universe, induced with ways of perception different from these that are the result of our present composition? 705 Or are these things, on the contrary, purely arbitrary; 706 and the same power that gave us these, may have given others to other beings, and might, if He had pleased have given to us others in this present state?"

707 It seems perfectly unnecessary to the true point of the argument to reason upon what can or cannot be done: 708 I therefore reply, that the fact is, we have but five senses: 709 by the aid of these human is not competent to form any idea whatever of immateriality; 710 but you are also in as absolute a state of ignorance, upon what might be your capabilities of conception, if you had more senses. 711 It is rather acknowledging a weakness in your evidence, on the part of the Doctor, 712 to be thus obliged to rest it upon the supposition of what might be the case, if human was a being different to what you are; 713 in other words, that they would be convincing to humankind if the human race were not human beings.

714 Therefore to demand what the Divinity could have done in such a case, is to suppose the thing in question, 715 seeing we cannot form an idea how far the power of the Divinity extends: but we may be reasonably allowed to use the theological argument in elucidation; 716 these people very gravely insist, upon what authority must be best known to themselves, 717 "that God cannot communicate to His works than perfection which He Himself

possesses;" 718 at the same moment they do not fail to announce His omnipotence. 719 Will it require any capacity, more than is the common lot of a child, to comprehend the absurd contradiction of the two assertions?

720 As beings possessing but five senses, we must then, of necessity, regulate our judgment by the information they are capable of affording us: 721 we cannot, by any possibility, have a knowledge of those, which confer the capacity to comprehend beings, of an order entirely distinguished from that in which we occupy a place. 722 We are ignorant of the mode in which even plants vegetate, how then be acquainted with that which has no affinity with ourselves? 723 A person born blind, has only the use of four senses; 724 you have not the right, however, of assuming it as a fact, there does not exist an extra sense for others; 725 but you may very reasonably, and with great truth aver, that you have no idea of the effects which would be produced in you, by the sense which you lacks: 726 notwithstanding, if this blind person was surrounded by other people, whose birth had also left them devoid of sight, 727 might you not without any very unwarrantable presumption, be authorised to inquire of them by what right, upon what authority, they spoke to you of a sense they did not themselves possess; 728 how they were enabled to reason, to detail the minutiae of that sensation upon which their own peculiar experience taught them nothing?

729 In short, we can again reply to Dr. Clarke, and to the theologians, that following up their own systems, the supposition is impossible, and ought not to be made, 730 seeing that the Divinity, who according to their own showing, made human, was not willing that you should have more than five senses; 731 in other words, that you should be nothing but what you actually is; 732 they all found the existence of these immaterial substances upon the necessity of a power that has the faculty to give a commencement to motion. 733 But if matter has always existed, of which

there does not seem to exist a doubt, it has always had motion, 734 which is as essential to it as its extent, and flows from its primitive properties.

735 Indeed the human mind, with its five senses, is not more competent to comprehend matter devoid of motion, than it is to understand the peculiar quality of immateriality: 736 motion therefore exists only in and by matter; mobility is a consequence of its existence; 737 not that the great whole can occupy other parts of space than it actually does; 738 the impossibility of that needs no argument, but all its parts can change their respective situations-- do continually change them; 739 it is from thence results the preservation, the life of Nature, which is always as a whole immutable: 740 but in supposing, as is done every day, that matter is inert, that is to say, incapable of producing anything by itself, without the assistance of a moving power, which sets it in motion, 741 are we by any means enabled to conceive that material Nature receives this activity from an agent, who partakes in nothing of material substance?

742 Can human really figure to the self, even in idea, that that which has no one property of matter, can create matter, 743 draw it from its own peculiar source, arrange it, penetrate it, give it play, guide its course? 744 Is it not, on the contrary, more rational to the mind, more consistent with truth, more congenial to experience, 745 to suppose that the being who made matter is Himself material: is there the smallest necessity to suppose otherwise? 746 Can it make human either better or worse, that you should consider the whole that exists as material? 747 Will it in any manner make you a worse subject to your sovereign; a worse father to your children; a more unkind husband; a more faithless friend?

748 Motion, then, is co-eternal with matter: 749 from all eternity the particles of the universe have acted and reacted upon each other, 750 by virtue of their respective energies; of their peculiar essences; of their primitive elements; of their various

combinations. 751 These particles must have combined in consequence of their affinity; 752 they must have been either attracted or repelled by their respective relations with each other; 753 in virtue of these various essences, they must have gravitated one upon the other; 754 united when they were analagous; separated when that analogy was dissolved, by the approach of heterogeneous matter; 755 they must have received their forms, undergone a change of figure, by the continual collision of bodies.

756 In a material world the acting powers must be material: 757 in a whole every part of which is essentially in motion, there is no occasion for a power distinguished from itself; 758 the whole must be in perpetual motion by its own peculiar energy. 759 The general motion, as we have elsewhere proved, has its birth from the individual motion, which beings ever active must uninterruptedly communicate to each other. 760 Thus every cause produces its effect; this effect in its turn becomes a cause, which in like manner produces an effect; 761 this constitutes the eternal chain of things, which although perpetually changing in its detail, suffers no change in its whole.

762 Theology, after all, has seldom done more than personify this eternal series of motion; 763 the principle of mobility inherent to matter: it has clothed this principle with human qualities, by which it has rendered it unintelligible: 764 in applying these properties, they have taken no means of understanding how far they were suitable or not: 765 in their eagerness to make them assimilate, they have extended them beyond their own conception; 766 they have heaped them together without any judgment; 767 and they have been surprised when these qualities, contradictory in themselves, did not enable them satisfactorily to account for all the phenomena they beheld; 768 from thence they have wrangled; accused each other of imbecility; 769 yet infuriated themselves against whoever had the temerity to question that which they did not themselves understand; 770 in short, they have acted like a person who should insist

that all other people should have precisely the same vision that you yourself had dreamed.

771 Be this as it may, the greater portion of what either Dr. Clarke or the theologians tell us, becomes, in some respects, sufficiently intelligible as soon as applied to Nature-- to matter: 772 it is eternal, that is to say, it cannot have had a commencement, it never will have an end; 773 it is infinite, that is to say, we have no conception of its limits. 774 Nevertheless, human qualities, which must be always borrowed from ourselves, and with others we have a very slender acquaintance, cannot be well suitable to the entire of Nature; 775 seeing that these qualities are in themselves modes of being, 776 or modes which appertain only to particular beings: not to the great whole which contains them.

777 Thus, to resume the answers which have been given to Dr. Clarke, we shall say: 778 First, we can conceive that matter has existed from all eternity, seeing that we cannot conceive it to have been capable of beginning.

779 Secondly, that matter is independent, seeing there is nothing exterior to itself; 780 that it is immutable, seeing it cannot change its nature, although it is unceasingly changing its form and its combinations.

781 Thirdly, that matter is self-existent, since not being able to conceive it can be annihilated, we cannot possibly conceive it can have commenced to exist.

782 Fourthly, that we do not know the essence, or the true nature of matter, although we have a knowledge of some of its properties; 783 of some of its qualities: according to the mode in which they act upon us.

784 Fifthly, that matter not having had a beginning, will never have an end, 785 although its numerous combinations, its various forms, have necessarily a commencement and a period.

786 Sixthly, that if all that exists, or everything our mind can conceive is matter, this matter is infinite; 787 that is to say, cannot be limited by anything; that it is omnipresent, seeing there is no place exterior to

itself, 788 indeed, if there was a place exterior to it, that would be a vacuum.

789 Seventhly, that Nature is unique, although its elements or its parts may be varied to infinity, induced with properties extremely opposite; with qualities essentially different.

790 Eighthly, that matter, arranged, modified, and combined in a certain mode, produces in some beings what we call intelligence, 791 which is one of its modes of being, not one of its essential properties.

792 Ninthly, that matter is not a free agent, since it cannot act otherwise than it does, in virtue of the laws of its Nature, or of its existence; 793 that consequently, heavy bodies must necessarily fall; light bodies by the same necessity rise; 794 fire must burn; human must experience good and evil, according to the quality of the beings whose action you experiences.

795 Tenthly, that the power or the energy of matter, has no other bounds than those which are prescribed by its own existence.

796 Eleventhly, that wisdom, justice, goodness, are qualities peculiar to matter combined and modified, as it is found in some beings of the human species; 797 that the idea of perfection is an abstract, negative, metaphysical idea, or mode of considering objects, which supposes nothing real to be exterior to itself.

798 Twelfthly, that matter is the principle of motion, which it contains within itself: since matter alone is capable of either giving or receiving motion: 799 this is what cannot be conceived of immateriality or simple beings destitute of parts, devoid of extent, without mass, having no ponderousity, 800 which consequently cannot either move itself or other bodies.

EXAMINATION OF THE PROOFS OFFERED BY DESCARTES, MALEBRANCHE, NEWTON

Paul Henri Thiery (Baron D'Holbach)

48 If the evidence of Clarke did not prove satisfactory-- if the theologians of his day disputed the

manner in which he handled his subject-- 2 if they were disposed to think he had not established his argument upon proper foundations, 3 it did not seem probable that either the system of Descartes, the sublime reveries of Malebranche, or the more methodical mode adopted by Newton, were at all likely to meet with a better reception; 4 the same objections will lie against them all, that they have not demonstrated the existence of their immaterial substances; 5 although they have incessantly spoken of them, as if they were things of which they had the most intimate knowledge. 6 Unfortunately this is a rock which the most sublime geniuses have not been competent to avoid: 7 the most enlightened people have done little more than stammer upon a subject which they have all concurred in considering of the highest importance; 8 which they unceasingly hold forth as the most necessary for human to know; 9 without at the same time considering you are not in a condition to occupy yourself with objects inaccessible to your senses-- 10 which your mind, consequently, can never grasp-- which your utmost research cannot bring into that tangible shape by which alone you can be enabled to form a judgment.

11 To the end that we may be convinced of that want of solidity which the greatest people have not known how to give to the proofs they have offered, 12 but which they have successively imagined has established their positions, 13 let us briefly examine what the most celebrated philosophers, what the most subtile metaphysicians have said. 14 For this purpose we will begin with Descartes, the restorer of philosophy among the moderns, 15 to whose sublime errors we are indebted for the effulgent truths of the Newtonian system. 16 This great man himself tells us, "All the strength of argument which I have hitherto used to prove the existence of immaterial substances, consists in this, 17 that I acknowledge it would not be possible, my nature was such as it is, that is to say, that I should have in me the idea of immateriality,

if this incorporeity did not truly exist; 18 this same immateriality, of which the idea is in me, possesses all those high perfections of which our mind can have some slight idea, without however being able to comprehend them." 19 In another place he says, "We must necessarily conclude from this alone, that because I exist, and have the idea of immateriality, 20 that is to say, of a most perfect being, the existence is therefore most evidently demonstrated." 21 There are not, perhaps, many except Descartes himself, to whom this would appear quite so conclusive; 22 who would be impressed with the conviction which he seems to imagine is so very substantive.

23 First, We shall reply to Descartes, it is not a warrantable deduction, that because we have an idea of a thing, we must therefore conclude it exists; 24 to give validity to such a mode of reasoning would be productive of the greatest mischief; would, in fact, tend to subvert all human institutions. 25 Our imagination presents us with the idea of a sphinx, or of an hippogriff, besides a thousand other fantastical beings; 26 are we, on that authority, to insist that these things really exist? 27 Is the mere circumstance of our having an idea of various parts of Nature, discrepantly jumbled together, without any other evidence as to the assemblage, 28 a sufficient warranty for calling upon humankind to accredit the existence of such heterogeneous masses? 29 If a philosopher of the most consummate experience, of the greatest celebrity, 30 one who enjoyed the confidence of humankind above every other, was to detail the faculties and perfections of these visionary beings, 31 although he should hold them forth as the perfection of all natural combinations, would, 32 I say, any reasonable being lend the self to the asseveration?

33 Secondly, It is obvious that the mere circumstance of existence, does not prove the absolute existence of anything anterior to itself; 34 although in human, as well as the other beings of Nature, it is evidence that something has existed before

human. 35 If this argument was to be admitted, are they aware how far it would carry them? 36 To maintain that the existence of one being demonstrably proves the existence of an anterior being, would be, in fact, denying that anything was self-existent. 37 The fallacy of such a position is too glaring to need refutation.

38 Thirdly, It is not possible you should have a distinct, positive idea of immateriality, of which be, as well as the theologian, labours to prove the existence. 39 It is impossible for human, for a material being, to form to the self a correct idea, or indeed any idea, of incorporeity; 40 of a substance without extent, acting upon Nature, which is corporeal; 41 a truth which it may not be presuming too much to say we have already sufficiently proved.

42 Fourthly, It is equally impossible for human to have any clear, decided idea of perfection, of infinity, of immensity, and other theological attributes. 43 To Descartes we must therefore reply as we have done to Dr. Clarke on his twelfth proposition. 44 Thus nothing can well be less conclusive than the proofs upon which Descartes rests the existence of immateriality. 45 He gives it thought and intelligence, but how conceives these qualities without a subject to which they may adhere? 46 He pretends that we cannot conceive it but "as a power which applies itself successively to the parts of the universe."

47 Again, he says, "that an immaterial substance cannot be said to have extent, 48 but as we say of fire contained in a piece of iron, which has not, properly speaking, any other extension than that of the iron itself." 49 According to these notions we shall be justified in taxing him with having announced in a very clear, in a most unequivocal manner, that this is Nature Herself: 50 this indeed is a pure Spinozism; it was decidedly on the principles of Descartes that Spinoza drew up his system; in fact it flows out of it consecutively.

51 We might, therefore, with great reason, accuse Descartes of atheism, seeing that he very effectually

destroys the feeble proofs he adduces in support of his own hypothesis; 52 we have solid foundation for insisting that his system overturns the idea of the creation, 53 because if from the modification we subtract the subject, the modification itself disappears: 54 and if, according to the Cartesians, this immateriality is nothing without Nature, they are complete Spinozians, with another name.

55 If incorporeity is the motive-power of this Nature, it no longer exists independently; 56 it, in fact, exists no longer than the subject to which it is inherent subsists. 57 Thus no longer existing independently, it will exist only while the nature which it moves shall endure; 58 without matter, without a subject to move, to preserve, what is to become of it, according to this doctrine, or rather according to this elucidation of a system which is in itself untenable?

59 It will be obvious from this, that Descartes, far from establishing on a rocky foundation the existence of this immateriality, totally destroys his own system. 60 The same thing will necessarily happen to all those who reason upon his principles; they will always finish by confuting him, and by contradicting themselves. 61 The same want of just inference, the same discrepancy, will obtrude themselves in the principles of the celebrated Father Malebranche; 62 which, if considered with the slightest attention, appear to conduct directly to Spinozism; 63 in fact, can anything be more in unison with the language of Spinoza himself, than to say, as does Malebranche, "that the universe is only an emanation from God; 64 that we see everything in God, that everything we see is only God; that God alone does everything that is done; 65 that all the action, with every operation that takes place in Nature, is God Himself; 66 in a word, that God is every being and the only being." 67 Is not this formally asserting that Nature Herself is God? 68 Moreover, at the same time Malebranche assures us we see everything in God, he pretends that it is not yet clearly demonstrated that matter and bodies

have existence; 69 that faith alone teaches us these mysteries, of which, without it, we should not have any knowledge whatever. 70 In reply, it might be a very fair question, how the existence of the being who created matter can be demonstrated, if the existence of this matter itself be yet a problem?

71 He himself acknowledges "that we can have no distinct demonstration of the existence of any other being than of that which is necessary;" 72 he further adds, "that if it be closely examined, it will be seen, that it is not even possible to know with certitude, if God be or be not truly the creator of a material, of a sensible world." 73 According to these notions, it is evident, that, following up the system of Malebranche, human has only own faith to guarantee the existence of the world; 74 yet faith itself supposes its existence; if it be not, however, certain that it does exist, 75 and the Bishop of Cloyne, Dr. Berkeley, has also held this in doubt, 76 how shall we be persuaded that we must believe the oracles which have been delivered to a visionary world?

77 On the other hand, these notions of Malebranche completely overturns all the theological doctrines of free agency. 78 How can the liberty of human's action be reconciled with the idea that it is the Divinity who is the immediate mover of Nature; 79 who actually gives impulse to matter and bodies, without whose immediate interference nothing takes place; who pre-determines His creatures to everything they do? 80 How can it be pretended, if this doctrine is to be accredited, that human souls have the faculty of forming thoughts-- 81 have the power of volition-- are in a condition to move themselves-- have the capacity to modify their existence?

82 If it be supposed with the theologians, that the conservation of the creatures in the universe is a continued creation, 83 must it not appear, that being thus perpetually recreated, they are enabled to commit evil? 84 It will then be a self-evident fact, that, admitting the system of Malebranche, God does

everything, and that His creatures are no more than passive instruments in His hands. 85 Under this idea they could not be answerable for their sins, because they would have no means of avoiding them. 86 Under this notion they could neither have merit or demerit; they would be like a sharp instrument in their own hands, 87 which whether it was applied to a good or to an evil purpose, it would attach to themselves, not to the instrument: 88 this would annihilate all religion: it is thus that theology is continually occupied with committing suicide.

89 Let us now see, if the immortal Newton, the great luminary of science, the champion of astronomical truth, 90 will afford us clearer notions, more distinct ideas, more certain evidence of the existence of immaterial substances. 91 This great man, whose comprehensive genius unravelled Nature, whose capacious mind developed Her laws, seems to have bewildered himself, the instant he lost sight of them. 92 A slave to the prejudices of his infancy, he had not the courage to hold the lamp of his own enlightened understanding to the agent theology has so gratuitously associated with Nature; 93 he has not been able to allow that Her own peculiar powers were adequate to the production of that beautiful phenomena, 94 he has with such masterly talents so luminously explained.

95 In short, the sublime Newton himself becomes an infant when he quits physics, when he lays aside demonstration, 96 to lose himself in the devious sinuosities, in the inextricable labyrinths, in the delusive regions of theology. 97 This is the manner in which he speaks of the Divinity: 98 "This God," says he, "governs all, not as the soul of the world, but as the lord and sovereign of all things. 99 It is in consequence of His sovereignty that He is called the Lord God, [Greek letters], pantokrator, the universal emperor. 100 Indeed the word God is relative and relates itself with slaves; 101 the Deity is the dominion or the sovereignty of God, not over own body, as those think who look upon

God as the soul of the world, but over slaves."

102 From this it will be seen that Newton, as well as the theologians, makes the Divinity a pure spirit, who presides over the universe as a monarch, as a lord paramount; 103 that is to say, what human defines in earthly governors, despot, absolute princes, powerful monarchs, whose governments have no model but their own will, 104 who exercise an unlimited power over their subjects, transformed into slaves; 105 whom they usually compel to feel in a very grievous manner the weight of their authority.

106 But according to the ideas of Newton, the world has not existed from eternity, the staves of God have been formed in the course of time; 107 from this it would be a just inference, that before the creation of the world the god of Newton was a sovereign without subjects. 108 Let us see if this truly great philosopher is more in unison with himself in the subsequent ideas which he delivers on this subject. 109 "The supreme God," he says, "is an eternal, infinite, and absolutely perfect being; 110 but however perfect a being may be, if He has no sovereignty He is not the supreme God. 111 The word God signifies Lord, but every lord is not god; 112 it is the sovereignty of the spiritual Being which constitutes God; it is the true sovereignty which constitutes the true God; 113 it is the supreme sovereignty which constitutes the supreme God; it is a false sovereignty which constitutes a false god. 114 From true sovereignty, it follows, that the true God is living, intelligent, and powerful; 115 and from His other perfections, it follows, that He is supremely or sovereignty perfect. 116 He is eternal, infinite, omniscient; that is to say, he exists from eternity, and will never have an end; 117 he governs all, and he knows everything that is done, or that can be done. 118 He is neither eternity nor infinity, but He is eternal and infinite; 119 He is not space or duration, but He exists and is present." 120 The term here used is adest, which appears to have been placed there to avoid saying that God is contained in space.

121 In all this unintelligible series, nothing is to be found but incredible efforts to reconcile the theological attributes, 122 the abstract with the human qualities, which have been ascribed to the Divinity; 123 we see in it negative qualities, which can no longer be suitable to human, given, however, to the Sovereign of Nature, whom He has supposed a king. 124 However it may be, this picture always supposes the Supreme God to have occasion for subjects to establish His sovereignty. 125 It makes God stand in need of human for the exercise of His empire; 126 without these, according to the text, He would not be a king; he could have had no empire when there was nothing: 127 but if this description of Newton was just, if it really represented the Divinity, we might be very fairly permitted to ask, 128 Does not this Spiritual King exercise his spiritual empire in vain, upon refractory beings, who do not at all times do that which He is willing they should; 129 who are continually struggling against His power; who spread disorder in His states?

130 This Spiritual Monarch, who is master of the minds, of the souls, of the wills, of the passions of His slaves, does He leave them the freedom of revolting against Him? 131 This infinite Monarch, who fills everything with His immensity, who governs all, does He also govern the human who sins; 132 does He direct your actions; is He in you when you offends your God? 133 The devil, the false god, the evil principle, hath he not, according to this, a more extensive empire than the true God, 134 whose projects, if we are to believe the theologians, he is unceasingly overturning?

135 In earthly governments the true sovereign is generally considered to be Him whose power in a state influences the greater number of His subjects. 136 If, then, we could suppose Him to be omnipresent, that is, present in all places, should we not say He was the sad witness to all the outrages committed against His authority, 137 and we should not entertain a very exalted opinion of His power if He permitted them to continue. 138 This, it is true, would

be arguing upon a monarch of this world, still it would be the language held by observers.

139 Is the spirituality of the Divinity well supported by those who say He fills all space, 140 who from that instant give Him extent, ascribe to Him volume, make Him correspond with the various points of space? 141 This is the very reverse of an immaterial substance. "God is One," continues Newton, "and He is the same forever, and everywhere, 142 not only by His virtue alone, or by His energy, but also by His substance." 143 But how are we to conceive that a being who is in continual activity, who produces all the changes which beings undergo, can always be Himself the same? 144 What is to be understood by either this virtue or this energy? These are relative terms, which do not present any clear, distinct idea to our mind, except as they apply to human: 145 what are we, however, to understand by the divine substance? 146 If this substance be spiritual, that is, devoid of extent, how can there exist in it any parts? 147 How can it give impulse to matter, how set it in motion? How can it even be conceived by mortals?

148 Nevertheless Newton informs us, "that all things are contained in Him, and are moved in Him, but without reciprocity of action: 149 God experiences nothing by the motion of bodies; these experience no resistance whatever by His omnipresence." 150 It would here appear that he clothes the Divinity with that which bears the character of vacuum-- of nothing; 151 without that, it would be almost impossible not to have a reciprocal action or relation between these substances, which are either penetrated or encompassed on all sides. 152 It must be obvious, that in this instance our scientific author does not distinctly understand himself.

153 He proceeds, "It is an incontestable truth, that God exists necessarily, and the same necessity obliges to exist always and everywhere: 154 from whence it follows, that He is in everything similar to itself; He is all eyes, all ears, all brains, all arms, all feeling,

all intelligence, all action; 155 but in a mode by no means human, by no means corporeal, and which is totally unknown to us. 156 In the same manner as a blind person has no idea of colours, it is that we have no idea of the mode in which God feels and understands." 157 The necessary existence of the Divinity is precisely the thing in question; 158 it is this existence that it was needful to have verified by proofs as clear, by evidence as distinct, by demonstration as strong, as gravitation and attraction. 160 One would have hardly thought it possible the expansive capabilities of Newton would not have compassed it.

161 But Oh, unrivalled genius! so mighty, so powerful, so colossal, while yet you was a geometrician; 162 so insignificant, so weak, so inconsistent; when you became a theologian; 163 that is to say, when you reasoned upon that which can neither be calculated, nor submitted to experience; 164 how could you think of speaking to us on a subject which, by your own confession is to you just what a picture is to a human born blind? 165 Wherefore quit Nature, which had already explained to you so much? 166 Why seek in imaginary spaces those causes, those powers, that energy, which She would have distinctly pointed out to you, 167 had you been willing to have consulted Her with your usual sagacity? 168 The gigantic, the intelligent Newton, suffers himself to be hoodwinked-- to be blinded by prejudice; 169 he has not courage to look a question fairly in the face, when that question involves notions which habit has rendered sacred to him; 170 he turns his eyes from truth, he casts behind him his experience, he lulls to sleep his reason, 171 when it becomes necessary to probe opinions full of contradictions, yet fraught with the best interests of humanity.

172 Let us, however, continue to examine how far the most transcendent genius is capable of leading himself astray, 173 when once he abandons experience, when once he chains up his reason, when once he suffers himself to be guided

by his imagination. 174 "God," continues the father of modern philosophy, "is totally destitute of body and of corporeal figure; 175 here is the reason why He cannot be either seen, touched, or understood; and ought not to be adored under any corporeal form." 176 What idea, however, can be formed of a being who is resembled by nothing of which we have any knowledge? 177 What are the relations that can be supposed to exist between such very dissimilar beings?

178 When human renders this being your adoration, does you not, in fact, in despite of yourself, make Him a being similar to your own species; 179 does you not suppose that, like yourself, He is sensible to homage-- to be won by presents-- gained by flattery; 180 in short, He is treated like a king of the earth, who exacts the respect, demands the fealty, requires the obedience of all who are submitted to Him. 181 Newton adds, "we have ideas of His attributes, but we do not know that it is any one substance; 182 we only see the figures and the colours of bodies; we only hear sounds; we only touch the exterior surfaces; we only scent odours; we only taste flavours: 183 no one of our senses, no one of our reflections, can show us the intimate nature of substances: we have still less ideas of God."

184 If we have an idea of the attributes of God, it is only because we clothe Him with those which belong to ourselves; 185 which we never do more than aggrandise, which we only augment or exaggerate; 186 we then mistake them for those qualities with which we were at first acquainted. 187 If in all those substances which are pervious to our senses, we only know them by the effects they produce on us, 188 after which we assign them qualities, at least these qualities are something tangible, they give birth to clear and distinct ideas. 189 This superficial knowledge, however slender it may be, with which our senses furnish us, is the only one we can possibly have; 190 constituted as we are, we find ourselves under the necessity of resting contented with it, and we discover that it is sufficient

for our wants; 191 but we have not even the most superficial idea of immateriality, or a substance distinguished from all those with which we have the slightest acquaintance. 192 Nevertheless, we hear people hourly reasoning upon it, disputing about its properties, advancing its faculties, as if they had the most demonstrable evidence of the fact; 193 tearing each other in pieces, because the one does not readily admit what the other asserts, upon a subject which no human is competent to understand.

194 Our author goes on "We only have a knowledge of God by His attributes, by His properties, 195 by the excellent and wise arrangement which He has given to all things, and by their FINAL CAUSES: 196 we admire Him in consequence of His perfections." 197 I repeat, that we have no real knowledge of the Divinity; that we borrow His attributes from ourselves; 198 but it is evident these cannot be suitable to the Universal Being, who neither can have the same nature nor the same properties as particular beings; 199 it is nevertheless after ourselves that we assign Him intelligence, wisdom, perfection, in subtracting from them what we call defects.

200 As to the order, or the arrangement of the universe, human finds it excellent, esteems it the perfection of wisdom, 201 as long as it is favourable to your species; or when the causes which are co-existent with yourself do not disturb your own peculiar existence; 202 otherwise you are apt to complain of confusion, and final causes vanish: 203 you then attributes to an immutable God, motives equally borrowed from your own peculiar mode of action, for deranging the beautiful order you so much admires in the universe. 204 Thus it is always in yourself, that is, in your own individual mode of feeling, that you draws up the ideas of the order, 205 the wisdom, the excellence, the perfection which you ascribes to the Deity; 206 whilst the good as well as the evil which take place in the world, are the necessary consequence of the essence of things; 207 of the general, immutable laws of Nature;

in short, of the gravitation, of the repulsion of matter; 208 of those unchangeable laws of motion, which Newton himself has so ably thrown into light; 209 but which he has by a strange fatuity forborne to apply when the question was concerning the cause of these phenomena, which prejudice has refused to the capabilities of Nature.

210 He goes on, "We revere, and we adore God, on account of His sovereignty: we worship Him like His slaves; 211 a God destitute of sovereignty, of providence, and of final causes, would be no more than Nature and destiny." 212 It is true that superstition enjoins human to adore its gods like ignorant slaves, who tremble under a master whom they know not; 213 you certainly prays to them on all occasions, sometimes requesting nothing less than an entire change in the essence of things, 214 to gratify your capricious desires, and it is perhaps well for you they are not competent to grant your request: 215 in the origin, as we have shown, these gods were nothing more than Nature acting by necessary laws, 216 clothed under a variety of fables; or necessity personified under a multitude of names.

217 However this may be, we do not believe that true religion, that sterling worship which renders human grateful, 218 whilst it exalts the majesty of the Divinity, requires any such meanness from human that you should act like a slave; 219 you are rather expected to sit down to the banquet prepared for Him, with all the dignity of an invited guest; 220 under the cheering consciousness of a welcome that is never accorded to slaves; 221 nothing is required at His hands, but that you should conduct yourself temperately in the banqueting-house; 222 that you should be grateful for the good cheer you receives; that you should have virtue;-- 223 which we have already sufficiently explained is to render yourself useful, by making others happy;-- 224 that you should not by pertinaciously setting up whimsical opinions, and insisting on their adoption by your neighbour, disturb the harmony of the feast; 225 that you

should be sufficiently intelligent to know when you are really felicitous, and not seek to put down the gaiety of your fellow guests; 226 but that you should rise from the board satisfied with yourself, contented with others; 227 in short, to comprise the whole in a trite axiom of one of the Greek philosophers, you should learn the invaluable secret, "to bear and forbear."

228 But to proceed. Newton tells us, "that from a physical and blind necessity, which should preside everywhere, and be always the same, there could not emanate any variety in the beings; 229 the diversity which we behold, could only have its origin in the ideas and in the will of a being which exists necessarily;" 230 but wherefore should not this diversity spring out of natural causes, from matter acting upon matter; 231 the action of which either attracts and combines various yet analogous elements, 232 or else separates beings by the intervention of those substances which have not a disposition to unite? 233 Is not bread the result of the combination of flour, yeast and water? 234 As for the blind necessity, as it is elsewhere said, we must acknowledge it is that of which we are ignorant, either of its properties or its energies; 235 of which being blind ourselves we have no knowledge of its mode of action.

236 Philosophers explain all the phenomena that occur by the properties of matter; 237 and though they feel the want of a more intimate acquaintance with natural causes, 238 they do not therefore the less believe them deducible from these properties or these causes. 239 Are, therefore, the philosophers atheists, because they do not reply, it is God who is the author of these effects? 240 Is the industrious workman, who makes gunpowder, to be challenged as an atheist, 241 because he says the terrible effects of this destructive material, which inspired the native Americans with such awe, which raised in their winds such wonder, 242 are to be ascribed to the junction of the apparently harmless substances of nitre, charcoal and sulpher, 243 set in activity by the accession of trivial scintillations,

produced from the collision of steel with flint, 244 merely because some bigoted Priest of the Sun, who is ignorant of the composition, 245 chooses to think it is not possible such a striking phenomenon could be the work of anything short of the secret agents, whom he has himself appointed to govern the world?

246 "It is allegorically said that God sees, hears, speaks, smiles, loves, hates, desires, gives, receives, rejoices, grows angry, fights, makes, or fashions, 247 because all that is said of God, is borrowed from the conduct of human, by an imperfect analogy." 248 Human has not been able to act otherwise, for want of being acquainted with Nature and Her eternal course: 249 whenever you have imagined a peculiar energy which you have not been able to fathom, you have given it the name of God; 250 and you have then made Him act upon the self-same principles, as He Himself would adopt, according to which you would act if you was the master. 251 It is from this proneness to Theanthropy, that has flowed all those absurd, and frequently dangerous ideas, upon which are founded the superstitions of the world; 252 who all adore in their gods either natural causes of which they are ignorant, or else powerful mortals of whose malice they stand in awe. 253 The sequel will show the fatal effects that have resulted to humankind from the absurd ideas they have very frequently formed to themselves of the Divinity; 254 that nothing could be more degrading to Him, more injurious to themselves, than the idea of comparing Him to an absolute sovereign, to a despot, to a tyrant. 255 For the present let us continue to examine the proofs offered in support of their various systems.

256 It is unceasingly repeated that the regular action, the invariable order, which reigns in the universe, the benefits heaped upon mortals, 257 announce a wisdom, an intelligence, a goodness, which we cannot refuse to acknowledge, in the cause which produces these marvellous effects. 258 To this we must reply, that it is unquestionably true that not only these things, but all the phenomena

you beholds, 259 indicate the existence of something gifted very superiorly to erring human; 260 the great question, however, is one that perhaps will never be solved, what is this being?

261 Is this question answered by heaping together the estimable qualities of human? 262 Speaking with relation to ourselves, which is all that the theologians really does, although in such numerous regions they pretends to do a great deal more, 263 we can apply the terms goodness, wisdom, intelligence, the best with which we are acquainted, to this being for the want of having those that may be appropriate; 264 but I maintain, this does not, in point of fact, afford us one single idea of the Great Cause of causes; 265 we admire His works; and knowing that what we approve highly in our own species, we attribute to their being wise, we say the Divinity displays wisdom. 266 So far it is well; but this, after all, is a human quality. 267 If we consult experience, we shall presently be convinced that our wisdom does not bear the least affinity to the actions attributed to the Divinity. 268 To get at this a little closer, we must endeavour to find out what we do not call wisdom in human; 269 this will help us to form an estimate, how very incompetent we are to describe the qualities of a being that differs so very materially from ourselves.

270 We most certainly should not call Him a wise person, who having built a beautiful residence, should by the self set it on fire; 271 and thus destroy what the self had laboured so much to bring to perfection: 272 yet this happens every day in Nature, without its being in any manner a warranty for us to charge Her with folly. 273 If therefore we were to form our judgments after our own puny ideas of wisdom, what should we say? 274 Why, in point of fact, just what the human does, who, thinking you have had too much rain, implores fine weather? 275 Which, properly translated, is neither more nor less than giving the Divinity to understand you best knows what is proper for yourself.

276 The just, the only fair inference to be drawn from this, is, that we positively know nothing about the matter; 277 that those who pretend they do, would, if it was upon any other subject, you suspected of having an unsound mind. 278 We do not mean to insist that we are in the right, but we mean to aver that the object of this work is not so much either to build up new systems, or to put down old ones, 279 as by showing human the inconclusiveness of own reasonings upon matters not accessible to own comprehension-- 280 to induce you to be more tolerant to your neighbour-- 281 to invite you to be less rancorous against those who do not see with your eyes-- 282 to hold forth to those motives for forbearance, against those whose system of faith may not exactly harmonise with your own-- 283 to render you less ferocious in support of opinions, which, if you will but discard your prejudices, you may find not so solidly bottomed as you imagines. 284 All we know is scarcely more than that the motion we witness in the universe is the necessary consequence of the laws of matter; 285 that the uniformity of this motion is evidence of their immutability; 286 that it is not too much to say it cannot cease to act in the manner it does, as long as the same causes operate, governed by the same circumstances.

287 We evidently see that motion, however regular in our mind, that order, however beautiful to our admiring optics, yields to what we term disorder, 288 to that which we designate frightful confusion, as soon as new causes, not analogous to the preceding, either disturb or suspend their action. 289 We further know that a better knowledge of Nature, the consequence of time, the result of patient, laborious, physical researches, with the comparison of facts and the application of experience, 290 has enabled human in many instances to divert from the self the evil effects of inevitable causes, 291 which anterior to these discoveries overwhelmed your unhappy progenitors with ruin. 292 How far these salutary developments are to be carried by industry, what

may be achieved by honesty, 293 what light is to be gathered from the recession of prejudice, the wisest among people is not competent to decide. 294 Certain it is, that phenomena which for ages were supposed to denounce the anger of the Deity against humankind, are now well understood to be common effects of natural causes.

295 Order, as we have elsewhere shown, is only the effects which result to ourselves from a series of motion; 296 there cannot be any disorder relatively to the great whole; in which all that takes place is necessary; in which everything is determined by laws which nothing can change. 297 The order of Nature may be damaged or destroyed relatively to ourselves, but it is never contradicted relatively to Herself, since She cannot act otherwise than She does: 298 if we attribute to Her the evils we sustain, we are equally obliged to acknowledge we owe to Her the good we experience.

299 It is said, that animals furnish a convincing proof of the powerful cause of their existence; 300 that the admirable harmony of their parts, the mutual assistance they lend each other, the regularity with which they fulfill their functions, 301 the preservation of these parts, the conservation of such complicated wholes, announce a workman who unites wisdom with power; 302 in short, whole tracts of anatomy and botany have been copied to prove nothing more than that these things exist, 303 for of the power that produced them there cannot remain a doubt. 304 We shall never learn more from these erudite tracts, save that there exists in Nature certain elements with an aptitude to attraction; 305 a disposition to unite, suitable to form wholes, to induce combinations capable of producing very striking effects.

306 To be surprised that the brain, the heart, the arteries, the veins, the eyes, the ears of an animal, act as we see them-- 307 that the roots of plants attract juices, or that trees produce fruit, is to be surprised that a tree, a plant, or an animal exists at all. 308 These beings would not exist, or would no longer be that which we

know they are, if they ceased to act as they do: this is what happens when they die. 309 If the formation, the combination, the modes of action, variously possessed by these beings, 310 if their conservation for a season, followed by their destruction or dissolution, prove anything, it is the immutability of those laws which operate in Nature: 311 we cannot doubt the power of Nature; She produces all the animals we behold, by the combination, of matter, continually in motion; 312 the harmony that subsists between the component parts of these beings, is a consequence of the necessary laws of their nature, and of that which results from their combination. 313 As soon as this accord ceases, the animal is necessarily destroyed: from this we must conclude that every mutation in Nature is necessary; 314 is only a consequence of its laws; that it could not be otherwise than it is, under the circumstances in which it is placed.

315 Human, who looks upon the self as the chef d'oeuvre, furnishes more than any other production a proof of the immutability of the laws of Nature: 316 in this sensible, intelligent, thinking being, whose vanity leads you to believe yourself the sole object of the divine predilection, 317 who forms your God after your own peculiar model, we see only a more inconstant, a more brittle machine; 318 one more subject to be deranged by its extreme complication, than the grosser beings: 319 beasts destitute of our knowledge, plants that vegetate, stones devoid of feeling, are in many respects beings more highly favoured than human: 320 they are at least exempted from the sorrows of the mind--from the torments of reflection-- from that devouring, chagrin to which you are so frequently a prey.

321 Who are you who would not be a plant or a stone, every time reminiscence forces upon your imagination the irreparable loss of a beloved object? 322 Would it not be better to be an inanimate mass, than a restless, turbulent, superstitious being, 323 who does nothing but tremble under the imaginary displeasure of beings of own

creation; 324 who to support own gloomy opinions, immolates own fellow creatures at the shrine of own idol; 325 who ravages the country, and deluges the earth with the blood of those who happen to differ from you on a speculative point of an unintelligible creed? 326 Beings destitute of life, bereft of feeling, without memory, not having the faculties of thought, at least are not afflicted by the idea of either the past, the present, or the future; 327 they do not at any rate believe themselves in danger of becoming eternally unhappy, because they may have reasoned badly; 328 or because they happened to be born in a land where truth has never yet shed its refulgent beams on the darkened mind of perplexed mortals.

329 Let it not then be said that we cannot have an idea of a work, without also having an idea of the workman, as distinguished from His work: 330 the savage, when they first beheld the terrible operation of gunpowder, did not form the most distant idea that it was the work of a human like themselves. 331 Nature is not to be contemplated as a work of this kind; She is self-existent. 332 In Her bosom everything is produced: She is an immense laboratory, provided with materials, who makes the instruments of which She avails Herself in Her operations. 333 All Her works are the effects of Her own energies; of those agents which She Herself produces; of those immutable laws by which She sets everything in activity.

334 Eternal, indestructible elements, ever in motion, combine themselves variously, and thus give birth to all beings, 335 to all the phenomena which fill the weak eyes of erring mortals with wonder and dismay; 336 to all the effects, whether good or bad, of which human experiences the influence; 337 to all the vicissitudes you undergoes, from the moment of your birth until that of your death; 338 to order and to confusion, which you never discriminates but by the various modes in which you are affected: 339 in short, to all those miraculous spectacles with which you occupies your meditation-- upon which you exercises your reason--

340 which frequently spread consternation over the surface of the earth. 341 These elements need nothing when circumstances favour their junction, save their own peculiar properties, whether individual or united, with the motion that is essential to them, 342 to produce all those phenomena which powerfully striking the senses of humankind, either fill you with admiration, or stagger you with alarm.

343 But supposing for a moment that it was impossible to conceive the work, without also conceiving the workman, who watches over own work, 344 where must we place this workman? Shall it be interior or exterior to own production? Is He matter and motion, or is He only space or the vacuum?

345 In all these cases either He would be nothing, or He would be contained in Nature: 346 as Nature contains only matter and motion, it must be concluded that the agent who moves it is material; that He is corporeal; 347 if this agent be exterior to Nature, then we can no longer form any idea of the place which He occupieth: 348 neither can we better conceive an immaterial being; nor the mode in which a spirit without extent can act upon matter from which it is separated.

349 These unknown spaces, which imagination has placed beyond the visible world, can have no existence for a being, who with difficulty sees down to His feet; 350 you cannot paint to your mind any image of the power which inhabit them; 351 but if you are compelled to form some kind of a picture, you must combine at random the fantastical colours which you are ever obliged to draw from the world you inhabits: 352 in this case you will really do no more than reproduce an idea, part or parcels of that which you have actually seen; 353 you will form a whole which perhaps has no existence in Nature, but which it will be in vain you strives to distinguish from Her; to place out of Her bosom. 354 When you shall be ingenuous with yourself, When you shall be no longer willing to delude others, 355 you will be obliged to acknowledge, that the

portrait you have painted, although in its combination it resembles nothing in the universe, 356 is nevertheless in all its constituent members an exact delineation of that which Nature presents to our view.

357 Hobbes in his Leviathan says, "The universe, the whole mass of things, is corporeal, that is to say, body; 358 and hath the dimensions of magnitude, namely, length, breadth, and depth: 359 also every part of body is likewise body, and hath the like dimensions; 360 and consequently every part of the universe is body; and that which is not body, is no part of the universe; 361 and because the universe is all, that which is no part of it is nothing; and consequently no where: 362 nor does it follow from hence, that spirits are nothing, for they have dimensions, and are therefore really bodies; 363 though that name in common speech be given to such bodies only as are visible, or palpable, that is, that have some degree of opacity: 364 but for spirits they call them incorporeal; which is a name of more honour, and may therefore with more piety be attributed to God Himself, 365 in whom we consider not what attribute expresseth best His nature, which is incomprehensible; but what best expresseth our desire to honour Him."

366 It will be insisted that if a statue or a watch were shown to a savage, who had never before seen either, 367 the savage would not be able to prevent the self from acknowledging that these things were the works of some intelligent agent of greater ability, possessing more industry than the self: 368 it will be concluded from thence, that we are in like manner obliged to acknowledge that the universe, that human, that the various phenomena, are the works of an agent, 369 whose intelligence is more comprehensive, whose power far surpasses our own. 370 Granted: who has ever doubted it? 371 The proposition is self-evident; it cannot admit of even a cavil.

372 Nevertheless we reply, in the first place, that it is not to be doubted that Nature is extremely powerful; diligently industrious: 373 we admire

Her activity every time we are surprised by the extent, every time we contemplate the variety, 374 every time we behold those complicated effects which are displayed in Her works; or whenever we take the pains to meditate upon them: 375 nevertheless, She is not really more industrious in one of Her works than She is in another; 376 She is not fathomed with more ease in those we call Her most contemptible productions, than She is in Her most sublime efforts: 377 we no more understand how She has been capable of producing a stone or a metal, than the means by which She organised a head like that of the illustrious Newton.

378 We call that person industrious who can accomplish things which we cannot; 379 Nature is competent to everything: 380 as soon therefore as a thing exists, it is a proof She has been capable of producing it: 381 but it is never more than relatively to ourselves that we judge beings to be industrious: we then compare them to ourselves; 382 and as we enjoy a quality which we call intelligence, by the assistance of which we accomplish things, by which we display our diligence, 383 we naturally conclude from it, that those works which most astonish us, do not belong to Her, but are to be ascribed to an intelligent being like ourselves, 384 but in whom we make the intelligence commensurate with the astonishment these phenomena excite in us; 385 that is to say, in other words, to our own peculiar ignorance, and the weakness incident to our nature.

386 In the second place, we must observe, that the savage, to whom either the statue or the watch is brought, will or will not have ideas of human industry: 387 if you have ideas of it, you will feel that this watch or this statue, may be the work of a being of your own species, enjoying faculties of which you are yourself deficient: 388 if you have no idea of it, if you have no comprehension of the resources of human art, when you beholds the spontaneous motion of the watch, 389 you will be impressed with the belief

that it is an animal, which cannot be the work of human.

390 Multiplied experience confirms this mode of thinking which is ascribed to the savage. 391 The Peruvians mistook the Spaniards for gods, because they made use of gunpowder, rode on horseback, and came in vessels which sailed quite alone. 392 The inhabitants of the island of Tenian being ignorant of fire before the arrival of Europeans, 393 the first time they saw it, conceived it to be an animal who devoured the wood. 394 Thus it is, that the savage, in the same manner as many great and learned people, who believe themselves much more acute, 395 will attribute the strange effects that strike own organs, to a genius or to a spirit; 396 that is to say, to an unknown power; to whom they will ascribe capabilities of which they believes the beings of their own species are entirely destitute: 397 by this you will prove nothing, except that you are yourself ignorant of what human is capable of producing.

398 It is thus that a raw unpolished people raise their eyes to heaven, every time they witness some unusual phenomenon. 399 It is thus that the people denominate all those strange effects, with the natural causes of which they are ignorant, miraculous, supernatural, divine; 400 but these are not by reasonable people therefore considered proofs of what they assert: 401 as the multitude are generally unacquainted with the cause of anything, every object becomes a miracle in their eyes; 402 at least they imagine God is the immediate cause of the good they enjoy-- of the evil they suffer. 403 In short, it is thus that the theologians themselves solve every difficulty that starts in their road; 404 they ascribe to God all those phenomena, of the causes of which either they are themselves ignorant, or else unwilling that human should be acquainted with the source.

405 In the third place, the savage, in opening the watch, and examining its parts, will perhaps feel, that this machinery announces a work which can only be the result of human labour. 406 The savage will perhaps perceive, that they very obviously

differ from the immediate productions of Nature, whom they have not observed to produce wheels made of polished metal. 407 They will further notice, perhaps, that these parts when separated, no longer act as they did when they were combined; 408 that the motion they so much admired, ceases when their union is broken. 409 After these observations, they will attribute the watch to the ingenuity of human; 410 that is to say, to a being like yourself, of whom you have some ideas, but whom you judges capable to construct machines to which you are yourself utterly incompetent. 411 In short, you will ascribe the honour of your watch to a being known to you in some respects, provided with faculties very far superior to your own; 412 but you will be at an immense distance from the belief, that this material work, whose ingenuity pleases you so much, can be the effect of an immaterial cause; 413 or of an agent destitute of organs, without extent; whose action upon material beings cannot be within, the sphere of your comprehension.

414 Nevertheless, human, when you cannot embrace the causes of things, does not scruple to insist that they are impossible to be the production of Nature, 415 although you are entirely ignorant how far the powers of this Nature extend; to what Her capabilities are equal. 416 In viewing the world, we must acknowledge material causes for many of those phenomena which take place in it; 417 those who study Nature are continually adding fresh discoveries to this list of physical causes; 418 science, as She enriches the intellectual stores of human enjoyment, every day throws a broader light on the energies of Nature, 419 which prejudice, aided by its almost inseparable companion, ignorance, would forever bind down in the fetters of impotence.

420 Let us not, however, be told, that pursuing this hypothesis, we attribute everything to a blind cause-- to the fortuitous concurrence of atoms-- to chance. 421 Those only are called blind causes of which we know not either the combination, the laws, or the power. 422 Those effects are

called fortuitous, with whose causes human is unacquainted; 423 to which your experience affords you no clue; which your ignorance prevents you from foreseeing. 424 All those effects, of which you does not see the necessary connection with their causes, you attributes to chance. 425 Nature is not a blind cause; She never acts by chance; 426 nothing that She does would ever be considered fortuitous, by you who should understand Her mode of action-- who had a knowledge of Her resources-- who was intelligent in Her ways. 427 Everything that She produces is strictly necessary-- is never more than a consequence of Her eternal, immutable laws; all is connected in Her by invisible bonds; 428 every effect we witness flows necessarily from the cause of Nature, whether we are in a condition to fathom it, or whether we are obliged to let it remain hidden from our view.

429 It is very possible there should be ignorance on our part; but the words spirit, intelligence, will not remedy this ignorance; they will rather redouble it, by arresting our research; 430 by preventing us from conquering those impediments which obstruct us in probing the natural causes of the effects, with which our visual faculties bring us acquainted. 431 This may serve for an answer to the clamour of those who raise perpetual objections to the partisans of Nature, by unceasingly accusing them with attributing everything to chance.

432 Chance is a word devoid of sense, which furnishes no substantive idea; at least it indicates only the ignorance of its employers. 433 Nevertheless, we are triumphantly told, it is reiterated continually, that a regular work cannot be ascribed to the concurrence of chance. 434 Never, we are informed, will it be possible to arrive at the formation of a poem such as the Iliad, 435 by means of letters thrown together promiscuously or combined at random. 436 We agree to it without hesitation; but, ingenuously, are the letters which compose a poem thrown with the hand in the manner of dice? 437 It would avail as much to

say, we could not pronounce a discourse with the feet.

438 It is Nature, who combines according to necessary laws, under given circumstances, a head organised in a mode suitable to bring forth a poem: 439 it is Nature who assembles the elements, which furnish human with a brain competent to give birth to such a work: 440 it is Nature, who, through the medium of the imagination, by means of the passions, 441 in consequence of the temperament which She bestows upon human, capacitates you to produce such a masterpiece of fancy; such a never-fading effort of the mind: 442 it is your brain modified in a certain manner, crowded with ideas, decorated with images, made fruitful by circumstances, 443 that alone can become the matrix in which a poem can be conceived-- in which the matter of it can be digested: 444 this is the only womb whose activity could usher to an admiring world, the sublime stanzas which developed the story of the unfortunate Priam, and immortalise their author. 445 A head organised like that of Homer, furnished with the same vigour, glowing with the same vivid imagination, enriched with the same erudition, 446 placed under the same circumstances, would necessarily, and not by chance, produce the poem of the Iliad; 447 at least, unless it be denied that causes similar in everything must produce effects perfectly identical.

448 We should without doubt be surprised, if there were in a dice-box a hundred thousand dice, to see a hundred thousand sixes follow in succession; 449 but if these dice were all cogged or loaded, our surprise would cease: 450 the particles of matter may be compared to cogged dice, that is to say, always producing certain determinate effects under certain given circumstances; 451 these particles being essentially varied in themselves, countless in their combinations, they are cogged in myriads of different modes. 452 The head of Homer, or of Virgil, was no more than an assemblage of particles, possessing peculiar properties; 453 or if they will, of dice

cogged by Nature; that is to say, of beings so combined, of matter so wrought, as to produce the beautiful poems of the Iliad or the Aeneid. 454 As much may be said of all other productions: indeed, what are humans themselves but cogged dice--machines into which Nature has infused the bias requisite to produce effects of a certain description? 455 A person of genius produces a good work, in the same manner as a tree of a good species, placed in a prolific soil, cultivated with care, grafted with judgment, produces excellent fruit.

456 Then is it not either knavery or puerility, to talk of composing a work by scattering letters with the hand; by promiscuously mingling characters; 457 or gathering together by chance, that which can only result from a human brain, with a peculiar organisation, modified after a certain manner? 458 The principle of human generation does not develop itself by chance; 459 it cannot be nourished with effect, expanded into life, but in the womb of a woman: 460 a confused heap of characters, a jumble of symbols, is nothing more than an assemblage of signs, whose proper arrangement is adequate to paint human ideas; 461 but in order that these ideas may be correctly delineated, it is previously requisite that they should have been conceived, combined, nourished, connected, 462 band developed in the brain of a poet; where circumstances make them fructify, mature them, and bring them forth in perfection, 463 by reason of the fecundity, generated by the genial warmth and the peculiar energy of the matrix, in which these intellectual seeds shall have been placed.

464 Ideas in combining, expanding, connecting, and associating themselves, form a whole, like all the other bodies of Nature: 465 this whole affords us pleasure, becomes a source of enjoyment, when it gives birth to agreeable sensations in the mind; 466 when it offers to our examination pictures calculated to move us in a lively manner. 467 It is thus that the history of the Trojan war, as digested in the head of Homer, ushered into the world with

all the fascinating harmony of numbers peculiar to himself, 468 has the power of giving a pleasurable impulse to heads, who by their analogy with that of this incomparable Grecian, are in a capacity to feel its beauties.

469 From this it will be obvious, that nothing can be produced by chance; 470 that no effect can exist without an adequate cause for its existence; that the one must ever be commensurate with the other. 471 All the works of Nature grow out of the uniform action of invariable laws, 472 whether our mind can with facility follow the concatenation of the successive causes which operate; 473 or whether, as in Her more complicated productions, we find ourselves in the impossibility of distinguishing the various springs which She sets in motion to give birth to Her phenomena. 474 To Nature, the difficulty is not more to produce a great poet, capable of writing an admirable poem, 475 than to form a glittering stone or a shining metal which gravitates towards a centre. 476 The mode She adopts to give birth to these various beings, is equally unknown to us, when we have not meditated upon it; 477 frequently the most sedulous attention, the most patient investigation affords us no information; 478 sometimes, however, the unwearied industry of the philosopher is rewarded, by throwing into light the most mysterious operations.

479 Thus the keen penetration of a Newton, aided by uncommon diligence, developed the starry system, 480 which, for so many thousand years, had eluded the research of all the astronomers by whom he was preceded. 481 Thus the sagacity of a Harvey giving vigour to his application, brought out of the obscurity in which for almost countless centuries it had been buried, 482 the true course pursued by the sanguinary fluid, when circulating through the veins and arteries of human, 483 giving activity to your machine, diffusing life through your system, and enabling you to perform those actions which

so frequently strike an astonished world with wonder and regret.

484 Thus Gallileo, by a quickness of perception, a depth of reasoning peculiar to himself, held up to an admiring world, the actual form and situation of the planet we inhabit; 485 which until then had escaped the observation of the most profound geniuses-- the most subtle metaphysicians-- the whole host of priests; 486 which when first promulgated was considered so extraordinary, so contradictory to all the then received opinions, either sacred or profane, 487 that he was ranked as an atheist, as an impious blasphemer, to hold communion with whom, would secure to the communers a place in the regions of everlasting torment; 488 in short, it was held an heresy of such an indelible dye, that notwithstanding the infallibility of his sacred function, 489 Pope Gregory, who then filled the papal chair, excommunicated all those who had the temerity to accredit so abominable a doctrine.

490 Human is born by the necessary concurrence of those elements suitable to own construction; 491 you increases in bulk, corroborates your system, expands your powers, in the same manner as a plant or a stone; 492 which as well as yourself, are augmented in their volume, invigorated in their capabilities, by the addition of homogeneous matter, that exists within the sphere of their attraction. 493 Human feels, thinks, receives ideas, acts after a certain manner, that is to say, according to your organic structure, which is peculiar to yourself; 494 that renders you susceptible of modifications, of which the stone and the plant are utterly incapable.

495 On the other hand, the organisation of these beings is of a nature to enable them to receive other modifications, which human is not more capacitated to experience, 496 than the stone or the plant are those which constitute them what they are. 497 In consequence of this peculiar arrangement, the person of genius produces works of merit; 498 the plant when it is healthy yields

delicious fruits the stone when it is placed in a suitable matrix possesses a glittering brilliance which dazzles the eyes of mortals; 499 each in their sphere of action both surprise and delight us; because we feel that they excite in us sensations, that harmonise with what we call order; 500 in consequence of the pleasure they infuse, by the rarity, by the magnitude, and by the variety of the effects which they occasion us to experience.

501 Nevertheless, that which is found most admirable in the productions of Nature, 502 that which is most esteemed in the actions of human, most highly valued in animals, most sought after in vegetation, most in request among fossils, 503 is never more than the natural effects of the different particles of matter, diversely arranged, variously combined, submitted to numerous modifications; 504 from matter thus united result organs, brains, temperament, taste, talents, all the multifarious properties, 505 all the multitudinous qualities, which discriminate the beings whose multiplied activity make up the sum of what is designated animated nature.

506 Nature then produces nothing but what is necessary; 507 it is not by fortuitous combinations, by chance throws, that She exhibits to our view the beings we behold; 508 all Her throws are sure, all the causes She employs have infallibly their effects. 509 Whenever She gives birth to extraordinary, marvellous, rare beings, it is, that the requisite order of things the concurrence of the necessary productive causes, happens but seldom. 510 As soon as those beings exist, they are to be ascribed to Nature, equally with the most familiar of Her productions; 511 to Nature everything is equally possible, equally facile, when She assembles together the instruments or the causes necessary to act.

512 Thus it seems presumption in human to set limits to the powers of Nature, which you so very imperfectly understands. 513 The combinations, or if they will, the throws that She makes in an eternity of existence, can easily produce all

the beings that have existed: 514 Her eternal march must necessarily bring forth, again and again, the most astonishing circumstances; 515 the most rare occurrences; those most calculated to rouse the wonder, to elicit the admiration of beings, who are only in a condition to give them a momentary consideration; 516 who can get nothing more than a glimpse, without ever having either the leisure or the means to search into causes, 517 which lie hid from their weak eyes, in the depths of Cimmerian obscurity. 518 Countless throws during eternity, with elements and combinations varied almost to infinity, quite with relation to human, 519 suffice to produce everything of which you have a knowledge, with multitudes of other effects, of which you will never have the least conception.

520 Thus, we cannot too often repeat to the metaphysicians, to the supporters of immateriality, to the inconsistent theologians, 521 who commonly ascribe to their adversaries the most ridiculous opinions, in order to obtain an easy, short-lived triumph in the prejudiced eyes of the multitude; 522 or in the stagnant minds of those who never examine deeply; that chance is nothing but a word, 523 as well as many other words, imagined solely to cover the ignorance of those to whom the course of Nature is inexplicable-- 524 to shield the idleness of others who are too slothful to seek into the properties of acting causes. 525 It is not chance that has produced the universe, it is self-existent; 526 Nature exists necessarily from all eternity: She is omnipotent because everything is produced by Her energies; 527 She is omnipresent, because She fills all space; 528 She is omniscient, because everything can only be what it actually is; 529 She is immovable, because as a whole She cannot be displaced; 530 She is immutable, because Her essence cannot change, although Her forms may vary; 531 She is infinite, because She cannot have any bounds; 532 She is all perfect, because She contains everything: 533 in short, She has all the abstract qualities of the

metaphysician, all the moral faculties of the theologian, without involving any contradiction, 534 since that which is the assemblage of all, must of necessity contain the properties of all.

535 However concealed may be Her ways, the existence of Nature is indubitable; Her mode of action is in some respects known to us. 536 Experience amply demonstrates we might, if we were more industrious, become better acquainted with Her secrets; 537 but with an immaterial substance, with a pure spirit, the mind of human can never become familiar: 538 you have no means by which you can picture to yourself this incomprehensible, this inconceivable quality: 539 in despite therefore of the roundness of assertion adopted by the theologian, notwithstanding all the subtilties of the metaphysician, 540 it will always be for human, while you remains such as you now is, in the language of Doctor Samuel Clarke, that, of which nothing can with truth be affirmed.

OF PANTHEISM; OR OF THE NATURAL IDEAS OF THE DIVINITY

Paul Henri Thiery (Baron D'Holbach)

49 The false principle that matter is not self-existent; that by its nature it is in an impossibility to move itself; 2 consequently incompetent to the production of those striking phenomena which arrest our wondering eyes in the wide expanse of the universe; 3 it will be obvious, to all who seriously attend to what has preceded, is the origin of the proofs upon which theology rests the existence of immateriality. 4 After these suppositions, as gratuitous as they are erroneous, the fallacy of which we have exposed elsewhere, 5 it has been believed that matter did not always exist, but that its existence, as well as its motion, is a production of time; 6 due to a cause distinguished from itself; to an unknown agent to whom it is subordinate.

7 As human finds in own species a quality which you calls intelligence, which presides over all your actions, by the aid of which you arrives at the

end you proposes to yourself; 8 you have clothed this invisible agent with this quality, which you have extended beyond the limits of your own conception: 9 you magnified it thus, because, having made you the author of effects of which you found yourself incapable, 10 you did not conceive it possible that the intelligence you yourself possessed, unless it was prodigiously amplified, would be sufficient to account for those productions, 11 to which your erring judgment led you to conclude the natural energy of physical causes were not adequate.

12 As this agent was invisible, as His mode of action was inconceivable, you made Him a spirit, 13 a word that really means nothing more than that you are ignorant of His essence, 14 or that He acts like the breath of which you cannot trace the motion. 15 Thus, in speaking of spirituality, you designated an occult quality, which you deemed suitable to a concealed being, 16 whose mode of action was always imperceptible to the senses.

17 It would appear, however, that originally the word spirit was not meant to designate immateriality; 18 but a matter of a more subtile nature than that which acted coarsely on the organs: 19 still of a nature capable of penetrating the grosser matter-- of communicating to its motion-- of instilling into its active life-- of giving birth to those combinations-- 20 of imparting to them those modifications, which your organic structure rendered you competent to discover. 21 Such was, as has been shown, that all-powerful Jupiter, who in the theology of the ancients, 22 was originally destined to represent the etherial, subtile matter that penetrates, vivifies, and gives activity to all the bodies of which Nature is the common assemblage.

23 It would be grossly deceiving ourselves to believe that the idea of spirituality, such as the subtilty of dreaming metaphysicians present it in these days, 24 was that which offered itself to our forefathers in the early stages of the human mind. 25 This immateriality, which excludes all analogy with anything but itself-- which bears no resemblance to anything of which human is

capacitated to have a knowledge, 26 was, as we have already observed, the slow, the tardy fruit of your imagination, after you had quitted experience, and renounced your reason. 27 People reared in luxurious leisure, unceasingly meditating, without the assistance of those natural helps with which attentive observation would have furnished them, 28 by degrees arrived at the formation of this incomprehensible quality, which is so fugitive, 29 that although human has been compelled to reverence it, to accredit it against all the evidence of your senses, 30 they have never yet been enabled to give any other explanation of its nature, than by using a term to which it is impossible to attach any intelligible idea.

31 Seraphis said, with tears in his eyes, "that in making him adopt the opinion of spirituality, they had deprived him of his God." 32 Many fathers of the church have given a human form to the Divinity, and treated all those as heretics who made Him spiritual. 33 Thus by dint of reasoning, by force of subtilising, the word spirit no longer presents any one image upon which the mind can fix itself; 34 when they are desirous to speak of it, it becomes impossible to understand them, seeing that each visionary paints it after own manner; 35 and in the portrait each forms, consults only own temperament, follows nothing but own imagination, adopts nothing but own peculiar reveries; 36 the only point in which they are at all in unison, is in assigning to it inconceivable qualities, 37 which they naturally enough believe are best suited to the incomprehensible beings they have delineated: 38 from the incompatible heap of these qualities, generally resulted a whole, whose existence they thus rendered impossible.

39 In short, this word, which has occupied the research of so many learned and intelligent people; 40 which is considered of such importance to humankind, has been, in consequence of theological reveries, always fluctuating: 41 these never bearing the least resemblance to each other, it has become destitute

of any fixed sense, a mere sound, 42 to which each who echoes it affixes own peculiar ideas, which are never in harmony with those of own neighbour; 43 which indeed are not even steady in oneself, but like the camelion, assume the colour of every differing circumstance. 44 This unintelligible word has been substituted for the more intelligible one of matter; 45 human, when clothed with power, has entertained the most rancorous antipathies, pursued the most barbarous persecutions, 46 against those who have not been enabled to contemplate this changeable idea under the same point of view with the self.

47 There have, however, been people who had sufficient courage to resist this torrent of opinion-- to oppose themselves to this delirium; 48 who have believed, that the object which was announced as the most important for mortals, as the sole object worthy of their thoughts, demanded an attentive examination; 49 who apprehended that if experience could be of any utility, if judgment could afford any advantage, if reason was of any use whatever, 50 it must, most unquestionably be, to consider this quality so opposed to everything in Nature, which was said to regulate all the beings which She contains. 51 These quickly saw they could not subscribe to the general opinion of the uninformed, who never examine anything, who take everything upon the credit of others; 52 much less was it consistent with sound sense to agree with their guides, who, either deceivers or deceived, forbade others to submit it to the scrutiny of reason; 53 who were themselves frequently in an utter incapacity to pass it under such an ordeal.

54 Thus some thinkers, disgusted with the obscure and contradictory notions which others had through habit mechanically attached to this incomprehensible property, 55 had the temerity to shake off the yoke which had been imposed upon them from their infancy: 56 calling reason to their aid against those terrors with which they alarmed the ignorant, 57 revolting at the hideous descriptions

under which they attempted to defend their hypothesis, 58 they had the intrepidity to tear the veil of delusion; to rend asunder the barriers of imposture; 59 they considered with calm resolution, this formidable prejudice, contemplated with a serene eye this unsupported opinion, examined with cool deliberation this fluctuating notion, 60 which had become the object of all the hopes, the source of all the fears, the spring of all the quarrels which distracted the mind, and disturbed the harmony of blind, confiding mortals.

61 The result of these inquiries has uniformly been, a conviction that no rational proof has ever been adduced in support of this hypothesis; 62 that from the nature of the thing itself, none can be offered; 63 that an incorporeity is inconceivable to corporeal beings; that these only behold nature acting after invariable laws, in which everything is material; 64 that all the phenomena of which the world is the theatre, spring out of natural causes; 65 that human as well as all the other beings is the work of this Nature, and only an instrument in Her hand, obliged to accomplish the eternal decrees of an imperious necessity.

66 Whatever efforts the philosopher makes to penetrate the secrets of Nature, they never finds more, as we have many times repeated, than matter; 67 various in itself, diversely modified in consequence of the motion it undergoes. 68 Its whole, as well as its parts, displays only necessary causes producing necessary effects, which flow necessarily one out of the other: 69 of which the mind, aided by experience, is more or less competent to discover the concatenation. 70 In virtue of their specific properties, all the beings that come under our review, gravitate towards a centre-- 71 attract analogous matter-- repel that which is unsuitable to combination-- mutually receive and give impulse-- acquire qualities-- undergo modifications 72 which maintain them in existence for a season--are born and dissolved by the operation of an inexorable decree, that obliges everything, we behold to pass into a new mode of existence. 73 It is to

these continued vicissitudes that are to be ascribed all the phenomena, whether trivial or of magnitude; 74 ordinary or extraordinary; known or unknown; simple or complicated; which are operated in the universe. 75 It is by these mutations alone that we have any knowledge of Nature: 76 She is only mysterious to those who contemplate Her through the veil of prejudice: Her course is always simple to those who look at Her without prepossession.

77 To attribute the effects to which we are witnesses, to Nature, to matter, variously combined with the motion that is inherent to it, is to give them an intelligible and known cause; 78 to attempt to penetrate deeper, is to plunge ourselves into imaginary regions, where we find only a chaos of obscurities-- 79 where we are lost in an unfathomable abyss of incertitude. 80 Let us then be content with contemplating Nature, who, being self-existent, must in Her essence possess motion; 81 which cannot be conceived without properties, from which result perpetual action and re-action; 82 or those continual efforts which give birth to such a numerous train of circumstances; in which a single molecule cannot be found, 83 that does not necessarily occupy the place assigned to it, by immutable and necessary laws-- that is for an instant in an absolute state of repose. 84 What necessity can there exist to seek out of matter for a power to give it play, 85 since its motion flows as necessarily out of its existence as its bulk, its form, its gravity, since Nature in inaction would no longer be Nature?

86 If it be demanded: how can we figure to ourselves, that matter by its own peculiar energy can produce all the effects we witness? 87 I shall reply, that if by matter it is obstinately determined to understand nothing but a dead, inert mass, destitute of every property, incapable of moving itself, 88 we shall no longer have a single idea of matter; we shall no longer be able to account for anything. 89 As soon, however, as it exists, it must have properties; as soon as it has properties, without which it could not exist, it must act

by virtue of those properties; 90 since it is only by its action we can have a knowledge of its existence, be conscious of its properties. 91 It is evident that if by matter be understood that which it is not, or if its existence be denied, those phenomena which strike our visual organs cannot be attributed to it. 92 But if by Nature be understood-- that which She really is,-- an heap of existing matter, possessing various properties, 93 we shall be obliged to acknowledge that Nature must be competent to move Herself; 94 by the diversity of Her motion, must have the capability, independent of foreign aid, to produce the effects we behold; 95 we shall find that nothing can be made from nothing; that nothing is made by chance; 96 that the mode of action of every particle of matter, however minute, is necessarily determined by its own peculiar, or by its individual properties.

97 We have elsewhere said, that that which cannot be annihilated--that which in its nature is indestructible-- cannot have been inchoate, 98 cannot have had a beginning to its existence, but exists necessarily from all eternity; 99 contains within itself a sufficient cause for its own peculiar existence. 100 It becomes then perfectly useless to seek out of Nature a cause for Her action which is in some respects known to us; 101 with which indefatigable research may, judging of the future by the past, render us more familiar. 102 As we know some of the general properties of matter; as we can discover some of its qualities, 103 wherefore should we seek its motion in an unintelligible cause, of which we are not in a condition to become acquainted with any one of its properties? 104 Can we conceive that immateriality could ever draw matter from its own source? 105 Impossible; it is not within the grasp of human intellect.

106 If creation is an deduction from nothing, there must have been a time when matter had not existence; there must consequently be a time when it will cease to be: 107 this latter is acknowledged by many theologians themselves to be impossible. 108 Do

those who are continually talking of this mysterious act of omnipotence, by which a mass of matter has been, all at once, substituted to nothing, perfectly understand what they tell us? 109 Is there a person on earth who conceives that a being devoid of extent can exist, 110 become the cause of the existence of beings who have extent-- act upon matter-- draw it from his own peculiar essence-- set it in motion? 111 In truth, the more we consider theology, the more we must be convinced that it has invented words destitute of sense; substituted sounds to intelligible realities.

112 For want of consulting experience, for want of studying Nature, for want of examining the material world, we have plunged ourselves into an intellectual vacuum, 113 which we have peopled with chimeras, we have not stooped to consider matter, to study its different periods, to follow it through its numerous, changes. 114 We have either ridiculously or knavishly confounded dissolution, decomposition, the separation of the elementary particles of bodies, with their radical destruction; 115 we have been unwilling to see that the elements are indestructible; although the forms are fleeting, and depend upon transitory combination. 116 We have not distinguished the change of figure, the alteration of position, the mutation of texture, to which matter is liable, from its annihilation, which is impossible; 117 we have falsely concluded, that matter was not a necessary being-- that it commenced to exist-- 118 that this existence was derived from that which possessed nothing in common with itself-- that that which was not substance, could give birth to that which is. 119 Thus an unintelligible name has been substituted for matter, which furnishes us with true ideas of Nature; 120 of which at each instant we experience the influence, of which we undergo the action, of which we feel the power, 121 and of which we should have a much better knowledge, if our abstract opinions did not continually fasten a bandage over our eyes.

122 Indeed the most simple notions of philosophy show us, that, although bodies change and disappear, nothing is however lost in Nature; 123 the various produce of the decomposition of a body serves for elements, supplies materials, forms the basis, lays the foundation for accretions, contributes to the maintenance of other bodies. 124 The whole of Nature subsists, and is conserved only by the circulation, the transmigration, the exchange, the perpetual displacement of insensible atoms-- 125 the continual mutation of the sensible combinations of matter.

126 It is by this palingenesia, this regeneration, that the great whole, the mighty macrocosm subsists; 127 who, like the Saturn of the ancients, is perpetually occupied with devouring her own children.

128 It will not then be inconsistent with observation, repugnant to reason, contrary to good sense, to acknowledge that matter is self-existent; 129 that it acts by an energy peculiar to itself; that it will never be annihilated. 130 Let us then say, that matter is eternal; that Nature has been, is, and ever will be occupied with producing and destroying; with doing and undoing; with combining and separating; 131 in short, with following a system of laws resulting from its necessary existence. 132 For everything that She doth, She needs only to combine the elements of matter; 133 these, essentially diverse, necessarily either attract or repel each other; come into collision, from whence results either their union or dissolution; 134 by the same laws that one approximates, the other recedes from their respective spheres of action.

135 It is thus that She brings forth plants, fossils, animals, humans; 136 thus She gives existence to organised, sensible, thinking beings, as well as to those who are destitute of either feeling or thought. 137 All these act for the season of their respective duration, according to immutable laws, determined by their various properties; 138 arising out of their configuration; depending on their masses; resulting from their ponderousity, here is the true origin of everything which is presented to

our view; 139 this indicates the mode by which Nature, according to Her own peculiar powers, is in a state to produce all those astonishing effects which assail our wondering eyes; 140 all that phenomena to which humankind is the witness; as well as all the bodies who act diversely upon the organs with which you are furnished, 141 of which you can only judge according to the manner in which these organs are affected. 142 You says they are good, when they are analogous to your own mode of existence-- when they contribute to the maintenance of the harmony of your machine: 143 you says they are bad, when they disturb this harmony. 144 It is thus you ascribes views, ideas, designs, to the being you supposes to be the power by which Nature is moved; 145 although all the experience we are able to collect, unequivocally proves, that She acts after an invariable, eternal code of laws.

146 Nature is destitute of those views which actuate human; 147 She acts necessarily, because She exists: Her system is immutable, and founded upon the essence of things. 148 It is the essence of the seed of the male, composed of primitive elements, which serve for the basis of an organised being, to unite itself with that of the female; to fructify it; 149 to produce, by this combination, a new organised being; 150 who, feeble in own origin, not having yet acquired a sufficient quantity of material particles to give the self consistence, corroborates the self by degrees; 151 strengthens the self by the daily accretion of analogous matter; 152 is nourished by the modifications appropriate to own existence: matured by the continuation of circumstances calculated to give vigour to own frame; 153 thus you lives, thinks, acts, engenders in your turn other organised beings similar to yourself. 154 By a consequence of your temperament and of physical laws, this generation does not take place, 155 except when the circumstances necessary to its production find themselves united.

156 Thus this procreation is not operated by chance; the animal does

not fructify, but with an animal of own species, because this is the only one analogous to the self, 157 who unites the qualities, who combines the circumstances, suitable to produce a being resembling the self; 158 without this you would not produce anything, or you would only give birth to a being who would be denominated a monster, because it would be dissimilar to the self. 159 It is of the essence of the grain of plants, to be impregnated by the pollen or seed of the stigma of the flower; 160 in this state of copulation they in consequence develop themselves in the bowels of the earth; 161 expand by the aid of water; shoot forth by the accession of heat; attract analogous particles to corroborate their system: 162 thus by degrees they form a plant, a shrub, a tree, susceptible of that life, filled with that motion, capable of that action which is suitable to vegetable existence.

163 It is of the essence of particular particles of earth, homogeneous in their nature, when separated by circumstances, attenuated by water, elaborated by heat, 164 to unite themselves in the bosom of mountains, with other atoms which are analogous; 165 to form by their aggregation, according to their various affinities, those bodies possessing more or less solidity; 166 having more or less purity, which are called diamonds, chrystals, stones, metals, minerals. 167 It is of the essence of exhalations raised by the heat of the atmosphere, to combine, to collect themselves, to dash against each other, 168 and either by their union or their collision to produce meteors, to generate thunder.

169 It is of the essence of some inflammable matter to gather itself together, to ferment in the caverns of the earth, 170 to increase its active force by augmenting its heat, and then explode, by the accession of other matter suitable to the operation, 171 with that tremendous force which we call earthquakes; by which mountains are destroyed; cities overturned; the inhabitants of the plains thrown into a state of consternation; 172 these full of alarm, unused to meditate on natural effects,

unconscious of the extent of physical powers, stretch forth their hands in dismay, 173 heave the most desponding sighs, utter aloud their complaints, and earnestly implore a cessation of those evils, 174 which nature, acting by necessary laws, obliges them to experience as necessarily as She does those benefits by which She fills them with the most extravagant joy. 175 In short, it is of the essence of certain climates to produce humans so organised, whose temperament is so modified, 176 that they become either extremely useful or very prejudicial to their species, 177 in the same manner as it is the property of certain portions of the land, to bring forth either delicious fruits or dangerous poisons.

178 In all this Nature acts necessarily; She pursues an undeviating course, which we are bound to consider the perfection of wisdom; 179 because She exists necessarily, has Her modes of action determined by certain, invariable laws, 180 which themselves flow out of the constituent properties of the various beings She contains, and those circumstances, which the eternal motion She is in must necessarily bring about. 181 It is ourselves who have a necessary aim, which is our own conservation; 182 it is by this that we regulate all the ideas we form to ourselves of the causes acting in Nature; 183 it is according to this standard we judge of everything we see or feel. 184 Animated ourselves, existing after a certain manner, possessing a soul endowed with rare and peculiar qualities, 185 we, like the savage, ascribe a soul and animated life to everything that acts upon us. 186 Thinking and intelligent ourselves, we give these faculties to those beings whom we suppose to be more powerful than mortals; 187 but as we see the generality of matter incapable of modifying itself, we suppose it must receive its impulse from some concealed agent, 188 some external cause, which our imagination pictures as similar to ourselves.

189 Necessarily attracted by that which is advantageous to us, repelling by an equal necessity that

which is prejudicial to our manner of existence; 190 we cease to reflect that our modes of feeling are due to our peculiar organisation, modified by physical causes: 191 in this state, either of inattention or ignorance, we mistake the natural results of our own peculiar structure, 192 for instruments employed by a being whom we clothe with our own passions-- whom we suppose actuated by our own views-- 193 who, possessing our ideas, embraces a mode of thinking and acting similar to ourselves.

194 If after this it be asked, what is the end of Nature? 195 We shall reply that on this head we are ignorant; that it is more than probable no person will ever fathom the secret; 196 but we shall also say, it is evidently to exist, to act, to conserve Her whole. 197 If then it be demanded, wherefore She exists? We shall again reply, of this we know nothing at present, possibly never shall; 198 but we shall also say, She exists necessarily, that Her operations, Her motion, Her phenomena, are the necessary consequences of Her necessary existence.

200 There necessarily exists something; this is Nature or the universe, this Nature necessarily acts as She does. 201 If it be wished to substitute any other word for Nature, the question will still remain as it did, as to the cause of Her existence; the end She has in view. 202 It is not by changing of terms that a geometrician can solve problems; 203 one word will throw no more light on a subject than another, unless that word carries a certain degree of conviction in the ideas which it generates. 204 As long as we speak of matter, if we cannot develop all its properties, we shall at least have fixed, determinate ideas; 205 something tangible, of which we have a slight knowledge, that we can submit to the examination of our senses: 206 but from the moment we begin to talk of immateriality, of incorporeity, from thence our ideas become confused; 207 we are lost in a labyrinth of conjecture-- we have no one means of seizing the subject on any side-- 208 we are, after the most

elaborate arguments, after the most subtle reasoning, obliged to acknowledge we cannot form the most slender opinion respecting it, that has anything substantive for its support.

209 In short, that it is precisely that thing "of which everything may be denied, but of which nothing can with truth be affirmed." 210 Let us clothe this incomprehensible being with whatever qualities we may, it will be always in ourselves we seek the model; 211 they will be our own faculties that we delineate, our own passions that we describe. 212 In like manner human, as long as you are ignorant, will always conjecture that it is for yourself alone the universe was formed; 213 notwithstanding, you have nothing more to do, than to open your eyes in order to be undeceived. 214 You will then see, that you undergoes a common destiny, equally partakes with all other beings of the benefits, shares with them without exception the evils of life; 215 like them you are submitted to an imperious necessity, inexorable in its decrees; 216 which is itself nothing more than the sum total of those laws which Nature Herself is obliged to follow. 217 Thus everything proves that Nature, or matter, exists necessarily; 218 that it cannot in any moment swerve from those laws imposed upon it by its existence. 219 If it cannot be annihilated, it cannot have been inchoate.

220 The theologian themselves agrees that it requires a miracle to annihilate an atom. But is it possible to derogate from the necessary laws of existence? 221 Can that which exists necessarily, act but according to the laws peculiar to itself? 222 Miracle is another word invented to shield our own sloth, to cover our own ignorance; 223 it is that by which we wish to designate those rare occurrences, those solitary effects of natural causes, whose infrequency do not afford us means of diving into their springs. 224 It is only saying by another expression, that an unknown cause hath by modes which we cannot trace, 225 produced an uncommon effect which we did not expect, which therefore appears

strange to us. 226 This granted, the intervention of words, far from removing the ignorance in which we found ourselves 227 with respect to the power and capabilities of Nature, only serves to augment it, to give it more durability. 228 The creation of matter becomes to our mind as incomprehensible, and appears as impossible as its annihilation.

229 Let us then conclude that all those words which do not present to the mind any determinate idea, 230 ought to be banished the language of those who are desirous of speaking so as to be understood; 231 that abstract terms, invented by ignorance, are only calculated to satisfy people destitute of experience; 232 who are too slothful to study Nature, too timid to search into Her ways; 233 that they are suitable only to content those enthusiasts, whose curious imagination pleases itself with making fruitless endeavours to spring beyond the visible world; 234 who occupy themselves with chimeras of their own creation: 235 in short, that these words are useful only to those whose sole profession it is to feed the ears of the uninformed with pompous sounds, that are not comprehended by themselves-- 236 upon the sense of which they are in a state of perpetual hostility with each other-- 237 upon the true meaning of which they have never yet been able to come to a common agreement; 238 which each sees after own peculiar manner of contemplating objects, in which there never was, nor probably never will be, the least harmony of feeling.

239 Human is a material being; you cannot consequently have any ideas, but of that which like yourself is material; 240 that is to say, of that which is in a capacity to act upon your organs, which has some qualities analogous with your own. 241 In despite of yourself, you always assigns material properties to your gods; 242 the impossibility you finds in compassing them, has made you suppose them to be spiritual; distinguished from the material world. 243 Indeed you, must be content, either not to understand yourself, or you must have material

ideas of the Divinity; 244 the human mind may torture itself as long as it pleases, it will never, after all its efforts, be enabled to comprehend, that material effects can emanate from immaterial causes; 245 or that such causes can have any relation with material beings.

246 Here is the reason why human, as we have seen, believes the self obliged to give to own gods, 247 these morals which you so much so highly esteems, in those beings of your race, who are fortunate enough to possess them: 248 you forgets that a being who is spiritual, adopting the theological hypothesis, cannot from thence either have your organisation, or your ideas; 249 that it cannot think in own mode, nor act after your manner; 250 that consequently it cannot possess what you calls intelligence, wisdom, goodness, anger, justice, as you yourself understands those terms. 251 Thus, in truth, the moral qualities with which you has clothed the Divinity, supposes you material, 252 and the most abstract theological notions, are, after all, founded upon a direct, undeniable Anthropomorphism.

253 In despite of all their subtilties, the theologians cannot do otherwise; 254 like all the beings of the human species, they have a knowledge of matter alone: they have no real idea of a pure spirit. 255 When they speak of the intelligence, of the wisdom, of the designs of their gods, they are always those of people which they describe, 256 that they obstinately persist in giving to beings, of which, according to their own showing, to the evidence they themselves adduce, their essence does not render them susceptible; 257 who if they had those qualities with which they clothe them, would from that very moment cease to be incorporeal; 258 would be in the truest sense of the word, substantive matter.

259 How shall we reconcile the assertion, that beings who have not occasion for anything--who are sufficient to themselves-- 260 whose projects must be executed as soon as they are formed; can have volition, passions, desires? 261 How shall we attribute anger to beings without

either blood or bile? 262 How can we conceive an omnipotent being-- whose wisdom we admire in the striking order you have yourself established in the universe,-- 263 can permit that this beautiful arrangement should be continually disturbed, either by the elements in discord, or by the crimes of human beings? 264 In short, this being cannot have any one of the human qualities, which always depend upon the peculiar organisation of human-- 265 upon your wants-- upon your institutions, which are themselves always relative to the society in which you lives.

266 The theologian vainly strives to aggrandise, to exaggerate in idea, to carry to perfection by dint of abstraction, the moral qualities of human; they are unsuitable to the Divinity; 267 in vain it is asserted they are in Him of a different nature from what they are in His creatures; 268 that they are perfect; infinite; supreme; eminent; in holding this language, they no longer understand themselves; 269 they can have no one idea of the qualities they are describing, seeing that human can never have a conception of them, 270 but inasmuch as they bear an analogy to the same qualities in themselves.

271 It is thus that by force of metaphysical subtilty, mortals have no longer any fixed, any determinate ideas of the beings to which they have given birth. 272 But little contented with understanding physical causes, with contemplating active Nature; 273 weary of examining matter, which experience proves is competent to the production of everything, 274 human has been desirous to despoil it of the energy which it is its essence to possess, in order to invest it in a pure spirit; in an immaterial substance; 275 which you are under the necessity of re-making a material being, whenever you have an inclination either to form an idea of it to yourself, or make it understood by others.

276 In assembling the parts of human, which you does no more than enlarge, which you swells out to infinity, you believes you forms an immaterial being, 277 who, for that

reason, acquires the capability of performing all those phenomena, with the true causes of which you are ignorant; 278 nevertheless those operations of which you does comprehend the spring, you as sedulously denies to be due to the powers of this being; 279 time, therefore, according to these ideas, as you advances the progress of science, as you further develops the secrets of Nature, 280 is continually diminishing the number of actions ascribed to this being-- is constantly circumscribing human sphere of action.

281 It is upon the model of the human soul that you forms the soul of Nature, or that secret agent from which She receives impulse. 282 After having made yourself double, you makes Nature in like manner twofold, 283 and then you supposes She is vivified by an intelligence, which you borrows from yourself, 284 Placed in an impossibility of becoming acquainted with this agent, as well as with that which you have gratuitously distinguished from your own body; 285 you have invented the word spiritual to cover up your ignorance; which is only in other words avowing it is a substance entirely unknown to you. 286 From that moment, however, you have no ideas whatever of what you yourself has done; 287 because you first clothes it with all the qualities you esteems in your fellows, 288 and then destroys them by an assurance, that they in no wise resemble the qualities you have been so anxious to bestow. 289 To remedy this inconvenience, you concludes this spiritual substance much more noble than matter; 290 that its prodigious subtilty, which you calls simplicity, but which is only the effect of metaphysical abstraction, secures it from decomposition, from dissolution, 291 from all those revolutions, to which material bodies, as produced by Nature, are evidently exposed.

292 It is thus, that human always prefers the marvellous to the simple; the unintelligible to the intelligible; 293 that which you cannot comprehend, to that which is within the range of your understanding; 294

you despises those objects which are familiar to you; you estimates those alone with which you are incapable of having any intercourse: 295 that of which you have only confused vague ideas, you concludes must contain something important for you to know-- must have something supernatural in its construction. 296 In short, you needs mystery to move your imagination-- to exercise your mind-- to feed your curiosity; 297 which never labours harder, than when it is occupied with enigmas impossible to be guessed at; 298 which from that very circumstance, you judges to be extremely worthy of your research.

299 This, without doubt, is the reason you looks upon matter, which you have continually under your eyes, 300 which you sees perpetually in action, eternally changing its form, as a contemptible thing-- as a contingent being, that does not exist necessarily; 301 consequently, that cannot exist independently: this is the reason why you have imagined a spirit, which you will never be able to conceive; 302 which on that account you declares to be superior to matter; which you roundly asserts to be anterior to Nature, and the only self-existent being.

303 The human wind found food in these mystical ideas, they unceasingly occupied it; 304 the imagination had play, it embellished them after its own manner: 305 ignorance fed itself with the fables to which these mysteries gave rise; habit identified them with the existence of human: 306 when each could ask the other concerning these ideas, without any one being in a capacity to return a direct answer, you felt yourself gratified, 307 you immediately concluded that the general impossibility of reply stamped them with the wondrous faculty of immediately interesting your welfare; 308 of involving your most prominent interests, more than all the things put together, with which you had any possible means of becoming intimately acquainted. 309 Thus they became necessary to your happiness; you believed you fell into a vacuum without them; 310 you became the decided enemy to all

those who endeavoured to lead you back to Nature, which you had learned to despise; 311 to consider only as an impotent mass, an heap of inert matter, not possessing any energy but what it received from causes exterior to itself; 312 as a contemptible assemblage of fragile combinations, whose forms were continually subject to perish.

313 In distinguishing Nature from Her mover, human has fallen into the same absurdity as when you separated your soul from your body; 314 life from the living being; the faculty of thought from the thinking being: deceived on your own peculiar nature, 315 having taken up an erroneous opinion upon the energy of your own organs, you have in like manner been deceived upon the organisation of the universe; 316 you have distinguished Nature from Herself; the life of Nature from living Nature; the action of Nature from active Nature. 317 It was this soul of the world-- this energy of Nature-- this principle of activity, which human first personified, then separated by abstraction; 318 sometimes decorated with imaginary attributes; sometimes with qualities borrowed from your own peculiar essence. 319 Such were the aerial materials of which human availed the self to construct the incomprehensible, immaterial substances, which have filled the world with disputes-- 320 which have divided human from own fellow-- which to this day you have never been able to define, even to your own satisfaction. Your own soul was the model. 321 Deceived upon the nature of this, you never had any just ideas of the Divinity, 322 who was, in your mind, nothing more than a copy exaggerated or disfigured to that degree, as to make you mistake the prototype upon which it had been originally formed.

323 If, because human has distinguished the self from own existence, it has been impossible for you ever to form to yourself any true idea of your own nature; 324 it is also because you have distinguished Nature from Herself, that both Herself and Her ways have been mistaken. 325 Human has ceased to

study Nature, that you might, recur by thought to a substance which possesses nothing in common with Her; 326 this substance you have made the mover of Nature, without which She would not be capable of anything; 327 to whom everything that takes place in Her system, must be attributed; 328 the conduct of this being has appeared mysterious, has been held up as marvellous, because you seemed to be a continual contradiction: 329 when if human had but recurred to the immutability of the laws of Nature, to the invariable system She pursues, all would have appeared intelligible; 330 everything would have been reconciled; the apparent contrariety would have vanished.

331 By thus taking a wrong view of things, wisdom and intelligence appeared to be opposed by confusion and disorder; 332 goodness to be rendered nugatory by evil; while all is only just what it must inevitably be, under the given circumstances. 333 In consequence of these erroneous opinions, in the place of applying yourself to the study of Nature, to discover the method of obtaining Her favours, 334 or to seek the means of throwing aside your misfortunes; in the room of consulting your experience; in lieu of labouring usefully to your own happiness; 335 you have been only occupied with expecting these things by channels through which they do not flow; 336 you have been disputing upon objects you never can understand, while you have totally neglected that which was within the compass of your own powers; 337 which you might have rendered propitious to your views, by a more industrious application of your own talent; 338 by a patient investigation, for the purpose of drawing at the fountain of truth, the limpid balsam that alone can heal the sorrows of your heart.

339 Nothing could be well more prejudicial to the human race, than this extravagant theory; which, as we shall prove, has become the source of innumerable evils. 340 Human has been for thousands of years trembling before idols of own creation-- bowing down before them

with the most servile homage-- 341 occupied with disarming their wrath-- sedulously employed in propitiating their kindness, without ever advancing a single step on the road you so much desires to travel. 342 You will perhaps continue the same course for centuries to come, unless by some unlooked for exertion on your part, you shall happen to discard the prejudices which blind you; 343 to lay aside your enthusiasm for the marvellous; to quit your fondness for the enigmatical; rally round the standard of your reason: 344 unless, taking experience for your guide, you march undauntedly forward under the banner of truth, 345 and put to the rout that host of unintelligible jargon, under the cumbrous load of which you have lost sight of your own happiness; 346 which has but too frequently prevented you from seeking the only means adequate either to satisfy your wants, 347 or to ameliorate the evils which you are necessarily obliged to experience.

348 Let us then re-conduct bewildered mortals to the altar of Nature; 349 let us endeavour to destroy that delusion which the ignorance of human, aided by a disordered imagination, has induced you to elevate to Her throne; 350 let us strive to dissipate that heavy mist which obscures to you the paths of truth; 351 let us seek to banish from your mind those visionary ideas which prevent you from giving activity to your experience; 352 let us teach you if possible not to seek out of Nature Herself, the causes of the phenomena you admires--to rest satisfied that She contains remedies for all your evils-- 353 that She has manifold benefits in store for those, who, rallying their industry, are willingly patiently to investigate Her laws-- 354 that She rarely withholds Her secrets from the researches of those who diligently labour to unravel them.

355 Let us assure you that reason alone can render you happy; 356 that reason is nothing more than the science of Nature, applied to the conduct of human in society; 357 that this reason teaches that everything is necessary; 358 that your pleasures as

well as your sorrows are the effects of Nature, who in all Her works follows only laws which nothing can make Her revoke; 359 that your interest demands you should learn to support with equanimity of mind, all those evils which natural means do not enable you to put aside. 360 In short, let us unceasingly repeat to you, it is in rendering your fellow creature happy, that you will yourself arrive at a felicity you will in vain expect from others, when your own conduct refuses it to you.

361 Nature is self-existent; She will always exist; 362 She produces everything; contains within Herself the cause of everything; 363 Her motion is a necessary consequence of Her existence; without motion we could form no conception of Nature; 364 under this collective name we designate the assemblage of matter acting by virtue of its peculiar energies. 365 Everything proves to us, that it is not out of Nature human ought to seek the Divinity. 366 If we have only an incomplete knowledge of Nature and Her ways-- if we have only superficial, imperfect ideas of matter, 367 how shall we be able to flatter ourselves with understanding or having any certain notions of immateriality, 368 of beings so much more fugitive, so much more difficult to compass, even by thought, than the material elements; 369 so much more shy of access than either the constituent principles of bodies, their primitive properties, their various modes of acting, or their different manner of existing?

370 If we cannot recur to first causes, let its content ourselves with second causes, with those effects which we can submit to experience, 371 let us collect the facts with which we have an acquaintance; they will enable us to judge of what we do not know: 372 let us at least confine ourselves to the feeble glimmerings of truth with which our senses furnish us, 373 since we do not possess means whereby to acquire broader masses of light.

374 Do not let us mistake for real sciences, those which have no other basis than our imagination; we shall find that such can at most be but visionary: 375 let us cling close to

NATURE

Nature which we see, which we feel, of which we experience the action; of which at least we understand the general laws. 376 If we are ignorant of Her detail, if we cannot fathom the secret principles She employs in Her most complicated productions, 377 we are at least certain She acts in a permanent, uniform, analogous, necessary manner. 378 Let us then observe this Nature; let us watch Her movements; but never let us endeavour to quit the routine She prescribes for the beings of our species: 379 if we do, we shall not only be obliged to return, but we shall also infallibly be punished with numberless errors, which will darken our mind, estrange us from reason; 380 the necessary consequence will be countless sorrows, which we may otherwise avoid.

381 Let us consider we are sensible parts of a whole, in which the forms are only produced to be destroyed; 382 in which combinations are ushered into life, that they may again quit it, after having subsisted for a longer or a shorter season. 383 Let us look upon Nature as an immense elaboratory which contains everything necessary for Her action; 384 who lacks nothing requisite for the production of all the phenomena She displays to our sight. 385 Let us acknowledge Her power to be inherent in Her essence; amply commensurate to Her eternal march; fully adequate to the happiness of all the beings She contains. 386 Let us consider Her as a whole, who can only maintain Herself by what we call the discord of the elements; 387 that She exists by the continual dissolution and re-union of Her parts; 388 that from this springs the universal harmony; that from this the general stability has its birth. 389 Let us then re-establish omnipotent Nature, so long mistaken by human, in Her legitimate rights. 390 Let us place Her on that adamantine throne, which it is for the felicity of the human race She should occupy. 391 Let us surround Her with those ministers who can never deceive, who can never forfeit our confidence--Justice and Practical Knowledge. 392 Let us listen to Her eternal voice; She neither speaks

ambiguously, nor in an unintelligible language; 393 She may be easily comprehended by the people of all nations; because Reason is Her faithful interpreter. 394 She offers nothing to our contemplation but immutable truths.

395 Let us then forever impose silence on that enthusiasm which leads us astray; 396 let us put to the blush that imposture which would riot on our credulity; 397 let us discard that gloomy superstition, which has drawn us aside from the only worship suitable to intelligent beings. 398 Above all, never let us forget that the temple of happiness can only be reached through the groves of virtue, which surround it on every side; 399 that the paths which lead to these beautiful walks can only be entered by the road of experience, 400 the portals of which are alone opened to those who apply to them the key of truth: 401 this key is of very simple structure, has no complicated intricacy of wards, 402 and is easily formed on the anvil of social intercourse, merely by not doing unto others that which you would not wish they should do unto you.

OF THEISM.--OF THE SYSTEM OF OPTIMISM--OF FINAL CAUSES

Paul Henri Thiery (Baron D'Holbach)

50 Very few people have either the courage or the industry to examine opinions, which everyone is in agreement to acknowledge; 2 there is scarcely any one who ventures to doubt their truth, even when no solid arguments have been adduced in their support. 3 The natural supineness of human readily receives them without examination upon the authority of others-- 4 communicates them to own successors in the season of their infancy; 5 thus is transmitted from race to race, notions which once having obtained the sanction of time, are contemplated as clothed with a sacred character, 6 although perhaps to an unprejudiced mind, who should be bent on searching into their foundation, no proofs will appear, that they ever were verified. 7 It is thus with immateriality: it has

passed current from father to son for many ages, 8 without these having done anything more than habitually consign to their brain those obscure ideas which were at first attached to it, 9 which it is evident, from the admission even of its advocates, can never be removed, to admit others of a more enlightened nature.

10 Indeed how can it possibly be, that light can be thrown upon an incomprehensible subject: 11 each therefore modifies it after own manner; 12 each gives it that colouring that most harmonises with own peculiar existence; 13 each contemplates it under that perspective which is the issue of own particular vision: 14 this from the nature of things cannot be the same in every individual: 15 there must then of necessity be a great contrariety in the opinions resulting.

16 It is thus also that each person forms to the self a God in particular, after own peculiar temperament-- according to own natural dispositions: 17 the individual circumstances under which He is found, the warmth of your imagination, the prejudices you have received, 18 the mode in which you are at different times affected, have all their influence in the picture you forms. 19 The contented, healthy person, does not see Him with the same eyes as the person who is chagrined and sick; 20 the person with a heated blood, who has an ardent imagination, or is subject to bile, does not portray Him under the same traits 21 as one who enjoys a more peaceable soul, who has a cooler fancy, who is of a more phlegmatic habit. 22 This is not all; even the same individual does not view Him in the same manner at different periods of own life: 23 human undergoes all the variations of own machine-- all the revolutions of own temperament-- all those continual vicissitudes which your existence experiences.

24 The idea of the Divinity is said to be innate; on the contrary, it is perpetually fluctuating in the mind of each individual; 25 varies every moment in all the beings of the human species; so much so, that there are not two who admit

precisely the same Deity; 26 there is not a single one, who, under different circumstances, does not see Him variously. 27 Do not then let us be surprised at the variety of systems adopted by humankind on this subject; 28 it ought not to astonish us that there is so little harmony existing among humans upon a point of such consequence; 29 it ought not to appear strange that so much contradiction should prevail in the various doctrines held forth; 30 that they should have such little consistency, such slender connection with each other; 31 that the professors should dispute continually upon the rectitude of the opinions adopted by each: 32 they must necessarily wrangle upon that which each contemplates so variously--upon which there is hardly a single mortal who is constantly in accord with the self.

33 All people are pretty well agreed upon those objects which they are enabled to submit to the test of experience; 34 we do not hear any disputes upon the principles of geometry; those truths that are evident, that are easily demonstrable, never vary in our mind; 35 we never doubt that the part is less than the whole; that two and two make four; that benevolence is an amiable quality; that equity is necessary to human in society. 36 But we find nothing but perpetual controversy upon all those systems which have the Divinity for their object; 37 they are full of incertitude; subject to continual variations: we do not see any harmony either in the principles of theology, or in the principles of its graduates. 38 Even the proofs offered of His existence have been the subject of cavil; 39 they have either been thought too feeble, have been brought forward against rule, 40 or else have not been taken up with sufficient zeal to please the various reasoners who advocate the cause; 41 the corollaries drawn from the premises laid down, are not the same in any two nations, scarcely in two individuals; 42 the thinkers of all ages, in all countries, are perpetually in rivalry with each other; unceasingly quarrel upon all the points of religion; 43 can never agree

either upon their theological hypotheses, or upon the fundamental truths which should serve for their basis; 44 even the attributes, the very qualities ascribed, are as warmly contested by some, as they are zealously defended by others.

45 These never-ending disputes, these perpetual variations, ought, at least, to convince the unprejudiced, 46 that the ideas of the Divinity have neither the generally-admitted evidence, nor the certitude which are attributed to them; 47 on the contrary, these contrarieties in the opinions of the theologians, if submitted to the logic of the schools, might be fatal to the whole of them: 48 according to that mode of reasoning, which at least has the sanction of our universities, all the probabilities in the world cannot acquire the force of a demonstration; 49 a truth is not made evident but when constant experience, reiterated reflection, exhibits it always under the same point of view; 50 the evidence of a proposition cannot be admitted unless it carries with it a substantive demonstration; 51 from the constant relation which is made by well constituted senses, results that evidence, that certitude, which alone can produce full conviction: 52 if the major proposition of a syllogism should be overturned by the minor, the whole falls to the ground.

53 Cicero, who is no mean authority on such a subject, says expressly, "No reasoning can render that false, which experience has demonstrated as evident." 54 Wolff, in his Ontology, says; "That which is repugnant in itself, cannot possibly be understood; 55 that those things which are in themselves contradictions, must always be deficient of evidence." 56 St. Thomas says, "Being, is all that which is not repugnant to existence."

57 However it may be with these qualities, which the theologians assign to their immaterial beings, 58 whether they may be irreconcilable, or whether they are totally incomprehensible, what can result to the human species in supposing them to have intelligence and views? 59 Can an universal intelligence, whose care must be equally extended to

everything that exists, 60 have more direct, more intimate relations with human, who only forms an insensible portion of the great whole? 61 Can we seriously believe that it is to make joyful the insects, to gratify the ants of your garden, that the Monarch of the universe has constructed and embellished own habitation? 62 Would our feeble eyes, therefore, become stronger-- would our narrow views of things be enlarged-- 63 should we be better capacitated to understand His projects-- could we with more certitude divine His plans, enter into His designs-- 64 would our exility of judgment be competent to measure His wisdom, to follow the eternal order He has established?

65 Will those effects, which flow from His omnipotence, emanate from His providence-- 66 whether we estimate them as good, or whether we tax them as evil--whether we consider them beneficial, or view them as prejudicial-- 67 be less the necessary results of His wisdom, of His justice, of His eternal decrees? 68 In this case can we reasonably suppose that a Being, so wise, so just, so intelligent, will derange His system, change His plan, for such weak beings as ourselves? 69 Can we rationally believe we have the capacity to address worthy prayers, to make suitable requests, to point out proper modes of conduct to such a Being? 70 Can we at all flatter ourselves that to please us, to gratify our discordant wishes, He will alter His immutable laws? 71 Can we imagine that at our entreaty He will take from the beings who surround us their essences, their properties, their various modes of action? 72 Have we any right to expect He will abrogate in our behalf the eternal laws of Nature, 73 that He will disturb Her eternal march, arrest Her ever-lasting course, which His wisdom has planned; 74 which His goodness has conferred; which are, in fact, the admiration of humankind?

75 Can we hope that in our favour fire will cease to burn, when we approximate it too closely; 76 that fever shall not consume our habit, when contagion has penetrated our

system; 77 that gout shall not torment us, when an intemperate mode of life shall have amassed the humours that necessarily result from such conduct; 78 that an edifice tumbling in ruins shall not crush us by its fall, when we are within the vortex of its action? 79 Will our vain cries, our most fervent supplications, prevent a country from being unhappy, when it shall be devastated by an ambitious conqueror; 80 when it shall be submitted to the capricious will of unfeeling tyrants, who bend it beneath the iron rod of their oppression?

81 If this infinite intelligence gives a free course to those events which His wisdom has prepared; 82 if nothing happens in this world but after His impenetrable designs; 83 we ought silently to submit; we have in fact nothing to ask; we should be mad-people to oppose our own weak intellect to such capacious wisdom; 84 we should offer an insult to His prudence if we were desirous to regulate them. 85 Human must not flatter the self that you are wiser than your God; that you are in a capacity to make Him change His will; 86 with having power to determine Him to take other means than those which he has chosen to accomplish His decrees.

87 An intelligent Divinity can only have taken those measures which embrace complete justice; 88 can only have availed Himself of those means which are best calculated to arrive at His end; 89 if He was capable of changing them, He could neither be called wise, immutable, nor provident. 90 If it was to be granted, that the Divinity did for a single instant suspend those laws which He Himself has given, if He was to change anything in His plan, 91 it would be supposing He had not foreseen the motives of this suspension; that He had not calculated the causes of this change; 92 if He did not make these motives enter into His plan, it would be saying he had not foreseen the causes that render them necessary: 93 if He has foreseen them without making them part of His system, it would be arraigning the perfection of the whole.

94 Thus in whatever manner these things are contemplated, under whatever point of view they are examined, 95 it is evident that the prayers which human addresses to the Divinity, which are sanctioned by the different modes of worship, 96 always suppose He is supplicating a being whose wisdom and providence are defective; 97 in fact, that His own is more appropriate to His situation. 98 To suppose He is capable of change in His conduct, is to bring His omniscience into question; to vitally attack His omnipotence; to arraign His goodness; 99 at once to say, that He either is not willing or not competent to judge what would be most expedient for human; 100 for whose sole advantage and pleasure they will, notwithstanding, insist He created the universe: 101 such are the inconsistent doctrines of theology; such the imbecile efforts of metaphysics.

102 It is, however, upon these notions, extravagant as they may appear, ill directed as they assuredly are, inconclusive as they must be acknowledged by unprejudiced minds, 103 that are founded all the superstitions and many of the religions of the earth. 104 It is by no means an uncommon sight, to see human upon own knees before an all-wise God, whose conduct you are endeavouring to regulate; 105 whose decrees you wishes to avert; whose plan you are desirous to reform. 106 These inconsistent objects you are occupied with gaining, by means equally repugnant to sound sense; equally injurious to the dignity of the Divinity: 107 adopting your own sensations as the criterion of the feelings of the Deity; in some places you tries to win Him to your interests by presents; 108 sometimes we behold even the princes of the earth attempting to direct His views, by offering Him splendid garments, 109 upon which their own fatuity sets an inordinate value, merely because they have laboured at them themselves; 110 some strive to disarm His justice by the most splendid pageantry; others by practices the most revolting to humanity; 111 some think His immutability will yield to idle ceremonies; others to the most

discordant prayers; 112 it not infrequently happens that to induce Him to change in their favour His eternal decrees, those who have opposite interests to promote, 113 each returns Him thanks for that which the others consider as the greatest curse that can befall them.

114 In short, human is almost everywhere prostrate before an omnipotent God, 115 who, if we were to judge by the discrepancy of their requests, never has rendered His creatures such as they ought to be; 116 who to accomplish His divine views has never taken the proper measures, who to fulfil His wisdom has continual need of the admonitions of human, conveyed either in the form of thanks or prayers. 117 We see, then, that superstition is founded upon manifest contradictions, which human must always fall into when you mistakes the natural causes of things-- 118 when you shall attribute the good or evil which you experiences to an intelligent cause, distinguished from Nature, of which you will never be competent to form to yourself any certain ideas.

119 Indeed, human will always be reduced, as we have so frequently repeated, to the necessity of clothing your own gods with your own imbecile qualities: 120 as you are yourself a changeable being, whose intelligence is limited; 121 who, placed in divers circumstances, appears to be frequently in contradiction with yourself; 122 although you thinks you honours your gods in giving them your own peculiar qualities, 123 you in fact does nothing more than lend them your own inconstancy, cover them with your own weakness, invest them with your own vices. 124 It is thus that in reasoning, you are unable to account for the necessity of things-- 125 that you imagines there is a confusion which your prayers will have a tendency to remove-- 126 that you thinks the evils of life more than commensurate with the good: 127 you does not perceive that an undeviating system, by operating upon beings diversely organised, whose circumstances are different,

128 whose modes of action are at variance, must of necessity sometimes appear to be inimical to the interests of the individual, while it embraces the general good of the whole.

129 The theologian may subtilise, exaggerate, render as unintelligible as they pleases, the attributes with which they clothes their divinities, 130 they will never be able to remove the contradictions which arise from the discordant qualities which they thus heaps together; 131 neither will they be able to give human any other mode of judging than what arises from the exercise of their senses, such as they are actually found. 132 You will never be able to furnish the idea of an immutable being, while you shall represent this being as capable of being irritated and appeased by the prayers of mortals. 133 You will never delineate the features of omnipotence under the portrait of a being who cannot restrain the actions of own inferiors. 134 You will never hold up a standard of justice, while you shall mingle it with mercy, however amiable the quality; 135 or while you shall represent it as punishing those actions, which the perpetrators were under the necessity of committing. 136 Neither will you be able, under any circumstances, to make a finite mind comprehend infinity; much less when you shall represent this infinity as bounded by finity itself.

137 From this it will be obvious, that immaterial substances, such as are depicted by the theologians, can only be looked upon as the offspring of a metaphysical brain, 138 unsupported by any of those proofs which are usually required to establish the propositions laid down among humans; 139 all the qualities which they ascribe to them, are only those which are suitable to material substances; 140 all the abstract properties with which they invest them, are incomprehensible by material beings; 141 the whole taken together, is one confused mass of contradictions: 142 they have held forth to human, that it highly imported to your interests to know, to understand these substances; 143 you have consequently set your

intellect in action to discover some means of compassing an end, said to be so consequential to your welfare; 144 you have, however, been unable to make any progress, because no clue could be offered to you of the road you must pursue; 145 all was mere assertion unsupported by evidence; 146 the whole was enveloped in complete darkness, into which the least scintillation of light could never penetrate. 147 Notwithstanding, as soon as human believes the self greatly interested in knowing a thing, you labours to form to yourself an idea of that, the knowledge of which you thinks so important; 148 if insuperable obstacles impede your inquiries-- if difficulties of a magnitude to alarm your industry intervene--if with immense labour you makes but little progress, 149 then the slender success that attends your research, aided by a slothful disposition, while it wearies your diligence disposes you to credulity. 150 It was thus, that a crafty ambitious Arab, subtle and knavish in his manners, insinuating in his address, profiting by this credulous inclination, 151 made his countrymen adopt his own fanciful reveries as permanent truths, of which it was not permitted them for an instant to doubt; 152 following up these opinions with enthusiasm, he stimulated them on to become conquerors; 153 obliging the conquered to lend themselves to his system, he gave currency to a creed, invented solely for the purpose of enslaving humankind, 154 which now spreads over immense regions inhabited by a numerous population, 155 although like other systems it does not escape sectarianism, having above seventy branches.

156 Thus ignorance, despair, sloth, the want of reflecting habits, place the human race in a state of dependence upon those who build up systems, 157 while upon the objects which are the foundations, they have no one settled idea: 158 once adopted, however, whenever these systems are brought into question, human either reasons in a very strange manner, or else is the dupe of very deceitful arguments: 159 when they are agitated, and you finds it impossible

to understand what is said concerning them when your mind cannot embrace the ambiguity of these doctrines, 160 you imagines those who speak to you are better acquainted with the objects of their discourse than yourself; 161 these seizing the favourable opportunity, do not let it slip, they reiterate to you with Stentorian lungs, 162 "That the most certain way is to agree with what they tell you; to allow yourself to be guided by them;" 163 in short, they persuade you to shut your eyes, that you may with greater perspicuity distinguish the road you are to travel: 164 once arrived at this influence, they indelibly fix their lessons; irrevocably chain you to the oar; 165 by holding up to your view the punishments intended for you by these imaginary beings, in case you refuses to accredit, in the most liberal manner, their marvellous inventions; 166 this argument, although it only supposes the thing in question, serves to close your mouth-- to put an end to your research; 167 alarmed, confused, bewildered, you seems convinced by this victorious reasoning--attaches to it a sacredness that fills you with awe-- 168 blindly conceives that they have much clearer ideas of the subject than yourself-- fears to perceive the palpable contradictions of the doctrines announced to you, 169 until, perhaps, some being, more subtle than those who have enslaved you, by labouring the point incessantly, attacking you on the weak side of your interest, 170 arrives at throwing the absurdity of your system into light, and finally succeeds by inducing you to adopt that of another set of speculators. 171 The uninformed person generally believes your priests have more senses than yourself; you takes them for superior beings; for divine humans. 172 You only sees that which these priests inform you that you must contemplate; to everything else your eyes are completely hoodwinked; 173 thus the authority of the priests frequently decides, without appeal, that which is useful perhaps only to the priesthood.

174 When we shall be disposed to recur to the origin of things, we shall

ever find that it has been human's imagination, 175 guided by human ignorance, under the influence of fear, which gave birth to your gods; 176 that enthusiasm or imposture have generally either embellished or disfigured them; 177 that credulity readily adopted the fabulous accounts which interested duplicity promulgated respecting them; 178 that these dispositions, sanctioned by time, became habitual. 179 Tyrants finding their advantage in sustaining them, have usually established their power upon the blindness of humankind, 180 and the superstitious fears with which it is always accompanied. 181 Thus, under whatever point of view it is considered, it will always be found that error cannot be useful to the human species.

182 Nevertheless, the happy enthusiast, when your soul is sensible of its enjoyments, when your softened imagination has occasion to paint to itself a seducing object, 183 to which you can render thanks for the kindness you experiences, will ask, 184 "Wherefore deprive me of a being that I see under the character of a sovereign, filled with wisdom, abounding in goodness? 185 What comfort do I not find in figuring to myself a powerful, intelligent, indulgent monarch, of whom I am the favourite; 186 who continually occupies Himself with my welfare-- unceasingly watches over my safety--who perpetually administers to my wants--who always consents that under Him I shall command the whole of Nature? 187 I believe I behold Him constantly showering His benefits on human; I see His Providence labouring for my advantage without relaxation; 188 He covers the earth with verdure to delight me; He loads the trees with delicious fruits to gratify my palate; He fills the forests with animals suitable to my nourishment; 189 He suspends over His head planets with innumerable stars, to enlighten me by day, to guide my erring steps by night; 190 He extends around Him the azure firmament to gladden my sight; He decorates the meadows with flowers to please my fancy; 191 He causes crystal fountains to flow with

limpid streams to slake my thirst; 192 He makes rivulets meander through my lands to fructify the earth; He washes my residence with noble rivers, that yield my fish in abundance. 193 Ah! suffer me to thank thee, Author of so many benefits: do not deprive me of my charming sensations. 194 I shall not find my illusions so sweet, so consolatory in a severe destiny-- 195 in a rigid necessity-- in a blind inanimate matter-- in a nature destitute of intelligence, devoid of feeling."

196 "Wherefore," will say the unfortunate, from whom your destiny has rigorously withheld those benefits which have been lavished on so many others; 197 "wherefore ravish from me an error that is dear to me? 198 Wherefore annihilate to me a being, whose consoling idea dries up the source of my tears--who serves to calm my sorrows? 199 Wherefore deprive me of an object which I represent to myself as a compassionate, tender father; 200 who reproves me in this world, but into whose arms I throw myself with confidence, when the whole of Nature appears to have abandoned me? 201 Supposing it no more than a chimera, the unhappy have occasion for it, to guarantee them against frightful despair: 202 is it not cruel, is it not inhuman, to be desirous of plunging them into a vacuum, by seeking to undeceive them? 203 Is it not an useful error, preferable to those truths which deprive the mind of every consolation, which do not hold forth any relief from its sorrows?"

204 Thus will equally reason the Negro, the Mussulman, the Brachman, and others. We shall reply to these enthusiasts, No! truth can never render you unhappy; 205 it is this which really consoles us; it is a concealed treasure, much superior to all the superstitions ever invented by fear; 206 it can cheer the heart; give it courage to support the burthens of life; make us smile under adversity; 207 elevate the soul; render it active; furnishes it with means to resist the attacks of fate; to combat misfortunes with success. 208 This will show clearly that the good and

evil of life are distributed with an equal hand, without respect to human's peculiar comforts; 209 that all beings are equally regarded in the universe; that everything is submitted to necessary laws; 210 that human has no right whatever to think the self a being peculiarly favoured-- who is exempted from the common operations of the eternal routine; 211 that it is folly to think you are the only being considered-- one for whose enjoyment alone everything is produced; 212 an attention to facts will suffice to put an end to this delusion, however pleasant may be the indulgence of such a notion; 213 the most superficial glance of the eye will be sufficient to undeceive us in the idea, that you are the final cause of the creation-- 214 the constant object of the labours of Nature, or of its Author.

215 Let us seriously ask you, if you does not witness good constantly blended with evil? If you does not equally partake of them with the other beings in Nature? 216 To be obstinately bent to see only the evil, is as irrational as to be willing only to notice the good. 217 Providence seems to be just as much occupied for one class of beings as for another. 218 We see the calm succeed the storm; sickness give place to health; the blessings of peace follow the calamities of war; 219 the earth in every country bring forth roots necessary for the nourishment of human, produce others suitable to human destruction. 220 Each individual of the human species is a compound of good and bad qualities; 221 all nations present a varied spectacle of virtues, growing up beside vices; that which gladdens one being, plunges another into sadness-- 222 no event takes place that does not give birth to advantages for some, to disadvantages for others. 223 Insects find a safe retreat in the ruin of the palace, which crushes human in its fall; 224 human by your death furnishes food for myriads of contemptible insects; 225 animals are destroyed by thousands that you may increase your bulk; linger out for a season a feverish existence.

226 We see beings engaged in perpetual hostility, each living at

own neighbour's expense; the one banqueting upon that which causes the desolation of the other; 227 some luxuriously growing into flesh upon the misery which wears others into skeletons--profiting by misfortunes, rioting upon disasters, which ultimately, reciprocally destroy them. 228 The most deadly poisons spring up beside the most wholesome fruits 229 the earth equally nourishes the fatal steel which terminates human's career, and the fruitful corn that prolongs your existence; 230 the bane and its antidote are near neighbours, repose on the same bosom, ripen under the same sun, equally court the hand of the incautious stranger.

231 The rivers which human believes flow for no other purpose than to irrigate own residence, sometimes swell their waters, overtop their banks, inundate their fields, overturn their dwelling, and sweep away the flock and shepherd. 232 The ocean, which you vainly imagines was only collected together to facilitate your commerce supply you with fish, and wash your shores; 233 often wrecks your ships, frequently bursts its boundaries, lays waste your lands, destroys the produce of your industry, and commits the most frightful ravages. 234 The halcyon, delighted with the tempest, voluntarily mingles with the storm; rides contentedly upon the surge; 235 rejoiced by the fearful howlings of the northern blast, plays with happy buoyancy upon the foaming billows, that have ruthlessly dashed in pieces the vessel of the unfortunate mariner; 236 who, plunged into an abyss of misery, with tremulous emotion clings to the wreck; 237 views with horrific despair, the premature destruction of your indulged hopes; 238 sighs deeply at the thoughts of home; with aching heart, thinks of the cherished friends your streaming eyes will never more behold 239 in an agony of soul dwells upon the faithful affection of an adored wife, who will never again repose her drooping head upon a manly bosom; 240 grows wild with the appalling remembrance of beloved children, your wearied arms will never more encircle with parental fondness; 241

then sinks forever, the unhappy victim of circumstances that fill with glee the fluttering bird, who sees you yield to the overwhelming force of the infuriate waves. 242 The conqueror displays his military skill, fights a sanguinary battle, puts his enemy to the rout, lays waste his country, slaughters thousands of his fellows, 243 plunges whole districts into tears, fills the land with the moans of the fatherless, the wailings of the widow, 244 in order that the crows may have a banquet-- that ferocious beasts may gluttonously gorge themselves with human gore-- that worms may riot in luxury.

245 Thus when there is a question concerning an agent we see act so variously; whose motives seem sometimes to be advantageous, sometimes disadvantageous for the human race; 246 at least each individual will judge after the peculiar mode in which you are yourself affected; 247 there will consequently be no fixed point, no general standard in the opinions people will form to themselves. 248 Indeed our mode of judging will always be governed by our manner of seeing, by our way of feeling. 249 This will depend upon our temperament, which itself springs out of our organisation, and the peculiarity of the circumstances in which we are placed; 250 these can never be the same for all the beings of our species.

251 These individual modes of being affected, then, will always furnish the colours of the portrait which human may paint to the self of the Divinity; 252 it must therefore be obvious they can never be determinate-- can have no fixity-- can never be reduced to any graduated scale; 253 the inductions which they may draw from them, can never be either constant or uniform; 254 each will always judge after the self, will never see anything but the self or your own peculiar situation in the picture you delineates.

255 This granted, the person who has a contented, sensible soul, with a lively imagination, will paint the Divinity under the most charming traits; 256 you will believe that you sees in the whole of Nature nothing

but proofs of benevolence, evidence of goodness, because it will unceasingly cause you agreeable sensations. 257 In your poetical ecstasy you will imagine you everywhere perceives the impression of a perfect intelligence-- of an infinite wisdom-- of a providence tenderly occupied with the welfare of human; 258 self-love joining itself to these exalted qualities, will put the finishing hand to your persuasion, that the universe is made solely for the human race; 259 you will strive in imagination to kiss with transport the hand from which you believes you receives so many benefits; 260 touched with His kindness, gratified with the perfume of roses whose thorns you does not perceive, or which your ecstatic delirium prevents you from feeling, 261 you will think you can never sufficiently acknowledge the necessary effects, which you will look upon as indubitable testimony of the divine predilection for human.

262 Completely inebriated with these feelings, this enthusiast will not behold those sorrows, will not notice that confusion of which the universe is the theatre: 263 or if it so happens, you cannot prevent yourself from being a witness, you will be persuaded that in the views of an indulgent providence, 264 these calamities are necessary to conduct human to a higher state of felicity; 265 the reliance which you have in the Divinity, upon whom you imagines they depend, induces you to believe, that human only suffers for own good; 266 that this being, who is fruitful in resources, will know how to make you reap advantage from the evils which you experiences in this world: 267 your mind thus pre-occupied, from thence sees nothing that does not elicit your admiration call forth your gratitude; excite your confidence; 268 even those effects which are the most natural, the most necessary, appear in your eyes miracles of benevolence; prodigies of goodness: 269 you shuts your eyes to the disorders which could bring these amiable qualities into question: 270 the most cruel calamities, the most afflicting events, the most heart-rending

circumstances, cease to be disorders in your eyes, 271 and do nothing, more than furnish you with new proofs of the divine perfections; 272 you persuades yourself that what appears defective or imperfect, is only so in appearance; 273 you admires the wisdom, acknowledges the bounty of the Divinity, 274 even in those effects which are the most terrible for your race-- most suitable to discourage your species--most fraught with misery for your fellow.

275 It is, without doubt, to this happy disposition of the human mind, in some beings of your order, that is to be ascribed the system of Optimism, 276 by which enthusiasts, furnished with a romantic imagination, seem to have renounced the evidence of their senses: 277 to find that even for human everything is good in Nature, where the good has constantly its concomitant evil, 278 and where minds less prejudiced, less poetical, would judge that everything is only that which it can be-- 279 that the good and the evil are equally necessary-- that they have their source in the nature of things; 280 moreover, in order to attribute any particular character to the events that take place, it would be needful to know the aim of the whole: 281 now the whole cannot have an aim, because if it had a tendency, an aim, or end, it would no longer be the whole, seeing that that to which it tended would be a part not included.

282 It will be asserted by some, that the evils which we behold in this world are only relative, merely apparent; that they prove nothing against the good: 283 but does not human almost uniformly judge after own mode of feeling; after own manner of co-existing with those causes by which you are encompassed; 284 which constitute the order of Nature with relation to the self; 285 consequently, you ascribes wisdom and goodness to all that which affects you pleasantly, disorder to that state of things by which you are injured. 286 Nevertheless everything which we witness in the world conspires to prove to us, that whatever is, is necessary; that nothing is done by chance; 287 that all the events, good

or bad, whether for us or for beings of a different order, are brought about by causes acting after certain and determinate laws; 288 that nothing can be a sufficient warranty in us to clothe with any one of our human qualities, either Nature or the motive-power which has been given to Her.

289 With respect to those who pretend that supreme wisdom will know how to draw the greatest benefits for us, 290 even out of the bosom of those calamities which it is permitted we shall experience in this world; 291 we shall ask them, if they are themselves the confidents of the Divinity; or upon what they found these assertions so flattering to their hopes? 292 They will, without doubt, tell us they judge by analogy; that from the actual proofs of goodness and wisdom, they have a just right to conclude in favour of future bounty. 293 Would it not be a fair reply to ask, if they reason by analogy, and human has not been rendered completely happy in this world, what analogy informs them human will be so in another? 294 If, according to their own showing, human is sometimes made the victim of evil in own present existence, in order that you may attain a greater good, 295 does not analogical reasoning, which they say they adopt, clearly warrant a deduction, 296 that the same afflictions, for the same purposes, will be equally proper, equally requisite in the world to come?

297 Thus this language founds itself upon ruinous hypotheses, which have for their bases only a prejudiced imagination. 298 It, in fact, signifies nothing more than that human once persuaded, without any evidence, of own future happiness, will not believe it possible you can be permitted to be unhappy: 299 but might it not be inquired what testimony does you find, what substantive knowledge has you obtained of the peculiar good that results to the human species from those sterilities, 300 from those famines, from those contagions, from those sanguinary conflicts, which cause so many millions of people to perish; 301 which unceasingly depopulate the earth, and desolate

the world we inhabit? 302 Is there anyone who has sufficient compass of comprehension to ascertain the advantages that result from the evils that besiege us on all sides? 303 Do we not daily witness beings consecrated to misfortune, from the moment they quitted the womb of the parent who brought them into existence, 304 until that which re-committed them to the earth, to sleep in peace with their fathers; 305 who with great difficulty found time to respire; lived the constant sport of fortune; overwhelmed with affliction, immersed in grief, enduring the most cruel reverses? 306 Who is to measure the precise quantity of misery required to derive a certain portion of good? 307 Who is to say when the measure of evil will be full which it is necessary to suffer?

308 The most enthusiastic Optimists, the Theists themselves, the partisans of Natural-Religion, as well as the most credulous and superstitious, are obliged to recur to the system of another life, 309 to remedy the evils human is decreed to suffer in the present; 310 but have they really any just foundation to suppose the next world will afford you a happiness denied you in this? 311 If it is necessary to recur to a doctrine so little probable as that of a future existence, by what chain of reasoning do they establish their opinion, 312 that when you shall no longer have organs, by the aid of which you are at present alone enabled either to enjoy or to suffer, you shall be able to compensate the evils you has endured; 313 to enjoy a felicity, to partake of a pleasure this organic structure has refused you while on your pilgrimage through the land of your fathers and mothers.

314 From this it will be seen, that the proofs of a sovereign intelligence, or of a magnified human quality drawn from the order, from the harmony, from the beauty of the universe, 315 are never more than those which are derived from people who are organised and modified after a certain mode; 316 or whose cheerful imagination is so constructed as to give birth to agreeable chimeras which they embellish according to

their fancy: 317 these illusions, however, must be frequently dissipated even in themselves, whenever their machine becomes deranged; 318 when sorrows assail them, when misfortune corrodes their mind; 319 the spectacle of Nature, which under certain circumstances has appeared to them so delightful, so seducing, must then give place to disorder, must yield to confusion.

320 A person of melancholy temperament, soured by misfortunes, made irritable by infirmities, cannot view Nature and Her author under the same perspective, 321 as the healthy person of a sprightly humour, who is contented with everything. 322 Deprived of happiness, the fretful person can only find disorder, can see nothing but deformity, can find nothing but subjects to afflict the self with; 323 you only contemplates the universe as the theatre of malice, as the stage for tyrants to execute their vengeance; 324 you grows superstitious, you gives way to credulity, and not infrequently becomes cruel, in order to serve a master whom you believes you have offended.

325 In consequence of these ideas, which have their growth in an unhappy temperament, which originate in a peevish humour, which are the offspring of a disturbed imagination, 326 the superstitious are constantly infected with terror, are the slaves to mistrust, the creatures of discontent, continually in a state of fearful alarm. 327 Nature cannot have charms for them; Her countless beauties pass by unheeded; they do not participate in Her cheerful scenes; 328 they look upon this world, so marvellous to the happy human, so good to the contented enthusiast, as a valley of tears, 329 in which a vindictive fate has placed them only to expiate crimes committed either by themselves or by their fathers; 330 they consider themselves as sent here for no other purpose than to be the sharers of calamity; the sport of a capricious fortune; 331 that they are the children of sorrow, destined to undergo the severest trials, to the end that they

may everlastingly arrive at a new existence, 332 in which they shall be either happy or miserable, according to their conduct towards the ministers of a being who holds their destiny in own hands.

333 These dismal notions have been the source of all the irrational systems that have ever prevailed; 334 they have given birth to the most revolting practices, currency to the most absurd customs. 335 History abounds with details of the most atrocious cruelties, under the imposing name of public worship; 336 nothing has been considered either too fantastical or too flagitious by the votaries of superstition. 337 Parents have immolated their children; lovers have sacrificed the objects of their affection; friends have destroyed each other: 338 the most bloody disputes have been fomented; the most interminable animosities have been engendered, 339 to gratify the whim of implacable priests, who by crafty inventions have obtained an influence over the people; 340 to please blind zealots, who have never been able either to give fixity to their ideas, or to define their own feelings. 341 Idle dreamers nourished with bile, intoxicated with theologic fury--atrabilarians, whose melancholic humour frequently disposes them to wickedness-- 342 visionaries, whose devious imaginations, heated with intemperate zeal, generally leads them to the extremes of fanaticism, 343 working upon ignorance, whose usual bias is credulity, have incessantly disturbed the harmony of humankind, kindled the inextinguishable flame of discord, 344 and in an almost uninterrupted succession, strewed the earth with the mangled carcasses of the multitudinous victims to mad-brained error, 345 whose only crime has been their incapacity to dream according to the rules prescribed by these infuriate maniacs; 346 although these have never been uniform--never assimilated in any two countries-- 347 never borne the same features in any two ages, nor even had the united concurrence of the persecuting contemporaries.

NATURE

348 It is then in the diversity of temperament, arising from variety of organisation-- 349 in the contrariety of passions, springing out of this miscellany, modified by the most opposite circumstances, 350 that must be sought the difference we find in the opinions of the theist, the optimist, the happy enthusiast, the zealot, the devotee, the superstitious of all denominations; 351 they are all equally irrational-- the dupes of their imagination-- the blind children of error. 352 What one contemplates under a favourable point of view, the other never looks upon but on the dark side; 353 that which is the object of the most sedulous research to one set, is that which the others most seek to avoid: 354 each insists one is right; no one offers the least shadow of substantive proof of what they asserts; 355 each points out the great importance of own mission, yet cannot even agree with own colleagues in the embassy, either upon the nature of their instructions, or the means to be adopted.

356 It is thus whenever human sets forth a false supposition, all the reasonings you makes on it are only a long tissue of errors, which entail on you an endless series of misfortunes; 357 every time you renounces the evidence of your senses, it is impossible to calculate the bounds at which your imagination will stop; 358 when you once quits the road of experience, when you travels out of Nature, when you loses sight of your reason, to strike into the labyrinths of conjecture, 359 it is difficult to ascertain where your folly will lead you-- into what mischievous swamps this ‘ignis fatuus’ of the mind may beguile your wandering steps. 360 It is certainly true, the ideas of the happy enthusiast will be less dangerous to the self, less baneful to others, 361 than those of the atrabilarious fanatic, whose temperament may render you both cowardly and cruel; 362 nevertheless the opinions of the one and of the other will not be less chimerical; the only difference will be, that of the first will produce agreeable, cheerful dreams; 363 while that of the second will present the most appalling

visions, terrific spectres, the fruit of a peevish transport of the brain: 364 there will, however, never be more than a step between them all; 365 the smallest revolution in the machine, a slight infirmity, an unforeseen affliction, suffices to change the course of the humours-- 366 to vitiate the temperament-- to endanger the organisation-- to overturn the whole system of opinions of the happiest. 367 As soon as the portrait is found disfigured, the beautiful order of things is overthrown relatively to the self; 368 melancholy grapples you-- pusillanimity benumbs your faculties-- by degrees plunges you into the rankest depths of gloomy superstition; 369 you then degenerates into all those irregularities which are the dismal harvest of fanatic ignorance ploughed with credulity.

370 Those ideas, which have no archetype but in the imagination of human, must necessarily take their complexion from your own character; 371 must be clothed with your own passions; must constantly follow the revolutions of your machine; 372 be lively or gloomy; favourable or prejudicial; friendly or inimical; sociable or savage; humane or cruel; according as you whose brain they inhabit shall yourself be disposed; 373 in fact, they can never be more than the shadow of the substance you yourself interposes between the light and the ground on which they are thrown. 374 A mortal plunged from a state of happiness into misery, whose health merges into sickness, whose joy is changed into affliction, cannot in these vicissitudes preserve the same ideas; 375 these naturally depend every instant upon the variations, which physical sensations oblige your organs to undergo. 376 It will not therefore appear strange that these opinions should be fluctuating, when they depend upon the state of the nervous fluid, 377 upon the greater or less portion of igneous matter floating in the sanguinary vessels.

378 Theism, or what is called Natural Religion, cannot have certain principles; 379 those who profess it must necessarily be subject to vary in their opinions-- to fluctuate in their

conduct, which flows out of them. 380 A system founded upon wisdom and intelligence, which can never contradict itself, when circumstances change will presently be converted into fanaticism; rapidly degenerate into superstition; 381 such a system, successively meditated by enthusiasts of very distinct characters, must of necessity experience vicissitudes, and quickly depart from its primitive simplicity. 382 The greater part of those philosophers who have been disposed to substitute theism for superstition, have not felt that it was formed to corrupt itself-- to degenerate. 383 Striking examples, however, prove this fatal truth. Theism is almost everywhere corrupted; 384 it has by degrees given way to those superstitions, to those extravagant sects, to those prejudicial opinions with which the human species is degraded. 385 As soon as human consents to acknowledge invisible powers out of Nature, upon which your restless mind will never be able invariably to fix your ideas-- 386 which your imagination alone will be capable of painting to you; 387 whenever you shall not dare to consult your reason relatively to those powers, it must necessarily be, that the first false step leads you astray, 388 that your conduct as well as your opinions becomes in the long run perfectly absurd.

389 Those are usually called Theists, who, undeceived upon the greater number of grosser errors to which the uninformed, the superstitiously ignorant, tend the most determined support, 390 simply hold the notion of unknown agents endowed with intelligence, wisdom, power and goodness, 391 in short, full of infinite perfections, whom they distinguish from Nature, but whom they clothe after their own fashion; 392 to whom they ascribe their own limited views; whom they make act according to their own absurd passions. 393 The religion of Abraham appears to have originally been a kind of theism, imagined to reform the superstition of the Chaldeans; 394 Moses modified it, and gave it the Judaical form. 395 Socrates was a theist, who lost his life in his attack on

polytheism; 396 his disciple Aristotle, or Plato, as he was afterwards called from his large followers, embellished the theism of his master, 397 with the mystical colours which he borrowed from the Egyptian and Chaldean priests, which he modified in his own poetical brain, and preserved a remnant of polytheism. 398 The disciples of Plato, such as Proclus, Ammonius, Jamblicus. Plotinus, Longinus, Porphyrus, and others, dressed it up still more fantastically, 399 added a great deal of superstitious mummery, blended it with magic, and other unintelligible doctrines.

400 The first doctors of Christianity were Platonists, who combined the reformed Judaism with the philosophy taught in Academia. 401 Mahomet, in combating the polytheism of his country, seems to have been desirous of restoring the primitive theism of Abraham, and his son Ishmael. 402 Thus it will be obvious, that theism has no fixed point, no standard, no common measure more than other systems: 403 that it runs from one supposition to another, to find in what manner evil has crept into the world. 404 Indeed it has been for this purpose, which perhaps after all will never be satisfactorily explained, that the doctrine of free-agency was introduced; 405 that the fable of Prometheus and the box of Pandora was imagined; that the history of the Titanes was invented; 406 notwithstanding, it must be evident that these things as well as all the other trappings of superstition, are not more difficult of comprehension than the immaterial substances of the theists; 407 the mind who can admit that beings devoid of parts, destitute of organs, without bulk, can move matter, think like human, have the moral qualities of human nature, 408 need not hesitate to allow that ceremonies, certain motions of the body, words, rites, temples, statues, can equally contain secret virtues; 409 has no occasion to withhold its faith from the concealed powers of magic, theurgy, enchantments, charms, talismans; 410 can show no good reason why it should not accredit inspirations, dreams,

visions, omens, soothsayers, metamorphoses, and all the host of occult sciences: 411 when things so contradictory to the dictates of reason, so completely opposed to good sense are freely admitted, 412 there can no longer be a thing which ought to possess the right to make credulity revolt; 413 those who give sanction to the one, may without much hesitation believe whatever else is offered to their credence.

414 It would be impossible to mark the precise point at which imagination ought to arrest itself-- 415 the exact boundary that should circumscribe belief-- the true dose of folly that may be permitted them; 416 or the degree of indulgence that can with safety be extended to those priests who are in the habit of teaching so variously, so contradictorily, 417 what human ought to think on the subjects they handle so advantageously to themselves; 418 who when it becomes a question what remuneration is due from humankind for their unwearied exertions in their favour, 419 are, in spite of all their other differences, in the most perfect union; 420 except perhaps when they come to the division of the spoil: in this, indeed, the apple of discord sometimes takes a tremendous roll.

421 Thus it will be clear that there can be no substantive grounds for separating the theists from the most superstitious; 422 that it becomes impossible to fix the line of demarcation, which divides them from the most credulous of people; 423 to show the land-marks by which they can be discriminated from those who reason with the least conclusive persuasion. 424 If the theist refuses to follow up the fanatic in every step of own gullibility, you are at least more inconsequent than the last, 425 who having admitted upon hearsay an inconsistent, whimsical doctrine, also adopts upon report the ridiculous, strange means which it furnishes you.

426 The first sets forth with an absurd supposition, of which you rejects the necessary consequences; the other admits both the principle and the conclusion. 427 There are no degrees in fiction any more than in truth. 428

If we admit the superstition, we are bound to receive everything which its ministers promulgate, as emanating from its principle. 429 None of the reveries of superstition embrace anything more incredible than immateriality; 430 these reveries are only corollaries drawn with more or less subtilty from unintelligible subjects, by those who have an interest in supporting the system. 431 The inductions which dreamers have made, by dint of meditating on impenetrable materials, are nothing more than ingenious conclusions, 432 which have been drawn with wonderful accuracy, from unknown premises, 433 that are modestly offered to the sanction of humankind by enthusiasts, who claim an unconditional assent, 434 because they assure us no one of the human race is in a capacity either to see, feel, or comprehend the object of their contemplation. 435 Does not this somewhat remind us of what Rabelais describes as the employment of Queen Whim's officers, in his fifth book and twenty-second chapter?

436 Let us then acknowledge, that the person who is this most credulously superstitious, reasons in a more conclusive manner, 437 or is at least more consistent in own credulity, than those, who, after having admitted a certain position of which they have no one idea, stop short all at once, 438 and refuse to accredit that system of conduct which is the immediate, the necessary result of a radical and primitive error. 439 As soon as they subscribe to a principle fatally opposed to reason, by what right do they dispute its consequences, however absurd they may be found?

440 We cannot too often repeat, for the happiness of humankind, that the human mind, let it torture itself as much as it will, when it quits visible Nature leads itself astray; 441 for want of an intelligent guide it wanders in tracks that bewilder its powers, and is quickly obliged, to return into that with which it has at least some, acquaintance. 442 If human mistakes Nature and Her energies, it is because you do not sufficiently study Her-- 443 because

you does not submit to the test of experience the phenomena you beholds; 444 if you will obstinately deprive Her of motion, you can no longer have any ideas of Her.

445 Does, you, however, elucidate your embarrassments, by submitting Her action to the agency of a being of which you makes yourself the model? 446 Does you think you forms a god, when you assembles into one heterogeneous mass, your own discrepant qualities, 447 magnified until your optics are no longer competent to recognise them, 448 and then unites to them certain abstract properties of which you cannot form to yourself any one conception? 449 Does you, in fact, do more than collect together that which becomes, in consequence of its association, perfectly unintelligible?

450 Yet, strange as it may appear, when you no longer understands yourself-- 451 when your mind, lost in its own fictions, becomes inadequate to decipher the characters you have thus promiscuously assembled-- 452 when you have huddled together a heap of incomprehensible, abstract qualities, which you are obliged to acknowledge are the mere creatures of imagination, not within the reach of human intellect, 453 you firmly persuades yourself you have made a most accurate and beautiful portrait of the Divinity; 454 you ostentatiously displays your picture, demands the eulogy of the spectator, 455 and quarrels with all those who do not agree to adulate your creative powers, by adopting the inconceivable being you holds forth to their worship; 456 in short, to question the existence of your extravaganza, rouses His most bitter reproaches; elicits His everlasting scorn; entails on the incredulous His eternal hatred.

457 On the other hand, what could we expect from such a being, as they have supposed Him to be? What could we consistently ask of Him? 458 How make an immaterial being, who has neither organs, space, point, or contact, understand that modification of matter called voice? 459 Admit that this is the being who moves Nature-- who establishes Her

laws--who gives to beings their various essences-- who endows them with their respective properties; 460 if everything that takes place is the fruit of His infinite providence-- the proof of His profound wisdom, to what end shall we address our prayers to Him? 461 Shall we solicit Him to acknowledge that the wisdom and providence with which we have clothed Him, are in fact erroneous, by entreating Him to alter in our favour His eternal laws?

462 Shall we give Him to understand our wisdom exceeds His own, by asking Him for our pleasure to change the properties of bodies-- 463 to annihilate His immutable decrees-- to trace back the invariable course of things-- to make beings act in opposition to the essences with which you have thought it right to invest them? 464 Will He at our intercession prevent a body ponderous and hard by its nature, such as a stone, for example, from wounding, in its fall a sensitive being such as the human frame? 465 Again, should we not, in fact, challenge impossibilities, if the discordant attributes brought into union by the theologians were correct; 466 would not immutability oppose itself to omnipotence; mercy to the exercise of rigid justice; omniscience, to the changes that might be required in foreseen plans?

467 In physics, in consequence of the general research after a perpetual motion, science has drawn forth the discovery, 468 that by amalgamating metals of contrary properties, the contractile powers of one kind, under given circumstances which cause the dilation of the other, 469 by their opposite tendencies neutralise the actual effects of each, taken separately, 470 and thus produce an equality in the oscillations, that, neither possessed individually. 471 It will perhaps, be insisted, that the infinite science of the Creator of all things, is acquainted with resources in the beings you have formed, which are concealed from imbecile mortals; 472 that consequently without changing anything, either in the laws of Nature, or in the essence of things, He is competent to produce effects which surpass the

comprehension of our feeble understanding; 473 that these effects will in no wise be contrary to that order which He Himself has established in Nature.

474 Granted: but then I reply, first, that everything which is conformable to the nature of things, can neither be called supernatural nor miraculous: 475 many things are, unquestionably, above our comprehension; 476 but then all that is operated in the world is natural--grows out of those immutable laws by which Nature is regulated. 477 In the second place, it will be requisite to observe, that by the word miracle an effect is designed, of which, for want of understanding Nature, She is believed incapable. 478 In the third place, it is worthy of remark, that the theologians, almost universally, insist that by miracle is meant not an extraordinary effort of Nature, 479 but an effect directly opposite to Her laws, which nevertheless they equally challenge to have been prescribed by the Divinity.

480 Buddaeus says, "a miracle is an operation by which the laws of Nature, upon which depend the order and the preservation of the universe, are suspended." 481 If, however, the Deity, in those phenomena that most excite our surprise, does nothing more than give play to springs unknown to mortals, 482 there is, then, nothing in Nature, which, in this sense, may not be looked upon as a miracle; 483 because the cause by which a stone falls is as unknown to us, as that which makes our globe turn on its own axis. 484 Thus, to explain the phenomena of Nature by a miracle, is, in other words, to say we are ignorant of the actuating causes; 485 to attribute them to the Divinity, is to agree we do not comprehend the resources of Nature: it is little better than accrediting magic. 486 To attribute to a sovereignty intelligent, immutable, provident, wise being, those miracles by which you derogates from your own laws, is at one blow to annihilate all these qualities: 487 it is an inconsistency that would shame a child.

488 It cannot be supposed that omnipotence has need of miracles to

govern the universe, 489 nor to convince His creatures, whose minds and hearts must be in His own hands. 490 The last refuge of the theologian, when driven off all other ground, is the possibility of everything they asserts, 491 couched in the dogma, "that nothing is impossible to the Divinity." 492 They makes this asseveration with a degree of self-complacency, with an air of triumph, that would almost persuade one they could not be mistaken; 493 most assuredly, with those who dip no further than the surface, they carries complete conviction. 494 But we must take leave to examine a little the nature of this proposition, 495 and we do apprehend that a very slight degree of consideration will show that it is untenable.

496 In the first place, as we have before observed, the possibility of a thing by no means proves its absolute existence: 497 a thing may be extremely possible, and yet not be. 498 Secondly, if this was once to become an admitted argument, there would be, in fact, an end of all morality and religion. 499 The Bishop of Chester, Doctor John Wilkins, says, "would not such people be generally accounted out of their wits, who could please themselves by entertaining actual hopes of anything, 500 merely upon account of the possibility of it, or torment themselves with actual fears of all such evils as are possible? 501 Is there anything imaginable more wild and extravagant amongst those in bedlam than this would be?" 502 Thirdly, the impossibility would reasonably appear to be on the other side, so far from nothing being impossible, everything that is erroneous would seem to be actually so; 503 the Divinity could not possibly either love vice, cherish crime, be pleased with depravity, or commit wrong; this decidedly turns the argument against them; 504 they must either admit the most monstrous of all suppositions, or retire from behind the shield with which they have imagined they rendered themselves invulnerable.

505 To those who may be inclined to inquire, whether it would not be better that all things were operated

by a good, wise, intelligent Being, than by a blind Nature, 506 in which not one consoling quality is found; by a fatal necessity always inexorable to human in treaty? 507 It may be replied, first, that our interest does not decide the reality of things, 508 and that when this should be even more advantageous than it is pointed out, it would prove nothing. 509 Secondly, that as we are obliged to admit some things are operated by Nature, it is certainly on the side of probability that She performs the others; 510 especially as Her capabilities are more substantively proved by every age as it advances. 511 Thirdly, that Nature duly studied furnishes everything necessary to render us as happy as our essence admits.

512 When, guided by experience, we shall consult Her, with cultivated reason; 513 She will discover to us our duties, that is to say, the indispensable means to which Her eternal and necessary laws have attached our preservation, our own happiness, and that of society. 514 It is decidedly in Her bosom that we shall find wherewith to satisfy our physical wants; 515 whatever is out of Nature, can have no existence relatively to ourselves. 516 Nature, then, is not a step-mother to us; we do not depend upon an inexorable destiny. 517 Let us therefore endeavour to become more familiar with Her resources; 518 She will procure us a multitude of benefits when we shall pay Her the attention She deserves: 519 when we shall feel disposed to consult Her, She will supply us with the requisites to alleviate both our physical and moral evils: 520 She only punishes us with rigour, when, regardless of Her admonitions, we plunge into excesses that disgrace us.

521 Has the voluptuary any reason to complain of the sharp pains inflicted by the gout, when experience, if you had but attended to its counsels, has so often warned you, 522 that the grossness of sensual indulgence must inevitably amass in your machine those humours which give birth to the agony you so acutely feels? 523 Has the superstitious bigot any cause for repining at the misery of your

uncertain ideas, when an attentive examination of that Nature, you holds of such small account, 524 would have convinced you that the idols under whom you trembles, are nothing but personifications of Herself, disguised under some other name? 525 It is evidently by incertitude, discord, blindness, delirium, She chastises those who refuse to, acknowledge the justice of Her claims.

526 In the mean time, it cannot be denied, that a pure Theism, or what is called Natural Religion, may not be preferable to superstition, 527 in the same manner as reform has banished many of the abuses of those countries who have embraced it; 528 but there is nothing short of an unlimited and inviolable liberty of thought, that can permanently assure the repose of the mind. 529 The opinions of people are only dangerous when they are restrained, or when it is imagined necessary to make others think as we ourselves think. 530 No opinions, not even those of superstition itself, would be dangerous, if the superstitious did not think themselves obliged to enforce their adoption, or had not the power to persecute those who refused. 531 It is this prejudice, which, for the benefit of humankind, it is essential to annihilate; 532 and if the thing be not achievable, then the next object which philosophy may reasonably propose to itself, will be to make the depositaries of power feel 533 that they never ought to permit their subjects to commit evil for either superstitious or religious opinions.

534 In this case, wars would be almost unheard of amongst humans: 535 instead of beholding the melancholy spectacle of human cutting the throat of own fellow human, because this cannot see with own eyes, 536 we shall witness you essentially labouring to your own happiness by promoting that of your neighbour; cultivating the earth in peace; quietly bringing forth the productions of Nature, 537 instead of puzzling your brain with theological disputes, which can never be of the smallest advantage, except to the priests. 538 It must be a self-evident

truth, that an argument by people, upon that which is not accessible to human, could only have been invented by knaves, 539 who, like the professors of legerdemain, were determined to riot luxuriously on the ignorance and credulity of humankind.

EXAMINATION OF THE ADVANTAGES WHICH RESULT FROM MAN'S NOTIONS ON THE DIVINITY

Paul Henri Thiery (Baron D'Holbach)

51 The slender foundation of those ideas which people form to themselves of their gods, must have appeared obvious in what has preceded; 2 the proofs which have been offered in support of the existence of immaterial substances, have been examined; 3 the want of harmony that exists in the opinions upon this subject, which all concur in agreeing to be equally impossible to be known to the inhabitants of the earth, has been shown; 4 the incompatibility of the attributes with which, theology has clothed incorporeity, has been explained.

5 It has been proved, that the idols which human sets up for adoration, have usually had their birth, either in the bosom of misfortune, 6 when ignorance was at a loss to account for the calamities of the earth upon natural principles, 7 or else have been the shapeless fruit of melancholy, working upon an alarmed mind, coupled with enthusiasm and an unbridled imagination. 8 It has been pointed out how these prejudices, transmitted by tradition from father to son, grafting themselves upon infant minds, 9 cultivated by education, nourished by fear, corroborated by habit, have been maintained by authority; perpetuated by example. 10 In short, everything must have distinctly evidenced to us, that the ideas of the gods, so generally diffused over the earth, has been little more than an universal delusion of the human race. 11 It remains now to examine if this error has been useful.

12 It needs little to prove error can never be advantageous for humankind; 13 it is ever founded upon human ignorance, which is itself an acknowledged evil; 14 it springs out of the blindness of human mind to acknowledged truths, and your want of experience, which it must be admitted are prejudicial to your interests: 15 the more importance, therefore, you shall attach to these errors, the more fatal will be the consequences resulting from their adoption. 16 Bacon, the illustrious sophist, who first brought philosophy out of the schools, had great reason when he said, "The worst of all things is deified error." 17 Indeed, the mischiefs springing from superstition or religious errors, have been, and always will be, the most terrible in their consequences--the most extensive in their devastation. 18 The more these errors are respected, the more play they give to the passions; 19 the more value is attached to them, the more the mind is disturbed; 20 the more they are insisted upon, the more irrational they render those, who are seized with the rage for proselytism; 21 the more they are cherished, the greater influence they have on the whole conduct of our lives. 22 Indeed, there can be but little likelihood that you who renounces your reason, in the thing which you considers as most essential to your happiness, will listen to it on any other occasion.

23 The slightest reflection will afford ample proof to this sad truth: 24 in those fatal notions which human has cherished on this subject, are to be traced the true sources of all those prejudices, 25 the fountain of all those sorrows, to which you are the victim. 26 Nevertheless, as we have elsewhere said, utility ought to be the only standard, the uniform scale, by which to form a judgment 27 on either the opinions, the institutions, the systems, or the actions of intelligent beings; 28 it is according to the measure of happiness which these things procure for us, that we ought either to cover them with our esteem, or expose them to our contempt. 29 Whenever they are useless it is our duty to despise them;

as soon as they become pernicious, it is imperative to reject them; 30 reasons imperiously prescribes that our detestation should be commensurate with the evils which they cause.

31 Taking these principles for a land-mark, which are founded on our nature, which must appear incontestable to every reasonable being, 32 with experience for a beacon, let us coolly examine the effects which these notions have produced on the earth. 33 We have already, in more than one part of the work, given a glimpse of the doctrine of that morals, which having only for object the preservation of human, 34 and his conduct in society, can have nothing, in common with imaginary systems: 35 it has been shown, that the essence of a sensitive, intelligent, rational being, properly meditated, would discover motives competent to moderate the fury of your passions-- 36 to induce you to resist your vicious propensities-- to make you fly criminal habits-- 37 to invite you to render yourself useful to those beings for whom your own necessities have a continual occasion; 38 thus, to endear yourself to your fellow mortals, to become respectable in your own esteem. 39 These motives will unquestionably be admitted to possess more solidity, to embrace greater, potency, to involve more truth, than those which are borrowed from systems that want stability; 40 that assume more shapes than there are languages; that are not tangible to the tact of humanity; 41 that must of necessity present a different perspective to all who shall view them through the medium of prejudice.

42 From what has been advanced, it will be felt that education, which should make human in early life contract good habits, adopt favourable dispositions, 43 fortified by a respect for public opinion, invigorated by ideas of decency, strengthened by wholesome laws, 44 corroborated by the desire of meriting the friendship of others, stimulated by the fear of losing own esteem, 45 would be fully adequate to accustom you to a laudable conduct, 46 amply sufficient to divert you

from even those secret crimes, from which you are obliged to punish yourself by remorse; 47 which costs you the most incessant labour to keep concealed, by the dread of that shame, which must always follow their publicity.

48 Experience demonstrates in the clearest manner, that the success of a first crime disposes you to commit a second; 49 impunity leads on to the third, this to a lamentable sequel that frequently closes a wretched career with the most ignominious exhibition; 50 thus the first delinquency is the commencement of a habit: there is much less distance from this to the hundredth, than from innocence to criminality: 51 the person, however, who lends the self to a series of bad actions, under even the assurance of impunity, is most woefully deceived, 52 because you cannot avoid castigating yourself: moreover, you cannot know at what point of iniquity you shall stop.

53 It has been shown, that those punishments which society, for its own preservation, has the right to inflict on those who disturb its harmony, 54 are more substantive, more efficacious, more salutary in their effects, than all the distant torments held forth by the priests; 55 they intervene a more immediate obstacle to the stubborn propensities of those obdurate wretches, 56 who, insensible to the charms of virtue, are deaf to the advantages that spring from its practice, 57 than can be opposed by the denunciations, held forth in an hereafter existence, which you are at the same moment taught may be avoided by repentance, 58 that shall only take place when the ability to commit further wrong has ceased.

59 In short, one would be led to think it obvious to the slightest reflection, that politics, founded upon the nature of human, upon the principles of society, 60 armed with equitable laws, vigilant over morals, faithful in rewarding virtue, constant in visiting crime, 61 would be more suitable to clothe ethics with respectability, to throw a sacred mantle over moral goodness, to lend stability to public virtue, 62 than any authority that can be derived from contested systems,

the conduct of whose professors frequently disgrace the doctrines they lay down, 63 which after all seldom do more than restrain those whose mildness of temperament effectually prevents them from running into excess; 64 those who, already given to justice, require no coercion. 65 On the other hand, we have endeavoured to prove that nothing can be more absurd, nothing actually more dangerous, than attributing human qualities to the Divinity 66 which cannot but choose to find themselves in a perpetual contradiction.

67 Plato has said "that virtue consists in resembling God." 68 But how is human to resemble a being, who, it is acknowledged, is incomprehensible to humankind-- 69 who cannot be conceived by any of those means, by which you are alone capable of having perceptions? 70 If this being, who is shown to human under such various aspects, who is said to owe nothing to His creatures, is the author of all the good, as well as all the evil that takes place, 71 how can He be the model for the conduct of the human race living together in society? 72 At most you can only follow one side of the character, because among your fellows, you alone is reputed virtuous who does not deviate in your conduct from justice; 73 who abstains from evil; who performs with punctuality those duties you owes to your fellows. 73 If it be taken up, and insisted God is not the author of the evil, only of the good, I say very well: that is precisely what I wanted to know; 74 you thereby acknowledge God is not the author of everything; 75 we are no longer at issue; you are inconclusive to your own premises, consequently ought not to demand an implicit reliance on what you choose to assert.

76 But, replies the subtle theologian, that is not the affair; you must seek it in the creed I have set forth-- in the religion of which I am a pillar. 77 Very good: Is it then actually in the system of fanatics, that human should draw up own ideas of virtue? 78 Is it in the doctrines which these codes hold forth, that you are to seek for a model? 79 Alas! do they not

portray their idols: under the most unwholesome colours; 80 do they not represent them as following their caprice in everything, who love or hate, who choose or reject, who approve or condemn according to their whim, 81 who delight in carnage, who send discord amongst people, who act irrationally, who commit wantonness, 82 who sport with their feeble subjects, who lay continual snares for them, who rigorously interdict the use of their reason? 83 What, let us seriously ask, would become of morality, if people proposed to themselves such portraits for models!

84 It was, however, for the most part, systems of this temper that nations adopted. 85 At was in consequence of these principles that what has been called religion in most countries, was far removed from being favourable to morality; 86 on the contrary, it often shook it to its foundation--frequently left no vestige of its existence. 87 It divided human, instead of drawing closer the bonds of union; 88 in the place of that mutual love, that reciprocity of succour, which ought ever to distinguish human society, it introduced hatred and persecution; 89 it made them seize every opportunity to cut each other's throat for speculative opinions, equally irrational; 90 it engendered the most violent heart-burnings-- the most rancorous animosities-- the most sovereign contempt. 91 The slightest difference in their received opinions rendered them the most mortal enemies; 92 separated their interests for ever; made them despise each other; and seek every means to render their existence miserable.

93 For these theological conjectures, nations become opposed to nations; the sovereign frequently armed the self against their subjects; 94 subjects waged war with their sovereign; citizens gave activity to the most sanguinary hostility against each other; 95 parents detested their offspring; children plunged the pointed steel, the barbed arrow, into the bosoms of those who gave them existence; 96 husbands and wives disunited, became the scourges of each other; 97 relations forgetting the

ties of consanguinity, tore each other to pieces, or else reciprocally consigned them to oblivion; 98 all the bonds of society were rent asunder; the social compact was broken up; society committed suicide: 99 whilst in the midst of this fearful wreck-- regardless of the horrid shrieks called forth by this dreadful confusion-- 100 unmindful of the havock going forward on all sides-- each pretended that one conformed to the views of own idol, detailed to one by own priest-- fulminated by the oracles. 101 Far from making the self any reproach, for the misery one spread abroad, each lauded own individual conduct; gloried in the crimes one committed in support of own sacred cause.

102 The same spirit of maniacal fury pervaded the rites, the ceremonies, the customs, which the worship, adopted by superstition, placed so much above all the social virtues. 103 In one country, tender mothers delivered up their children to moisten with their innocent blood the altars of their idols; 104 in another, the people assembled, performed the ceremony of consolation to their deities, for the outrages they committed against them, and finished by immolating to their anger human victims; 105 in another, a frantic enthusiast lacerated own body, condemned the self for life to the most rigorous tortures, to appease the wrath of own gods.

106 The Jupiter of the Pagans was a lascivious monster; the Moloch of the Phenicians was a cannibal; 107 the savage idol of the Mexican requires thousands of mortals to bleed on his shrine, in order to satisfy his sanguinary appetite. 108 Such are the models superstition holds out to the imitation of human; 109 is it then surprising that the name of these despots became the signal for mad-brained enthusiasm to exercise its outrageous fury; 110 the standard under which cowardice wreaked its cruelty; the watchword for the inhumanity of nations to muster their barbarous strength; 111 a sound which spreads terror wherever its echo could reach; 112 a continual pretext for the most barefaced breaches of public decorum; for the

most shameless violation of the moral duties?

113 It was the frightful character people gave of their gods, that banished kindness from their hearts-- virtue from their conduct-- felicity from their habitations-- reason from their mind: 114 almost every where it was some idol, who was disturbed by the mode in which unhappy mortals thought; 115 this armed them with poignards against each other; made them stifle the cries of Nature; rendered them barbarous to themselves; atrocious to their fellow creatures: 116 in short, they became irrational, breathed forth vengeance, outraged humanity, 117 every time that, instigated by the priest, they were inclined to imitate the gods of their idolatry, to display their zeal, to render themselves acceptable in their temples.

118 It is not, then, in such systems, human ought to seek either for models of virtue, or rules of conduct suitable to live in society. 119 He needs human morality, founded upon His own nature; built upon invariable experience; submitted to reason. 120 The ethics of superstition will always be prejudicial to the earth; 121 cruel masters cannot be well served, but by those who resemble them: 122 what then becomes of the great advantages which have been imagined resulted to human, from the notions which have been unceasingly infused into you of your gods?

123 We see that almost all nations acknowledge them; 124 yet, to conform themselves to their views, they trampled underfoot the clearest rights of Nature-- the most evident duties of humanity; 125 they appeared to act as if it was only by madness the most incurable-- by folly the most preposterous-- 126 by the most flagitious crimes, committed with an unsparing hand, that they hoped to draw down upon themselves the favour of heaven-- 127 the blessings of the sovereign intelligence they so much boast of serving with unabated zeal; with the most devotional fervour; with the most unlimited obedience.

128 As soon, therefore, as the priests give them to understand their deities command the commission of crime,

or whenever there is a question of their respective creeds, 129 although they are wrapt in the most impenetrable obscurity, they make it a duty with themselves to unbridle their rancour-- to give loose to the most furious passions; 130 they mistake the clearest precepts of morality; 131 they credulously believe the remission of their own sins will be the reward of their transgressions against their neighbour. 132 Would it not be better to be an inhabitant of Soldania in Africa, where never yet form of worship entered, or the name of God resounded, 133 than thus to pollute the land with superstitious castigation-- with the enmity of priests against each other?

134 Indeed, it is not generally in those revered mortals, spread over the earth to announce the oracles of the gods, that will be found the most sterling virtues. 135 These people, who think themselves so enlightened, who call themselves the ministers of heaven, frequently preach nothing but hatred, discord, and fury in its name: 136 the fear of the gods, far from having a salutary influence over their own morals, far from submitting them to a wholesome discipline, 137 frequently do nothing more than increase their avarice, augment their ambition, inflate their pride, extend their covetousness, render them obstinately stubborn, and harden their hearts.

138 We may see them unceasingly occupied in giving birth to the most lasting animosities, by their unintelligible disputes. 139 We see them hostilely wrestling with the sovereign power, which they contend is subordinate to their own. 140 We see them arm the chiefs of nations against the legitimate magistrates; 141 distribute to the credulous multitude the most mortal weapons, to massacre each other in the prosecution of those futile controversies, 142 which sacerdotal vanity clothes with the most interesting importance. 143 Do these people, who advance the beauty of their theories, who menace the people with eternal vengeance, avail themselves of their own marvellous

notions 144 to moderate their pride-- to abate their vanity-- to lessen their cupidity-- to restrain their turbulence-- to bring their vindictive humours under control?

145 Are they, even in those countries where their empire is established upon pillars of brass, fixed on adamantine rocks, decorated with the most curious efforts of human ingenuity-- 146 where the sacred mantle of public opinion shields them with impunity-- 147 where credulity, planted in the hot-bed of ignorance, strikes the roots of their authority into the very centre of the earth; 148 are they, I would ask, the enemies to debauchery, the foes to intemperance, the haters of those excesses which they insist a severe God interdicts to His adorers? 149 On the contrary, are they not seen to be emboldened in crime; intrepid in iniquity; committing the most shameful atrocities; giving free scope to their irregularities; 150 indulging their hatred; glutting their vengeance; exercising the most savage cruelties on the miserable victims to their cowardly suspicion?

151 In short, it may be safely advanced, without fear of contradiction, that scarcely any thing is more frequent, than that those people who announce these terrible creeds-- 152 who make people tremble under their yoke-- who are unceasingly haranguing upon the eternity and dreadful nature of their punishments-- 153 who declare themselves the chosen ministers of their oracular laws-- who make all the duties of morality centre in themselves; 154 are those whom superstition least contributes to render virtuous; 155 are people who possess the least milk of human kindness; the fewest feelings of tenderness; 156 who are the most intolerant to their neighbours; the most indulgent to themselves; the most unsociable in their habits; the most licentious in their manners; the most unforgiving in their disposition.

157 In contemplating their conduct, we should be tempted to accredit, that they were perfectly undeceived with respect to the idols whom they serve; 158 that no one was less the dupe to those menaces which they so

solemnly pronounce in their name, than themselves.

159 In the hands of the priests of almost all countries, their divinities resembled the head of Medusa, which, without injuring you who showed it, petrified all others. 160 The priests are generally the most crafty of people, and many among them are substantively wicked. 161 Does the idea of these avenging, these remunerating systems, impose upon some princes of the earth, who found their titles, who rest their power upon them; 162 who avail themselves of their terrific power to intimidate their subjects; 163 to make the people, often rendered unhappy by their caprice, hold them in reverence? 164 Alas! the theological, the supernatural ideas, adopted by the pride of some sovereigns, have done nothing more than corrupt politics-- than metamorphose, them into an abject tyranny. 165 The ministers of these idols, always tyrants themselves, or the cherishers of despots, are unceasingly crying out to monarchs that they are the images of the Divinity. 166 Do they not inform the credulous multitude that heaven is willing they should groan under the most cruel bondage; writhe under the most multifarious injustice; 167 that to suffer is their inheritance; 168 that their princes have the indubitable right to appropriate the goods, dispose of the people, coerce the liberty; command the lives of their subjects? 169 Do not some of these chiefs of nations, thus poisoned in the name of deified idols, imagine that every indulgence of their wayward humour is freely permitted to them? 170 At once competitors, representatives, and rivals of the celestial powers, do they not, in some instances, exercise after their example the most arbitrary despotism? 171 Do they not, in the intoxication into which sacerdotal flattery has plunged them, think that like their idols, they are not accountable to human for their actions, 172 that they owe nothing to the rest of mortals, that they are bound by no bonds but their own unruly will, to their miserable subjects?

173 Then it is evident that it is to theological notions, to the loose flattery of its ministers, that are to be ascribed the despotism, 174 the tyrannical injustice, the corruption, the licentiousness of some princes, and the blindness of those people, to whom in heaven's name they interdict the love of liberty; 175 who are forbid to labour effectually to their own happiness; to oppose themselves to violence, however flagrant; 176 to exercise their natural rights, however conducive to their welfare. 177 These intoxicated rulers, even while adoring their avenging gods, in the act of bending others to their worship, 178 do not scruple to outrage them by their irregularities-- by their want of moral virtue.

179 What morality is this, but that of people who offer themselves as living images, as animated representatives of the Divinity? 180 Are those monarchs, then, who are habitually unjust, who wrest without remorse the bread from the hands of a famished people, 181 to administer to the profligacy of their insatiable courtiers-- to pamper the luxury of the vile instruments of their enormities, atheists? 182 Are, then, those ambitious conquerors, who not contented with oppressing their own slaves, carry desolation, spread misery, deal out death among the subjects of others, atheists? 183 Do we not witness in some of those potentates who rule over nations by divine right,-- a patent of power, which every usurper claims as their own-- 184 ambitious mortals, whose exterminating fury nothing can arrest; with hearts perfectly insensible to the sorrows of humankind; 185 with minds without energy; with souls without virtue; who neglect their most evident duties, with which they do not even deign to become acquainted; 186 powerful people, who insolently set themselves above the rules of equity; knaves who make a sport of honesty? 187 Generally speaking, is there the least sincerity in the alliances which these rulers form among themselves? 188 Do they ever last longer than for the season of their convenience? 189 Do we find substantive virtues adorn those who most abjectly submit

themselves to all the follies of superstition? 190 Do they not tax each other as violators of property-- as faithlessly aggrandising themselves at the expense of their neighbour; 191 in fact, do we not see them endeavouring to surprise, anxious to over-reach, ready to injure each other, without being arrested by the menaces of their creeds, or at all yielding to the calls of humanity? 192 In general, they are too haughty to be humane; too inflated with ambition to be virtuous; 193 they make a code for themselves, which they cannot help violating.

194 Charles the Fifth used to say, "that being a warrior, it was impossible for him to have either conscience or religion." 195 His general, the Marquis de Piscaire, observed, that "nothing was more difficult, than to serve at one and the same time, the god Mars and Jesus Christ." 196 Indeed, nothing can be more opposed to the true spirit of Christianity than the profession of arms; 197 notwithstanding the Christian princes have the most numerous armies, and are in perpetual hostility with each other: 198 perhaps the clergy themselves do not hold forth the most peaceable examples of the doctrine they teach; 199 they sometimes wrangle for tithes, dispute for trifling enjoyments, quarrel for worldly opinion, 200 with as much determined obstinacy, with as, much settled rancour, with as little charity, as could possibly inhabit the bosom of the most unenlightened.

201 Pagan, whose ignorance they despise-- whose superstition they rank as the grossest effort of idolatrous debasement. 202 It might almost admit of doubt whether they would be quite pleased to see the mild maxims of the Evangelists, the true Christian meekness, rigidly followed-- 203 whether they might not think the complete working of their own system would clash with their own immediate interests? 204 Is it a demonstrable axiom that the ministers of the Christian faith do not think soldiers are beings extremely well calculated to give efficacy to their doctrine-- solidity to their advantages-- durability to their

claims? 205 Be this as it may, priests as well as monarchs have occasionally waged war for the most futile interests; impoverished a people from the anti-Christian motives; 206 wrested from each other with all the venom of furies, the bloody remnant of the nations they have laid waste; 207 in fact, to judge by their conduct on certain occasions, it might have been a question if they were not disputing who should have the credit of making the greater number of miserable beings upon earth.

208 At length, either wearied with their own fury, exhausted by their own devouring passions, or compelled by the stern hand of necessity, they have permitted suffering humanity to take breath; 209 they have allowed the miseries concomitant on war, to cease for an instant their devastating havoc; 210 they have made peace in the name of that God, whose decrees, as attested by themselves, they have been so wantonly outraging,-- 211 still ready, however, to violate their most solemn pledges, when the smallest interest could offer them a pretext.

212 Thus it will be obvious, in what manner the idea of the Divinity operates on the priest, as well as upon those who are called His images; 213 who insist they have no account to render but to Him alone.

214 Among these representatives of the Divine Majesty, it is with difficulty during thousands of years we find some few who have equity, sensibility, virtue, or even the most ordinary talent. 215 History points out some of these vicegerents of the Deity, who in the exacerbation of their delirious rage, have insisted upon displacing Him, by exalting themselves into gods; 216 and exacting the most obsequious worship; 217 who have inflicted the most cruel torments on those who have opposed themselves to their madness, and refused to acknowledge the Divinity of their people. 218 These people, whose licentiousness knew no limits, from the impunity which attended their actions, 219 notwithstanding they had learned to despise public opinion, to

set decency at defiance, to indulge in the most shameless vice: 220 in spite of the power they possessed; of the homage they received; of the terror they inspired: 221 although they had learned to counterfeit, with great effect, the whole catalogue of human virtues; 222 found it impossible, even with the addition of their enormous wealth, wrenched from the necessities of labourious honesty, to counterfeit the animating blush, 223 which modest merit brings forth, when eulogised by some happy being whose felicity they have occasioned, 224 by following the great law of Nature-- which says, "love thy neighbour as thyself." 225 On the contrary, we see them grow listless with satiety; disgusted with their own inordinate indulgences; 226 obliged to recur to strange pleasures, to awaken their benumbed faculties; 227 to run headlong into the most costly follies, in the fruitless attempt to keep up the activity of their souls, 228 the spring of which they had for ever relaxed, by the profligacy of their enjoyment.

229 History, although it describes a multitude of vicious rulers, whose irregular propensities were of the most mischievous consequence to the human race, 230 nevertheless, shows us but few who have been atheists. 231 The annals of nations, on the contrary, offer to our view great numbers of superstitious princes, 232 governed by their mistresses, led by unworthy favourites, leagued with priests, who passed their lives plunged in luxury; 233 indulging the most effeminate pursuits; following the most childish pleasures; pleased with ostentatious show; 234 slaves even to the fashion of the vestments that covered them; but strangers to every humanly virtue; 235 insensible to the sorrows of their subjects; although uniformly good to their hungry courtiers, 236 invariably kind to those cringing sycophants who surrounded their people, and poisoned their ears with the most fulsome flattery: 237 in short, superstitious persecutors, who, to render themselves acceptable to their priests, to expiate their own shameful irregularities, added to all their other

vices that of tyrannising over the mind, 238 of fettering the conscience, of destroying their subjects for their opinions, when they were in hostility with their own received doctrines.

239 Indeed, superstition in princes frequently allied itself with the most horrid crimes; 240 they have almost all professed religion, although very few of them have had a just knowledge of morality-- have practiced any useful substantive virtue. 241 Superstitious notions, on the contrary, often serve to render them more blind, to augment their evil inclinations; 242 to set them at a greater distance from moral goodness. 243 They for the most part believe themselves assured of the favour of heaven; 244 they think they faithfully serve their gods, that the anger of their divinities is appeased, if for a short season they show themselves attached to futile customs-- 245 lend themselves to absurd rites-- perform some ridiculous duties, which superstition imposes on them, 246 with a view to obtain their assistance in the prosecution of its own plans, very rarely in strict unison with their immediate interest.

247 Nero, the cruel, sanguinary, matricidal Nero, his hands yet reeking with the blood of that unfortunate being who had borne him in her womb, 248 who had, with agonising pains, given the monster to the world that plunged the dagger in her heart, was desirous to be initiated into the Eleusinian Mysteries. 249 The odious Constantine himself, found in the priests, accomplices disposed to expiate his crimes. 250 The infamous Philip, whose ungovernable ambition caused him to be called the daemon of the south, whilst he assassinated his wife and son, 251 caused the throats of the wretched Batavians to be cut for their religious opinions. 252 It is thus, that the priests of superstition sometimes persuade sovereigns they can atone for crimes, by committing others of a more atrocious kind-- of an increased magnitude.

253 It would be fair to conclude, from the conduct of so many princes, who had so much superstition, but so slender a portion of virtue, 254 that

the notion of their gods, far from being useful to them, only served to render them more corrupt-- to make them more abominable than they already were; 255 that the idea of an avenging power, placed in the perspective of futurity, imposed but little restraint on the turbulence of deified tyrants, 256 who were sufficiently powerful not to fear the reproaches of their subjects-- who had the insensibility to be deaf to the censure of their fellows-- 257 who were gifted with an obduracy of soul, that prevented their having compassion for the miseries of humankind, from whom they fancied themselves so pre-eminently distinguished; 258 which, in fact, they were, if crime can be allowed for the standard of distinction.

259 Neither heaven nor earth furnishes a balsam of sufficient efficacy to heal the inveterate wounds of beings cankered to this degree: 260 for such chronic diseases, there is "no balm in Gilead:" 261 there is no curb sufficiently coercive to rein in the passions, to which superstition itself gives activity; which only makes them more unruly; renders them more inveterately rash. 262 Whenever people flatter themselves with easily expiating their sins-- 263 when they soothe themselves with the consolatory idea of appeasing the anger of the gods by a show of earnestness, 264 they then deliver themselves up, with the most unrestrained freedom, to the bent of their criminal pursuits. 265 The most dissolute people are frequently in appearance extremely attached to superstition: 266 it furnishes them with a means of compensating by ceremonies, that of which they are deficient in morals: 267 it is much easier for them to adopt a faith, to believe in a doctrine, to conform themselves to certain rituals, 268 than to renounce their habits, resist their passions, or relinquish the pursuit of that pleasure, 269 which results to unprincipled minds from the prosecution of the most diabolical schemes.

270 Under chiefs, depraved even by superstition, nations continued necessarily to be corrupted. 271 The great conformed themselves to the

vices of their masters; 272 the example of these distinguished people, whom the uninformed erroneously believe to be happy, was followed by the people; 273 courts thus became the sinks from whence issued the epidemic contagion of licentious indulgence. 274 The law only held forth pictures of honesty; 275 the dispensers of jurisprudence were partial, partook of the mania of the times, were labouring under the general disease; 276 Justice suffered her balance to rust, occasionally removed her bandage, although she always wore it in the presence of the poor; 277 genuine ideas of equity had grown into disuse; 278 distinct notions of right and wrong became troublesome and unfashionable; 279 education was neglected; it served only to produce prejudiced beings, grounded in ignorance-- 280 devotees, always ready to injure themselves-- fanatics, eager to show their zeal ever willing to annoy their unfortunate neighbours.

281 Superstition, sustained by tyranny, ousted every other feeling, hoodwinked its destined victims, rendered those tractable whom it had the intention to despoil. 282 Whoever doubts of these truisms, has only to turn over the pages of history, you will find myriads of evidence to much more than is here stated. 283 Machiavel, in his Political Discourses upon Titus Livius, labours the point hard, to show the utility of superstition to the Roman Republic: 284 unfortunately, however, the examples he brings forward in its support, incontestably prove that none but the senate profited by the infatuation of the people, 285 who availed itself of their blindness more effectually to bend them to its yoke.

286 Thus it was that nations, destitute of equitable laws, deficient in the administration of justice, submitted to irrational government, continued in slavery by the monarch, 287 chained up in ignorance by the priest, for want of enlightened institutions, deprived of reasonable education, became corrupt, superstitious, and flagitious. 288 The nature of human, the just interests of society, the real advantage of the sovereign, the true

happiness of the people, once mistaken, were completely lost sight of; 289 the morality of Nature, founded upon the essence of human living in society, was equally unknown; 290 lay buried under an enormous load of prejudice, that no common efforts were competent to remove.

291 It was entirely forgotten that human has wants; that society was formed that you might, with greater security, facilitate the means of satisfying them; 292 that government, to be legitimate, ought to have for object, the happiness--for end, the means of maintaining the indivisibility of the community; 293 that consequently it ought to give activity to springs, full play to motives suitable to have a favourable influence over sensible beings. 294 It was quite overlooked, that virtue faithfully rewarded, vice as regularly visited, had an elastic force, 295 of which the public authorities could efficaciously avail themselves, to determine their citizens to blend their interests; 296 to work out their own felicity, by labouring to the happiness of the body of which they were members. 297 The social virtues were unknown, the 'amor patriae' became a chimera. 298 People thus associated, thus blinded by their superstitious bias, credulously believed their own immediate interest consisted in injuring each other; 299 they were solely occupied with meriting the favour of those people, who fatally accredited the doctrine of clerical flatterers, 300 of silver-toned courtiers, which taught that they were more distinctly interested in injuring the whole.

301 This is the mode in which the human heart has become perverted; here is the genuine source of moral evil; 302 the hot-bed of that epidemical depravity, the cause of that hereditary corruption, the fountain of that inveterate delinquency, which pervaded the earth; 303 rendering the abundance of Nature nothing better than a curse; 304 blasting the fairest prospects of humanity; degrading human below the beast of the forest; sinking your intellectual faculties in the most savage barbarity; 305 rendering you

the vile instrument of lawless ambition; the wretched tool by which the fetters of your species were firmly riveted; 306 obliging you to moisten your harvest with the bitter tears of the most abject slavery.

307 For the purpose of remedying so many crying evils, grown insupportable, recourse was had to new superstitions. 308 Notwithstanding this alone had produced them, it was still imagined, that the menaces of heaven would restrain passions which everything conspired to rouse in all hearts; 309 fatuity persuaded monarchs that ideal, metaphysical barriers, terrible fables, distant phantoms, would be competent to curb those inordinate desires, 310 to rein in that impetuous propensity to crime, that rendered society incommodious to itself; 311 credulity fancied that invisible powers would be more efficacious, than those visible motives that evidently invited mortals to the commission of mischief. 312 Everything was understood to be achieved, by occupying human's mind with gloomy chimeras, with vague, indefinable terrors, with avenging angels; 313 and politics madly believed that its own interests grew out of the blind submission of its subjects, to the ministers of these delusive doctrines.

314 What was the result? Nations had only sacerdotal laws; theological morality; 315 accommodated to the interests of the hierarchy-- suitable to the views of subtle priests: 316 who substituted reveries for realities, opinions for reason, rank fallacies for sterling truths; 317 who made ceremonies supply the place of virtue; 318 a pious blindness supersede the necessity of an enlightened understanding; 319 undermined the sacredness of oaths, and placed fanaticism on the altars of sociability. 320 By a necessary consequence of that confidence which the people were compelled to give to the ministers of superstition, 321 two distinct authorities were established in each state, who were substantially at variance, in continual hostility with each other.

322 The priest fought the sovereign with the formidable weapon of

opinion; 323 it generally proved sufficiently powerful to shake the most established thrones. 324 Thus, although the hierarchy was unceasingly admonishing the people to submit themselves to the divine authority of their sovereigns, because it was derived immediately from heaven, 325 yet, whenever it so happened that the monarch did not repay their advocacy, 326 by blindly yielding their own authority to the supervisance of the priests, 327 these made no scruple of threatening them with loss of their temporalities; 328 fulminated their anathemas, interdicted their dominions, and sometimes went the length of absolving their subjects from allegiance. 329 Superstition, in general, only upholds despotism, that it may with greater certainty direct its blows against its enemies; 330 it overthrows it whenever it is found to clash with its interests. 331 The ministers of invisible powers preach up obedience to visible powers, only when they find these humbly devoted to themselves.

332 Thus the sovereign was never at rest, but when abjectly cringing to their priest, they tractably received their lessons-- 333 lent themselves to their frantic zeal-- and piously enabled them to carry on the furious occupation of proselytism. 334 These priests, always restless, full of ambition, burning with intolerance, frequently excited the sovereign to ravage their own states-- encouraged them to tyranny: 335 when, pursuing this sacerdotal mania, they feared to have outraged humanity, to have incurred the displeasure of heaven, 336 they were quickly reconciled to themselves, upon promise of undertaking some distant expedition, 337 for the purpose of bringing some unfortunate nation within the pale of their own particular creed. 338 When the two rival powers united themselves, morality gained nothing by the junction; 339 the people were neither more happy, nor more virtuous; their morals, their welfare, their liberty, were equally overwhelmed by the combined powers.

340 Thus, superstitious princes always felt interested in the maintenance of theological opinions, 341 which were rendered flattering to their vanity, favourable to their power. 342 Like the grateful perfumes of Arabia, that are used to cover the ill scent of a deadly poison, the priest lulled them into security by administering to their sensualities; 343 these, in return, made common cause with them: 344 fully persuaded that the superstition which they themselves adopted, must be the most wholesome for their subjects, most conducive to their interests, 345 those who refused to receive the boon, thus gratuitously forced upon them, were treated as enemies, 346 held up to public scorn, and rendered the victims of punishment.

347 The most superstitious sovereign became, either politically or through piety, the executioner of one part of own slaves; 348 they were taught to believe it a sacred duty to tyrannise over the mind-- to overwhelm the refractory-- 349 to crush the enemy of their priest, under an idea that they were therefore hostile to their own authority. 350 In cutting the throats of these unfortunate sceptics, they imagined they at once discharged their obligations to heaven, and gave security to their own power. 351 They did not perceive, that by immolating victims to their priest, they in fact strengthened the arm of their most formidable foe-- 352 the real enemy to their authority-- the rival of their greatness-- the least subjected of their subjects.

353 But the prevalence of these false notions, with which both the minds of the sovereign and the people were prepossessed, 354 it was found that everything in society concurred to gratify the avidity, to bolster the pride, to glut the vengeance of the sacerdotal order: 355 everywhere, it was to be observed, that the most turbulent, the most dangerous, the most useless people, were those who were the most amply rewarded. 356 The strange spectacle presented itself, of beholding those who were born the bitterest enemies to sovereign power, cherished by its fostering care--honoured at its hands: 357 the most rebellious subjects were

looked upon as the pillars of the throne; 358 the corrupters of the people were rendered the exclusive masters of education; 359 the least labourious of the citizens were richly rewarded for their idleness-- 360 munificently remunerated for the most futile speculations-- held in respect for their fatal discord-- gorged with benefits for their inefficacious prayers: 361 they swept off the fat of the land for their expiations, so destructive to morals, so calculated to give permanency to crime. 362 Thus, by a strange fatuity, the viper that could, and frequently did, inflict the most deadly sting on the bosom of confiding credulity, 363 was pampered and nourished by the unsuspecting hand of its destined victim.

364 For thousands of years, nations as well as sovereigns were emulously despoiling themselves to enrich the expounders of superstition; 365 to enable them to wallow in abundance: they loaded them with honours, 366 decorated them with titles, invested them with privileges, granted them immunities, 367 for no other purpose than to make them bad citizens, unruly subjects, mischievous beings, who revenged upon society the advantages they had received. 368 What was the fruit that kings and people gathered from their imprudent kindness? What was the harvest these men yielded to their labour? 369 Did princes really become more powerful; were nations rendered more happy; did they grow more flourishing; did people become more rational?

370 No! Unquestionably, the sovereign lost the greater portion of their authority; they were the slave of their priests; 371 and when they wished to preserve the remnant that was left, or to recover some part of what had been wrested from them, 372 they were obliged to be continually wrestling against the people their own indulgence, their own weakness, had furnished with means, to set their authority at defiance: 373 the riches of society were lavished to support the idleness, maintain the splendour, 374 satiate the luxury of the most useless, the

most arrogant, the most dangerous of its members.

375 Did the morals of the people improve under the pastoral care of these guides, who were so liberally rewarded? 376 Alas! the superstitious never knew them, their fanatic creed had usurped the place of every virtue; 377 its ministers, satisfied with upholding the doctrines, with preserving the ceremonies so useful to their own interests, 378 only invented fictitious crimes--multiplied painful penances--instituted absurd customs; 379 to the end, that they might turn even the transgressions of their slaves to their own immediate profit. 380 Every where they exercised a monopoly of expiatory indulgences; they made a lucrative traffic of pretended pardons from above; 381 they established a tariff, according to which crime was no longer contraband, but freely admitted upon paying the customs. 382 Those subjected to the heaviest impost, were always such as the hierarchy judged most inimical to its own stability; 383 you might at a very easy rate obtain permission to attack the dignity of the sovereign, to undermine the temporal power, 384 but it was enormously dear to be allowed to touch even the hem of the sacerdotal garments.

385 Thus heresy, sacrilege, were considered crimes of a much deeper dye, that fixed an indelible stain on the perpetrator, 386 alarmed the mind of the priestly order, much more seriously than the most inveterate villainy, the most determined delinquency, which more immediately involved the true interests of society. 387 Thence the ideas of the people were completely overturned, imaginary crimes terrified them, while real crimes had no effect upon their obdurate hearts. 388 A person, whose opinions were at variance with the received doctrines, whose abstract systems did not harmonise with those of their priests, was more loathed than a corrupter of youth; 389 more abhorred than an assassin; more hated than an oppressor; was held in greater contempt than a robber; was punished with greater rigour than the seducer of innocence.

390 The acme of all wickedness, was to despise that which the priest was desirous should be looked upon as sacred. 391 The celebrated Gordon says, "the most abominable of heresies, is to believe there is any other god than the clergy." 392 The civil laws concurred to aid this confusion of ideas; they inflicted the most serious penalties, 393 punished in the most atrocious manner those unknown crimes which imagination had magnified into the most flagitious actions; 394 heretics, infidels, were brought to the stake, and publicly burnt with the utmost refinement of cruelty; 395 the brain was tortured to find means of augmenting the sufferings of the unhappy victims to sacerdotal fury; 396 whilst calumniators of innocence, adulterers, depredators of every description, knaves of all kinds, were at a trifling cost absolved from their past iniquity, and opened a new account of future delinquency. 397 Under such instructors what could become of youth? The period of juvenility was shamefully sacrificed to superstition.

398 Human, from your earliest infancy, was poisoned with unintelligible notions; 399 fed with mysteries; crammed with fables; drenched with doctrines, in which you was compelled to acquiesce without being able to comprehend. 400 Your brain was disturbed with phantoms, alarmed with chimeras, rendered frantic by visions. 401 Your genius was cramped with puerile pursuits, mechanical devotions, sacred trifles. 402 Superstition at length so fascinated the human mind, made such mere automata of humankind, 403 that the people consented to address their gods in a dialect they did not themselves understand: 404 women occupied their whole lives in singing Latin, without comprehending a word of the language; 405 the people assisted very punctually, without being competent to explain any part of the worship, under an idea that it was taken kindly they should thus weary themselves; 406 that it was sufficient to show their people in the sacred temples, which were beautifully decorated to fascinate their senses.

407 Thus human wasted their most precious moments in absurd customs; spent their life in idle ceremonies; 408 your bead was crowded with sophisms, your mind was loaded with errors; intoxicated with fanaticism, you was the declared enemy to reason; 409 forever prepossessed against truth, the energy of your soul was resisted by shackles too ponderous for its elasticity; 410 the spring gave way, and you sunk into sloth and wretchedness: 411 from this humiliating state you could never again soar; you could no longer become useful either to yourself or to your associates: 412 the importance you attached to your imaginary science, or rather the systematic ignorance which served for its basis, 413 rendered it impossible for the most fertile soil to produce anything but thorns; for the best proportioned tree to yield anything but crabs.

414 Does a superstitious, sacerdotal education, form intrepid citizens, intelligent fathers of families, kind husbands, just masters, faithful servants, loyal subjects, pacific associates? 415 No! it either makes peevish enthusiasts or morose devotees, who are incommodious to themselves, vexatious to others: 416 people without principle, who quickly pour the waters of Lethe over the terrors with which they have been disturbed; who know no moral obligation, who respect no virtue. 417 Thus superstition, elevated above everything else, held forth the fanatical dogma, "Better to obey the gods than humans;" 418 in consequence, human believed you must revolt against your prince, detach yourself from your wife, detest your children, 419 estrange yourself from your friends, cut the throats of your fellow-citizens, every time they questioned the veracity of your faith: 420 in short, a superstitious education, when it had its effect, only served to corrupt the juvenile heart-- 421 to fascinate youthful winds with its pageantry-- to degrade the human soul-- 422 to make human mistake the duties you owed to yourself, your obligations to society, your relations with the beings by whom you was surrounded.

NATURE

423 What advantages might not nations have reaped, if they would have employed on useful objects, those riches, which ignorance has so shamefully lavished on the expounders of superstition; 424 which fatuity has bestowed on the most useless ceremonies? 425 What might not have been the progress of genius, if it had enjoyed those ample remunerations, 426 granted during so many ages to those priests who at all times opposed its elevation? 427 What perfection might not science have attained, what height might not the arts have reached, 428 if they had had the same succours that were held forth with a prodigal hand to enthusiasm and futility? 429 Upon what rocks might not morality have been rested, what solid foundations might not politics have found, with what majestic grandeur might not truth have illumined the human horizon, 430 if they had experienced the same fostering cares, the same animating countenance, the same public sanction, which accompanied imposture-- 431 which was showered upon fanaticism-- which shielded falsehood from the rude attack of investigation-- which gave impunity to its ministers?

432 It is then obvious, that superstitious, theological notions, have not produced any of those solid advantages that have been held forth; 433 if may be doubted whether they were not always, and ever will remain, contrary to healthy politics, opposed to sound morality; 434 they frequently change sovereigns into restless, jealous, mischievous, divinities; 435 they transform their subjects into envious, wicked slaves, 436 who by idle pageantry, by futile ceremonies, by an exterior acquiescence in unintelligible opinions, imagine themselves amply compensated for the evil they commit against each other. 437 Those who have never had the confidence to examine these sublimated opinions; 438 those who feel persuaded that their duties spring out of these abstruse doctrines; 439 those who are actually commanded to live in peace, to cherish each other, to lend mutual assistance, to abstain from evil, and to do good, 440

presently lose sight of these sterile speculations, as soon as present interests, ungovernable passions, inveterate habits, or irresistible whims, hurry them away.

441 Where are we to look for that equity, that union of interest, that peace, that concord, 442 which these unsettled notions, supported by superstition, backed with the full force of authority, promise to the societies placed under their surveillance? 443 Under the influence of corrupt courts, of time-serving priests, who, either impostors or fanatics, are never in harmony with each other, 444 are only to be discerned vicious people, degraded by ignorance-- enslaved by criminal habits-- swayed by transient interests-- guided by shameful pleasures-- 445 sunk in a vortex of dissipation; who do not even think of the Divinity.

446 In despite of their theological ideas, the subtle courtier continues to weave their dark plots, labours to gratify their ambition, seeks to satisfy their avidity, to indulge their hatred, to wreak their vengeance, 447 to give full swing to all the passions inherent to the perversity of their being: 448 maugre that frightful hell, of which the idea alone makes her tremble, the woman of intrigue persists in her amours; continues her harlotry, revels in her adulteries. 449 Notwithstanding their dissipated conduct, their dissolute manners, their entire want of moral principle, 450 the greater part of those who swarm in courts, who crowd in cities, would recoil with horror, if the smallest doubt was exhibited of the truth of that creed which they outrage every moment of their lives.

451 What advantage, then, has resulted to the human race from those opinions, so universal, at the same time so barren? 452 They seem rarely to have had any other kind of influence than to serve as a pretext for the most dangerous passions-- as a mantle of security for the most criminal indulgences. 453 Does not the superstitious despot, who would scruple to omit the least part of the ceremonies of own persuasion, 454 on quitting the altars at which the despot been sacrificing, on leaving the

temple where they have been delivering the oracles and terrifying crime in the name of heaven, 455 return to own vices, reiterate own injustice, increase own political crimes, augment own transgressions against society? 456 Issuing from the sacred fane, their ears still ringing with the doctrines they have heard, 457 the minister returns to own vexations, the courtier to own intrigues, the courtezan to own prostitution, the publican to own extortions, the merchant to own frauds, the trader to own tricks.

458 Will it be pretended that those cowardly assassins, those dastardly robbers, those miserable criminals, whom evil institutions, the negligence of government, the laxity of morals, continually multiply; 459 from whom the laws, in many instances too sanguinary, frequently wrest their existence; 460 will it, I say, be pretended that the malefactors who regularly furnish the gibbets, who daily crowd the scaffolds, are either incredulous or atheists? 461 No! Unquestionably, these unfortunate beings, these wretched outcasts, these children of turpitude, firmly believe in God; 462 His name has been repeated to them from their infancy; they have been informed of the punishment destined for sinners: they have been habituated in early life to tremble at His judgments; 463 nevertheless they have outraged society; their unruly passions, stronger than their fears, not having been coerced by visible motives, have not, for much more cogent reasons, been restrained by those which are invisible: 464 distant, concealed punishments will never be competent to arrest those excesses which present and assured torments are incapable of preventing.

465 In short, does not every day's experience furnish us the lesson, that people, persuaded that an all-seeing Deity views them, hears them, encompasses them, do not on that account arrest their progress when the furore exists, 466 either for gratifying their licentious passions, or committing the most dishonest actions? 467 The same individual who would fear the inspection of the meanest of own fellows, whom the

presence of another person would prevent from committing a bad action, from delivering the self up to some scandalous vice, 468 freely sins, cheerfully lends the self to crime, when you believes no eyes beholds you but those of your God. 469 What purpose, then, does the conviction of the omniscience, the ubiquity, the omnipotence of the Divinity answer, 470 if it imposes much less on the conduct of the human being, than the idea of being overlooked by the least of own fellow humans? 471 You who would not have the temerity to commit a crime, even in the presence of a child, will make no scruple of boldly committing it, when you shall have only your God for a witness. 472 These facts, which are indubitable, ill serve for a reply to those who insist that the fear of God is more suitable to restrain the actions of people, than wholesome laws, with strict discipline. 473 When human believes you have only your God to dread, you commonly permits nothing to interrupt your course.

474 Those people who do not in the least suspect the power of superstitious notions, who have the most perfect reliance on their efficacy, very rarely, however, employ them, 475 when they are desirous to influence the conduct of those who are subordinate to them; when they are disposed to re-conduct them to the paths of reason. 476 In the advice which a father gives to own vicious, criminal son, he rather represents to him the present temporal inconveniences to which his conduct exposes him, than the danger he encounters in offending an avenging God; 477 he points out to him the natural consequences of his irregularities, his health damaged by debaucheries; 478 the loss of his reputation by criminal pursuits; the ruin of his fortune by gambling; the punishments of society. 479 Thus the DEICOLIST himself, on the most important occasions of life, reckons more steadfastly upon the force of natural motives, than upon those supernatural inducements furnished by superstition: 480 the same person, who vilifies the motives that an

atheist can have to do good and abstain from evil, makes use of them yourself on this occasion, because you feels they are the most substantive you can employ.

481 Almost all people believe in an avenging and remunerating God; yet nearly in all countries the number of the wicked bears a larger proportion than that of the good. 482 If the true cause of this general corruption be traced, it will be more frequently found in the superstitious notions inculcated by theology, than in those imaginary sources which the various superstitions have invented to account for human depravity. 483 Human is always corrupt wherever you are badly governed; 484 wherever superstition deifies the sovereign, your government becomes unworthy: this perverted and assured of impunity, necessarily render your people miserable; 485 misery, when it exceeds the point of endurance, as necessarily renders them wicked. 486 When the people are submitted to irrational masters, they are never guided by reason. 487 If they are blinded by priests, who are either deceived or impostors, their reason become useless. 488 Tyrants, when combined with priests, have generally been successful in their efforts to prevent nations from becoming enlightened-- 489 from seeking after truth-- from ameliorating their condition-- from perfectioning their morals; and never has the union smiled upon liberty: 490 the people, unable to resist the mighty torrent produced by the confluence of two such rivers, have usually sunk into the most abject slavery.

491 It is only by enlightening the mass of humankind, by demonstrating truth, that we can promise to render you better; that we can indulge the hope of making you happy. 492 It is by causing both sovereigns and subjects to feel their true relations with each other, that their actual interests will be improved; that their politics will be perfectioned: 493 it will then be felt and accredited, that the true art of governing mortals, the sure method of gaining their affections, is not the art of blinding them, of deceiving

them, or of tyrannising over them. 494 Let us, then, good humorously consult reason, avail ourselves of experience, interrogate Nature; 495 we shall, perhaps, find what is requisite to be done, in order to labour efficaciously to the happiness of the human race. 496 We shall most assuredly perceive, that error is the true source of the evils which embitter our existence; 497 that it is in cheering the hearts, in dissipating those vain phantoms which alarm the ignorant, in laying the axe to the root of superstition, that we can peaceably seek after truth; 498 that it is only in the conflagration of this baneful tree, we can ever expect to light the torch which shall illumine the road to felicity. 499 Then let human study Nature; observe Her immutable laws; 500 let you dive into your own essence; let you cure yourself of your prejudices: 501 these means will conduct you by a gentle declivity to that virtue, without which you must feel you can never be permanently happy in the world you inhabits.

502 If human could once cease to fear, from that moment you would be truly happy. 503 Superstition is a domestic enemy which you always carries within yourself: 504 those who will seriously occupy themselves with this formidable phantom, must be content to endure continual agonies, to live in perpetual inquietude: 505 if they will neglect the objects most worthy of interesting them, to run after chimeras, they will commonly pass a melancholy existence, 506 in groaning, in praying, in sacrificing, in expiating faults, either real or imaginary, which they believe calculated to offend their priests; 507 frequently in their irrational fury they will torment themselves, they will make it a duty to inflict on their own people the most barbarous punishments: 508 but society will reap no benefit from these mournful opinions-- from the tortures of these pious irrationals; 509 because their mind, completely absorbed by their gloomy reveries, their time dissipated in the most absurd ceremonies, will leave them no

opportunity of being really advantageous to the community of which they are members. 510 The most superstitions people are commonly misanthropists, quite useless to the world, and very injurious to themselves: 511 if ever they display energy, it is only to devise means by which they can increase their own affliction; to discover new methods to torture their mind; 512 to find out the most efficacious means to deprive themselves of those objects which their nature renders desirable.

513 It is common in the world to behold penitents, who are intimately persuaded that by dint of barbarous infliction on their own people, by means of a lingering suicide, they shall merit the favour of heaven. 514 Mad-people of this species are to be seen everywhere; superstition has in all ages, in all places, given birth to the most cruel extravagances, to the most injurious follies. 515 If, indeed, these irrational devotees only injure themselves, and deprive society of that assistance which they owe to it, they without doubt do less mischief than those turbulent, zealous fanatics, 516 who, infuriated with their superstitious ideas, believe themselves bound to disturb the world, to commit actual crimes, to sustain the cause of what they denominate the true faith. 517 It not infrequently happens that in outraging morality, the zealous enthusiast supposes you renders yourself agreeable to your God. 518 You makes perfection consist either in tormenting yourself, or in rending asunder, in favour of your fanatical ideas, the most sacred ties that connect mortals with each other.

519 Let us, then, acknowledge, that the notions of superstition, are not more suitable to procure the welfare, to establish the content, to confirm the peace of individuals, than they are of the society of which they are members. 520 If some peaceable, honest, inconclusive enthusiasts, find either comfort or consolation in them, there are millions who, more conclusive to their principles, are unhappy during their whole life; 521 who are perpetually assailed by the most melancholy ideas; to whom

their disordered imagination shows these notions, as every instant involving them in the most cruel punishments. 522 Under such formidable systems, a tranquil, sociable devotee, is a person who has not reasoned upon them. 523 In short, everything serves to prove, that superstitious opinions have the strongest influence over people; 524 that they torment them unceasingly, divide them from their dearest connections, inflame their minds, envenom their passions, render them miserable without ever restraining their actions, 525 except when their own temperament proves too feeble to propel them forward: 526 all this holds forth one great lesson, that superstition is incompatible with liberty, and can never furnish good citizens.

THEOLOGICAL NOTIONS CANNOT BE THE BASIS OF MORALITY

Paul Henri Thiery (Baron D'Holbach)

52 Felicity is the great end of human existence; a supposition therefore, to be actually useful to human, should render you happy. 2 By what parity of reasoning can you flatter yourself that an hypothesis, which does not facilitate your happiness in your present duration, may one day conduct you to permanent bliss? 3 If mortals only sigh, tremble, and groan in this world, of which they have a knowledge, upon what foundation is it they expect a more felicitous existence hereafter, in a world of which they know nothing? 4 If human is everywhere the child of calamity, the victim to necessary evil, the unhappy sufferer under an immutable system, ought you reasonably to indulge a greater confidence in future happiness?

5 On the other hand, a supposition which should throw light on everything, which should supply an easy solution to all the questions to which it could be applied, when even it should not be competent to demonstrate the certitude, would probably be true: 6 but that system which should only obscure the clearest notions, render more

insoluble the problems desired to be resolved by its means, 7 would most assuredly be looked upon as fallacious; as either useless or dangerous. 8 To be convinced of this principle, let us examine, without prejudice, if the theological ideas of the Divinity have ever given the solution to any one difficulty. 9 Has the human understanding progressed a single step by the assistance of this metaphysical science? 10 Has it not, on the contrary, had a tendency to obscure the more certain science of morals? 11 Has it not, in many instances, rendered the most essential duties of our nature problematical? 12 Has it not in a great measure confounded the notions of virtue and vice, of justice and injustice?

13 Indeed, what is virtue, in the eyes of the generality of theologians? They will instantly reply, "that which is conformable to the will of the incomprehensible beings who govern Nature." 14 But may it not be asked, without offence to the individual opinions of any one, what are these beings, of whom they are unceasingly talking, without having the capacity to comprehend them? 15 How can we acquire a knowledge of their will? They will forthwith reply, with a confidence that is meant to strike conviction on uninformed minds, by recounting what they are not, without even attempting to inform us what they are. 16 If they do undertake to furnish an idea of them, they will heap upon their hypothetical beings a multitude, of contradictory, incompatible attributes, 17 with which they will form a whole, at once impossible for the human mind to conceive or else they will refer to oracles, by which they insist their intentions have been promulgated to humankind. 18 If, however, they are requested to prove the authenticity of these oracles, which are at such variance with each other, they will refer to miracles in support of what they assert: 19 these miracles, independent of the difficulty there must exist to repose in them our faith, when, as we have seen, they are admitted even by the theologians themselves, 20 to be contrary to the intelligence, the immutability, to the omnipotency of

their immaterial substances, 21 are, moreover, warmly disputed by each particular sect, as being impositions, practised by the others for their own individual advantage. 22 As a last resort, then, it will be necessary to accredit the integrity, to rely on the veracity, to rest on the good faith of the priests, who announce these oracles.

23 On this again, there arises two almost insuperable difficulties, in the first place, who shall assure us of their actual mission? 24 Are we quite certain none of them may be mistaken? How shall we be justified in giving credence to their powers? 25 Are they not these priests themselves, who announce to us that they are the infallible interpreters of a being whom they acknowledge they do not at all know? 26 In the second place, which set of these oracular developments are we to adopt? 27 For to give currency to the whole, would, in point of fact, annihilate them entirely; seeing, that no two of them run in unison with each other. 28 This granted, the priests, that is to say, people extremely suspicious, but little in harmony with each other, will be the arbiters of morality; 29 they will decide-- according to their own uncertain knowledge, after their various passions, in conformity to the different perspectives under which they view these things,-- on the whole system of ethics; 30 upon which absolutely rests the repose of the world-- the sterling happiness of each individual. 31 Would this be a desirable state? would it be that from which humanity has the best founded prospect of that felicity, which is the desired object of your research?

32 Again; do we not see that either enthusiasm or interest is the only standard of their decisions? That their morals are as variable as their caprice? 33 Those who listen to them, very rarely discover to what line they will adhere. 34 In their various writings, we have evidence of the most bitter animosities; we find continual contradictions; endless disputes upon what they themselves acknowledge to be the most essential points; 35 upon those premises, in the substantive proof of which their

whole system depends; 36 the very beings they depict as their source of their various creeds, are portrayed as variable as themselves; as frequently changing their plans as these are their arguments. 37 What results from all this to a rational person? It will be natural for you to conclude, that neither inconstant gods, nor vacillating priests, whose opinions are more fluctuating than the seasons, can be the proper models of a moral system, 38 which should be as regular, as determinate, as invariable as the laws of Nature Herself; as that eternal march, from which we never see Her derogate. 39 No! Arbitrary, inconclusive, contradictory notions, abstract, unintelligible speculations, can never be the sterling bases of the ethical science! 40 They must be evident, demonstrable principles, deduced from the nature of human, founded upon your wants, inspired by rational education, rendered familiar by habit, made sacred by wholesome laws, 41 that will flash conviction on our mind, render systems useful to humankind, make virtue dear to us-- 42 that will people nations with honest people-- fill up the ranks with faithful subjects-- crowd them with intrepid citizens.

43 Incomprehensible beings can present nothing to our imagination, save vague ideas, which will never embrace any common point of union amongst those who shall contemplate them. 44 If these beings are painted as terrible, the mind is led astray; if changeable, it always precludes us from ascertaining the road we ought to pursue. 45 The menaces held forth by those, who, in despite of their own assertions, say they are acquainted with the views, with the determination of these beings, will seldom do more than render virtue unpleasant; 46 fear alone will then make us practise with reluctance, that which reason, which our own immediate interest, ought to make us execute with pleasure. 47 The inculcation of terrible ideas will only serve to disturb honest people, without in the least arresting the progress of the profligate, or diverting the course of the flagitious: 48 the greater number of people,

when they shall be disposed to sin, to deliver themselves up to vicious propensities, will cease to contemplate these terrific ideas, will only behold a merciful God, 49 who is filled with goodness, who will pardon the transgressions of their weakness. 50 Human never views things but on that side which is most conformable to own desires.

51 The goodness of God cheers the wicked; His rigour disturbs the honest person. 52 Thus, the qualities with which theology clothes its immaterial substances, themselves turn out disadvantageous to sound morality. 53 It is upon this infinite goodness that the most corrupt people will have the audacity to reckon, when they are either hurried along by crime, or given up to habitual vice. 54 If, then, they are reminded of their criminal courses, they reply, "God is good, His mercy is infinite, His clemency boundless:" 55 thus it may be said that religion itself is pressed into the service of vice, by the children of turpitude. 56 Superstition, above all, rather abets crime than represses it, by holding forth to mortals that by the assistance of certain ceremonies, the performance of certain rites, the repetition of certain prayers, aided by the payment of certain sums of money, 57 they can appease the anger of their gods, assuage the wrath of heaven, wash out the stains of their sins, and be received with open arms into the happy number of the elect-- be placed in the blissful abodes of eternity. 58 In short, do not the priests of superstition universally affirm, that they possess infallible secrets, for reconciling the most perverse to the pale of their respective systems?

59 It must be concluded from this, that however these systems are viewed, in whatever manner they are considered, they cannot serve for the basis of morality, which in its very nature is formed to be invariably the same. 60 Irascible systems are only useful to those who find an interest in terrifying the ignorance of humankind, that they may advantage themselves of your fears-- profit by your expiations. 61 The nobles of the earth, who are frequently people not

gifted with the most exemplary morals-- 62 who do not on all occasions exhibit the most perfect specimens of self-denial-- 63 who would not, perhaps, be at all times held up as mirrors of virtue, 64 will not see these formidable systems, when they shall be inclined to listen to their passions; to lend themselves to the indulgence of their unruly desires: 65 they will, however, feel no repugnance to make use of them to frighten others, to the end that they may preserve unimpaired their superiority; 66 that they may keep entire their prerogatives; that they may more effectually bind them to servitude. 67 Like the rest of humankind, they will see their God under the traits of His benevolence; 68 they will always believe Him indulgent to those outrages they may commit against their fellows, provided they show due respect for Him themselves: 69 superstition will furnish them with easy means to turn aside His Wrath; its ministers seldom omit a profitable opportunity, to expiate the crimes of human nature.

70 Morality is not made to follow the caprices of the imagination, the fury of the passions, the fluctuating interests of people: 71 it ought to possess stability; to be at all times the same, for all the individuals of the human race; 72 it ought neither to vary in one country, nor in one race from another: 73 neither superstition nor religion, has a privilege to make its immutability subservient to the changeable laws of their systems. 74 There is but one method to give ethics this solidity; it has been more than once pointed out in the course of this work: 75 it is only to be founded upon the nature of human, bottomed upon your duties, rested upon the relations subsisting between intelligent beings, 76 who are in love with their happiness, who are occupied with their own preservation, who live together in society that they may with greater facility ascertain these ends. 77 In short we must take for the basis of morality the necessity of things.

78 In weighing these principles, which are self evident, confirmed by constant experience, approved by

reason, drawn from Nature Herself, we shall have an undeviating tone of conduct; a sure system of morality, that will never be in contradiction with itself. 79 Human will have no occasion to recur to theological speculations to regulate own conduct in the visible world. 80 We shall then be capacitated to reply to those who pretend that without them there can be no morality. 81 If we reflect upon the long tissue of errors, upon the immense chain of wanderings, that flow from the obscure notions these various systems hold forth-- of the sinister ideas which superstition in all countries inculcates; 82 it would be much more conformable to truth to say, that all sound ethics, all morality, either useful to individuals or beneficial to society, is totally incompatible with systems which never represent their gods but under the form of absolute monarchs, whose good qualities are continually eclipsed by dangerous caprices. 83 Consequently, we shall be obliged to acknowledge, that to establish morality upon a steady foundation, we must necessarily commence by at least quitting those chimerical systems 84 upon which the ruinous edifice of supernatural morality has hitherto been constructed, which during such a number of ages, has been so uselessly preached up to a great portion of the inhabitants of the earth.

85 Whatever may have been the cause that placed human in own present abode, that gave you the faculties you possesses; 86 whether the human species be considered as the work of Nature, or whether it be supposed that you owes your existence to an intelligent being, distinguished from Nature; 87 the existence of human, such as you are, is a fact; we behold in you a being who thinks, who feels, who has intelligence, who loves the self, who tends to your own conservation, 88 who in every moment of your duration strives to render your existence agreeable; 89 who, the more easily to satisfy own wants and to procure yourself pleasure, congregates in society with beings similar to yourself; 90 of whom your conduct can either conciliate the

favour, or draw upon you the disaffection. 91 It is, then, upon these general sentiments, inherent in your nature, which will subsist as long as your race shall endure, that we ought to found morality; which is only a science embracing, the duties of people living together in society.

92 These duties have their spring in our nature, they are founded upon our necessities, because we cannot reach the goal of happiness, if we do not employ the requisite means: these means constitute the moral science. 93 To be permanently felicitous, we must so comport ourselves as to merit the affection, so act as to secure the assistance of those beings with whom we are associated; 94 these will only accord us their love, lend us their esteem, aid us in our projects, labour to our peculiar happiness, but in proportion as our own exertions shall be employed for their advantage. 95 It is this necessity, flowing naturally out of the relations of humankind, that is called MORAL OBLIGATION. 96 It is founded upon reflection, rested upon those motives competent to determine sensible, intelligent beings, to pursue that line of conduct, which in best calculated to achieve that happiness towards which they are continually verging. 97 These motives in the human species, never can be other than the desire, always regenerating, of procuring good and avoiding evil. 98 Pleasure and pain, the hope of happiness, or the fear of misery, are the only motives suitable to have an efficacious influence on the volition of sensible beings. 99 To impel them towards this end, it is sufficient these motives exist and be understood to have a knowledge of them, it is only requisite to consider our own constitution: 100 according to this, we shall find we can only love those actions, approve that conduct, from whence result actual and reciprocal utility; this constitutes VIRTUE. 101 In consequence, to conserve ourselves, to make our own happiness, to enjoy security, we are compelled to follow the routine which conducts to this end; 102 to interest others in our own preservation, we are obliged to display an interest in theirs; 103 we

must do nothing that can have a tendency to interrupt that mutual co-operation which alone can lead to the felicity desired. Such is the true establishment of moral obligation.

104 Whenever it is attempted to give any other basis to morality than the nature of human, we shall always deceive ourselves; none other can have the least stability; none can be more solid. 105 Some authors, even of great integrity, have thought, that to give ethics more respectability in the eyes of human, to render more inviolable those duties which your nature imposes on you, 106 it was needful to clothe them with the authority of a being whom they have made superior to Nature-- whom they have rendered more powerful than necessity. 107 Theology, seizing on these ideas, with its own general want of just inference, has in consequence invaded morality; has endeavoured to connect it with its various systems. 108 By some it has been imagined, this union would render virtue more sacred; that the fear attached to invisible powers, who govern Nature, would lend more weight, would give more efficacy to its laws; 109 in short, it has been believed that human, persuaded, of the necessity of the moral system, seeing it united with superstition, would contemplate superstition itself as necessary to own happiness.

110 Indeed it is the supposition that these systems are essential to morality, that sustains the theological ideas-- that gives permanency to the greater part of all the creeds on earth; 111 it is erroneously imagined that without them human would neither understand nor practise the duties you owes to others. 112 This prejudice once established, gives currency to the opinion that the vague ideas growing out of these systems are in such a manner connected with morality, 113 are so linked with the actual welfare of society, that they cannot be attacked without overturning the social duties that bind human to own fellow. 114 It is thought that the reciprocity of wants, the desire of happiness, the evident interests of the community, would be mere skeleton motives, devoid of all active energy, if they

did not borrow their substance from these various systems; 115 if they were not invested with the force derived from these numerous creeds; 116 if they were not clothed with the sanction of those ideas which have been made the arbiters of all things.

117 Nothing, however, is more borne out by the evidence of experience, nothing has more thoroughly impressed itself on the minds of reflecting people, than the danger always arising from connecting truth with fiction; 118 the known with the unknown; the delirium of enthusiasm, with the tranquillity of reason.

119 Indeed what has resulted from the confused alliance, from the marvellous speculations, which theology has made with the most substantive realities? Of mixing up its evanescent conjectures with the confirmed aphorisms of time? 120 The imagination bewildered, has mistaken truth: superstition, by aid of its gratuitous suppositions, has commanded Nature-- made reason bow, under its bulky yoke,-- submitted human to its own peculiar caprices; 121 very frequently in the name of its gods obliged one to stifle own nature, to piously violate the most sacred duties of morality. 122 When these superstitions have been desirous of restraining mortals whom they had previously hood-winked, whom they had rendered irrational, it gave them only ideal curbs, imaginary motives; 123 it substituted unsubstantial causes, for those which were substantive; marvellous supernatural powers, for those which were natural, and well understood; it supplied actual realities, by ideal romances and visionary fables.

124 By this inversion of principle, morality had no longer any fixed basis: 125 Nature, reason, virtue, demonstration, were laid prostrate before the most indefinable systems; were made to depend upon oracular promulgations, which never spake distinctly; 126 indeed, they generally silenced reason, were often delivered by fanatics, which time proved to be impostors; 127 by those who, always adopting the appellation of inspired beings, gave forth nothing but the wanderings of their own delirium,

128 or else were desirous of profiting by the errors which they themselves instilled into humankind. 129 Thus these people became deeply interested in preaching abject submission, non-resistance, passive-obedience, factitious virtues, frivolous ceremonies; 130 in short, an arbitrary morality, conformable to their own reigning passions; frequently prejudicial to the rest of the human race.

131 It was thus, in making ethics flow from these various systems, they in point of fact submitted it to the dominant passions of humans, who had a direct interest in moulding it to their own advantage. 132 In being disposed to found it upon undemonstrative theories, they founded it upon nothing; 133 in deriving it from imaginary sources, of which each individual forms to the self their own notion, generally adverse to that of their neighbour; 134 in resting it upon obscure oracles, always delivered ambiguously, frequently interpreted by people in the height of delirium, sometimes by knaves, who had immediate interests to promote, 135 they rendered it unsteady-- devoid of fixed principle,-- too frequently left it to the mercy of the most crafty of humankind. 136 In proposing to human the changeable creeds of the theologians for a model, they weakened the moral system of human actions; 137 frequently annihilated that which was furnished by Nature; often substituted in its place nothing but the most perplexing incertitude; the most ruinous inconsistency.

138 These systems, by the qualities which are ascribed, to them, become inexplicable enigmas, which each expounds as best suits the self; which each explains after own peculiar mode of thinking; 139 in which the theologian ever finds that which most harmonises with their designs; which they can bend to their own sinister purposes; 140 which they offers as irrefragable evidence of the rectitude of those actions, which at bottom have nothing but their own advantage in view. 141 If they exhort the gentle, indulgent, equitable person, to be good,

compassionate, benevolent; they equally excite the furious, who is destitute of these qualities, to be intolerant, inhuman, pitiless. 142 The morality of these systems varies in each individual; differs in one country from another; 143 in fact, those actions which some people look upon as sacred, which they have learned to consider meritorious, make others shudder with horror--fill them with the most painful recollections. 144 Some see the Divinity filled with gentleness and mercy; others behold Him as full of wrath and fury, whose anger is to be assuaged by the commission of the most shocking cruelties.

145 The morality of Nature is clear, it is evident even to those who outrage it. 146 It is not thus with superstitious morality; this is as obscure as the systems which prescribe it; or rather as fluctuating as the passions, as changeable as the temperaments, of those who expound them; 147 if it was left to the theologians, ethics ought to be considered as the science of all others the most problematical, the most unsteady, the most difficult to bring to a point; 148 it would require the most profound, penetrating genius, the most active, vigorous mind, to discover the principles of those duties human owes to the self, that you ought to exercise towards others; 149 this would render the sources of the moral system attainable by a very small number of individuals; would effectually lock them up in the cabinets of the metaphysicians; place them under the treacherous guardianship of priests: 150 to derive it from those systems, which are in themselves indefinable, with the foundations of which no one is actually acquainted, 151 which each contemplates after their own mode, modifies after their own peculiar ideas, is at once to submit it to the caprice of every individual; 152 it is completely to acknowledge, we know not from whence it is derived, nor whence it has its principles.

153 Whatever may be the agent upon whom they make Nature, or the beings She contains, to depend; with whatever power they may suppose you invested, it is very certain that

human either does, or does not exist; 154 but as soon as your existence is acknowledged, as soon as it is admitted to be what it actually is, when you shall be allowed to be a sensible being living in society, in love with your own felicity, 155 they cannot without either annihilating you, or new modelling you, cause you to exist otherwise than you does. 156 Therefore, according to your actual essence, agreeable to your absolute qualities, conformable to those modifications which constitute you a being, of the human species, 157 morality becomes necessary to you, and the desire of conserving yourself will make you prefer virtue to vice, by the same necessity that you prefers pleasure to pain. 158 If, following up the doctrine of the theologians, "that human hath occasion for supernatural grace to enable you to do good," it must be very injurious to sound principles of morality; 159 because you will always wait for "the call from above," to exercise that virtue, which is indispensable to your welfare. 160 Tertullian, nevertheless says expressly, "wherefore will ye trouble yourselves, seeking after the law of God, whilst ye have that which is common to all the world, and which is written on the tablets of Nature?" 161 To say, that human cannot possess any moral sentiments without embracing the discordant systems offered to your acceptance, is, in point of fact, saying, that you cannot distinguish virtue from vice; 162 it is to pretend that without these systems, human would not feel the necessity of eating to live, would not make the least distinction, would be absolutely without choice in your food: 163 it is to pretend, that unless you are fully acquainted with the name, character, and qualities of the individual who prepares a mess for you, you are not competent to discriminate whether this mess be agreeable or disagreeable, good or bad. 164 You who does not feel yourself satisfied what opinions to adopt, upon the foundation and moral attributes of these systems, 165 or who even formally denies them, cannot at least doubt your own existence- your own functions-- your

own qualities-- your own mode of feeling-- your own method of judging; 166 neither can you doubt the existence of other organised beings similar to yourself; in whom everything discovers to you qualities analogous with your own; 167 of whom you can, by certain actions, either gain the love or incur the hatred-- secure the assistance or attract the ill-will-- merit the esteem or elicit the contempt; 168 this knowledge is sufficient to enable you to distinguish moral good and evil.

169 In short, every person enjoying a well ordered organisation, possessing the faculty of making true experience, will only need to contemplate the self in order to discover what you owes to others: 170 your own nature will enlighten you much more effectually upon your duties, than those systems in which you will consult either your own unruly passions, those of some enthusiast, or those of an impostor. 171 You will allow, that to conserve yourself, to secure your own permanent welfare, you are frequently obliged to resist the blind impulse of your own desires; 172 that to conciliate the benevolence of others, you must act in a mode conformable to their advantage; 173 in reasoning thus, you will find out what virtue actually is; if you puts your theory into practice, you will be virtuous; you will be rewarded for your conduct by the harmony of your own machine; 174 by the legitimate esteem of yourself, confirmed by the good opinion of others, whose kindness you will have secured: 175 if you acts in a contrary mode, the trouble that will ensue, the disorder of your frame, will quickly warn you that nature, thwarted by your actions, disapproves your conduct, which is injurious to yourself; 176 to which you will be obliged to add the condemnation of others, who will hate you. 177 If the wanderings of your mind prevent you from seeing the more immediate consequences of your irregularities, neither will you perceive the distant rewards, the remote punishments, which these systems hold forth; 178 because they will never speak to you so distinctly as your conscience, which will either

reward or punish you on the spot. 179 Theology has never yet known how to give a true definition of virtue: according to it, it is an effort of grace, that disposes human to do that which is agreeable to the Divinity. 180 But what is this grace? How doth it act upon human? How shall we know what is agreeable to a Divinity who is incomprehensible to all people?

181 Everything that has been advanced evidently proves, that superstitious morality is an infinite loser when compared with the morality of Nature, with which, indeed, it is found in perpetual contradiction. 182 Nature invites human to love the self, to preserve your existence, to incessantly augment the sum of your happiness: 183 superstition teaches you to be in love only with formidable doctrines, calculated to generate your dislike; to detest yourself; to sacrifice to your idols your most pleasing sensations--the most legitimate pleasures of your heart. 184 Nature counsels human to consult reason, to adopt it for your guide; superstition portrays this reason as corrupted, as a treacherous director, that will infallibly lead you astray. 185 Nature warns you to enlighten your understanding, to search after truth, to inform yourself of your duties; 186 superstition enjoins you not to examine anything, to remain in ignorance, to fear truth; 187 it persuades you there are no relations so important to your interest, as those which subsist between yourself and systems which you can never understand.

188 Nature tells the being who is in love with your welfare, to moderate your passions, to resist them when they are found destructive to yourself, to counteract them by substantive motives collected from experience; 189 superstition desires a sensible being to have no passions, to be an insensible mass, or else to combat your propensities by motives borrowed from the imagination, which are as variable as itself. 190 Nature exhorts human to be sociable, to love your fellow creatures, to be just, peaceable, indulgent, benevolent, to permit your associates to freely enjoy their opinions; 191

superstition admonishes you to fly society, to detach yourself from your fellow mortals, to hate them when their imagination does not procure them dreams conformable to your own; 192 to break through the most sacred bonds, to maintain your own opinions, or to frustrate those of your neighbour; to torment, to persecute, to massacre, those who will not be mad after your own peculiar manner. 193 Nature exacts that person in society should cherish glory, labour to render the self estimable, endeavour to establish an imperishable name, to be active, courageous, industrious; 194 superstition tells you to be abject, pusillanimous, to live in obscurity, to occupy yourself with ceremonies; it says to you, be useless to thyself, and do nothing for others.

195 Nature proposes to the citizen, for your model, people endued with honest, noble, energetic souls, who have usefully served their fellow citizens; 196 superstition recommends to your imitation mean, cringing sycophants; extols pious enthusiasts, frantic penitents, zealous fanatics, who for the most ridiculous opinions have disturbed the tranquillity of empires. 197 Nature urges the husband to be tender, to attach the self to the company of your mate, to cherish the wife in your bosom; 198 superstition makes a crime of your susceptibility, frequently obliges you to look upon the conjugal bonds as a state of pollution, as the offspring of imperfection. 199 Nature calls to the father to nurture your children, to cherish their affection, to make them useful members of society; 200 superstition advises you to rear them in fear of its systems, to hoodwink them, to make them superstitious, which renders them incapable of actually serving society, but extremely well calculated to disturb its repose. 201 Nature cries out to children to honour their parents, to listen to their admonitions, to be the support of their old age; 202 superstition says, prefer the oracles; in support of the systems of which you are an admitted member, trample father and mother under your feet.

NATURE

203 Nature holds out to the philosopher that you should occupy yourself with useful objects, consecrate your cares to your country, make advantageous discoveries, suitable to perfect the condition of humankind; 204 superstition saith, occupy thyself with useless reveries; employ thy time in endless dispute; scatter about with a lavish hand the seeds of discord, calculated to induce the carnage of thy fellows; obstinately maintain opinions which thou thyself canst never understand. 205 Nature points out to the perverse person, that you should blush for your vices, that you should feel sorrow for your disgraceful propensities, that you should be ashamed of crime; 206 it shows you, that your most secret irregularities will necessarily have an influence over his your own felicity; 207 superstition crieth to the most corrupt people, to the most flagitious mortals, "do not irritate the gods, whom thou knowest not; 208 but if, peradventure, against their express command, thou dost deliver thyself up to crime, remember that their mercy is infinite, that their compassion endureth for ever, that therefore they may be easily appeased; 209 thou hast nothing more to do than to go into their temples, prostrate thyself before their altars, humiliate thyself at the feet of their ministers; expiate thy transgressions by largesses, by sacrifices, by offerings, by ceremonies, and by prayer; 210 these things done with a willing spirit, and a contrite heart, will pacify thine own conscience, and cleanse thee in the eyes of heaven."

211 The rights of the citizen, or the person in society, are not less injured by superstition, which is always in contradiction with sound politics. 212 Nature says distinctly to human, "thou art free; no power on earth can justly deprive thee of thy rights, without thine own consent; 213 and even then, thou canst not legitimately make thyself a slave to thy like." 214 Superstition tells you that you are a slave, condemned to groan all your life under the iron rod of the representatives of its system. 215 Nature commands human to love the

country which gave you birth, to serve it faithfully, to blend your interests with it, to unite against all those who shall attempt to injure it; 216 superstition generally orders you to obey without murmur the tyrants who oppress it, to serve them against its best interests, to merit their favours by contributing to enslave their fellow citizens to their ungovernable caprices: 217 notwithstanding these general orders, if the sovereign be not sufficiently devoted to the priest, superstition quickly changes its language, it then calls upon subjects to become rebels; 218 it makes it a duty in them to resist their masters; it cries out to them, "it is better to obey the gods than humans."

219 Nature acquaints princes that they are humans: that it is not by their capricious whims that they can decide what is just; that it is not their wayward humours that can mark what is unjust; that the public will maketh the law. 220 Superstition often insinuates to them that they are gods, to whom nothing in this world ought to offer resistance; 221 sometimes, indeed, it transforms them into tyrants, whom enraged heaven is desirous should be immolated to its wrath. 222 Superstition corrupts princes; these corrupt the law, which, like themselves, becomes unjust; from thence institutions are perverted; 223 education only forms people who are worthless, blinded with prejudice, smitten with vain objects, enamoured of wealth, devoted to pleasures, which they must obtain by iniquitous means: 224 thus Nature, mistaken, is disdained; virtue is only a shadow quickly sacrificed to the slightest interest, 225 while superstition, far from remedying these evils to which it has given birth, does nothing more than render them still more inveterate; or else engenders sterile regrets which it presently effaces: 226 thus, by its operation, human is obliged to yield to the force of habit, to the general example, to the stream of those propensities, to those causes of confusion, 227 which conspire to hurry all your species, who are not willing to renounce their own

welfare, on to the commission of crime.

228 Here is the mode by which superstition, united with politics, exert their efforts to pervert, abuse, and poison the heart of human; 229 the generality of human institutions appear to have only for their object to abase the human character, to render it more flagitiously wicked. 230 Do not then let us be at all astonished if morality is almost everywhere a barren speculation, from which everyone is obliged to deviate in practice, if you will not risk the rendering yourself unhappy. 231 People can only have sound morals, when, renouncing your prejudices, you consults your nature; 232 but the continued impulse which your soul is every moment receiving, on the part of more powerful motives, quickly compels you to forget those ethical rules which Nature points out to you. 233 You are continually floating between vice and virtue; we behold you unceasingly in contradiction with yourself; 234 if, sometimes, you justly appreciates the value of an honest, upright conduct, experience very soon shows you, that this cannot lead you to anything, which you have been taught to desire, 235 on the contrary, that it may be an invincible obstacle to the happiness which your heart never ceases for an instant to search after.

236 In corrupt societies it is necessary to become corrupt, in order to become happy. 237 Citizens, led astray at the same time both by their spiritual and temporal guides, neither knew reason nor virtue. 238 The slaves both of their superstitious systems, and of people like themselves, they had all the vices attached to slavery; kept in a perpetual state of infancy, they had neither knowledge nor principles; 239 those who preached virtue to them, knew nothing of it themselves, and could not undeceive them with respect to those baubles in which

they had learned to make their happiness consist. 240 In vain they cried out to them to stifle those passions which everything conspired to unloose: 241 in vain they made the thunder of the gods roll to intimidate people whose tumultuous passions rendered them deaf. 242 It was soon discovered that the gods of the heavens were much less feared than those of the earth; that the favour of the latter procured a much more substantive welfare than the promises of the former; 243 that the riches of this world were more tangible than the treasures reserved for favourites in the next; 244 that it was much more advantageous for people to conform themselves to the views of visible powers than to those of powers who were not within the compass of their visual faculties.

245 Thus society, corrupted by its priests, guided by their caprice, could only bring forth a corrupt offspring. 246 It gave birth to avaricious, ambitious, jealous, dissolute citizens, who never saw anything happy but crime; who beheld meanness rewarded; incapacity honoured; wealth adored; debauchery held in esteem; 247 who almost everywhere found talents discouraged; virtue neglected; truth proscribed; elevation of soul crushed; justice trodden under foot; moderation languishing in misery; liberality of mind obligated to groan under the ponderous bulk of haughty injustice.

248 In the midst of this disorder, in this confusion of ideas, the precepts of morality could only be vague declamations, incapable of convincing any one.

249 What barrier could superstition, with its imaginary motives, oppose to the general corruption? When it spake reason, it could not be heard; 250 its gods themselves were not sufficiently powerful to resist the torrent; its menaces failed of effect, on those hearts which everything hurried along to crime; 251 its distant promises could not counterbalance

present advantages; its expiations, always ready to cleanse mortals from their sins, emboldened them to persevere in their criminal pursuits; 252 its frivolous ceremonies calmed their consciences; its zeal, its disputes, its caprices, only multiplied the evils, with which society found itself afflicted; only gave them an inveteracy that rendered them more widely mischievous; 253 in short, in the most vitiated nations there was a multitude of devotees, and but very few honest people. 254 Great and small listened to the doctrines of superstition, when they appeared favourable to their dominant passions; when they were desirous to counteract them, they listened no longer. 255 Whenever superstition was conformable to morality, it appeared incommodious, it was only followed when it either combated ethics or destroyed them. 256 The despot themselves found it marvellous, when they assured you they was a god upon earth; that their subjects were born to adore them alone, to administer to their phantasms. 257 They neglected it when they told you to be just; from thence they saw it was in contradiction with itself, that it was useless to preach equity to a deified mortal; 258 besides, they was assured the gods would pardon everything, as soon as they should consent to recur to their priests, always ready to reconcile them; 259 the most wicked of their subjects reckoned in the same manner upon their divine assistance: 260 thus superstition, far from restraining vice, assured its impunity; its menaces could not destroy the effects which its unworthy flattery had produced in princes; 261 these same menaces could not annihilate the hope which its expiations had furnished to all. 262 Sovereigns, either inflated with pride, or always confident of washing out their crimes by timely sacrifices, no longer actually feared their gods; 263 become gods themselves, they believed they were permitted anything against poor pitiful mortals, whom they no longer considered under any other light than as playthings destined for their earthly amusement.

NATURE

264 If the nature of human was consulted in own politics which supernatural ideas have so woefully depraved, it would completely rectify those false notions that are entertained equally by sovereigns and by subjects; 265 it would contribute more amply than all the superstitions existing, to render society happy, powerful, and flourishing under rational authority. 266 Nature would teach human, it is for the purpose of enjoying a greater portion of happiness, that mortals live together in society; 267 that it is its own preservation, its own immediate felicity, that society should have for its determinate, unchangeable object: 268 that without equity, a nation only resembles a congregation of enemies; that your most cruel foe, is the person who deceives you in order that you may be enslaved; 269 that the scourges most to be feared, are those priests who corrupt their chiefs, who, in the name of the gods assure them of impunity for their crimes: 270 She would prove to you that association is a misfortune under unjust, negligent, destructive governments.

271 This Nature, interrogated by princes, would teach them they are humans and not gods; that their power is only derived from the consent of other humans; 272 that they themselves are citizens, charged by other citizens, with the care of watching over the safety of the whole; 273 that the law ought to be only the expression of the public will; that it is never permitted them to counteract Nature, or to thwart the invariable end of society.

274 This Nature would make monarchs feel, that to be truly great, to be decidedly powerful, they ought to command elevated, virtuous souls; not minds degraded by despotism, vitiated by superstition.

275 This Nature would teach sovereigns, that in order to be cherished by their subjects, they ought to afford them succour; 276 to cause them to enjoy those benefits which their wants render imperative, that they should at all times maintain them, inviolably, in the possession of

their rights, of which they are the appointed defenders-- of which they are the constituted guardians.

277 This Nature would prove to all those princes who should deign to consult Her, that it is only by good actions, by kindness, they can either merit the love, or secure the attachment of the people; 278 that oppression does nothing more than raise up enemies against them; that violence only makes their power unsteady; that force, however brutally used, cannot confer on them any legitimate right; 279 that beings essentially in love with happiness, must sooner or later finish by revolting against an authority that establishes itself by injustice; that only makes itself felt by the outrage it commits: 280 this is the manner in which Nature, the sovereign of all beings, in whose system all are equal, would speak to one of these superb monarchs, whom flattery has deified:--

281 "Untoward, headstrong child! Pygmy, so proud of commanding pygmies! Have they then assured thee that thou art a god? 282 Have they flattered thee that thou art something supernatural? Know there is nothing superior to myself. 283 Contemplate thine own insignificance, acknowledge thine impotence against the slightest of my blows. 284 I can break thy sceptre; I can take away thine existence; I can level thy throne with the dust; I can scatter thy people; I can destroy even the earth which thou inhabitest; and yet thou hast the folly to believe thou art a god. 285 Be then, again, thyself; honestly avow that thou art a human, formed to submit to my laws equally with the meanest of thy subjects. 286 Learn then, and never let it escape thy memory, that thou art the human of thy people; the minister of thy nation; the interpreter of its laws; the executor of its will; 287 the fellow-citizen of those whom thou hast the right of commanding, only because they consent to obey thee, in view of that well being which thou promisest to procure for them. 288 Reign, then, on these conditions; fulfill thy sacred engagements. Be benevolent: above all, equitable.

289 If thou art willing to have thy power assured to thee, never abuse it; let it be circumscribed by the immovable limits of eternal justice. 290 Be the father of thy people, and they will cherish thee as thy children. 291 But, if unmindful of thy duties, thou neglectest them; if negligent of thine own interest, thou separatest them from those of thy great family, 292 if thou refusest to thy subjects that happiness which thou owest them; if, heedless of thy own security, thou armest thyself against them; 293 thou shall be like all tyrants, the slave to gloomy care, the bondman of alarm, the vassal of cruel suspicion: thou wilt become the victim to thine own folly.

294 Thy people, reduced to despair, shorn of their felicity, will no longer acknowledge thy divine rights. 295 In vain, then, thou wouldst sue for aid to that superstition which hath deified thee; it can avail nothing with thy people, whom sharp misery had rendered deaf; 296 heaven will abandon thee to the fury of those enemies to which thy frenzy shall have given birth. 297 Superstitious systems can effect nothing against my irrevocable decrees, which will that human shall ever irritate the self against the cause of own sorrows." 298 In short, everything would make known to rational princes, that they have no occasion for superstition to be faithfully obeyed on earth; 299 that all the powers contained in these systems will not sustain them when they shall act the tyrant; 300 that their true friends are those who undeceive the people in their delusions; that their real enemies are those who intoxicate them with flattery-- who harden them in crime-- who make the road to heaven too easy for them-- 301 who feed them with fanciful, chimerical doctrines, calculated to make them swerve from those cares, to divert them from those sentiments, which they justly owe to their nations. 302 It is then, I repeat it, only by re-conducting human to Nature, that we can procure you distinct notions, evident opinions, certain knowledge; 303 it is only by showing you your true relations with your fellows, that we

can place you on the road to happiness.

304 The human mind, blinded by theology, has scarcely advanced a single step. 305 Human's superstitious systems have rendered you sceptical on the most demonstrable truths. 306 Superstition, while it pervaded everything, while it had an universal influence, served to corrupt the whole: 307 philosophy, dragged in its train, although it swelled its triumphant procession, was no longer anything but an imaginary science: 308 it quitted the real world to plunge into the sinuosities of the ideal, inconceivable labyrinths of metaphysics; 309 it neglected Nature, who spontaneously opened Her book to its examination, to occupy itself with systems filled with spirits, with invisible powers, which only served to render all questions more obscure; 310 which, the more they were probed, the more inexplicable they became; which took delight in promulgating that which no one was competent to understand. 311 In all difficulties it introduced the Divinity; from thence things only became more and more perplexed, until nothing could be explained.

312 Theological notions appear only to have been invented to put human's reason to flight; to confound your judgment; to deceive your mind; to overturn your clearest ideas in every science. 313 In the hands of the theologian, logic, or the art of reasoning, was nothing more than an unintelligible jargon, calculated to support sophism, to countenance falsehood, to attempt to prove the most palpable contradictions. 314 Morality, as we have seen, became wavering and uncertain, because it was founded on ideal systems, never in harmony with themselves, which, on the contrary, were continually contradicting their own most positive assertions. 315 Politics, as we have elsewhere said, were cruelly perverted by the fallacious ideas given to sovereigns of their actual rights. 316 Jurisprudence was determinately submitted to the caprices of superstition, which shackled labour, chained down human industry, controlled activity,

and fettered the commerce of nations. 317 Everything, in short, was sacrificed to the immediate interests of these theologians: 318 in the place of every rational science, they taught nothing but an obscure, quarrelsome metaphysics, which but too often caused the blood of those unhappy people to flow copiously who were incapable of understanding its hallucinations.

319 Born an enemy to experience, theology, that supernatural science, was an invincible obstacle to the progress of the natural sciences, as it almost always threw itself in their way. 320 It was not permitted to experimental philosophy, to natural history, to anatomy, to see anything but through the jaundiced eye of superstition. 321 The most evident facts were rejected with disdain, proscribed with horror, whenever they could not be made to quadrate with the idle hypotheses of superstition. 322 Virgil, the Bishop of Saltzburg, was condemned by the church, for having dared to maintain the existence of the antipodes; 323 Gallileo suffered the most cruel persecutions, for asserting that the sun did not make its revolution round the earth. 324 Descartes was obliged to die in a foreign land. 325 Priests, indeed, have a right to be the enemies to the sciences; the progress of reason must, sooner or later, annihilate superstitious ideas. 326 Nothing that is founded upon Nature, that is bottomed upon truth, can ever be lost; while the systems of imaginations, the creeds of imposture, must be overturned. 327 Theology unceasingly opposed itself to the happiness of nations-- to the progress of the human mind-- to useful researches-- to the freedom of thought; it kept human in ignorance; all your steps being guided by it, you was no more than a tissue of errors.

328 Indeed, is it resolving a question in natural philosophy, to say that an effect which excites our surprise, that an unusual phenomenon, that a volcano, a deluge, a hurricane, a comet, are either signs of divine wrath, or works contrary to the laws of Nature? 329 In persuading nations, as it has done, that the calamities, whether physical or moral, which

they experience, are the effects of the divine anger, or chastisements which His power inflicts on them, has it not, in fact, prevented them from seeking after remedies for these evils? 330 Would it not have been more useful to have studied the nature of things, to have sought in Nature Herself, or in human industry, for succours against those sorrows with which mortals are afflicted, 331 than to attribute the evil which human experiences to an unknown power, against those will it cannot be supposed there exists any relief?

332 The study of Nature, the search after truth, elevates the soul, expands the genius, is calculated to render human active, to make you courageous. 333 Theological notions appear to have been made to debase you, to contract your mind, to plunge you into despondence. 334 In the place of attributing to the divine vengeance those wars, those famines, those sterilities, those contagions, that multitude of calamities, which desolate the earth; 335 would it not have been more useful, more consistent with truth, to have shown human that these evils were to be ascribed to your own folly, 336 or rather to the unruly passions, to the want of energy, to the tyranny of some princes, who sacrifice nations to their frightful delirium? 337 The irrational people, instead of amusing themselves with expiations for their pretended crimes, seeking to render themselves acceptable to imaginary powers; 338 should they not rather have sought in a more healthy administration, the true means of avoiding those scourges, to which they were the victims? 339 Natural evils demand natural remedies: ought not experience then long since to have convinced mortals of the inefficacy of supernatural remedies, 340 of expiatory sacrifices, of fastings, of processions. which almost all the people of the earth have vainly opposed to the disasters which they experienced?

341 Let us then conclude, that theology with its notions, far from being useful to the human species, is the true source of all those sorrows which afflict the earth of all those

errors by which human is blinded; 342 of those prejudices which benumb humankind; of that ignorance which renders you credulous; of those vices which torment you; of those governments which oppress you. 343 Let us be fully persuaded that those theological, supernatural ideas, with which human is inspired from own infancy, are the actual causes of your habitual folly; are the springs of your superstitious quarrels; of your sacred dissensions; of your inhuman persecutions. 344 Let us, at length, acknowledge, that they are these fatal ideas which have obscured morality; corrupted polities; retarded the progress of the sciences; annihilated happiness; banished peace from the bosom of humankind, 345 Then let it be no longer dissimulated, that all those calamities, for which human turns own eyes towards heaven, bathed in tears, have their spring in the imaginary systems you have adopted: 346 let you, therefore, cease to expect relief from them; let you seek in Nature, let you search in your own energies, those resources, which superstition, deaf to your cries, will never procure for you. 347 Let you consult the legitimate desires of your heart, and you will find that which you oweth to yourself, also that which you oweth to others; 348 let you examine your own essence, let you dive into the aim of society, from thence you will no longer be a slave; 349 let you consult experience, you will find truth, and you will discover, that error can never possible render you happy.

HUMAN CAN FORM NO CONCLUSION FROM THE IDEAS WHICH ARE OFFERED THEM OF THE DIVINITY

Paul Henri Thiery (Baron D'Holbach)

53 It has been already stated, that ideas to be useful, must be founded upon truth; that experience must at all times demonstrate their justice: 2 if, therefore, as we have proved, the erroneous ideas which human has in almost all ages formed to the self of the Divinity, far from being of

utility, 3 are prejudicial to morality, to politics, to the happiness of society, to the welfare of the individuals who compose it, in short, to the progress of the human understanding; 4 reason, and our interest, ought to make us feel the necessity of banishing from our mind these illusive, futile opinions, which can never do more than confound it--which can only disturb the tranquillity of our hearts. 5 In vain should we flatter ourselves with arriving at the correction of theological notions; erroneous in their principles, they are not susceptible of reform. 6 Under whatever shape an error presents itself, as soon as human shall attach an undue importance to it, it will, sooner or later, finish by producing consequences dangerous in proportion to their extent. 7 Besides, the inutility of those researches, which in all ages have been made after the true nature of the Divinity, the notions that have hitherto been entertained, 8 have done little more than throw it into greater obscurity, even to those who have most profoundly meditated on the subject; 9 then, ought not this very in utility to convince us that this subject is not within the reach of our capacity 10 that this being will not be better known to us, or by our descendants, than it hath been to our ancestors, either the most savage or the most ignorant?

11 The object, which of all others human has at all times reasoned upon the most, written upon the most, nevertheless remains the least known; 12 far from progressing in your research, time, with the aid of theological ideas, has only rendered it more impossible to be conceived. 13 If the Divinity be such as dreaming theology depicts, you must yourself be a Divinity who is competent to form an idea of Him. 14 We know little of human, we hardly know ourselves, or our own faculties, yet we are disposed to reason upon a being inaccessible to our senses. 15 Let us, then, travel in peace over the line described for us by Nature, without having a wish to diverge from it, to hunt after vague systems; 16 let us occupy ourselves with our

true happiness; let us profit of the benefits spread before us; let us labour to multiply them, by diminishing the number of our errors; 17 let us quietly submit to those evils we cannot avoid, and not augment them by filling our mind with prejudices calculated to lead us astray. 18 When we shall give it serious reflection, everything will clearly prove that the pretended science of theology is, in truth, nothing but presumptuous ignorance, masked under pompous, unintelligible words. 19 In short, let us terminate unfruitful researches; be content at least to acknowledge our invincible ignorance; 20 it will clearly be more substantively advantageous, than an arrogant science, which has hitherto done little more than sow discord on the earth-- affliction in the heart of human.

21 In supposing a sovereign intelligence who governs the world; in supposing a Divinity who exacts from His creatures that they should have a knowledge of Him, 22 that they should understand His attributes, His wisdom, His power; who is desirous they should render him homage; 23 it must be allowed, that no human on earth in this respect completely fulfills the views of providence. 24 Indeed, nothing is more demonstrable than the impossibility in which the theologians find themselves, to form to their mind any idea whatever of the Divinity.

25 Procopius, the first bishop of the Goths, says in the most solemn manner: "I esteem it a very foolish temerity to be disposed to penetrate into the knowledge of the nature of God;" 26 and further on he acknowledges, "that he has nothing more to say of Him, except that He is perfectly good. 27 One who knoweth more, whether you be ecclesiastic or layman, has only to tell it."

28 The weakness, the obscurity of the proofs offered, of the systems attributed to Him, the manifest contradictions into which they fall, 29 the sophism, the begging of the question, which are employed, evidently prove they are themselves in the greatest incertitude upon the

nature of that being with whom it is their profession to occupy their thoughts: 30 even the author of A New View of Society acknowledges, "that up to this moment it is, not possible yet to say which is right or which is wrong: 31 that had any one of the various opposing systems which until this day have governed the world, and disunited human from human, been true, without any mixture of error; 32 that system, very speedily after its public promulgation, would have pervaded society, and compelled all people to have acknowledged its truth." 33 But granting that they have a knowledge of this being, that His essence, His attributes, His systems, were so fully demonstrated to them, as no longer to leave any doubt in their mind, 34 do the rest of the human race enjoy the same advantages? Are they, in fact, in a condition to be charged with this knowledge? 35 Ingenuously, how many people are to be found in the world, who have the leisure, the capacity, the penetration, necessary to understand what is meant to be designated under the name of an immaterial being-- 36 of a pure spirit, who moveth matter without being Himself matter; 37 who is the motive of all the powers of Nature, without being contained in Nature-- without being able to touch it? 38 Are there, in the most religious societies, many people who are competent to follow their spiritual guides, in the subtle proofs which they adduce in evidence of their creeds, upon which they bottom their systems of theology?

39 Without question very few people are capable of profound, connected meditation; the exercise of intense thought is, for the greater number, a species of labour as painful as it is unusual. 40 The people, obliged to toil hard, in order to obtain subsistence, are commonly incapable of reflection; 41 nobles, people of the world, women, young people, occupied with their own immediate affairs, taken up with gratifying their passions, employed in procuring themselves pleasure, as rarely think deeply as the uninformed. 42 There are not, perhaps, two people in an hundred thousand, who have

seriously asked themselves the question, What it is they understand by the word God? 43 Whilst it is extremely rare to find people to whom the nature of God is a problem. 44 Nevertheless, as we have said, conviction supposes that evidence alone has banished doubt from the mind. 45 Where, then, are the web who are convinced of the rectitude of these systems? 46 Who are those in whom we shall find the complete certitude of these truths, so important to all? 47 Who are the people, who have given themselves an accurate account of the ideas they have formed upon the Divinity, upon His attributes, upon His essence?

48 Alas! throughout the whole world, are only to be seen some speculators, who, by dint of occupying themselves with the idea, have, with great fatuity, believed they have discovered something decisive in the confused, unconnected wanderings of their own imagination; 49 they have, in consequence, endeavoured to form a whole, which, chimerical as it is, they have accustomed themselves to consider as actually existing: 50 by force of musing upon it, they have sometimes persuaded themselves they, saw it distinctly; 51 these have not infrequently succeeded in making others believe, their reveries, although they may not have mused upon it quite so much as themselves.

52 It is seldom more than hearsay, that the mass of the people adopt either the systems of their fathers, or of their priests: 53 authority, confidence, submission, habit, take place of conviction-- supersede proof; 54 they prostrate themselves before idols, lend themselves to different creeds, because their ancestors have taught them to fall down, and worship; 55 but never do they inquire wherefore they bend the knee: it is only because, in times far distant, their legislators, their guides, have imposed it upon them as a duty; 56 these have said, "adore and believe those gods, whom ye cannot comprehend; yield yourselves in this instance to our profound wisdom; we know

more than ye do respecting the Divinity." 57 But wherefore, it might be inquired, should I take this system upon your authority? 58 It is, they will reply, because the gods will have it thus; because they will punish you, if you dare to resist. But are not these gods the thing in question? 59 Nevertheless, human has always been satisfied with this circle of errors; the idleness of your mind made you find it most easy to yield to the judgment of others.

60 All superstitions are uniformly founded upon error, established by authority; equally forbid examination; are equally indisposed to permit that human should reason upon them; 61 it is power that wills you should unconditionally accredit them: 62 they are rested solely upon the influence of some few people, who pretend to a knowledge of things, which they admit are incomprehensible for all their species; 63 who, at the same time, affirm they are sent as missionaries to announce them to the inhabitants of the earth: 64 these inconceivable systems, formed in the brain of some enthusiastic people, have most unquestionably occasion for people to expound them to their fellows. 65 Human is generally credulous as a child upon those objects which relate to superstition; you are told you must believe them; 66 as you generally understands nothing of the matter, you imagines you runs no risk in joining sentiments with your priest, whom you supposes has been competent to discover what you yourself is not able to comprehend. 67 The most rational people argue thus: "What shall I do? What interest can so many people have to deceive?" 68 But, seriously, does this prove that they do not deceive? They may do it from two motives: either because they are themselves deceived, or because they have a great interest in deceiving.

69 By the confession of the theologians themselves, human is, for the greater part, without religion: you have only superstition. 70 Superstition, according to them, "is a worship of the Divinity, either badly

understood or irrational," or else, "worship rendered to a false Divinity." 71 But where are the people or the clergy who will allow, either that their Divinity is false, or their worship irrational? 72 How shall it be decided who is right, or who is wrong? 73 It is evident that in this affair great numbers must be wrong. 74 Indeed, Buddaeus, in his Treatise on Atheism, tells us, "in order that a religion may be true, not only the object of the worship must be true, but we must also have a just idea of it. 75 You, then, who adoreth God without knowing Him, adoreth Him in a perverse and corrupt manner, and is generally guilty of superstition." 76 This granted, would it not be fair to demand of the theologians, if they themselves can boast of having a just idea or real knowledge of the Divinity? 77 Admit for a moment they have, would it not then be evident, that it is for the priest, for the inspired, for the metaphysician, that this idea, which is said to be so necessary for the whole human race, is exclusively reserved?

78 If we examine, however, we shall not find any harmony among the theological notions of these various inspired people, or of that hierarchy which is scattered over the earth: 79 even those who make a profession of the same system, are not in unison upon the leading points. 80 Are they ever contented with the proofs offered by their colleagues? Do they unanimously subscribe to each other's ideas? 81 Are they agreed upon the conduct to be adopted; upon the manner of explaining their texts; upon the interpretation of the various oracles? 82 Does there exist one country upon the whole earth, where the science of theology is actually perfectioned?-- 83 where the ideas of the Divinity are rendered so clear, as not to admit of cavil? 84 Has this science obtained any of that steadiness, any of that consistency, any of that uniformity, which is found attached to other branches of human knowledge; even to the most futile arts, or to those trades which are most despised?

85 Has the multitude of subtle distinctions, with which theology in some countries is filled throughout; have the words spirit, immateriality, incorporeity, predestination, grace, with other ingenious inventions, imagined by sublime thinkers, 86 who during so many ages have succeeded each other, actually had any other effect than to perplex things; to render the whole obscure; decidedly unintelligible? 87 Alas! do, they not offer practical demonstration, that the science held forth as the most necessary to human, has not, hitherto, been able to acquire the least degree of stability; 88 has remained in the most determined state of indecision; has entirely failed in obtaining solidity? 89 For thousands of years the most idle dreamers have been relieving each other, meditating on systems, diving into concealed ways, inventing hypothesis suitable to develop this important enigma. 90 Their slender success has not at all discouraged theological vanity; the priests have always spoken of it as of a thing with which they were most intimately acquainted; 91 they have disputed with all the pertinancy of demonstrated argument; they have destroyed each other with the most savage barbarity; 92 yet, notwithstanding, to this moment, this sublime science remains entirely unauthenticated; almost unexamined.

93 Indeed, if things were coolly contemplated, it would be obvious that these theories are not formed for the generality of humankind, who for the most part are utterly incompetent to comprehend the aerial subtilities upon which they rest. 94 Who is the person, that understandeth any thing of the fundamental principles of these systems? 95 Whose capacity embraces spirituality, immateriality, incorporeity, or the mysteries of which you are every day informed? 96 Are there many people who can boast of

perfectly understanding the state of the question, in those theological disputations, which have frequently had the potency to disturb the repose of humankind? 97 Nevertheless, even women believe themselves obliged to take part in the quarrels excited by these idle speculators, who are of less actual utility, to society, than the meanest artisan.

98 Human would, perhaps, have been too happy, if confining the self to those visible objects which interest you, you had employed half that energy which you have wasted in researches after incomprehensible systems, upon perfectioning the real sciences; 99 in giving consistency to your laws; in establishing your morals upon solid foundations; in spreading a wholesome education among your fellows. you would, unquestionably, have been much wiser, more fortunate, 100 if you had agreed to let your idle, unemployed guides quarrel among themselves unheeded; if you had permitted them to fathom those depths calculated to astound the mind, to amaze the intellect, without inter-meddling with their irrational disputes. 101 But it is the essence of ignorance, to attach great importance to everything which it doth not understand. 102 Human vanity makes the mind bear up against difficulties. 103 The more an object eludes our inquiry, the more efforts we make to compass it; because from thence our pride is spurred on, our curiosity is set afloat, our passions are irritated, and it assumes the character of being highly interesting to us. 104 On the other hand, the more continued, the more laborious our researches have been, the more importance we attach to either our real or our pretended discoveries; the more we are desirous not to have wasted our time; 105 besides, we are always ready warmly to defend the soundness of our own judgment. 106 Do not let us then be surprised at the interest that

ignorant people have at all times taken in the discoveries of their priests; nor at the obstinate pertinacity which they have ever manifested in their disputes. 107 Indeed, in combating for your own peculiar system, each only fought for the interests of own vanity, which of all human passions is the most quickly alarmed, the most calculated to lead human on to the commission of great follies.

108 Theology is truly the vessel of the Danaides. By dint of contradictory qualities, by means of bold assertions, it has so shackled its own systems as to render it impossible they should act. 109 Indeed, when even we should suppose the existence of these theological systems, the reality of codes so discordant with each other and with themselves, we can conclude nothing from them to authourise the conduct, or sanction the mode of worship which they prescribe. 110 If their gods are infinitely good, wherefore should we dread them? 111 If they are infinitely wise, what reason have we to disturb ourselves with our condition? 112 If they are omniscient, wherefore inform them of our wants, why fatigue them with our requests? 113 If they are omnipresent, of what use can it be to erect temples to them? 114 If they are lords of all, why make sacrifices to them; why bring them offerings of what already belongs to them? 115 If they are just, upon what foundation believe that they will punish those creatures whom they have filled with imbecility? 116 If their grace works everything in human, what reason can there be why you should be rewarded? 117 If they are omnipotent, how can they be offended; how can we resist them? 118 If they are rational, how can they enrage themselves against blind mortals, to whom they have left the liberty of acting irrationally? 119 If they are immutable, by what right shall we pretend to make them change

their decrees? 120 If they are inconceivable, wherefore should we occupy ourselves with them? 121 If the knowledge of these systems be the most necessary thing, wherefore are they not more evident, more consistent, more manifest?

122 This granted, you who can undeceive yourself on the afflicting notions of these theories, hath this advantage over the credulous, trembling, superstitious mortal-- 123 that you establishes in your heart a momentary tranquillity, which, at least, rendereth you happy in this life. 124 If the study of Nature hath banished from your mind, those chimeras with which the superstitions person is infested, you, at least, enjoys a security of which this sees yourself deprived. 125 In consulting this Nature, your fears are dissipated, your opinions, whether true or false, acquire a steadiness of character; 126 a calm succeeds the storm, which panic terror, the result of wavering notions, excite in the hearts of all people who occupy themselves with these systems. 127 If the human soul, cheered by philosophy, had the boldness to consider things coolly; it would no longer behold the universe submitted to implacable systems, under which human is continually trembling. 128 If you was rational, you would perceive that in committing evil you did not disturb Nature; 129 that you either injureth yourself alone, or injures other beings capable of feeling the effects of your conduct, from thence you would know the line of your duties; 130 you would prefer virtue to vice, for your own permanent repose: 131 you would, for your own satisfaction, for your own felicity in this world, find yourself deeply interested in the practice of moral goodness; 132 in rendering virtue habitual; in making it dear to the feeling of your heart: your own immediate welfare would be concerned in avoiding vice, 133 in detesting crime, during the short season of your abode among intelligent, sensible beings, from whom you expects your happiness.

134 By attaching yourself to these rules, you would live contented with

your own conduct; 135 you would be cherished by those who are capable of feeling the influence of your actions; 136 you would expect without inquietude the term when your existence should have a period; 137 you would have no reason to dread the existence which might follow the one you at present enjoys: 138 you would not fear to be deceived in your reasoning. 139 Guided by demonstration, led gently along by honesty, you would perceive that you could have nothing to dread from a beneficent Divinity, 140 who would not punish you for those involuntary errors which depend upon the organisation, which without your own consent you have received. 141 Such a person so conducting the self, would have nothing to apprehend, whether at the moment of own death, you falls asleep for ever; 142 or whether that sleep is only a prelude to another existence, in which you shall find yourself in the presence of your God. 143 Addressing yourself to the Divinity, you might with confidence say, "O God! Father, who hath rendered thyself invisible to thy child! Inconceivable, hidden Author of all, whom I could not discover! 144 Pardon me, if my limited understanding hath not been able to know thee, in a Nature, where everything hath appeared to me to be necessary! 145 Excuse me, if my sensible heart hath not discerned thine august traits among those numerous systems which superstitious mortals tremblingly adore: 146 if, in that assemblage of irreconcilable qualities, with which the imagination hath clothed thee, I could only see a phantom. 147 How could my coarse eyes perceive thee in Nature, in which all my senses have never been able to bring me acquainted but with material beings, with, perishable forms? 148 Could I, by the aid of these senses, discover thy spiritual essence, of which no one could furnish me any idea? 149 Could my feeble brain, obliged to form its judgments after its own capacity, discern thy plans, measure thy wisdom, conceive thine intelligence, 150 whilst the universe presented to my view a continued

mixture of order and confusion-- of good and evil-- of formation and destruction? 151 Have I been able to render homage to the justice of thy priests, whilst I so frequently beheld crime triumphant, virtue in tears? 152 Could I possibly acknowledge the voice of a being filled with wisdom, in those ambiguous, puerile, contradictory oracles, published in thy name in the different countries of the earth I have quitted? 153 If I have not known thy peculiar existence, it is because I have not known either what thou couldst be, where thou couldst be placed, or the qualities which could be assigned thee. 154 My ignorance is excusable, because it was invincible: my mind could not bend itself under the authority of humans, who acknowledged they were as little enlightened upon thine essence as myself; 155 who were forever disputing among themselves; who were in harmony only in imperiously crying out to me, to sacrifice to them that reason which thou hadst given to me; 156 But, oh God! If thou cherishest thy creatures, I also, like thee, have cherished them; I have endeavoured to render them happy, in the sphere in which I have lived. 157 If thou art the author of reason, I have always listened to it-- have ever endeavoured to follow it; 158 if virtue pleaseth thee, my heart hath always honoured it; I have never willingly outraged it: 159 when my powers have permitted me, I have myself practised it; I was an affectionate spouse, a tender partner, a sincere friend, a faithful subject, a zealous citizen; 160 I have held out consolation to the afflicted; and if the foibles of my nature have been either injurious to myself or incommodious to others, I have not at least made the unfortunate groan under the weight of my injustice. 161 I have not devoured the substance of the poor-- I have not seen without pity the widow's tears; 162 I have not heard without commiseration the cries of the orphan.

163 If thou didst render human sociable, if thou was disposed that society should subsist, if thou wast desirous the community might be happy, 164 I have been the enemy to all who oppressed you, the decided

foe to all those who deceived you, in order that they might advantage themselves of your misfortunes. 165 "If I have not thought properly of thee, it is because my understanding could not conceive thee; 166 if I have spoken ill of thy systems, it is because my heart, partaking too much of human nature, revolted against the odious portrait under which they depicted thee. 167 My wanderings have been the effect of the temperament which thou hast given me; 168 of the circumstances in which, without my consent, thou hast placed me; of those ideas, which in despite of me, have entered into my mind. 169 As thou art good, as thou art just,-- as we are assured thou art-- thou wilt not punish me for the wanderings of mine imagination; 170 for faults caused by my passions, which are the necessary consequence of the organisation which I have received from thee. 171 Thus I cannot doubt thy justice, I cannot dread the condition which thou preparest for me. 172 Thy goodness cannot have permitted that I should incur punishment for inevitable errors. 173 Thou wouldst rather prevent my being born, than have called me into the rank of intelligent beings, there to enjoy the fatal liberty of rendering myself eternally unhappy."

174 It is thus that a disciple of Nature, who, transported all at once into the regions of space, should find the self in the presence of own God, 175 would be able to speak, although you should not have been in a condition to lend yourself to all the abstract systems of theology which appear to have been invented for no other purpose than to overturn in your mind all natural ideas. 176 This illusory science seems bent on forming its systems in a manner the most contradictory to human reason; notwithstanding we are obliged to judge in this world according to its dictates; 177 if, however, in the succeeding world, there is nothing conformable to this, what can be of more inutility, than to think of it or reason upon it? 178 Besides, wherefore should we leave it to the judgment of

people, who are, themselves, only enabled to act after our manner? 179 Without a very marked derangement of our organs, our sentiments hardly ever vary upon those objects which either our senses experience, or which reason has clearly demonstrated.

180 In whatever circumstances we are found, we have no doubt either upon the whiteness of snow, the light of day, or the utility of virtue. 181 It is not so with those objects which depend solely upon our imagination--which are not proved to us by the constant evidence of our senses; we judge of them variously, according to the dispositions in which we find ourselves. 182 These dispositions fluctuate by reason of the involuntary impulse which our organs every instant receive, on the part of an infinity of causes, either exterior to ourselves, or else contained within our own frame. 183 These organs are, without our knowledge, perpetually modified, either relaxed or braced by the density, more or less, of the atmosphere; 184 by heat and by cold; by dryness and by humidity; by health and by sickness; by the heat of the blood; by the abundance of bile; by the state of the nervous system. 185 These various causes have necessarily an influence upon the momentary ideas, upon the instantaneous thoughts, upon the fleeting opinions of human. 186 You are, consequently, obliged to see under a great variety of hues, those objects which your imagination presents to you; without it all times having the capacity to correct them by experience: to compare them by memory. 187 This, without doubt, is the reason why human is continually obliged to view own gods, to contemplate own superstitious systems, under such a diversity of aspects, in different periods of own existence. 188 In the moment, when your fibres find themselves disposed to you tremulous, you

will be cowardly, pusillanimous; you will think of these systems only with fear and trembling. 189 In the moment, when these same fibres shall have more tension, you will possess more firmness, you will then view these systems with greater coolness. 190 The theologian will call your pusillanimity, "inward feeling;" "warning from heaven;" "secret inspiration;" 191 but you who knoweth human, will say that this is nothing more than a mechanical motion, produced by a physical or natural cause.

192 Indeed, it is by a pure physical mechanism, that we can explain all the revolutions that take place in the system, frequently from one minute to another; 193 all the fluctuations in the opinions of humankind; all the variations of your judgment: in consequence of which we sometimes see you reasoning justly, sometimes in the most irrational manner. 194 This is the mode by which, without recurring to grace, to inspirations, to visions, to supernatural notions, we can render ourselves an account of that uncertain, that wavering state 195 into which we sometimes behold people fall, when there is a question respecting their superstition, who are otherwise extremely enlightened. 196 Frequently, in despite of all reasoning, momentary dispositions re-conduct them to the prejudices of their infancy, upon which on other occasions they appear to be entirely undeceived. 197 These changes are very apparent, especially under infirmities, in sickness, or at approach of death. The barometer of the understanding is then frequently obliged to fall.

198 Those chimeras which you despised, or which in a state of health, you set down at their true value, are then realised. 199 You trembles, because your machine is enfeebled; you are irrational because your brain is incapable of fulfilling its functions with

exactitude. 200 It is evident these are the actual causes of those changes which the priests well know how to make use of against what they call incredulity; from which they draw proofs of the reality of their sublimated opinions. 201 Those conversions, or those alterations, which take place, in the ideas of human, have always their origin in some derangement of your machine; brought on either by chagrin or by some other natural or known cause. 202 Submitted to the continual influence of physical causes, our systems invariably follow the variations of the body; 203 we reason well when the body is healthy-- when it is soundly constituted; we reason badly when the corporeal faculties are deranged; 204 from thence our ideas become disconnected, we are no longer equal to the task of associating them with precision; we are incapable of finding principles, or to draw from them just inferences; 205 the brain, in fact, is shaken; we no longer contemplate anything under its actual point of view. 206 It is a person of this kind, who does not see things in frosty weather, under the same traits as when the season is cloudy, or when it is rainy; 207 you does not view them in the same manner in sorrow as in gaiety; when in company as when alone. 208 Good sense suggests to us, that it is when the body is sound, when the mind is undisturbed by any mist, that we can reason with accuracy; 209 this state can furnish us with a general standard, calculated to regulate our judgment; even to rectify our ideas, when unexpected causes shall make them waver.

210 If the opinions even of the same individual, are fluctuating, subject to vacillate, how many changes must they experience in the various beings who compose the human race? 211 If there do not, perhaps, exist two people who see a physical object under the same exact form or colour, what much greater variety must they

not have in their mode of contemplating those things which have existence only in their imagination? 212 What an infinity of combinations, what a multitude of ideas, must not minds essentially different, form to themselves when they endeavour to compose an ideal being, which each moment of their existence must present to them under a different aspect? 213 It would, then, be a most irrational enterprise, to attempt to prescribe to human what you ought to think of superstition, which is entirely under the cognisance of your imagination; 214 for the admeasurement of which, as we have very frequently repeated, mortals will never have any common standard.

215 To oppugn the superstitious opinions of human, is to commence hostilities with your imagination-- to attack your fancy-- to be at war with your organisation-- to enter the lists with your habits, 216 which are of themselves sufficient to identify with your existence, the most absurd, the most unfounded ideas. 217 The more imagination human has, the greater enthusiast you will be in matters of superstition; reason will have the less ability to undeceive you in your chimeras. 218 In proportion as your fancy is powerful, these chimeras themselves will become food necessary to its ardency. 219 In fine, to battle with the superstitious notions of human, is to combat the passions you usually indulges for the marvellous; 220 it is to assail you on that side where you are least vulnerable; to force you in that position where you unites all your strength-- where you keeps the most vigilant guard.

221 In despite of reason, those people who have a lively imagination, are perpetually re-conducted to those chimeras which habit renders dear to them, even when they are found troublesome; although they should prove fatal. 222 Thus a tender soul hath occasion for a God that loveth you; the happy enthusiast needeth a God who rewardeth you; the unfortunate visionary wants a God who taketh part in your sorrows; 223 the melancholy devotee requireth a God who chastiseth you, who

maintaineth you in that trouble which has become necessary to your diseased organisation; 224 the frantic penitent exacteth a God, who imposes upon you an obligation to be inhuman towards yourself; 225 whilst the furious fanatic would believe the self unhappy, if you was deprived of a God who commanded you to make others experience the effect of your inflamed humours, of your unruly passions.

226 You are, without question, a less dangerous enthusiast who feeds yourself with agreeable illusions, than you whose soul is tormented with odious spectres. 227 If a placid, tender soul, does not commit ravages in society, a mind agitated by incommodious passions, cannot fall to become, sooner or later, troublesome to own fellow creatures. 228 The God of a Socrates, or a Fenelon, may be suitable to souls as gentle as theirs; but He cannot be that of a whole nation, in which it is extremely rare people of their temper are found: 229 if honest people only view their gods as fitted with benefits; vicious, restless, inflexible individuals, will give them their own peculiar character, from thence will authourise themselves to indulge, a free course to their passions. 230 Each will view own deities with eyes only open to their own reigning prejudice; 231 the number of those who will paint them as afflicting will always be greater, much more to be feared, than those who shall delineate them under seducing colours: 232 for one mortal that those ideas will render happy, there will be thousands who will be made miserable; 233 they will, sooner or later, become an inexhaustible source of contention; a never failing spring of extravagant folly; 234 they will disturb the mind of the ignorant, over whom impostors will always gain ascendancy-- over whom fanatics will ever have an influence: 235 they will frighten the cowardly, terrify the pusillanimous, whose imbecility will incline them to perfidy, whose weakness will render them cruel; 236 they will cause the most upright to tremble, who, even while practising virtue, will fear incurring the divine displeasure; 237 but they will not

arrest the progress of the wicked, who will easily cast them aside, that they may the more commodiously deliver themselves up to crime; 238 or who will even take advantage of these principles, to justify their transgression.

239 In short, in the hands of tyrants, these systems will only serve to crush the liberty of the people; will be the pretext for violating, with impunity, all equitable rights. 240 In the hands of priests they will become talismans, suitable to intoxicate the mind; calculated to hoodwink the people; competent to subjugate equally the sovereign as the subject; 241 in the hands of the multitude, they will be a two-edged sword, with which they will inflict, at the same moment, the most dreadful wounds on themselves-- the most serious injuries on their associates.

242 On the other hand, these theological systems, as we have seen, being only an heap of contradictions, which represent the Divinity under the most incompatible characters, seem to doubt His wisdom, when they invite mortals to address their prayers to Him, for the gratification of their desires; 243 to pray to Him to grant that which He has not thought it proper to accord to them. 244 Is it not, in other words, to accuse Him with neglecting His creatures? Is it not to ask Him to alter the eternal decrees of His justice; to change the invariable laws which He hath Himself determined? 245 Is it not to say to Him, "O, my God! I acknowledge thy wisdom, thine omniscience, thine infinite goodness; nevertheless, thou forgettest thy servant; thou losest sight of thy creature; 246 thou art ignorant, or thou feignest ignorance, of that which you wanteth: dost thou not see that I suffer from the marvellous arrangement, which thy wise laws have made in the universe? 247 Nature, against thy commands, actually renders my existence painful: change then, I beseech thee, the essence which thy will has given to all beings. 248 Grant that the elements, at this moment, lose in my favour their distinguishing properties; so order it, that heavy bodies shall not fall, that fire shall

not burn, 249 that the brittle frame which I have received at thine hands, shall not suffer those shocks which it every instant experiences. 250 Rectify, I pray thee, for my happiness, the plan which thine infinite prudence hath marked out from all eternity."

251 Such is very nearly the euchology which human adopts; such are the discordant, absurd requests which you continually puts up to the Divinity, whose wisdom you extols; 252 whose intelligence you holds forth to admiration; whose providence you eulogises; whose equity you applauds; whilst you are hardly ever contented with the effects of the divine perfections. 253 Human is not more consequent in those thanksgivings which you believes yourself obliged to offer to the throne of grace. 254 Is it not just, you exclaims, to thank the Divinity for His kindness? 255 Would it not be the height of ingratitude to refuse our homage to the Author of our existence; to withhold our acknowledgments from the Giver of everything that contributes to render it agreeable? 256 But does you not frequently offer up His thanksgivings for actions that overwhelm your neighbour with misery? 257 Does not the husbandman on the hill, return thanks for the rain that irrigates your lands parched with drought, 258 whilst the cultivator of the valley is imploring a cessation of those showers which deluge your fields--that render useless the labour of your hands?

259 Thus each becomes thankful for that which own limited views points out to one as one’s immediate interest, regardless of the general effect produced by those circumstances on the welfare of own fellows. 260 Each believes that it is either a peculiar dispensation of providence in own favour, or a signal of the heavenly wrath directed against the self; 261 whilst the slightest reflection would clearly evince it to be nothing more than the inevitable order of things, which take place without the least regard to your individual comforts. 262 From this it will be obvious, that these systems do not teach their votaries,

practically, to love their neighbour as themselves. 263 But in matters of superstition, mortals never reason; they only follow the impulse of their fears; the direction of their imagination; the force of their temperament; the bent of their own peculiar passions; 264 or those of the guides, who have acquired the right of controlling their understanding. 265 Fear has generally created these systems; terror unceasingly accompanies them; it is impossible to reason while we tremble.

266 We do not, however, flatter ourselves that reason will be capable, all at once, to deliver the human race from those errors with which so many causes united have contributed to poison you. 267 The vainest of all projects would be the expectation of curing, in an instant, those epidemical follies, those hereditary fallacies, rooted during so many ages; 268 continually fed by ignorance; corroborated by custom; borne along by the passions made inveterate by interest; grounded upon the fears, established upon the ever regenerating calamities of nations. 269 The ancient disasters of the earth gave birth to the first systems of theology, new revolutions would equally produce others; even if the old ones should chance to be forgotten. 270 Ignorant, miserable, trembling beings, will always either form to themselves systems, or else adopt those which imposture shall announce-- which fanaticism shall be disposed to give them. 271 It would therefore be useless to propose more than to hold out reason to those who are competent to understand it; 272 to present truth to those who can sustain its lustre; who can with serenity contemplate its refulgent beauty; 273 to undeceive those who shall not be inclined to oppose obstacles to demonstration; to enlighten those who shall not desire pertinaciously to persist in error.

274 Let us, then, infuse courage into those who want power to break with their illusions; 275 let us cheer up the honest person, who is much more alarmed by own fears than the wicked, who, in despite of own opinions, always follows the rule of own passions: 276 let us console the

unfortunate, who groans under a load of prejudices which you have not examined: 277 let us dissipate the incertitude of those whose doubts render them unhappy; who ingenuously seek after truth, but who find in philosophy itself only wavering opinions little calculated to determine their fluctuating minds. 278 Let us banish from the person of genius those chimerical speculations which cause you to waste your time; 279 let us wrest your gloomy superstition from the intimidated mortal, who, duped by your vain fears, becomes useless to society; 280 let us remove from the atrabilarious being those systems that afflict you, that exasperate your mind, that do nothing more than kindle your anger against your incredulous neighbour; 281 let us tear from the fanatic those terrible ideas which arm you with poniards against the happiness of your fellows; 282 let us pluck from tyrants, let us snatch from impostors, those opinions which enable them to terrify, to enslave, and to despoil the human species.

283 In removing from honest people their formidable notions let us not encourage those of the wicked, who are the enemies of society; 284 let us deprive the latter of those illegitimate sources, upon which they reckon to expiate their transgressions; 285 let us substitute actual, present terrors, to those which are distant and uncertain to those which do not arrest the most licentious excesses; 286 let us make the profligate blush at beholding themselves what they really are; 287 let the ministers of superstition tremble at finding their conspiracies discovered; let them dread the arrival of the day, when mortals, cured of those errors with which they have abused them, will no longer be enslaved by their artifice.

288 If we cannot induce nations to lay aside their inveterate prejudices, let us, at least, endeavour to prevent them from relapsing into those excesses, to the commission of which superstition has so frequently hurried them; 289 let humankind form to the self chimeras, if you

cannot do without them; let you think as you may feel inclined, provided your reveries do not make you forget that you are a human; 290 that you does not cease to remember that a sociable being is not formed to resemble the most ferocious animals. 291 Let us try to balance the fictitious interests of superstition, by the more immediate advantages of the earth. 292 Let sovereigns, as well as their subjects, at length acknowledge that the benefits resulting from truth, the happiness arising from justice, the tranquillity springing out of wholesome laws, 293 the blessings to be derived from a rational education, the superiority to be obtained from a physical, peaceable morality, are much more substantive than those they vainly expect from their respective superstitious systems. 294 Let them feel, that advantages so tangible, benefits so precious, ought not to be sacrificed to uncertain hopes, so frequently contradicted by experience.

295 In order to convince themselves of these truths, let every rational person consider the numberless crimes which superstition has caused upon our globe; 296 let them study the frightful history of theology: let them read over the biography of its more odious ministers, who have too often fanned the spirit of discord--kindled the flame of fury-- stirred up the raging fire of madness: 297 let the prince and the people, at least, sometimes learn to resist the demoniacal passions of these interpreters of unintelligible systems, which they acknowledge they do not themselves at all understand, 298 especially when they shall invoke them to be inhuman; when they shall preach up intolerance; when they invite them to barbarity; 299 above all, when they shall command them, in the name of their gods, to stifle the cries of Nature; to put down the voice of equity; to be deaf to the remonstrances of reason; to be blind to the interest of society.

NATURE

300 Feeble mortals! led astray by error, how long will ye permit your imagination, so active, so prompt to seize on the marvellous, to continue to seek out of the universe pretexts to render you baneful to yourselves, injurious to the beings with whom ye live in society? 301 Wherefore do ye not follow in peace, the simple, easy route marked out for ye by Nature? 302 To what purpose do ye scatter thorns on the road of life? What avails it, that ye multiply those sorrows to which your destiny exposes ye? 303 What advantages can ye derive from systems with which the united efforts of the whole human species have not been competent to bring ye acquainted? 304 Be content, then, to remain ignorant of that, which the human mind is not formed to comprehend; which human intellect is not adequate to embrace: 305 occupy yourselves with truth; learn the invaluable art of living happy; perfection your morals; give rationality to your governments; simplify your laws, and rest them on the pillars of justice; 306 watch over education, and see that it is of an invigorating quality; give attention to agriculture, and encourage beneficial improvements; foster those sciences which are actually useful, and place their professors in the most honourable stations; 307 labour with ardour, and munificently reward those whose assiduity promotes the general welfare; 308 oblige Nature by your industry to open Her immense stores, to become propitious to your exertions; do these things, and the gods will oppose nothing to your felicity.

309 Leave to idle thinkers, to soporific dreamers, to waking visionaries, to useless enthusiasts, the unproductive task, the unfruitful occupation, of fathoming depths, from which ye ought sedulously to divert your attention; 310 enjoy with moderation, the benefits attached to your present existence; augment their number when reason sanctions the multiplication; but never attempt to spring yourselves forward, beyond the sphere destined for your action. 311 If you must have chimeras, permit your fellow creatures to have

theirs also; but never cut the throats of your brethren, when, they cannot rave in your own manner. 312 If ye will have unintelligible systems, if ye cannot be contented without marvellous doctrines, if the infirmities of your nature require an invisible crutch, adopt such as may best suit with your humour; 313 select those which you may think most calculated to support your tottering frame; if ye can, let your own imagination give birth to them; but do not insist on your neighbours making the same choice with yourself: 314 do not suffer these imaginary theories to infuriate your mind: let them not so far intoxicate your understandings, as to make ye mistake the duties ye owe to the real beings with whom ye are associated. 315 Always remember, that amongst these duties, the foremost, the most consequential, the most immediate in its bearing upon the felicity of the human race, stands, a reasonable indulgence for the foibles of others.

DO ATHEISTS EXIST?
Paul Henri Thiery (Baron D'Holbach)

54 What has been said in the course of this work, ought sufficiently to undeceive those who are capable of reasoning on the prejudices to which they attached so much importance. 2 But the most evident truths frequently crouch under fear; are kept at bay by habit; prove abortive against the force of enthusiasm. 3 Nothing is more difficult to remove from its resting place than error, especially when long prescription has given it full possession of the human mind. 4 It is almost unassailable when supported by general consent; when it is propagated by education; when it has acquired inveteracy by custom: 5 it commonly resists every effort to disturb it, when it is either fortified by example, maintained by authority, nourished by the hopes, 6 or cherished by the fears of a people, who have learned to look upon these delusions as the most potent remedies for their sorrows. 7 Such are the united forces which sustain

the empire of unintelligible systems over the inhabitants of this world; 8 they appear to give stability to their throne; to render their power immoveable; to make their reign as lasting as the human race.

9 We need not, then, be surprised at seeing the multitude cherish their own blindness; encourage their superstitious notions; exhibit the most sensitive fear of truth. 10 Everywhere we behold mortals obstinately attached to phantoms from which they expect their happiness; notwithstanding these fallacies are evidently the source of all their sorrows. 11 Deeply smitten with the marvellous, disdaining the simple, despising that which is easy of comprehension, but little instructed in the ways of Nature, accustomed to neglect the use of their reason, 12 the uninformed, from age to age, prostrate themselves before those invisible powers which they have been taught to adore. 13 To these they address their most fervent prayers; implore them in their misfortunes, offer them the fruits of their labour; 14 they are unceasingly occupied either with thanking their vain idols for benefits they have not received at their bands, or else in requesting from them favours which they can never obtain. 15 Neither experience nor reflection can undeceive them; they do not perceive these idols, the work of their own hands, have always been deaf to their intreaties; 16 they ascribe it to their own conduct; believe them to be violently irritated: they tremble, groan out the most dismal lamentations; 17 sigh bitterly in their temples; strew their altars with presents; load their priests with their largesses; 18 it never strikes their attention that these beings, whom they imagine so powerful, are themselves submitted to Nature; are never propitious to their wishes, but when Nature Herself is favourable. 19 It is thus that nations are the accomplices of those who deceive them; are

themselves as much opposed to truth as those who lead them astray.

20 In matters of superstition, there are very few people who do not partake, more or less, of the opinions of the illiterate. 21 Every person who throws aside the received ideas, is generally considered a mad-person; is looked upon as a presumptuous being, who insolently believes the self much wiser than own associates. 22 At the magical sound of superstition, a sudden panic, a tremulous terror takes possession of the human species: 23 whenever it is attacked, society is alarmed; each individual imagines they already sees the celestial monarch lift His avenging arm against the country in which rebellious nature has produced a monster with sufficient temerity to brave these sacred opinions. 24 Even the most moderate people tax with folly, brand with sedition, whoever dares combat with these imaginary systems, the rights of which good sense has never yet examined. 25 In consequence, the person who undertakes to tear the bandeau of prejudice, appears an irrational being-- a dangerous citizen; 26 His sentence is pronounced with a voice almost unanimous; the public indignation, roused by fanaticism, stirred up by imposture, renders it impossible for Him to be heard in His defence; 27 everyone believes the self culpable, if He does not exhibit His fury against you; if He does not display His zeal in hunting you down; it is by such means human seeks to gain the favour of the angry gods, whose wrath is supposed to be provoked.

28 Thus the individual who consults own reason, the disciple of Nature, is looked upon as a public pest; the enemy to superstition is regarded as the enemy to the human race; 29 you who would establish a lasting peace amongst people, is treated as the disturber of society; 30 the person who would be disposed to cheer affrighted mortals by breaking those idols, before whom prejudice has obliged them to tremble, is unanimously proscribed as an atheist. 31 At the bare name of atheist the superstitious person quakes; the deist

is alarmed; the priest enters the judgement chair with fury glaring in own eyes; 32 tyranny prepares own funeral pile, the vulgar applaud the punishments which irrational, partial laws, decree against the true friend of the human species. 33 Such are the sentiments which every human must expect to excite, 34 who shall dare to present own fellow creatures with that truth which all appear to be in search of, but which all either fear to find, or else mistake what we are disposed to show it to them. 35 But what is this person, who is so foully calumniated as an atheist? 36 You are one who destroyeth chimeras prejudicial to the human race; who endeavours to re-conduct wandering mortals back to Nature; who is desirous to place them upon the road of experience; who is anxious that they should actively employ their reason. 37 You are a thinker, who, having meditated upon matter, its energies, its properties, its modes of acting, 38 hath no occasion to invent ideal powers, to recur to imaginary systems, in order to explain the phenomena of the universe-- to develop the operations of Nature; 39 who needs not creatures of the imagination, which far from making you better understand Nature, do no more than render it wholly inexplicable, an unintelligible mass, useless to the happiness of humankind.

40 Thus, the only people who can have pure, simple, actual ideas of Nature, are considered either as absurd or knavish speculators. 41 Those who form to themselves distinct, intelligible notions of the powers of the universe, are accused of denying the existence of this power: 42 those who found everything that is operated in this world, upon determinate, immutable laws, are accused with attributing everything to chance; 43 are taxed with blindness, branded with delirium, by those very enthusiasts themselves, whose imagination, always wandering in a vacuum, regularly attribute the effects of Nature to fictitious causes, 44 which have no existence but in their own heated brain; to

fanciful beings of their own creation; to chimerical powers, which they obstinately persist in preferring to actual, demonstrable causes. 45 No person in own proper senses can deny the energy of Nature, or the existence of a power by virtue of which matter acts; by which it puts itself in motion; 46 but no person can, without renouncing own reason, attribute this power to an immaterial substance; to a power placed out of Nature; distinguished from matter; having nothing in common with it. 47 Is it not saying, this power does not exist, to pretend that it resides in an unknown being, formed by an heap of unintelligible qualities, of incompatible attributes, from whence necessarily results a whole, impossible to have existence?

48 Indestructible elements, the atoms of Epicurus, of which it is said the motion, the collision, the combination, have produced all beings, 49 are, unquestionably, much more tangible than the numerous theological systems, broached in various parts of the earth. 50 Thus, to speak precisely, they are the partisans of imaginary theories, the advocates of contradictory beings, the defenders of creeds, impossible to be conceived, 51 the contrivers of substances which the human mind cannot embrace on any side, who are either absurd or knavish; 52 those enthusiasts, who offer us nothing but vague names, of which everything is denied, of which nothing is affirmed, are the real Atheists; 53 those, I say, who make such beings the authors of motion, the preservers of the universe, are either blind or irrational.

54 Are not those dreamers, who are incapable of attaching any one positive idea to the causes of which they unceasingly speak, true deniers? 55 Are not those visionaries, who make a pure nothing the source of all beings, people really groping in the dark? 56 Is it not the height of

folly to personify abstractions, to organise negative ideas, and then to prostrate ourselves before the figments of our own brain? 57 Nevertheless, they are people of this temper who regulate the opinions of the world; who hold up to public scorn, those who are consistent to principle; who expose to the most infuriate vengeance, those who are more rational than themselves. 58 If you will but accredit those profound dreamers, there is nothing short of madness, nothing on this side the most complete derangement of intellect, that can reject a totally incomprehensible motive-power in Nature. 59 Is it, then, delirium to prefer the known to the unknown? 60 Is it a crime to consult experience, to call in the evidence of our senses, in the examination of that which we are informed is the most important to be understood? 61 Is it a horrid outrage to address ourselves to reason; to prefer its oracles to the sublime decisions of some sophists, who themselves acknowledge they do not comprehend anything of the systems they announce?

62 Nevertheless, according to these people, there is no crime more worthy of punishment-- there is no enterprise more dangerous to morals-- no treason more substantive against society, 63 than to despoil these immaterial substances, which they know nothing about, of those inconceivable qualities which these learned doctors ascribe to them-- 64 of that equipage with which a fanatical imagination has furnished them-- of those miraculous properties with which ignorance, fear, and imposture have emulated each other in surrounding them: 65 there is nothing more impious than to call forth human's reason upon superstitious creeds; 66 nothing more heretical than to cheer up mortals against systems, of which the idea alone is the source of all their sorrows; 67 there is nothing more pious,

nothing more orthodox, than to exterminate those audacious beings who have had sufficient temerity to attempt to break an invisible charm that keeps the human species benumbed in error: 68 if we are to put faith in the asseverations of the hierarchy, to be disposed to break human's chains is to rend asunder your most sacred bonds.

69 In consequence of these clamours, perpetually renovated by the disciples of imposture, kept constantly afloat by the theologians, 70 reiterated by ignorance, those nations, which reason, in all ages, has sought to undeceive, have never dared to hearken to its benevolent lessons: they have stood aghast at the very name of physical truth. 71 The friends of humankind were never listened to, because they were the enemies to own superstition-- the examiners of the doctrines of own priest. 72 Thus the people continued to tremble; very few philosophers had the courage to cheer them; 73 scarcely any one dared brave public opinion; completely inoculated by superstition, they dreaded the power of imposture, the menaces of tyranny, which always sought to uphold themselves by delusion. 74 The yell of triumphant ignorance, the rant of haughty fanaticism, at all time stifled the feeble voice of the disciple of Nature; 75 your lessons were quickly forgotten; you was obliged to keep silence; when you even dared to speak, it was frequently only in an enigmatical language, perfectly unintelligible to the great mass of humankind. 76 How should the uninformed, who with difficulty compass the most evident truths, those that are the most distinctly announced, be able to comprehend the mysteries of Nature, presented under half words, couched under intricate emblems.

77 In contemplating the outrageous language which is excited among theologians, by the opinions of those whom they choose to call atheists; 78 in looking at the punishments which at their instigation were frequently decreed against them, should we not be authorised to

conclude, that these doctors either are not so certain as they say they are, of the infallibility of their respective systems; 79 or else that they do not consider the opinions of their adversaries so absurd as they pretend?

80 It is always either distrust, weakness, or fear, frequently the whole united, that render humans cruel; they have no anger against those whom they despise; they do not look upon folly as a punishable crime. 81 We should be content with laughing at an irrational mortal, who should deny the existence of the sun; 82 we should not think of punishing this person, unless we had, ourselves, taken leave of our senses.

83 Theological fury never proves more than the imbecility of its cause. Lucian describes Jupiter, who disputing with Menippus, is disposed to strike him to the earth with his thunder; 84 upon which the philosopher says to him, "Ah! thou vexest thyself, thou usest thy thunder! then thou art in the wrong." 85 The inhumanity of these human-monsters, whose profession it was to announce chimerical systems to nations, incontestably proves, that they alone have an interest in the invisible powers they describe; 86 of which they successfully avail themselves to terrify, mortals: 87 they are these tyrants of the mind, however, who, but little consequent to their own principles, undo with one hand that which they rear up with the other: 88 they are these profound logicians who, after having formed a deity filled with goodness, wisdom and equity, traduce, disgrace, and completely annihilate Him, by saving He is cruel, capricious, unjust, and despotic: 89 this granted, these people are truly impious; decidedly heretical.

90 You who knoweth not this system, cannot do it any injury, consequently cannot be called impious. 91 "To be impious," says Epicurus, "is not to take away from the illiterate the gods

which they have; it is to attribute to these gods the opinions of the vulgar." 92 To be impious is to insult systems which we believe; it is knowingly to outrage them. 93 To be impious, is to admit a benevolent, just God, at the same time we preach up persecution and carnage. 94 To be impious, is to deceive people in the name of a Deity, whom we make use of as a pretext for our own unworthy passions. 95 To be impious, is to speak falsely on the part of a God, whom we suppose to be the enemy of falsehood. 96 In fine, to be impious, is to make use of the name of the Divinity in order to disturb society-- to enslave it to tyrants-- to persuade human that the cause of imposture is the cause of God; 97 it is to impute to God those crimes which would annihilate His divine perfections. 98 To be impious, and irrational, at the same time, is to make, by the aggregation of discrepant qualities, a mere chimera of the God we adore.

99 On the other hand, to be pious, is to serve your country with fidelity; it is to be useful to your fellow creatures; to labour to the welfare of society. 100 Everyone can put in own claim to this piety, according to your faculties; you who meditates can render Him yourself useful, when you have the courage to announce truth-- to attack error-- 101 to battle those prejudices which everywhere oppose themselves to the happiness of humankind; 102 it is to be truly useful, it is even a duty, to wrest from the hands of mortals those homicidal weapons which wretched fanatics so profusely distribute among them; 103 it is highly praiseworthy to deprive imposture of its influence; 104 it is loving our neighbour as ourselves to despoil tyranny of its fatal empire over opinion, which at all times it so successfully employs to elevate knaves at the expense of public happiness; 105 to erect its power upon the ruins of liberty; to

establish unruly passions upon the wreck of public security. 106 To be truly pious, is religiously to observe the wholesome laws of Nature; to follow up faithfully those duties which She prescribes to us; 107 in short, to be pious is to be humane, equitable, benevolent: it is to respect the rights of humankind. 108 To be pious and rational at the same time, is to reject those reveries which would be competent to make us mistake the sober counsels of reason.

109 Thus, whatever fanaticism, whatever imposture may say, you who denieth the solidity of systems which have no other foundation than an alarmed imagination; 110 you who rejecteth creeds continually in contradiction with themselves; 111 you who banisheth from your heart, doctrines perpetually wrestling with Nature, always in hostility with reason, ever at war with the happiness of human; 112 you, I repeat, who undeceiveth yourself on such dangerous chimeras, when your conduct shall not deviate from those invariable rules which sound morality dictates, which Nature approves, which reason prescribes, may be fairly reputed pious, honest, and virtuous. 113 Because a person refuseth to admit contradictory systems, as well as the obscure oracles, which are issued in the name of the gods, does it then follow, that such a person refuses to acknowledge the evident, the demonstrable laws of Nature, 114 upon which you depends, of which you are obliged to fulfill the necessary duties, under pain of being punished in this world; whatever you may be in the in the next? 115 It is true, that if virtue could by any chance consist in an ignominious renunciation of reason, in a destructive fanaticism, in useless customs, the atheist, as you are called, could not pass for a virtuous being: 116 but if virtue actually consists in doing to society all the good of which we

are capable, this miscalled atheist may fairly lay claim to its practice: 117 your courageous, tender soul, will not be found guilty, for hurling your legitimate indignation against prejudices, fatal to the happiness of the human species.

118 Let us listen, however, to the imputations which the theologians lay upon those people they falsely denominate atheists; 119 let us coolly, without any peevish humour, examine the calumnies which they vomit forth against them: 120 it appears to them that atheism,-- as they call differing in opinion from themselves,-- is the highest degree of delirium that can assail the human mind; the greatest stretch of perversity that can infect the human heart; 121 interested in blackening their adversaries, they make incredulity the undeniable offspring of folly; the absolute effect of crime. 122 "We do not," say they to us, "see those people fall into the horrors of atheism, who have reason to hope the future state will be for them a state of happiness." 123 In short, according to these metaphysical doctors, it is the interest of their passions which makes them seek to doubt systems, at whose tribunals they are accountable for the abuses of this life; 124 it is the fear of punishment which is alone known to atheists; they are unceasingly repeating the words of a Hebrew prophet, who pretends that nothing but folly makes people deny these systems; 125 perhaps, however, if you had suppressed your negation, you would have more closely approximated the truth.

126 Doctor Bentley, in his Folly of Atheism, has let loose the whole Billingsgate of theological spleen, which he has scattered about with all the venom of the most filthy reptiles: 127 if he and other expounders are to be believed, "nothing is blacker than the heart of an atheist; nothing is more false than their mind. 128 Atheism," according to them, "can only be the offspring of a tortured conscience, that seeks to disengage itself from the cause of its trouble. 129 We have a right", says Derham, "to look upon an atheist as a monster

among rational beings; as one of those extraordinary productions which we hardly ever meet with in the whole human species; 130 and who, opposing themselves to all other people, revolts not only against reason and human nature, but against the Divinity Himself." 131 We shall simply reply to all these calumnies by saying, it is for the reader to judge if the system which these people call atheism, be as absurd as these profound speculators-- 132 who are perpetually in dispute on the uninformed, ill organised, contradictory, whimsical productions of their own brain-- would have it believed to be!

133 It is true, perhaps, that the system of naturalism hitherto has not been developed in all its extent: 134 unprejudiced people however, will, at least, be enabled to know whether the author has reasoned well or ill; 135 whether or not you have attempted to disguise the most important difficulties; distinctly to see if you have been disingenuous; they will be competent to observe if, like unto the enemies of human reason, you have recourse to subterfuges, to sophisms, to subtle discriminations, 136 which ought always to make it suspected of those who use them, either that they do not understand or else that they fear the truth. 137 It belongs then to candour, it is the province of disinterestedness, it is the duty of reason to judge, if the natural principles which have been here ushered to the world be destitute of foundation; 138 it is to these upright jurisconsults that a disciple of Nature submits own opinions: 139 you have a right to except against the judgment of enthusiasm; you have the prescription to enter your caveat against the decision of presumptuous ignorance; above all, you are entitled to challenge the verdict of interested knavery.

140 Those people who are accustomed to think, will, at least find reasons to doubt many of those marvellous notions, which appear as incontestable truths only to those, who have never assayed them by the standard of good sense. 141 We agree with Derham, that atheists are rare;

but then we also say, that superstition has so disfigured Nature, so entangled Her rights-- 142 enthusiasm has so dazzled the human mind-- terror has so disturbed the heart of human--imposture has so bewildered your imagination-- tyranny has so enslaved your thoughts: 143 in fine, error, ignorance, and delirium have so perplexed and confused the clearest ideas, that nothing is more uncommon than to find people who have sufficient courage to undeceive themselves on notions which everything conspires to identify with their very existence.

144 Indeed, many theologians in despite of those bitter invectives with which they attempt to overwhelm the people they choose to call atheists, appear frequently to have doubted whether any ever existed in the world. 145 Tertullian, who, according to modern systems, would be ranked as an atheist, because he admitted a corporeal God, says, "Christianity has dissipated the ignorance in which the Pagans were immersed respecting the divine essence, 146 and there is not an artisan among the Christians who does not see God, and who does not know Him." 147 This uncertainty of the theologic professors was, unquestionably, founded upon those absurd ideas, which they ascribe to their adversaries, 148 whom they have unceasingly accused with attributing everything to chance-- to blind causes-- to dead, inert matter, incapable of self-action.

149 We have, I think, sufficiently justified the partisans of Nature against these ridiculous accusations; 150 we have throughout the whole proved, and we repeat it, that chance is a word devoid of sense, which as well as all other unintelligible words, announces nothing but ignorance of actual causes. 151 We have demonstrated that matter is not dead; that Nature, essentially active and self-existent, has sufficient energy to produce all the beings which She contains-- all the phenomena we behold. 152 We have, throughout, made it evident that this cause is much more tangible, more easy of comprehension, than the

inconceivable theory to which theology assigns these stupendous effects. 153 We have represented, that the incomprehensibility of natural effects was not a sufficient reason for assigning to them a system still more incomprehensible than any of those of which, at least, we have a slight knowledge. 154 In fine, if the incomprehensibility of a system does not authourise the denial of its existence, it is at least certain that the incompatibility of the attributes with which it is clothed, authourises the assertion, 155 that those which unite them cannot be anything more than chimeras, of which the existence is impossible.

156 This granted, we shall be competent to fix the sense that ought to be attached to the name of atheist; which, notwithstanding, the theologians lavish on all those who deviate in anything from their opinions. 157 If, by atheist, be designated a person who denieth the existence of a power inherent in matter, without which we cannot conceive Nature, 158 and if it be to this power that the name of God is given, then there do not exist any atheists, and the word under which they are denominated would only announce fools. 159 But if by atheists be understood people without enthusiasm; who are guided by experience; who follow the evidence of their senses; 160 who see nothing in Nature but what they actually find to have existence, or that which they are capacitated to know; 161 who neither do, nor can perceive anything but matter essentially active, moveable, diversely combined, in the full enjoyment of various properties, capable of producing all the beings who display themselves to our visual faculties, 162 if by atheists be understood natural philosophers, who are convinced that without recurring to chimerical causes, they can explain everything, simply by the laws of motion; 163 by the relation subsisting between beings; by their affinities; by their analogies; by their aptitude to attraction; by their repulsive powers; by their proportions; by their combinations; by their decomposition: 164 if by atheists be meant these people who

do not understand what Pneumatology is, who do not perceive the necessity of spiritualising, or of rendering incomprehensible, those corporeal, sensible, natural causes, which they see act uniformly; 165 who do not find it requisite to separate the motive-power from the universe; 166 who do not see, that to ascribe this power to an immaterial substance, to that whose essence is from thenceforth totally inconceivable, is a means of becoming more familiar with it: 167 if by atheists are to be portrayed those people who ingenuously admit that their mind can neither receive nor reconcile the union of the negative attributes and the theological abstractions, with the human and moral qualities which are given to the Divinity; 168 or those people who pretend that from such an incompatible alliance, there could only result an imaginary being; 169 seeing that a pure spirit is destitute of the organs necessary to exercise the qualities, to give play to the faculties of human nature: 170 if by atheists are described those people who reject systems, whose odious and discrepant qualities are solely calculated to disturb the human species-- to plunge it into very prejudicial follies: 171 if, I repeat it, thinkers of this description are those who are called atheists, it is not possible to doubt their existence; 172 and their number would be considerable, if the light of sound natural philosophy was more generally diffused; 173 if the torch of reason burnt more distinctly; or if it was not obscured by the theological bushel: from thence, however, they would be considered neither as irrational; nor as furious beings, 174 but as people devoid of prejudice, of whose opinions, or if they prefer it, whose ignorance, would be much more useful to the human race, 175 than those ideal sciences, those vain hypotheses, which for so many ages have been the actual causes of all human's tribulation.

176 Doctor Cudworth, in his Intellectual System, reckons four species of atheists among the ancients.

NATURE

177 First.-- The disciples of Anaximander, called Hylopathians, who attributed everything to matter destitute of feeling. 178 His doctrine was, that humans were born of earth united with water, and vivified by the beams of the sun; 179 his crime seems to have been, that he made the first geographical maps and sun-dials; declared the earth moveable and of a cylindrical form.

180 Secondly.-- The Atomists, or the disciples of Democritus, who attribute everything, to the concurrence of atoms. 181 His crime was, having first taught that the milky way was occasioned by the confused light from a multitude of stars.

182 Thirdly.--The Stoics, or the disciples of Zeno, who admitted a blind Nature acting after certain laws. 183 His crime appears to be, that he practised virtue with unwearied perseverance, and taught that this quality alone would render humankind happy.

184 Fourthly. -- The Hylozoists, or the disciples of Strato, who attributed life to matter. 185 His crime consisted in being one of the most acute natural philosophers of his day, enjoying high favour with Ptolemy Philadelphus, an intelligent prince, whose preceptor he was.

186 If, however, by atheists, are meant those people, who are obliged to avow, that they have not one idea of the system they adore, or which they announce to others; 187 who cannot give any satisfactory account, either of the nature or of the essence of their immaterial substances; 188 who can never agree amongst themselves on the proofs which they adduce in support of their System; on the qualities or on the modes of action of their incorporeities, which by dint of negations they render a mere nothing; 189 who either prostrate themselves, or cause others to bow down, before the absurd fictions of their own delirium: 190 if, I say, by atheists, be

denominated people of this stamp, we shall be under the necessity of allowing, that the world is filled with them: 191 we shall even be obliged to place in this number some of the most active theologians, who are unceasingly reasoning upon that Which they do not understand; 192 who are eternally disputing upon points which they cannot demonstrate; 193 who by their contradictions very efficaciously undermine their own systems; 194 who annihilate all their own assertions of perfection, by the numberless imperfections with which they clothe them; 195 who rebel against their gods by the atrocious character under which they depict them. 196 In short, we shall be able to consider as true atheists, those credulous, weak people, who upon hearsay and from tradition, bend the knee before idols, 197 of whom they have no other ideas, than those which are furnished them by their spiritual guides, who themselves acknowledge that they comprehend nothing about the matter.

198 What has been said amply proves that the theologians themselves have not always known the sense they could affix to the word atheist; 199 they have vaguely attacked, in an indistinct manner, calumniated with it, those people whose sentiments and principles were opposed to their own. 200 Indeed, we find that these sublime professors, always infatuated with their own particular opinions, have frequently been extremely lavish in their accusations of atheism, against all those whom they felt a desire to injure; 201 whose characters it was their pleasure to paint in unfavourable colours; whose doctrines they wished to blacken; whose systems they sought to render odious: 202 they were certain of alarming the illiterate, of rousing the antipathies of the silly, by a loose imputation, or by a word, to which ignorance attaches the idea of horror, merely because it is

unacquainted with its true sense. 203 In consequence of this policy, it has been no uncommon spectacle to see the partisans of the same sect, the adorers of the same gods, reciprocally treat each other as atheists, in the fervour of their theological quarrels; 203 to be an atheist, in this sense, is not to have, in every point, exactly the same opinions as those with whom we dispute, either on superstitious or religious subjects. 204 In all times the uninformed have considered those as atheists, who did not think upon the Divinity precisely in the same manner as the guides whom they were accustomed to follow.

205 Socrates, the adorer of a unique God, was no more than an atheist in the eyes of the Athenian people. 206 Still more, as we have already observed, those people have frequently been accused of atheism, who have taken the greatest pains to establish the existence of the gods, but who have not produced satisfactory proofs: 207 when their enemies wished to take advantage of them, it was easy to make them pass for atheists, who had wickedly betrayed their cause, by defending it too feebly. 208 The theologians have frequently been very highly incensed against those who believed they had discovered the most forcible proof of the existence of their gods, 209 because they were obliged to discover that their adversaries could make very contrary inductions from their propositions; 210 they did not perceive that it was next to impossible not to lay themselves open to attack, in establishing principles visibly founded upon that which each human sees variously.

211 Thus Paschal says, "I have examined if this God, of whom all the world speaks, might not have left some marks of Himself. I look everywhere, and everywhere I see nothing but obscurity. 212 Nature offers one

nothing, that may not be a matter of doubt and in quietude. If I saw nothing in Nature which indicated a Divinity, I should determine with myself, to believe nothing about it. 213 If every where I saw the sign of a creator, I should repose myself in peace, in the belief of one. 214 But seeing too much to deny, and too little to assure me of His existence, I am in a situation that I lament, and in which I have an hundred times wished, that if a God doth sustain Nature, He would give unequivocal marks of it, 215 and that if the signs which He hath given be deceitful, that He would suppress them entirely; that He said all or nothing, to the end that I might see which side I ought to follow."

216 In a word, those who have most vigourously taken up the cause of the theological systems, have been taxed with atheism and irreligion; 217 the most zealous partisans have been looked upon as deserters, have been contemplated as traitors; 218 the most orthodox theologians have not been able to guarantee themselves from this reproach; they have mutually bespattered each other; prodigally lavished, with malignant reciprocity, the most abusive terms: 219 nearly all have, without doubt, merited these invectives, if in the term atheist be included those people who have not any idea of their various systems, that does not destroy itself, whenever they are willing to submit it to the touchstone of reason. 220 From whence we may conclude, without subjecting ourselves to the reproach of being hasty, that error will not stand the test of investigation; 221 that it will not pass the ordeal of comparison; that it is in its hues a perfect chameleon; that consequently it can never do more than lead to the most absurd deductions: 222 that the most ingenious systems, when they have their foundations in hallucination, crumble like dust under the rude band of the assayer; 223 that the most

sublimated doctrines, when they lack the substantive quality of rectitude, evaporate under the scrutiny of the sturdy examiner, who tries them in the crucible; 224 that it is not by levelling abusive language against those who investigate sophisticated theories, they will either be purged of their absurdities, acquire solidity, or find an establishment to give them perpetuity; 225 that moral obliquities, can never be made rectilinear by the mere application of unintelligible terms, or by the inconsiderate jumble of discrepant properties, however gaudy the assemblage: 226 in short, that the only criterion of truth is, that it is ever consistent with itself.

IS WHAT IS TERMED ATHEISM COMPATIBLE WITH MORALITY?

Paul Henri Thiery (Baron D'Holbach)

55 After having proved the existence of those whom the superstitious bigot, the heated theologian, the inconsequent theist, calls atheists, let us return to the calumnies which are so profusely showered upon them by the deicolists. 2 According to Abady, in his '*Treatise on the Truth of the Christian Religion'*, "an atheist cannot be virtuous: to him virtue is only a chimera; probity no more than a vain scruple; honesty nothing but foolishness;-- 3 he knoweth no other law than his interest: where this sentiment prevails, conscience is only a prejudice; 4 the law of Nature only an illusion; right no more than an error; benevolence hath no longer any foundation; 5 the bonds of society are loosened; the ties of fidelity are removed; friend is ready to betray friend; the citizen to deliver up his country; the son to assassinate his father, in order to enjoy his inheritance, 6 whenever they shall find occasion, and that authority or silence shall shield them from the arm of the secular power, which alone is to be feared. 7 The most inviolable rights, and most sacred

laws, must no longer be considered, except as dreams and visions."

8 Such, perhaps, would be the conduct, not of a feeling, thinking, reflecting being, susceptible of reason; 9 but of a ferocious brute, of an irrational wretch, who should not have any idea of the natural relations which subsist between beings, reciprocally necessary to each other's happiness. 10 Can it actually be supposed, that a person capable of experience, furnished with the faintest glimmerings of sound sense, would lend the self to the conduct which is here ascribed to the atheist; 11 that is to say, to a person who is conversant with the evidence of facts; who ardently seeks after truth; 12 who is sufficiently susceptible of reflection, to undeceive the self by reasoning upon those prejudices which every one strives to show you as important; which all voices endeavour to announce to you as sacred? 13 Can it, I repeat, be supposed, that any enlightened, any polished society, contains a citizen so completely blind, not to acknowledge own most natural duties; 14 so very absurd, not to admit own dearest interests; so completely besotted not to perceive the danger you incurs in incessantly disturbing your fellow creatures; or in following no other rule, than your momentary appetites?

15 Is not every human being who reasons in the least possible manner, obliged to feel that society is advantageous to the self; 16 that you hath need of assistance; that the esteem of your fellows is necessary to your own individual happiness; 17 provoked, that you have everything to fear from the wrath of your associates; that the laws menace whoever shall dare to infringe them? 18 Every person who has received a virtuous education, who has in own infancy experienced the tender cares of a parent; who has in consequence tasted the sweets of friendship; 19 who has received kindness; who knows the worth of benevolence; who sets a just value upon equity; 20 who feels the pleasure which the affection

of our fellow creatures procures for us; who endures the inconveniences which result from their aversion, who smarts under the sting which is inflicted by their scorn, 21 is obliged to tremble at losing, by own measures, such manifest advantages-- at incurring such, imminent danger. 22 Will not the hatred of others, the fear of punishment, your own contempt of yourself, disturb your repose every time that, turning, inwardly upon your own conduct, you shall contemplate it under the same perspective as does your neighbour? 23 Is there then no remorse but for those who believe in incomprehensible systems? 24 Is the idea that we are tinder the eye of beings of whom we have but vague notions, more forcible than the thought that we are viewed by our fellow humans; 25 than the fear of being detected by ourselves; than the dread of exposure; than the cruel necessity of becoming despicable in our own eyes; 26 than the wretched alternative, to be constrained to blush guiltily, when we reflect on our wild career, and the sentiments which it must infallibly inspire?

27 This granted, we shall reply deliberately to this Abady, that an atheist is a person who understands Nature, who studies Her laws; who knows their own nature; who feels what it imposes upon the self. 28 An atheist hath experience; this experience proves to you every moment that vice can injure you; that your most concealed faults, your most secret dispositions, may be detected--may display your character in open day; 29 this experience proves to you that society is useful to your happiness; 30 that your interest authoritatively demands you should attach yourself to the country that protects you, which enables you to enjoy in security the benefits of Nature; 31 everything shows you that in order to be happy you must make yourself beloved; that your parent is for you the most certain of friends; that ingratitude would remove you

from your benefactor; 32 that justice is necessary to the maintenance of every association; 33 that no person, whatever may be your power, can be content with yourself, when you knows you are an object of public hatred. 34 You who has maturely reflected upon yourself, upon your own nature, upon that of your associates, upon your own wants, upon the means of procuring them, cannot prevent yourself from becoming acquainted with your duties-- 35 from discovering the obligations you owes to yourself, as well as those which you owes to others; 36 from thence you have morality, you have actual motives to confirm yourself to its dictates; you are obliged to feel, that these duties are imperious: 37 if your reason be not disturbed by blind passions, if your mind be not contaminated by vicious habits, you will find that virtue is the surest road to felicity.

38 The atheists, as they are styled, or the fatalists, build their system upon necessity: 39 thus, their moral speculations, founded upon the nature of things, are at least much more permanent, much more invariable, 40 than those which only rest upon systems that alter their aspect according to the various dispositions of their adherents-- in conformity with the wayward passions of those who contemplate, them. 41 The essence of things, and the immutable laws of Nature, are not subject to fluctuate; 42 it is imperative with the atheist, as you are facetiously called by the theologian, to call whatever injures yourself either vice or folly; 43 to designate that which injures others, crime; to describe all that is advantageous to society, everything which contributes to its permanent happiness, virtue. 44 It will be obvious, then, that the principles of the miscalled atheist are much less liable to be shaken, than those of the enthusiast, who shall have studied a baby from own earliest Infancy; 45 who should have devoted not only your days, but your nights, to gleaning the

scanty portion of actual information that you scatters through your volumes; 46 they will have a much more substantive foundation than those of the theologian, who shall construct your morality upon the harlequin scenery of systems that so frequently change, even in your own distempered brain.

47 If the atheist, as they please to call those who differ in opinion with themselves, objects to the correctness of their systems, you cannot deny your own existence, nor that of beings similar to yourself, by whom you are surrounded; 48 you cannot doubt the reciprocity of the relations that subsist between them; you cannot question the duties which spring out of these relations; 49 Pyrrhonism, then, cannot enter your mind upon the actual principles of morality; which is nothing more than the science of the relations of beings living together in society.

50 If, however, satisfied with a barren, speculative knowledge of your duties, the atheist of the theologian should not apply them in your conduct-- 51 if, hurried along by the current of your ungovernable passions-- if, borne forward by criminal habits-- if, abandoned to shameful vices-- if, possessing a vicious temperament, which you have not been sedulous to correct-- 52 if, lending yourself to the stream of outrageous desires, you appears to forget your moral obligations, it by no means follows, either that you hath no principles, or that your principles are false: 53 it can only be concluded from such conduct, that in the intoxication of your passions, in the delirium of your habits, in the confusion of your reason, you does not give activity to doctrines grounded upon truth; 54 that you forgets to give currency to ascertained principles; that you may follow those propensities which lead you astray. 55 In this, indeed, you will have dreadfully descended to the miserable level of the

theologian, but you will nevertheless find them the partner of their folly-- the partaker of their insanity-- the companion of their crime.

56 Nothing is, perhaps, more common among people, than a very marked discrepancy between the mind and the heart; 57 that is to say, between the temperament, the passions, the habits the caprices, the imagination, and the judgment, assisted by reflection. 58 Nothing is, in fact, more rare, than to find these harmoniously running upon all fours with each other; it is, however, only when they do, that we see speculation influence practice. 59 The most certain virtues are those which are founded upon the temperament of human. 60 Indeed, do we not every day behold mortals in contradiction with themselves? 61 Does not their more sober judgment unceasingly condemn the extravagances to which their undisciplined passions deliver them up? 62 In short, doth not everything prove to us hourly, that people, with the very best theory, have sometimes the very worst practice; that others with the most vicious theory, frequently adopt the most amiable line of conduct? 63 In the blindest systems, in the most atrocious superstitions, in those which are most contrary to reason, we meet with virtuous people, 64 the mildness of whose character, the sensibility of whose hearts, the excellence of whose temperament, re-conducts them to humanity, makes them fall back upon the laws of Nature, in despite of their furious theories.

65 Among the adorers of the most cruel, vindictive, jealous gods, are found peaceable, souls, who are enemies to persecution; 66 who set their faces against violence; who are decidedly opposed to cruelty: among the disciples of a God filled with mercy, abounding in clemency, are seen barbarous monsters; inhuman cannibals: 67 nevertheless, both the one and the other acknowledge, that their gods ought to serve them for a model. 68 Wherefore, then, do they not in all things conform themselves? 69 It is because the most wicked systems cannot always corrupt a

virtuous soul; 70 that those which are most bland, most gentle in their precepts, cannot always restrain hearts driven along by the impetuosity of vice. 71 The organisation will, perhaps, be always more potential than either superstition or religion. 72 Present objects, momentary interests, rooted habits, public opinion, have much more efficacy than unintelligible theories, than imaginary systems, which themselves depend upon the organic structure of the human frame.

73 The point in question then is, to examine if the principles of the atheist, as you are erroneously called, be true, and not whether your conduct be commendable? 74 An atheist, having an excellent theory, founded upon Nature, grafted upon experience, constructed upon reason, who delivers the self up to excesses, dangerous to the self, injurious to society, is, without doubt, an inconsistent person. 75 But you are not more to be feared than a superstitious bigot; than a zealous enthusiast; 76 or than even a religious person who, believing in a good, confiding in an equitable, relying on a perfect God, does not scruple to commit the most frightful devastations in His name. 77 An atheistical tyrant would assuredly not be more to be dreaded than a fanatical despot. 78 An incredulous philosopher, however, is not so mischievous a being as an enthusiastic priest, who either fans the flame of discord among own fellow subjects, or rises in rebellion against own legitimate monarch.

79 Would, then, an atheist clothed with power, be equally dangerous as a persecuting priest-ridden king; as a savage inquisitor; as a whimsical devotee; or, as a morose bigot? 80 These are assuredly more numerous in the world than atheists, as they are ludicrously termed, whose opinions, or whose vices are far from being in a condition to have an influence upon society; 81 which is ever

too much hoodwinked by the priest, too much blinded by prejudice, too much the slave of superstition, to be disposed to give them a patient hearing.

82 An intemperate, voluptuous atheist, is not more dangerous to society than a superstitions bigot, who knows how to connect licentiousness, punic faith, ingratitude, libertinism, corruption of morals, with own theological notions. 83 Can it, however, be ingeniously imagined, that a person, because you are falsely termed an atheist, or because you does not subscribe to the vengeance of the most contradictory systems, will therefore be a profligate debaucheé, malicious, and persecuting; 84 that you will corrupt the wife of your friend; will turn your own wife adrift; 85 will consume both your time and your money in the most frivolous gratifications; will be the slave to the most childish amusements; the companion of the most dissolute people; 86 that you will discard all your old friends; that you will select your bosom confidants from the brazen betrayers of their native land-- from among the hoary despoilers of connubial happiness--from out of the ranks of veteran gamblers; 87 that you will either break into your neighbour's dwelling, or cut their throat; 88 in short, that you will lend yourself to all those excesses, the most injurious to society, the most prejudicial to yourself, the most deserving public castigation?

89 The blemishes of an atheist, then, as the theologian styles you, have not anything more extraordinary in them than those of the superstitious person; they possess nothing with which their doctrine can be fairly reproached. 90 A tyrant, who should be incredulous, would not be a more incommodious scourge to own subjects, than a theological autocrat, who should wield own sceptre to the misery of own people. 91 Would the nation of the latter feel more happy, from the mere circumstance that the tiger who governed it believed in the most abstract systems, heaped the most sumptuous presents on the priests, and humiliated the self at

their shrine? 92 At least it must be acknowledged, according to the showing of the theologian themselves, that under the dominion of the atheist, a nation would not have to apprehend superstitious vexations; 93 to dread persecutions for opinion; to fear proscriptions for ill-digested systems; neither would it witness those strange outrages that have sometimes been Committed for the interests of heaven, even under the mildest monarchs. 94 If it was the victim to the turbulent passions of an unbelieving prince, the sacrifice to the folly of a sovereign who should be an infidel, it would not, at least, suffer from your blind infatuation, for theological systems which you does not understand; 95 nor from your fanatical zeal, which of all the passions that infest monarchs, is ever the most destructive, always the most dangerous. 96 An atheistical tyrant, who should persecute for opinions, would be a person not consistent with own principles; 97 you could not exist; you would not, indeed, according to the theologian, be an atheist at most, 98 you would only furnish one more example, that mortals much more frequently follow the blind impulse of their passions, the more immediate stimulus of their interest, the irresistible torrent of their temperament, than their speculations, however grave, however wise. 99 It is, at least, evident, that an atheist has one pretext less than a credulous prince, for exercising own natural wickedness.

100 Indeed, if people condescended to examine things coolly, they would find that on this earth the name of God is but too frequently made use of as a motive to indulge the worst of human passions. 101 Ambition, imposture, and tyranny, have often formed a league to avail themselves of its influence, to the end that they might blind the people, and bend them beneath a galling yoke: 102 the monarch sometimes employs it to give a divine lustre to own person-- the sanction of heaven to own rights-- the confidence of its votaries to own most unjust, most

extravagant whims. 103 The priest frequently uses it to give currency to own pretensions, to the end that they may with impunity gratify own avarice, minister to own pride, secure own independence. 104 The vindictive, enraged, superstitious being, introduces the cause of own gods, that they may give free scope to their fury, which they qualifies with zeal. 105 In short, superstition becomes dangerous, because it justifies those passions, lends legitimacy to those crimes, holds forth as commendable those excesses, of which it does not fail to gather the fruit: 106 according to its ministers, everything is permitted to revenge the most high: thus the name of the Divinity is made use of to authourise the most baneful actions, to palliate the most injurious transgressions. 107 The atheist, as you are called, when you commits crimes, cannot, at least, pretend that it is your gods who command them, or who clothe them with the mantle of their approval, 108 this is the excuse the superstitious being offers for own perversity; the tyrant for own persecutions; the priest for own cruelty, and for own sedition; the fanatic for the ebullition of own boiling passions; the penitent for own inutility.

109 "They are not," says Bayle, "the general opinions of the mind, but the passions, which determine us to act." 110 Atheism, as it is called, is a system which will not make a good person wicked but it may, perhaps, make a wicked person good. 111 "Those," says the same author, "who embraced the sect of Epicurus, did not become debaucheés because they had adopted the doctrine of Epicurus; they only lent themselves to the system, then badly understood, because they were debaucheés." 112 In the same manner, a perverse person may embrace atheism, because you will flatter yourself, that this system will give full scope to your passions:

you will nevertheless be deceived. 113 Atheism, as it is called, if well understood, is founded upon Nature and upon reason, which never can, like superstition, either justify or expiate the crimes of the profligate.

114 From the diffusion of doctrines which make morality depend upon unintelligible, incomprehensible systems, that are proposed to human for a model, there has unquestionably resulted very great inconvenience. 115 Corrupt souls, in discovering, how much each of these suppositions are erroneous or doubtful, give loose to the rein of their vices, and conclude there are not more substantive motives for acting well; 116 they imagine that virtue, like these fragile systems, is merely chimerical; that there is not any cogent solid reason for practising it in this world.

117 Nevertheless, it must be evident, that it is not as the disciples of any particular tenet, that we are bound to fulfill the duties of morality; 118 it is as humans, living together in society, as sensible beings seeking to secure to ourselves a happy existence, that we should feel the moral obligation. 119 Whether these systems maintain their ground, or whether they do not, our duties will remain the same; 120 our nature, if consulted, will incontestably prove, that vice is a decided evil, that virtue is an actual, a substantial good. 121 If, then, there be found atheists who have denied the distinction of good and evil, or who have dared to strike at the foundations of morality; we ought to conclude, that upon this point they have reasoned badly; 122 that they have neither been acquainted with the nature of human, nor known the true source of human duties; 123 that they have falsely imagined that ethics, as well as theology, was only an ideal science; 124 that the fleeting systems once destroyed, there no

longer remained any bonds to connect mortals.

125 Nevertheless, the slightest reflection would have incontestably proved, that morality is founded upon immutable relations subsisting between sensible, intelligent, sociable beings; 126 that without virtue, no society can maintain itself; that without putting the curb on your desires, no mortal can conserve the self: 127 human is constrained from own nature to love virtue, to dread crime, by the same necessity that obliges you to seek happiness, and fly from sorrow: 128 thus Nature compels you to place a distinction between those objects which please, and those objects Which injure you. 129 Ask a person, who is sufficiently irrational to deny the difference between virtue and vice, if it would be indifferent to you to be beaten, robbed, calumniated, treated with ingratitude, dishonoured by your spouse, insulted by your children, betrayed by your friend? 130 Your answer will prove to you, that whatever you may say, you discriminates the actions of humankind; 131 that the distinction between good and evil, does not depend either upon the conventions of humans, or upon the ideas which they may have of particular systems; upon the punishments or upon the recompences which attend mortals in a future existence.

132 On the contrary, an atheist, as you are denominated, who should reason with justness, would feel the self more interested than another in practising those virtues to which you finds your happiness attached in this world. 133 If your views do not extend themselves beyond the limits of your present existence, you must, at least, desire to see your days roll on in happiness and in peace. 134 Every person, who during the calm of own passions, falls back upon the self, will feel that own interest invites the self to own

preservation; 135 that your felicity rigorously demands you should take the necessary means to enjoy life peaceably that it becomes an imperative duty to yourself to keep your actual abode free from alarm; your mind untainted by remorse. 136 Human oweth something to human, not merely because you would offend any particular system, if you was to injure your fellow creature; 137 but because in doing you an injury you would offend a person; would violate the laws of equity; in the maintenance of which every human being finds the self interested.

138 We every day see people who are possessed of great talents, who have very extensive knowledge, who enjoy very keen penetration, join to these advantages a very corrupt heart; who lend, themselves to the most hideous vices: 139 their opinions may be true in some respects, false in a great many others; their principles may be just, but their inductions are frequently defective; very often precipitate. 140 A person may embrace sufficient knowledge to detect some of own errors, yet command too little energy to divest the self of own vicious propensities. 141 Human is a being whose character depends upon own organisation, modified by habit--upon own temperament, regulated by education-- upon own propensities, marshalled by example-- upon own passions; guided by own government; 142 in short, you are only what transitory or permanent circumstances make you: 143 your superstitious ideas are obliged to yield to this temperament; your imaginary systems feel a necessity to accommodate themselves to your propensities; your theories give way to your interests.

144 If the system which constitutes human an atheist in the eyes of this theologic friend, does not remove you from the

vices with which you was anteriorly tainted, neither does it tincture you with any new ones; 145 whereas, superstition furnishes its disciples with a thousand pretexts for committing evil without repugnance; induces them even to applaud themselves for the commission of crime. 146 Atheism, at least, leaves people such as they are; it will neither increase a person's intemperance, nor add to your debaucheries, it will not render you more cruel than your temperament before invited you to be: 147 whereas superstition either lacks the rein to the most terrible passions, gives loose to the most abominable suggestions, or else procures easy expiations for the most dishonourable vices. 148 "Atheism," says Chancellor Bacon, "leaves to human reason, philosophy, natural piety, laws, reputation, and everything that can serve to conduct you to virtue; 149 but superstition destroys all these things, and erects itself into a tyranny over the understandings of humans: 150 this is the reason why atheism never disturbs the government, but renders human more clear-sighted, as seeing nothing beyond the bounds of this life." 151 The same author adds, "that the times in which people have turned towards atheism, have been the most tranquil; 152 whereas superstition has always inflamed their minds, and carried them on to the greatest disorders; because it infatuates the people with novelties, which wrest from and carry with them all the authority of government."

153 People, habituated to meditate, accustomed to make study a pleasure, are not commonly dangerous citizens: whatever may be their speculations, they never produce sudden revolutions upon the earth. 154 The winds of the people, at all times susceptible to be inflamed by the marvellous, their dormant passions liable to be aroused by enthusiasm, obstinately resist the light of simple truths; 155 never heat themselves for systems that demand

a long train of reflection-- that require the depth of the most acute reasoning.

156 The system of atheism, as the priests choose to denominate it, can only be the result of long meditation; the fruit of connected study; the produce of an imagination cooled by experience: it is the child of reason. 157 The peaceable Epicurus never disturbed Greece; his philosophy was publicly taught in Athens during many centuries; 158 he was in incredible favour with his countrymen, who caused statues to be erected to him; he had a prodigious number of friends, and his school subsisted for a very long period. 159 Cicero, although a decided enemy to the Epicureans, gives a brilliant testimony to the probity both of Epicurus and his disciples, who were remarkable for the inviolable friendship they bore each other. 160 In the time of Marcus Aurelius, there was at Athens a public professor of the philosophy of Epicurus, paid by that emperor, who was himself a stoic. 161 Hobbes did not cause blood to flow in England, although in his time, religious fanaticism made a king perish on the scaffold. 162 The poem of Lucretius caused no civil wars in Rome; the writings of Spinoza did not excite the same troubles in Holland as the disputes of Gomar and D'Arminius.

163 In short, we can defy the enemies to human reason to cite a single example, which proves in a decisive manner that opinions purely philosophical, or directly contrary to superstition, have ever excited disturbances in the state. 164 Tumults have generally arisen from theological notions, because both princes and people have always foolishly believed they ought to take a part in them. 165 There is nothing so dangerous as that empty philosophy, which the theologians have combined with their systems. 166 It is to philosophy, corrupted by priests, that it peculiarly belongs to blow up the embers of discord; to invite the people to rebellion; to drench the earth with human blood. 167 There is, perhaps, no theological question, which has not been the source of immense mischief to

human; 168 whilst all the writings of those denominated atheists, whether ancient or modern, have never caused any evil but to their authors; whom dominant imposture has frequently immolated at their deceptive shrine.

169 The principles of atheism are not formed for the mass of the people, who are commonly under the tutelage of their priests; 170 they are not calculated for those frivolous capacities, not suited to those dissipated minds, who fill society with their vices, who hourly afford evidence of their own inutility; 171 they will not gratify the ambitious; neither are they adapted to intriguers, nor fitted for those restless beings who find their immediate interest in disturbing the harmony of the social compact: 172 much less are they made for a great number of people, who, enlightened in other respects, have not sufficient courage to divorce themselves from the received prejudices.

173 So many causes unite themselves to confirm human in those errors which you draws in with your mother's milk, that every step that removes you from these endeared fallacies, costs you uncommon pain. 174 Those people who are most enlightened, frequently cling on some side to the general prepossession. 175 By giving up these revered ideas, we feel ourselves, as it were, isolated in society: 176 whenever we stand alone in our opinions, we no longer seem to speak the language of our associates; we are apt to fancy ourselves placed on a barren, desert island, in sight of a populous, fruitful country, which we can never reach: 177 it therefore requires great courage to adopt a mode of thinking that has but few approvers. 178 In those countries where human knowledge has made some progress; where, besides, a certain freedom of thinking is enjoyed, may easily be found a great number of deicolists, theists, 179 or incredulous beings, who, contented with having trampled underfoot the grosser

prejudices of the illiterate, have not dared to go back to the source-- to cite the more subtle systems before the tribunal of reason.

180 If these thinkers did not stop on the road, reflection would quickly prove to them that those systems which they have not the fortitude to examine, are equally injurious to sound ratiocination, 181 fully as revolting to good sense, quite as repugnant to the evidence of experience, as any of those doctrines, mysteries, fables, or superstitious customs, of which they have already acknowledged the futility; 182 they would feel, as we have already proved, that all these things are nothing more than the necessary consequences of those primitive errors which human has indulged for so many ages in succession; 183 that in admitting these errors, they no longer have any rational cause to reject the deductions which the imagination has drawn from them. 184 A little attention would distinctly show them, that it is precisely these errors that are the true cause of all the evils of society; 185 that those endless disputes, those sanguinary quarrels, to which superstition and the spirit of party every instant give birth, are the inevitable effects of the importance they attach to errors which possess all the means of distraction, that scarcely ever fail to put the mind of human into a state of combustion. 186 In short, nothing is more easy than to convince ourselves that imaginary systems, not reducible to comprehension, which are always painted under terrific aspects, must act upon the imagination in a very lively manner, 187 must sooner or later produce disputes-- engender enthusiasm-- give birth to fanaticism-- end in delirium.

188 Many people acknowledge, that the extravagances to which superstition lends activity, are real evils; 189 many complain of the abuse of superstition, but there are

very few who feel that this abuse, together with the evils, are the necessary consequences of the fundamental principles of all superstition; 190 which are founded upon the most grievous notions, which rest themselves on the most tormenting opinions. 191 We daily see people undeceived upon superstitious ideas, who nevertheless pretend that this superstition "is salutary for the people;" that without its supernatural magic, they could not be kept within due bounds; 192 in other words, could not be made the voluntary slaves of the priest.

193 But, to reason thus, is it not to say, poison is beneficial to humankind, that therefore it is proper to poison them, to prevent them from making an improper use of their power? 194 Is it not in fact to pretend it is advantageous to render them absurd; that it is a profitable course to make them extravagant; wholesome to give them an irrational bias; 195 that they have need of hobgoblins to blind them; require the most incomprehensible systems to make them giddy; 196 that it is imperative to submit them either to impostors or to fanatics, who will avail themselves of their follies to disturb the repose of the world? 197 Again, is it an ascertained fact, does experience warrant the conclusion, that superstition has a useful influence over the morals of the people?

198 It appears much more evident, is much better borne out by observation, falls more in with the evidence of the senses, that it enslaves them without rendering them better; 199 that it constitutes an herd of ignorant beings, whom panic terrors keep under the yoke of their task-masters; 200 whom their useless fears render the wretched instruments of towering ambition--of rapacious tyrants; of the subtle craft of designing priests: 201 that it forms stupid slaves, who are acquainted with no other virtue, save a blind submission to the most futile customs, to which they attach a much more substantive value than to the actual virtues springing out of the duties of morality; 202 or issuing from the social compact which has

never been made known to them. 203 If by any chance, superstition does restrain some few individuals, it has no effect on the greater number, who suffer themselves to be hurried along by the epidemical vices with which they are infected: 204 they are placed by it upon the stream of corruption, and the tide either sweeps them away, or else, swelling the waters, breaks through its feeble mounds, and involves the whole in one undistinguished mass of ruin. 205 It is in those countries where superstition has the greatest power, that will always be found the least morality.

206 Virtue is incompatible with ignorance; it cannot coalesce with superstition; it cannot exist with slavery: 207 slaves can only be kept in subordination by the fear of punishment; ignorant children are for a moment intimidated by imaginary terrors. 208 But freemen, the children of truth, have no fears but of themselves; are neither to be lulled into submission by visionary duties, nor coerced by fanciful systems; 209 they yield ready obedience to the evident demonstrations of virtue; are the faithful, the invulnerable supporters of solid systems; cling with ardour to the dictates of reason; 210 form impenetrable ramparts round their legitimate sovereigns; and fix their thrones on an immoveable basis, unknown to the theologian; 211 that cannot be touched with unhallowed hands; whose duration will be commensurate with the existence of time itself.

212 To form freemen, however, to have virtuous citizens, it is necessary to enlighten them; it is incumbent to exhibit truth to them; it is imperative to reason with them; it is indispensable to make them feel their interests; it is paramount to learn them to respect themselves; 213 they must be instructed to fear shame; they must be excited to have a just idea of honour; they must be made familiar with the value of virtue, they must be shown substantive motives for following its lessons. 214 How can these happy effects ever be expected from the polluted fountains of superstition, whose waters do

nothing more than degrade humankind? 215 Or how are they to be obtained from the ponderous, bulky yoke of tyranny, which proposes nothing more to itself, than to vanquish them by dividing them; 216 to keep them in the most abject condition by means of lascivious vices, and the most detestable crimes?

217 The false idea, which so many people have of the utility of superstition, which they, at least, judge to be calculated to restrain the licentiousness of the illiterate, arise from the fatal prejudice that it is a useful error; that truth may be dangerous. 218 This principle has complete efficacy to eternise the sorrows of the earth: 219 whoever shall have the requisite courage to examine these things, will without hesitation acknowledge, that all the miseries of the human race are to be ascribed to own errors; 220 that of these, superstitious error must be the most prejudicial, from the importance which is usually attached to it; from the haughtiness with which it inspires sovereigns; from the worthless condition which it prescribes to subjects; from the phrenzy which it excites among the vulgar.

221 We shall, therefore, be obliged to conclude, that the superstitious errors of human, rendered sacred by time, are exactly those which for the permanent interest of humankind, for the well-being of society, for the security of the monarch, demand the most complete destruction; 222 that it is principally to their annihilation, the efforts of a sound philosophy ought to be directed. 223 It is not to be feared, that this attempt will produce either disorders or revolutions: the more freedom shall accompany the voice of truth, the more convincing it will appear; 224 although the more simple it shall be, the less it will influence people, who are only smitten with the marvellous; 225 even those individuals who most

sedulously seek after truth, who pursue it with the greatest ardour, have frequently an irresistible inclination, that urges them on, and incessantly disposes them to reconcile error with its antipodes. 226 That great master of the art of thinking, who holds forth to own disciples such able advice, says, with abundant reason, "that there is nothing but a good and solid philosophy, which can, like another Hercules, exterminate those monsters called popular errors: 227 it is that alone which can give freedom to the human mind."

228 Here is, unquestionably, the true reason why atheism, as it is called, of which hitherto the principles have not been sufficiently developed, appears to alarm even those people who are the most destitute of prejudice. 229 They find the interval too great between vulgar superstition and an absolute renunciation of it; they imagine they take a wise medium in compounding with error; they therefore reject the consequences, while they admit the principle; 230 they preserve the shadow and throw away the substance, without foreseeing that, sooner or later, it must, by its obstetric art, usher into the world, one after another, the same follies 231 which now fill the heads of bewildered human beings, lost in the labyrinths of incomprehensible systems. 232 The major part of the incredulous, the greater number of reformers, do no more than prune a cankered tree, to whose root they dare not apply the axe; they do not perceive that this tree will in the end produce the same fruit.

233 Theology, or superstition, will always be an heap of combustible matter: brooded in the imagination of humankind, it will always finish by causing the most terrible explosions. 234 As long as the sacerdotal order shall have the privilege of infecting youth-- of habituating their minds to tremble before unmeaning words-- of alarming

nations with the most terrific systems, so long will fanaticism be master of the human mind; 235 imposture will, at its pleasure, cast the apple of discord among the members of the state. 236 The most simple error, perpetually fed, unceasingly modified, continually exaggerated by the imagination of human, will by degrees assume a collossal figure, sufficiently powerful to upset every institution; amply competent to the overthrow of empires. 237 Theism is a system at which the human mind cannot make a long sojourn; founded upon error, it will, sooner or later, degenerate into the most absurd, the most dangerous superstition.

238 Many incredulous beings, many theists, are to be met with in those countries where freedom of opinion reigns; that is to say, where the civil power has known how to balance superstition. 239 But, above all, atheists as they are termed, will be found in those nations where, superstition, backed by the sovereign authority, most enforces the ponderousity of its yoke; most impresses the volume of its severity; imprudently abuses its unlimited power. 240 Indeed, when in these kind of countries, science, talents, the seeds of reflection, are not entirely stifled, the greater part of the people who think, revolt at the crying abuses of superstition; 241 are ashamed of its multifarious follies; are shocked at the corruption of its professors; scandalised at the tyranny of its priests: are struck with horror at those massive chains which it imposes on the credulous. 242 Believing with great reason, that they can never remove themselves too far from its savage principles, the system that serves for the basis of such a creed, becomes as odious as the superstition itself; 243 they feel that terrific systems can only be detailed by cruel ministers; these become detestable objects to every enlightened, to every honest mind, 244 in which either

the love of equity, or the sacred fire of freedom resides; to everyone who is the advocate of humanity-- the indignant spurner of tyranny. 245 Oppression gives a spring to the soul; it obliges human to examine closely into the cause of own sorrows; misfortune is a powerful incentive, that turns the mind to the side of truth. 246 How formidable a foe must not outraged reason be to falsehood? 247 It at least throws it into confusion, when it tears away its mask; when it follows it into its last entrenchment; when it proves, beyond contradiction, that nothing is so dastardly as delusion detected, or tyrannic power held at bay.

OF THE MOTIVES WHICH LEAD TO WHAT IS FALSELY CALLED ATHEISM

Paul Henri Thiery (Baron D'Holbach)

56 The reflections, as well as the facts which have preceded, will furnish a reply to those who inquire what interest human has in not admitting unintelligible systems? 2 The tyrannies, the persecutions, the numberless outrages committed under these systems; the stupidity, the slavery, into which their ministers almost everywhere plunge the people; 3 the sanguinary disputes to which they give birth; the multitude of unhappy beings with which their fatal notions fill the world; 4 are surely abundantly sufficient to create the most powerful, the most interesting motives, 5 to determine all sensible people, who possess the faculty of thought, to examine into the authenticity of doctrines, which cause so many serious evils to the inhabitants of the earth.

6 A theist, very estimable for own talents, asks, "if there can be any other cause than an evil disposition, which can make people atheists?" 7 I reply to him, yes, there are other causes. There is the desire, a very laudable one, of having a knowledge of interesting truths; 8 there is the

powerful interest of knowing what opinions we ought to hold upon the object which is announced to us as the most important; 9 there is the fear of deceiving ourselves upon systems which are occupied with the opinions of humankind, which do not permit you should deceive yourself respecting them with impunity. 10 But when these motives, these causes, should not subsist, is not indignation, 11 or if they will, an evil disposition, a legitimate cause, a good and powerful motive, for closely examining the pretensions, for searching into the rights of systems, in whose name so many crimes are perpetrated? 12 Can any person who feels, who thinks, who has any elasticity in own soul, avoid being incensed against austere theories, which are visibly the pretext, undeniably the source, of all those evils, which on every side assail the human race? 13 Are they not these fatal systems which are at once the cause and the ostensible reason of that iron yoke that oppresses humankind; 14 of that wretched slavery in which you lives; of that blindness which hides from you your happiness; of that superstition, which disgraces you; of those irrational customs which torment you; of those sanguinary quarrels which divide you; of all the outrages which you experiences? 15 Must not every breast in which humanity is not extinguished, irritate itself against that theoretical speculation, which in almost every country is made to speak the language of capricious, inhuman, irrational tyrants?

16 To motives so natural, so substantive, we shall join those which are still more urgent, more personal to every reflecting human: 17 namely, that benumbing terror, that incommodious fear, which must be unceasingly nourished by the idea of capricious theories, 18 which lay human open to the most severe penalties, even for secret thoughts, over which you yourself has not any control; 19 that dreadful anxiety

arising out of inexorable systems, against which you may sin without even your own knowledge; of morose doctrines, the measure of which you can never be certain of having fulfilled; 20 which so far from being equitable, make all the obligations lay on one side; 21 which with the most ample means of enforcing restraint, freely permit evil, although they hold out the most excruciating punishments for the delinquents? 22 Does it not then, embrace the best interests of humanity, become of the highest importance to the welfare of humankind, of the greatest consequence to the quiet of your existence, to verify the correctness of these systems? 23 Can anything be more rational than to probe to the core these astounding theories? 24 Is it possible that anything can be more just, than to inquire rigourously into the rights, sedulously to examine the foundations, to try by every known test, the stability of doctrines, that involve in their operations, consequences of such colossal magnitude; 25 that embrace, in their dictatory mandates, matters of such high behest; that implicate the eternal felicity of such countless millions in the vortex of their action?

26 Would it not be the height of folly to wear such a tremendous yoke without inquiry; to let such overwhelming notions pass current unauthenticated; 27 to permit the soi-disant ministers of these terrific systems to establish their power, without the most ample verification of their patents of mission? 28 Would it, I repeat, be at all wonderful, if the frightful qualities of some of these systems, as exhibited by their official expounders, whom the accredited functionaries of similar systems, do not scruple, in the face of day, 29 to brand as impostors, should induce rational beings to drive them entirely from their hearts; to shake off such an intolerable burden of misery; 30 to even deny the existence of such appalling doctrines, of such petrifying systems, which the superstitious themselves, whilst paying them their homage, frequently curse from the very bottom of their hearts?

31 The theist, however, will not fail to tell the atheist, as you calls them, that these systems are not such as superstition paints them; that the colours are coarse, too glaring, ill assorted, the perspective out of all keeping; 32 you will then exhibit your own picture, in which the tints are certainly blended with more mellowness, the colouring of a more pleasing hue, the whole more harmonious, but the distances equally indistinct: 33 the atheist, in reply, will say, that superstition itself, with all the absurd prejudices, all the mischievous notions to which it gives birth, are only corollaries drawn from the fallacious ideas, from those obscure principles, which the deicolist indulges. 34 That your own incomprehensible system authourise the incomprehensible absurdities, the inconceivable mysteries, with which superstition abounds; 35 that they flow consecutively from your own premises; that when once the mind of mortals is bewildered in the dark, inextricable mazes of an ill-directed imagination, it will incessantly multiply its chimeras. 36 To assure the repose of humankind, fundamental errors must be annihilated; that you may understand your true relations, be acquainted with your imperative duties, primary delusions must be rectified; 37 to procure you that serenity of soul, without which there can be no substantive happiness, original fallacies must be undermined. 38 If the systems of the superstitious be revolting, if their theories be gloomy, if their dogmas are unintelligible, those of the theist will always be contradictory; 39 will prove fatal, when you shall be disposed to meditate upon them; will become the source of illusions, with which, sooner or later, imposture will not omit to abuse your credulity. 40 Nature alone, with the truths She discovers, is capable of lending to the human mind that firmness which falsehood will never be able to shake; to the human heart that self-possession, against which imposture will in vain direct its attacks.

41 Let us again reply to those who unceasingly repeat that the

interest of the passions alone conduct human to what is termed atheism: 42 that it is the dread of future punishment that determines corrupt individuals to make the most strenuous efforts to break up a system they have reason to dread. 43 We shall, without hesitation, agree that it is the interest of human's passions which excites you to make inquiries; 44 without interest, no person is tempted to seek; without passion, no person will seek vigourously.

45 The question, then, to be examined, is, if the passions and interests, which determine some thinkers to dive into the stability or the systems held forth to their adoption, are or are not legitimate? 46 These interests have, already been exposed, from which it has been proved, that every rational person finds in own inquietudes, in own fears, reasonable motives to ascertain, whether or not it be necessary to pass own life in perpetual dread; in never ceasing agonies? 47 Will it be said, that an unhappy being, unjustly condemned to groan in chains, has not the right of being willing to render them asunder; 48 to take some means to liberate the self from own prison; to adopt some plan to escape from those punishments, which every instant threaten you? 49 Will it be pretended that your passion for liberty has no legitimate foundation, that you does an injury to the companions of your misery, in withdrawing yourself from the shafts of tyrannical infliction; or in furnishing them also with means to escape from its cruel strokes? 50 Is, then, an incredulous person, anything more than one who has taken flight from the general prison, in which despotic superstition detains nearly all humankind? 51 Is not an atheist, as you are called, who writes, one who has broken own fetters, who supplies to those of own associates who have sufficient courage to follow you, the means of setting themselves free from the terrors that menace them?

52 The priests unceasingly repeat that it is pride, vanity, the desire of

distinguishing the self from the generality of humankind, that determines human to incredulity. 53 In this they are like some of those wealthy mortals, who treat all those as insolent who refuse to cringe before them. 54 Would not every rational person have a right to ask the priest, where is thy superiority in matters of reasoning? What motives can I have to submit my reason to thy delirium? 55 On the other hand, may it not be said to the hierarchy, that it is interest which makes them priests; that it is interest which renders them theologians; 56 that it is for the interest of their passions, to inflate their pride, to gratify their avarice, to minister to their ambition, that they attach themselves to systems, of which they alone reap the benefits? 57 Whatever it may be, the priesthood, contented with exercising their power over the illiterate, ought to permit those people who do think, to be excused from bending the knee before their vain, illusive idols.

58 We also agree, that frequently the corruption of morals, a life of debauchery, a licentiousness of conduct, even levity of mind, may conduct human to incredulity; 59 but is it not possible to be a libertine, to be irreligious, to make a parade of incredulity, without being on that account an atheist? 60 There is unquestionably a difference between those who are led to renounce belief in unintelligible systems by dint of reasoning, and those who reject or despise superstition, only because they look upon it as a melancholy object, or an incommodious restraint. 61 Many people, no doubt, renounce received prejudices, through vanity or upon hearsay; 62 these pretended strong minds have not examined anything for themselves; they act upon the authority of others, whom they suppose to have weighed things more maturely. 63 This kind of incredulous beings, have not, then, any distinct ideas, any substantive opinions, and are but little capacitated to reason for themselves; they are indeed hardly in a state to follow the reasoning of others. 64 They are irreligious in the same manner as the majority of humankind

are superstitious, that is to say, by credulity like the people; or through interest like the priest. 65 A voluptuary devoted to own appetites; a debaucheé drowned in drunkenness; an ambitious mortal given up to own schemes of aggrandisement; an intriguer surrounded by own plots; 66 a frivolous, dissipated mortal, absorbed by own gewgaws, addicted to own puerile pursuits, buried in own filthy enjoyments; a loose woman abandoned to her irregular desires; 67 a choice spirit of the day: are these I say, personages, actually competent to form a sound judgment of superstition, which they have never examined? 68 Are they in a condition to maturely weigh theories that require the utmost depth of thought? 69 Have they the capabilities to feel the force of a subtle argument; to compass the whole of a system: to embrace the various ramifications of an extended doctrine?

70 If some feeble scintillations occasionally break in upon the cimmerian darkness of their minds; 71 if by any accident they discover some faint glimmerings of truth amidst the tumult of their passions; 72 if occasionally a sudden calm, suspending, for a short season, the tempest of their contending vices, permits the bandeau of their unruly desires by which they are blinded, to drop for an instant from their hoodwinked eyes, 73 these leave on them only evanescent traces; scarcely sooner received than obliterated.

74 Corrupt people only attack the gods when they conceive them to be the enemies to their vile passions. 75 Arrian says, "that when people imagine the gods are in opposition to their passions, they abuse them, and overturn their altars." The Chinese, I believe, do the same. 76 The honest person makes war against systems which one finds are inimical to virtue-- injurious to own happiness-- baneful to that of own fellow mortals-- contradictory to the repose, fatal to the interests of the human species. 77 The bolder, therefore, the sentiments of the honest atheist, the more strange your ideas, the more

suspicious they appear to other people, the more strictly you ought to observe your own obligations; 78 the more scrupulously you should perform your duties; especially if you be not desirous that your morals shall calumniate your system; 79 which duly weighed, will make the necessity of sound ethics, the certitude of morality, felt in all its force; but which every species of superstition tends to render problematical, or to corrupt.

80 Whenever our will is moved by concealed and complicated motives, it is extremely difficult to decide what determines it; 81 a wicked person may be conducted to incredulity or to scepticism by those motives which you dare not avow, even to yourself; 82 in believing you seeks after truth, you may form an illusion to your mind, only to follow the interest of your passions; 83 the fear of an avenging system will perhaps determine you to deny their existence without examination; uniformly because you feels them incommodious.

84 Nevertheless, the passions sometimes happen to be just; a great interest carries us on to examine things more minutely; 85 it may frequently make a discovery of the truth, even to you who seeks after it the least, or who is only desirous to be lulled to sleep, who is only solicitous to deceive yourself. 86 It is the same with a perverse person who stumbles upon truth, as it is with you, who flying from an imaginary danger, should encounter in your road a dangerous serpent, which in your haste you should destroy; 87 you does that by accident, without design, which a person, less disturbed in own mind, would have done with premeditated deliberation.

88 To judge properly of things, it is necessary to be disinterested; it is requisite to have an enlightened mind, to have connected ideas to compass a great system. 89 It belongs, in fact, only to the honest person to examine the proofs of systems-- to scrutinise the principles

of superstition; 90 it belongs only to the person acquainted with Nature, conversant with Her ways, to embrace with intelligence the cause of the SYSTEM OF NATURE. 91 The wicked are incapable of judging with temper; the ignorant are inadequate to reason with accuracy; the honest, the virtuous, are alone competent judges in so weighty an affair. 92 What do I say? Is not the virtuous person, from thence in a condition to ardently desire the existence of a system that remunerates the goodness of people?

93 If you renounces those advantages, which your virtue confers upon you the right to hope, it is, undoubtedly, because you finds them imaginary. 94 Indeed, every person who reflects will quickly perceive, that for one timid mortal, of whom these systems restrain the feeble passions, there are millions whose voice they cannot curb, of whom, on the contrary, they excite the fury; 95 for one that they console, there are millions whom they affright, whom they afflict; whom they make unhappy: 96 in short, you finds, that against one inconsistent enthusiast, which these systems, which are thought so excellent, render happy, they carry discord, carnage, wretchedness into vast countries; plunge whole nations into misery; deluge them with tears.

97 However this may be, do not let us inquire into motives which may determine a person to embrace a system; 98 let us rather examine the system itself; let us convince ourselves of its rectitude; 99 if we shall find that it is founded upon truth, we shall never be able to esteem it dangerous. 100 It is always falsehood that is injurious to human; if error be visibly the source of your sorrows, reason is the true remedy for them; this is the panacea that can alone carry consolation to your afflictions.

101 Do not let us farther examine the conduct of a person who presents us with a system; your ideas, as we have already said, may be extremely sound, when even your actions are highly deserving of censure. 102 If the system of atheism cannot make

you perverse, who is not so by your temperament, it cannot render you good, who does not otherwise know the motives that should conduct you to virtue. 103 At least we have proved, that the superstitious person, when you have strong passions, when you possesses a depraved heart, finds even in your creed a thousand pretexts more than the atheist, for injuring the human species.

104 The atheist has not, at least, the mantle of zeal to cover own vengeance; you have not the command of your priest to palliate your transports; you have not the glory of your gods to countenance your fury; 105 the atheist does not enjoy the faculty of expiating, at the expense of a sum of money, the transgressions of own life; of availing the self of certain ceremonies, by the aid of which you may atone for the outrages you may have committed against society; 106 you have not the advantage of being able to reconcile yourself with heaven, by some easy custom; to quiet the remorse of your disturbed conscience, by an attention to outward forms: 107 if crime has not deadened every feeling of your heart, you are obliged continually to carry within yourself an inexorable judge, who unceasingly reproaches you for your odious conduct; 108 who forces you to blush for your own folly; who compels you to hate yourself; who imperiously obliges you to fear examination, to dread the resentment of others.

109 The superstitious person, if you be wicked, gives yourself up to crime, which is followed by remorse; but your superstition quickly furnishes you with the means a getting rid of it; 110 your life is generally no more than a long series of error and grief, of sin and expiation, following each other in alternate succession; 111 still more, you frequently, as we have seen, perpetrates crimes of greater magnitude, in order to wash away the first. 112 Destitute of any permanent ideas on morality, you accustoms yourself to look upon nothing as criminal, but that which the ministers, the official expounders of

your system, forbid you to commit: 113 you considers actions of the blackest dye as virtues, or as the means of effacing those transgressions, which are frequently held out to you as faithfully executing the duties of your creed. 114 It is thus we have seen fanatics expiate their adulteries by the most atrocious persecutions; cleanse their souls from infamy by the most unrelenting cruelty; make atonement for unjust wars by the foulest means; qualify their usurpations by outraging every principle of virtue; 115 in order to wash away their iniquities, bathe themselves in the blood of those superstitious victims, whose infatuation made them martyrs.

116 An atheist, as you are falsely called, if you have reasoned justly, if you have consulted Nature, hath principles more determinate, more humane, than the superstitious; 117 your system, whether gloomy or enthusiastic, always conducts the latter either to folly or cruelty; 118 the imagination of the former will never be intoxicated to that degree, to make you believe that violence, injustice, persecution, or assassination are either virtuous or legitimate actions. 119 We every day see that superstition, or the cause of heaven, as it is called, hoodwinks even those people who on every other occasion are humane, equitable, and rational; 120 so much so, that they make it a paramount duty to treat with determined barbarity, those people who happen to step aside from their mode of thinking. 121 An heretic, an incredulous being, ceases to be a human, in the eyes of the superstitious. 122 Every society, infected with the venom of bigotry, offers innumerable examples of juridical assassination, which the tribunals commit without scruple, even without remorse. 123 Judges who are equitable on every other occasion, are no longer so when there is a question of theological opinions; 124 in steeping their hands in the blood of their victims, they believe, on the authority of the priests, they conform themselves to the views of the Divinity.

125 Almost every where the laws are subordinate to superstition; make themselves accomplices in its fanatical fury; 126 they legitimate those actions most opposed to the gentle voice of humanity; they even transform into imperative duties, the most barbarous cruelties. 127 The president Grammont relates, with a satisfaction truly worthy of a cannibal, the particulars of the punishment of Vanini, who was burned at Thoulouse, although he had disavowed the opinions with which he was accused; 128 this president carries his demoniac prejudices so far, as to find wickedness in the piercing cries, in the dreadful howlings, which torment wrested from this unhappy victim to superstitious vengeance. 129 Are not all these avengers of the gods miserable people, blinded by their piety, who, under the impression of duty, wantonly immolate at the shrine of superstition, those wretched victims whom the priests deliver over to them? 130 Are they not savage tyrants, who have the rank injustice to violate thought; who have the folly to believe they can enslave it? 131 Are they not delirious fanatics, on whom the law, dictated by the most inhuman prejudices, imposes the necessity of acting like ferocious brutes? 132 Are not all those sovereigns, who to gratify the vanity of the priesthood, torment and persecute their subjects, who sacrifice to their anthropophagite gods human victims, people whom superstitious zeal has converted into tigers? 133 Are not those priests, so careful of the soul's health, who insolently break into the sacred sanctuary of human's mind, to the end that they may find in your opinions motives for doing you an injury, 134 abominable knaves, disturbers of the public repose, whom superstition honours, but whom virtue detests?

135 What villains are more odious in the eyes of humanity, what depredators more hateful to the eye of reason, than those infamous inquisitors, 136 who by the blindness of princes, by the delirium of monarchs, enjoy the advantage of

passing judgment on their own enemies; who ruthlessly commit them to the charity of the flames? 137 Nevertheless, the fatuity of the people makes even these monsters respected; the favour of kings covers them with kindness; the mantle of superstitious opinion shields them from the effect of the just execration of every honest person. 138 Do not a thousand examples prove, that superstition has everywhere produced the most frightful ravages: that it has continually justified the most unaccountable horrors? 139 Has it not a thousand times armed its votaries with the dagger of the homicide; let loose passions much more terrible than those which it pretended to restrain; broken up the most sacred bonds by which mortals are connected with each other? 140 Has it not, under the pretext of duty, under the colour of faith, under the semblance of zeal, under the sacred name of piety, favoured cupidity, lent wings to ambition, countenanced cruelty, given a spring to tyranny? 141 Has it not legitimatised murder; given a system to perfidy; organised rebellion; made a virtue of regicide? 142 Have not those princes who have been foremost as the avengers of heaven, who have been the lictors of superstition, frequently themselves become its victims? 143 In short, has it not been the signal for the most dismal follies, the most wicked outrages, the most horrible massacres? 144 Has not its altars been drenched with human gore? 145 Under whatever form it has been exhibited, has it not always been the ostensible cause of the most bare-faced violation-- of the sacred rights of humanity?

146 Never will an atheist, as you are proper senses, persuade yourself that similar actions can be justifiable; never will you believe that you who commits them can be an estimable person; 147 there is no one but the superstitious, whose blindness makes you forget the most evident principles of morality, whose callous soul renders you deaf to the voice of Nature, whose zeal causes you to overlook the dictates of reason,

148 who can by any possibility imagine the most destructive crimes are the most prominent features of virtue. 149 If the atheist be perverse, they, at least, knows that they acts wrong; neither these systems, nor their priests, will be able to persuade them that they does right: 150 one thing, however, is certain, whatever crimes you may allow yourself to commit, you will never be capable of exceeding those which superstition perpetrates without scruple; 151 that it encourages in those whom it intoxicates with its fury; to whom it frequently holds forth wickedness itself, either as expiations for offences, or else as orthodox, meritorious actions.

152 Thus the atheist, however wicked you may be supposed, will at most be upon a level with the devotee, whose superstition encourages you to commit crimes, which it transforms into virtue. 153 As to conduct, if you be debauched, voluptuous, intemperate, adulterous, the atheist in this differs in nothing from the most credulously superstitious, who frequently knows how to connect these vices with your credulity, 154 to blend with your superstition certain atrocities, for which your priests, provided you renders due homage to their power, especially if you augments their exchequer, will always find means to pardon you. 155 If you be in Hindoostan, you brahmins will wash you in the sacred waters of the Ganges, while reciting a prayer. 156 If you be a Jew, upon making an offering, your sins will be effaced. 157 If you be in Japan, you will be cleansed by performing a pilgrimage. 158 If you be a Mahometan, you will be reputed a saint, for having visited the tomb of your prophet; 159 the Roman pontiff himself will sell you indulgences; but none of them will ever censure you for those crimes you may have committed in the support of their several faiths.

160 We are constantly told, that the indecent behaviour of the official expounders of superstition, the criminal conduct of the priests, or of their sectaries, proves nothing against the goodness of their systems. 161 Admitted: but wherefore do they not say the same thing of the conduct of those whom they call atheists, who, as we have already proved, may have a very substantive, a very correct system of morality, even while leading a very dissolute life? 162 If it be necessary to judge the opinions of humankind according to their conduct, which is the theory that would bear the scrutiny? Let us, then, examine the opinion of the atheist, without approving their conduct; 163 let us adopt your mode of thinking, if we find it marked by the truth; if it shall appear useful; if it shall be proved rational; but let us reject your mode of action, if that should be found blameable. 164 At the sight of a work performed with truth, we do not embarrass ourselves with the morals of the workman: 165 of what importance is it to the universe, whether the illustrious Newton was a sober, discreet citizen, or a debauched intemperate man? 166 It only remains for us to examine your theory; we want nothing more than to know whether you have reasoned acutely; if your principles be steady; if the parts of your system are connected; if your work contains more demonstrable truths, than bold ideas? 167 Let us judge in the same manner of the principles of the atheist; if they appear strange, if they are unusual, that is a solid reason for probing them more strictly; 168 if you have spoken truth, if you have demonstrated your positions, let us yield to the weight of evidence; 169 if you be deceived in some parts, let us distinguish the true from the false; but do not let us fall into the hackneyed prejudice, which on account of one error in the detail, rejects a multitude of incontestable truisms. 170 Doctor Johnson, I think, says in his preface to his Dictionary, "when a man shall have executed his task with all the accuracy possible, he will only be allowed to have done his duty; but if he commits the

slightest error, a thousand snarlers are ready to point it out."

171 The atheist, when you are deceived, has unquestionably as much right to throw your faults on the fragility of your nature, as the superstitious person. 172 An atheist may have vices, may be defective, you may reason badly; but your errors will never have the consequences of superstitious novelties;173 they will not, like these, kindle up the fire of discord in the bosom of nations; 174 the atheist will not justify own vices, defend own wanderings by superstition; 175 you will not pretend to infallibility, like those self-conceited theologians who attach the Divine sanction to their follies; 176 who initiate that heaven authourise those sophisms, gives currency to those falsehoods, approves those errors, which they believe themselves warranted to distribute over the face of the earth. 177 It will perhaps be said, that the refusal to believe in these systems, will rend asunder one of the most powerful bonds of society, by making the sacredness of an oath vanish. 178 I reply, that perjury is by no means rare, even in the most superstitious nations, nor even among the most religious, or among those who boast of being the most thoroughly convinced of the rectitude of their theories.

179 Diagoras, superstitious as he was, and it was not well possible to be more so, it is said became an atheist, on seeing that the gods did not thunder their vengeance on a person who had taken them as evidence to a falsity. 180 Upon this principle, how many atheists ought there to be? 181 From the systems that have made invisible unknown beings the depositories of human's engagements, we do not always see it result that they are better observed; or that the most solemn contracts have acquired a greater solidity. 182 If history was consulted, it would now and then be in evidence, that even the conductors of nations, those who have said they were the images of the Divinity, 183 who have declared that they held their right of governing immediately from His hands, have sometimes taken the

Deity as the witness to their oaths, 184 have made Him the guarantee of their treaties, without its having had all the effect that might have been expected, when very trifling interests have intervened; 185 it would appear, unless historians are incorrect, that they did not always religiously observe those sacred engagements they made with their allies, much less with their subjects.

186 To form a judgment from these historic documents, we should be inclined to say, there have been those who had much superstition, joined with very little probity; 187 who made a mockery both of gods and humans; who perhaps blushed when they reviewed their own conduct: 188 nor can this be at all surprising, when it not infrequently happened that superstition itself absolved them from their oaths. 189 In fact, does not superstition sometimes inculcate perfidy; prescribe violation of plighted faith? 190 Above all, when there is a question of its own interests, does it not dispense with engagements, however solemn, made with those whom it condemns? 191 It is, I believe, a maxim in the Romish church, that "no faith is to be held with heretics." 192 The general council of Constance decided thus, when, notwithstanding the emperor's passport, it decreed John Hus and Jerome of Prague to be burnt. 193 The Roman pontiff has, it is well known, the right of relieving their sectaries from their oaths; of annulling their vows: 194 this same pontiff has frequently arrogated to the self the right of deposing kings; of absolving their subjects from their oaths of fidelity. 195 Indeed, it is rather extraordinary that oaths should be prescribed, by the laws of those nations which profess Christianity, seeing that Christ has expressly forbidden the use of them.

196 If things were considered attentively, it would be obvious that under such management, superstition and politics are schools of perjury. 197 They render it common: thus knaves of every description never recoil, when it is necessary to attest the name of the Divinity to the most manifest frauds, for the vilest interests. 198 What end, then, do

oaths answer? They are snares, in which simplicity alone can suffer itself to be caught: 199 oaths, almost everywhere, are vain formalities, that impose nothing upon villains; 200 nor do they add anything to the sacredness of the engagements of honest people; who would neither have the temerity nor the wish to violate them; who would not think themselves less bound without an oath. 201 A perfidious, perjured, superstitious being, has not any advantage over an atheist, who should fail in own promises: 202 neither the one nor the other any longer deserves the confidence of their fellow citizens nor the esteem of good people; 203 if one does not respect own gods, in whom one believes, the other neither respects own reason, own reputation, nor public opinion, in which all rational people cannot refuse to believe.

204 Hobbes says, "an oath adds nothing to the obligation. For a covenant, if lawful, binds in the sight of God, without the oath, as much as with it: if unlawful, bindeth not at all: though it be confirmed with an oath." 205 The heathen form was, "let Jupiter kill me else, as I kill this beast." 206 Adjuration only augments, in the imagination of one who swears, the fear of violating an engagement, which he would have been obliged to keep, even without the ceremony of an oath.

207 It has frequently been asked, if there ever was a nation that had no idea of the Divinity: and if a people, uniformly composed of atheists, would be able to subsist? 208 Whatever some speculators may say, it does not appear likely that there ever has been upon our globe, a numerous people who have not had an idea of some invisible power, to whom they have shown marks of respect and submission: 209 it has been sometimes believed that the Chinese were atheists: but this is an error, due to the Christian missionaries, who are accustomed to treat all those as atheists, who do not hold opinions similar with their own upon Divinity. 210 It always appears that the Chinese are a

people extremely addicted to superstition, but that they are governed by chiefs who are not so, without however their being atheists for that reason. 211 If the empire of China be as flourishing as it is said to be, it at least furnishes a very forcible proof that those who govern have no occasion to be themselves superstitious, in order to govern with propriety a people who are so.

212 It is pretended that the Greenlanders have no idea of the Divinity. Nevertheless, it is difficult to believe it of a nation so savage. 213 Human, inasmuch as you are a fearful, ignorant animal, necessarily becomes superstitious in your misfortunes: 214 either you forms gods for yourself, or you admits the gods which others are disposed to give you; 215 it does not then appear, that we can rationally suppose there may have been, or that there actually is, a people on the earth a total stranger to some Divinity. 216 One will show us the sun, the moon, or the stars; the other will show us the sea, the lakes, the rivers, which furnish them their subsistence, the trees which afford them an asylum against the inclemency of the weather; 217 another will show us a rock of an odd form; a lofty mountain; or a volcano that frequently astonishes them by its emission of lava; 218 another will present you with their crocodile, whose malignity they fears; their dangerous serpent, the reptile to which they attributes their good or bad fortune. 219 In short, each individual will make you behold their phantasm or their tutelary or domestic gods with respect.

220 But from the existence of your gods, the savage does not draw the same inductions as the civilised, polished person: the savage does not believe it a duty to reason continually upon their qualities; 221 you does not imagine that they ought to influence your morals, nor entirely occupy your thoughts: 222 content with a gross, simple, exterior worship, you does not believe that

these invisible powers trouble themselves with your conduct towards your fellow creatures; in short, you does not connect your morality with your superstition. 223 This morality is coarse, as must be that of all ignorant people; it is proportioned to your wants, which are few; it is frequently irrational, because it is the fruit of ignorance; of inexperience; of the passions of humans but slightly restrained, or to say thus, in their infancy. 224 It is only numerous, stationary, civilised societies, where human's wants are multiplied, where your interests clash, that you are obliged to have recourse to government, to laws, to public worship, in order to maintain concord. 225 It is then, that people approximating reason together, combine their ideas, refine their notions, subtilise their theories; 226 it is then also, that those who govern them avail themselves of invisible powers, to keep them within bounds, to render them docile, to enforce their obedience, to oblige them to live peaceably.

227 It was thus, that by degrees, morals and politics found themselves associated with superstitious systems. 228 The chiefs of nations, frequently, themselves, the children of superstition, but little enlightened upon their actual interests; slenderly versed in sound morality; 229 with an extreme exilty of knowledge on the actuating motives of the human heart; believed they had effected everything requisite for the stability of their own authority; 230 as well as achieved all that could guarantee the repose of society, that could consolidate the happiness of the people, in rendering their subjects superstitious like themselves; 231 by menacing them with the wrath of invisible powers; in treating them like infants who are appeased with fables, like children who are terrified by shadows. 232 By the assistance of these marvellous inventions, to which even the chiefs, the conductors of nations, are themselves frequently the dupes; which are transmitted as heirlooms from race to race; 233 sovereigns were dispensed from the trouble of instructing

themselves in their duties; they in consequence neglected the laws, enervated themselves in luxurious ease, rusted in sloth; followed nothing but their caprice: 234 the care of restraining their subjects was reposed in their deities; the instruction of the people was confided to their priests, 235 who were commissioned to train them to obedience, to make them submissive, to render them devout, to teach them at an early age to tremble under the yoke of both the visible and invisible gods.

236 It was thus that nations, kept by their tutors in a perpetual state of infancy, were only restrained by vain, chimerical theories. 237 It was thus that politics, jurisprudence, education, morality, were almost everywhere infected with superstition; that person no longer knew any duties, save those which grew out of its precepts: 238 the ideas of virtue were thus falsely associated with those of imaginary systems, to which imposture generally gave that language which was most conducive to its own immediate interests: 239 humankind thus fully persuaded, that without these marvellous systems, there could not exist any sound morality, 240 princes, as well as subjects, equally blind to their actual interests, to the duties of Nature, to their reciprocal rights, habituated themselves to consider superstition as necessary to mortals-- 241 as indispensably requisite to govern humans-- as the most effectual method of preserving power-- as the most certain means of attaining happiness.

242 It is from these dispositions, of which we have so frequently demonstrated the fallacy, that so many people, otherwise extremely enlightened, look upon it as an impossibility that a society formed of atheists, as they are termed, could subsist for any length of time. 243 It does not admit a question, that a numerous society, who should neither have religion, morality, government, laws, education, nor

principles, could not maintain itself; 244 that it would simply congregate beings disposed to injure each other, or children who would follow nothing but the blindest impulse; 245 but then is it not a lamentable fact, that with all the superstition that floats in the world, the greater number of human societies are nearly in this state? 246 Are not the sovereigns of almost every country in a continual state of warfare with their subjects? 247 Are not the people, in despite of their superstition, notwithstanding the terrific notions which it holds forth, unceasingly occupied with reciprocally injuring each other; with rendering themselves mutually unhappy? 248 Does not superstition itself, with its supernatural notions, unremittingly flatter the vanity of monarchs, unbridle the passions of princes, throw oil into the fire of discord, which it kindles between those citizens who are divided in their opinion? 249 Could those infernal powers, who are supposed to be ever on the alert to mischief humankind, be capable of inflicting greater evils upon the human race than spring from fanaticism, than arise out of the fury to which theology gives birth? 250 Could atheists, however irrational they may be supposed, if assembled together in society, conduct themselves in a more criminal manner? 251 In short, is it possible they could act worse than the superstitious, who, saturated with the most pernicious vices, guided by the most extravagant systems, during so many successive ages, have done nothing more than torment themselves with the most cruel inflictions; 252 savagely cut each other's throats, without a shadow of reason; make a merit of mutual extermination? It cannot be pretended they would. 253 On the contrary, we boldly assert, that a community of atheists, as the theologian calls them, because they cannot fall in with own mysteries, destitute of all superstition, governed by wholesome laws, formed by a salutary education, 254 invited to the practice of virtue by instantaneous recompences, deterred from crime by immediate punishments,

disentangled from illusive theories, unsophisticated by falsehood, 255 would be decidedly more honest, incalculably more virtuous, than those superstitious societies, in which everything contributes to intoxicate the mind; where everything conspires to corrupt the heart.

256 When we shall be disposed usefully to occupy ourselves with the happiness of humankind, it is with superstition that the reform must commence; 257 it is by abstracting these imaginary theories, destined to affright the ignorant, who are completely in a state of infancy, that we shall be able to promise ourselves the desirable harvest of conducting human to a state of maturity. 258 It cannot be too often repeated, there can be no morality without consulting the nature of human, without studying your actual relations with the beings of your own species; 259 there can be no fixed principle for human's conduct, while it is regulated upon unjust theories; upon capricious doctrines; upon corrupt systems; 260 there can be no sound politics without attending to human temperament, without contemplating you as a being associated for the purpose of satisfying your wants, consolidating your happiness, and assuring its enjoyment.

261 No wise government can found itself upon despotic systems; they will always make tyrants of their representatives. 262 No laws can be wholesome, that do not bottom themselves upon the strictest equity; which have not for their object the great end of human society. 263 No jurisprudence can be advantageous for nations, if its administration be regulated by capricious systems, or by human passions deified. 264 No education can be salutary, unless it be founded upon reason; to be efficacious to its proposed end, it must neither be construed upon chimerical theories, nor upon received prejudices. 265 In short, there can be no probity, no talents, no virtue, either under corrupt masters, or under the conduct of those priests who render human the enemy to the self--the determined foe

to others; 266 who seek to stifle in your bosom the germ of reason; who endeavour to smother science, or who try to damp your courage.

267 It will, perhaps, be asked, if we can reasonably flatter ourselves with ever reaching the point to make a whole people entirely forget their superstitious opinions; or abandon the ideas which they have of their gods? 268 I reply, that the thing appears utterly impossible; that this is not the end we can propose to ourselves. 269 These ideas, inculcated from the earliest ages, do not appear of a nature to admit eradication from the mind of the majority of humankind: 270 it would, perhaps be equally arduous to give them to those people, who, arrived at a certain time of life, should never have heard them spoken of, as to banish them from the minds of those, who have been imbued with them from their tenderest infancy. 271 Thus, it cannot be reckoned possible to make a whole nation pass from the abyss of superstition, that is to say, from the bosom of ignorance, from the ravings of delirium, into absolute naturalism, 272 or as the priests of superstition would denominate it, into atheism; which supposes reflection-- requires intense study-- demands extensive knowledge-- exacts a long series of experience-- includes the habit of contemplating Nature-- the faculty of observing Her laws; 273 which, in short, embraces the expansive science of the causes producing Her various phenomena; Her multiplied combinations, together with the diversified actions of the beings She contains, as well as their numerous properties.

274 In order to be an atheist, or to be assured of the capabilities of Nature, it is imperative to have meditated Her profoundly: 275 a superficial glance of the eye will not bring human acquainted with Her resources; optics but little practised on Her powers, will unceasingly be deceived; 276 the

ignorance of actual causes will always induce the supposition of those which are imaginary; 277 credulity will, thus re-conduct the natural philosopher to the feet of superstitious phantoms, in which either own limited vision, or own habitual sloth, will make believe the self shall find the solution to every difficulty.

278 Atheism, then, as well as philosophy, like all profound abstruse sciences, is not calculated for the vulgar; neither is it suitable to the great mass of humankind. 279 There are, in all populous, civilised nations, people whose circumstances enable them to devote their time to meditation, 280 whose easy finances afford them leisure to make deep researches into the nature of things, 281 who frequently make useful discoveries, which, sooner or later, after they have been submitted to the infallible test of experience, 282 when they have passed the fiery ordeal of truth, extend widely their salutary effects, become extremely beneficial to society, highly advantageous to individuals. 283 The geometrician, the chemist, the mechanic, the natural philosopher, the civilian, the artisan, are industriously employed, either in their closets, or in their workshops, seeking the means to serve society, each in own sphere: 284 nevertheless, not one of their sciences or professions are familiar to the illiterate; not one of the arts with which they are respectively occupied, are known to the uninitiated: 285 these, however, do not fail, in the long run, to profit by them, to reap substantive advantages from those labour, of which they themselves have no idea. 286 It is for the mariner, that the astronomer explores own arduous science; it is for the mariner the geometrician calculates; for their use the mechanic plies own craft: 287 it is for the mason, for the carpenter, for the labourer, that the skillful architect studies own orders, lays down well-proportioned elaborate plans.

288 Whatever may be the pretended utility of Pneumatology, whatever may be the vaunted advantages of superstitious opinions, the wrangling polemic, the subtle theologian,

cannot boast either of toiling, of writing, or of disputing for the advantage of the people, 289 whom, notwithstanding, they contrives to tax, very exorbitantly, for those systems they can never understand; 290 from whom they levies the most oppressive contributions, as a remuneration for the detail of those mysteries, which under any possible circumstances, cannot, at any time whatever, be of the slightest benefit to them. 291 It is not, then, for the multitude that a philosopher should propose to the self, either to write or to meditate: 292 the Code of Nature, or the principles of atheism, as the priest calls it, are not, as we have shown, even calculated for the meridian of a great number of people, 293 who are frequently too much prepossessed in favour of the received prejudices, although extremely enlightened on other points. 294 It is extremely rare to find people, who, to an enlarged mind, extensive knowledge, great talents, join either a well regulated imagination, or the courage necessary to successfully oppugn habitual errors; 295 triumphantly to attack those chimerical systems, with which the brain has been inoculated from the first hour of its birth.

296 A secret bias, an invincible inclination, frequently, in despite of all reasoning, re-conducts the most comprehensive, the best fortified, the most liberal minds, to those prejudices which have a wide-spreading establishment; 297 of which they have themselves taken copious draughts during the early stages of life. 298 Nevertheless, those principles, which at first appear strange, which by their boldness seem revolting, from which timidity flies with trepidation, when they have the sanction of truth, gradually insinuate themselves into the human mind, 299 become familiar to its exercise, extend their happy influence on every side, and finally produce the most substantive advantages to society. 300 In time, people habituate themselves to ideas which originally they looked

upon as absurd; which on a superficial glance they contemplated as either noxious or irrational: 301 at least, they cease to consider those as odious, who profess opinions upon subjects on which experience makes it evident they may be permitted to have doubts, without imminent danger to public tranquillity.

302 Then the diffusion of ideas among humankind is not an event to be dreaded: if they are truths, they will of necessity be useful: by degrees they will fructify. 303 The person who writes, must neither fix own eyes upon the time in which you lives, upon your actual fellow citizens, nor upon the country you inhabits. 304 You must speak to the human race; you must instruct future generations; you must extend your views into the bosom of futurity; 305 in vain you will expect the eulogies of your contemporaries; in vain will you flatter yourself with seeing your reasoning adopted; 306 in vain you will soothe yourself with the pleasing reflection, that your precocious principles will be received with kindness; 307 if you have exhibited truisms, the ages that shall follow will do justice to your efforts; unborn nations shall applaud your exertions; 308 your future country-people shall crown your sturdy attempts with those laurels, which interested prejudice withholds from you in your own days; 309 it must therefore be from posterity, you are to expect the need of applause due to your services; 310 the present race is hermetically sealed against you: meantime let you content yourself with having done well; with the secret suffrages of those few friends to veracity who are so thinly spread over the surface of the earth. 311 It is after your death, that the trusty reasoner, the faithful writer, the promulgator of sterling principles, the child of simplicity, triumphs; 312 it is then that the stings of hatred, the shafts of

envy, the arrows of malice, either exhausted or blunted, enable humankind to judge with impartiality; 313 to yield to conviction; to establish eternal truth upon its own imperishable altars, which from its essence must survive all the error of the earth. 314 It is then that calumny, crushed like the devouring snail by the careful gardener, ceases to besmear the character of an honest person, 315 while its venomous slime, glazed by the sun, enables the observant spectator to trace the filthy progress it had made.

316 It is a problem with many people, if truth may not be injurious? The best intentioned people are frequently in great doubt upon this important point. 317 The fact is, it never injures any but those who deceive humankind: this has, however, the greatest interest in being undeceived. 318 Truth may be injurious to the individual who announces it, but it can never by any possibility harm the human species; 319 never can it be too distinctly presented to beings, always either little disposed to listen to its dictates, or too slothful to comprehend its efficacy. 320 If all those who write to publish important truths, which, of all others, are ever considered the most dangerous, were sufficiently ardent for the public welfare to speak freely, even at the risk of displeasing their readers, the human race would be much more enlightened, much happier than it now is. 321 To write in ambiguous terms, is very frequently to write to nobody. 322 The human mind is idle; we must spare it, as much as possible, the trouble of reflection; we must relieve it from the embarrassment of intense thinking. 323 What time does it not consume, what study does it not require, at the present day, to unravel the amphibological oracles of the ancient philosophers, whose actual sentiments are almost entirely lost to the present race of humans?

324 If truth be useful to human beings, it is an injustice to deprive them of its advantages; 325 if truth ought to be admitted, we must admit its consequences, which are also

truths. 326 Human, taken generally, is fond of truth, but its consequences often inspire you with so much dread, so alarm your imbecility, 327 that, frequently, you prefers remaining in error, of which a confirmed habit prevents you from feeling the deplorable effects. 328 Besides, we shall say with Hobbes, "that we cannot do people any harm by proposing truth to them; the worst mode is to leave them in doubt, to let them remain in dispute." 329 If an author who writes be deceived, it is because the author may have reasoned badly. 330 Have you laid down false principles? It remains to examine them. Is your system fallacious? Is it ridiculous? It will serve to make truth appear with the greatest splendour: 331 your work will fall into contempt; the writer, if you be witness to its fall, will be sufficiently punished for own temerity; if you be defunct, the living cannot disturb your ashes.

332 No person writes with a design to injure own fellow creatures; you always proposes to yourself to merit their suffrages, either by amusing them, by exciting their curiosity, or by communicating to them discoveries, which you believes useful. 333 Above all, no work can be really dangerous, if it contains truth. 334 It would not be so, even if it contained principles evidently contrary to experience-- opposed to good sense. 335 Indeed, what would result from a work that should now tell us the sun is not luminous; that parricide is legitimate; that robbery is allowable; that adultery is not a crime? 336 The smallest reflection would make us feel the falsity of these principles; the whole human race would protest against them. 337 People would laugh at the folly of the author; presently the book, together with own name, would be known only by its ridiculous extravagances. 338 There is nothing but superstitious follies that are pernicious to mortals; and wherefore? It is because authority always pretends to establish them by violence; to make them pass for substantive virtues; 339 rigorously punishes those who shall be disposed

to smile at their inconsistency, or examine into their pretensions.

340 If human was more rational, you would examine superstitious opinions as you examines everything else; 341 you would look upon theological theories with the same eyes that you contemplates systems of natural philosophy, or problems in geometry: 342 the latter never disturbs the repose of society, although they sometimes excite very warm disputes in the learned world. 343 Theological quarrels would never be attended with any evil consequences, if human could gain the desirable point of making those who exercise power, feel that the disputes of people, 344 who do not themselves understand the marvellous questions upon which they never cease wrangling, ought not to give birth to any other sensations than those of indifference; to rouse no other passion than that of contempt.

345 It is, at least, this indifference not speculative theories, so just, so rational, so advantageous for states, that sound philosophy may propose to introduce, gradually, upon the earth. 346 Would not the human race be much happier-- if the sovereigns of the world, occupied with the welfare of their subjects, leaving to superstitious theologians their futile contests, making their various systems yield to healthy politics; 347 obliged these haughty ministers to become citizens; carefully prevented their disputes from interrupting the public tranquillity? 348 What advantage might there not result to science; what a start would be given to the progress of the human mind, to the cause of sound morality, 349 to the advancement of equitable jurisprudence, to the improvement of legislation, to the diffusion of education, from an unlimited freedom of thought?

350 At present, genius everywhere finds trammels; superstition invariably opposes itself to its course; 351 human, straitened with bandages, scarcely enjoys the free use of any one of own faculties; 352 your mind itself is cramped; it appears continually wrapped up in the swaddling clothes of infancy. 353

NATURE

The civil power, leagued with spiritual domination, appears only disposed to rule over brutalised slaves, shut up in a dark prison, where they reciprocally goad each other with the effervescence of their mutual ill-humour. 354 Sovereigns, in general, detest liberty of thought, because they fear truth; this appears formidable to them, because it would condemn their excesses; 355 these irregularities are dear to them, because they do not, better than their subjects, understand their true interests; properly considered these ought to blend themselves into one uniform mass.

356 Let not the courage of the philosopher, however, be abated by so many united obstacles, which would appear for ever to exclude truth from its proper dominion; to banish reason from the mind of human; to spoil Nature of Her imprescriptible rights. 357 The thousandth part of those cares which are bestowed to infect the human mind, would be amply sufficient to make it whole. 358 Let us not, then, despair of the case: do not let us do human the injury to believe that truth is not made for you; 359 your mind seeks after it incessantly; your heart desires it faithfully; your happiness demands it with an imperious voice; 360 you only either fears it, or mistakes it, because superstition, which has thrown all your ideas into confusion, perpetually keeps the bandeau of delusion fast bound over your eyes; strives, with an almost irresistible force, to render you an entire stranger to virtue.

361 Maugre the prodigious exertions that are made to drive truth from the earth; in spite of the extraordinary pains used to exile reason-- of the uninterrupted efforts to expel true science from the residence of mortals; 362 time, assisted by the progressive knowledge of ages, may one day be able to enlighten even those princes who are the most outrageous in their opposition to the illumination of the human mind; 363 who appear

such decided enemies to justice, so very determined against the liberties of humankind.

364 Destiny will, perhaps, when least expected, conduct these wandering outcasts to the throne of some enlightened, equitable, courageous, generous, benevolent sovereign, 365 who, smitten with the charms of virtue, shall throw aside duplicity, frankly acknowledge the true source of human misery, and apply to it those remedies with which wisdom has furnished him: 366 perhaps you may feel, that those systems, from whence it is pretended you derives your power, are the true scourges of your people; the actual cause of your own weakness: 367 that the official expounders of these systems are your most substantial enemies-- your most formidable rivals; 368 you may find that superstition, which you have been taught to look upon as the main support to your authority, in point of fact only enfeebles it-- renders it tottering: 369 that superstitious morality, false in its principles, is only calculated to pervert your subjects; to break down their intrepidity; to render them perfidious; in short, to give them the vices of slaves, in lieu of the virtues of citizens. 370 A prince thus disentangled from prejudice, will perhaps behold, in superstitious errors, the fruitful source of human sorrows, and commiserations, the condition of own race, it may be, will generously declare, that they are incompatible with every equitable administration.

371 Until this epoch, so desirable for humanity, shall arrive, the principles of naturalism will be adopted only by a small number of liberal-minded people, who shall dive below the surface; 372 these cannot flatter themselves either with making proselytes, or having a great number of approvers: 373 on the contrary, they will meet with zealous adversaries, with ardent condemners, even in those people who upon every other subject discover the most acute minds; display the most consummate

knowledge. 374 Those people who possess the greatest share of ability, as we have already observed, cannot always resolve to divorce themselves completely from their superstitious ideas; 375 imagination, so necessary to splendid talents, frequently forms in them an insurmountable obstacle to the total extinction of prejudice; this depends much more upon the judgment than upon the mind. 376 To this disposition, already so prompt to form illusions to them, is also to be joined the force of habit; 377 to a great number of people, it would be wresting from them a portion of themselves to take away their superstitious notions; 378 it would be depriving them of an accustomed aliment; plunging them into a dreadful vacuum: obliging their distempered minds to perish for want of exercise.

379 Menage remarks, "that history speaks of very few incredulous women, or female atheists:" 380 this is not surprising; their organisation renders them fearful; their nervous system undergoes periodical variations; the education they receive disposes them to credulity. 381 Those among them who have a sound constitution, who have a well ordered imagination, have occasion for chimeras suitable to occupy their leisure; 382 above all, when the world abandons them, then superstitious devotion, with its attractive ceremonies, becomes either a business or an amusement.

383 Let us not be surprised, if very intelligent, extremely learned people, either obstinately shut their eyes, or run counter to their ordinary sagacity, 384 every time there is a question respecting an object which they have not the courage to examine with that attention they lend to many others.

385 Lord Chancellor Bacon pretends, "that a little philosophy disposes people to atheism, but that great depth re-conducts them to religion." 386 If we analyses this proposition, we shall find it signifies, that even moderate, indifferent thinkers, are quickly enabled to perceive the gross absurdities of superstition; 387

but that very little accustomed to meditate, or else destitute of those fixed principles which could serve them for a guide, 388 their imagination presently replaces them in the theological labyrinth, from whence reason, too weak for the purpose, appeared disposed to withdraw them: 389 these timid souls, who fear to take courage, with minds disciplined to be satisfied with theological solutions, no longer see in Nature anything but an inexplicable enigma; an abyss which it is impossible for them to fathom: 390 these, habituated to fix their eyes upon an ideal, mathematical point, which they have made the centre of everything, whenever they lose sight of it, find the universe becomes an unintelligible jumble to them; 391 then the confusion in which they feel themselves involved, makes them rather prefer returning to the prejudices of their infancy, 392 which appear to explain everything, than to float in the vacuum, or quit a foundation which they judge to be immoveable. 393 Thus the proposition of Bacon should seem, to indicate nothing, except it be that the most experienced people cannot at all times defend themselves against the illusions of their imagination; the impetuosity of which resists the strongest reasoning.

394 Nevertheless, a deliberate study of Nature is sufficient to undeceive every human who will calmly consider things: 395 you will discover that the phenomena of the world is connected by links, invisible to superficial notice, equally concealed from the too impetuous observer, but extremely intelligible to you who views Her with serenity. 396 You will find that the most unusual, the most marvellous, as well as the most trifling, or ordinary effects, are equally inexplicable, but that they all equally flow from natural causes; 397 that supernatural causes, under whatever name they may be designated, with whatever

qualities they may be decorated, will never do more than increase difficulties; will only make chimeras multiply. 398 The simplest observation will incontestably prove to you that everything is necessary; that all the effects you perceives are material; 399 that they can only originate in causes of the same Nature, when you even shall not be able to recur to them by the assistance of your senses. 400 Thus your mind, properly directed, everywhere show you nothing but matter, sometimes acting in a manner which your organs permit you to follow, at others in a mode imperceptible by the faculties you possesses: 401 you will see that all beings follow constant invariable laws, by which all combinations are united and destroyed; 402 you will find that all forms change, but that, nevertheless, the great whole ever remains the same.

403 Thus, cured of the idle notions with which you was imbued, undeceived in those erroneous ideas, which from habit be attached to imaginary systems, you will cheerfully consent to be ignorant of whatever your organs do not enable you to compass; 404 you will know that obscure terms, devoid of sense, are not calculated to explain difficulties; 405 guided by reason, you will throw aside all hypothesis of the imagination; the champion of rectitude, you will attach yourself to realities, which are confirmed by experience, which are evidenced by truth.

406 The greater number of those who study Nature, frequently do not consider, that prejudiced eyes will never discover more than that which they have previously determined to find: 407 as soon as they perceive facts contrary to their own ideas, they quickly turn aside, and believe their visual organs have deceived them; 408 if they return to the task, it is in hopes to find means by which they may reconcile the facts to the notions with which their own

mind is previously tinctured. 409 Thus we find enthusiastic philosophers, whose determined prepossession shows them what they denominate incontestable evidences of the systems with which they are per-occupied, even in those things, that most openly contradict their hypothesis: 410 hence those pretended demonstrations of the existence of theories, which are drawn from final causes-- from the order of Nature-- from the kindness evinced to human.

411 Do these same enthusiasts perceive disorder, witness calamities? 412 They induct new proofs of the wisdom, fresh evidence of the intelligence, additional testimony to the bounty of their system, whilst all these occurrences as visibly contradict these qualities, as the first seem to confirm or to establish them. 413 These prejudiced observers are in an ecstasy at the sight of the periodical motions of the planets; at the order of the stars; at the various productions of the earth; at the astonishing harmony in the component parts of animals: 414 in that moment, however, they forget the laws of motion; the powers of gravitation; the force of attraction and repulsion; 415 they assign all these striking phenomena to unknown causes, of which they have no one substantive idea. 416 In short, in the fervour of their imagination they place human in the centre of Nature; they believe you to be the object, the end, of all that exists; 417 that it is for your convenience everything is made; that it is to rejoice your mind, to pleasure your senses, that the whole was created; 418 whilst they do not perceive, that very frequently the entire of Nature appears to be loosed against your weakness; that the elements themselves overwhelm you with calamity; that destiny obstinately persists in rendering you the most miserable of beings. 419 The progress of sound philosophy will always be fatal

to superstition, whose notions will be continually contradicted by Nature.

420 Astronomy has caused judiciary astrology to vanish; experimental philosophy, the study of natural history and chemistry, have rendered it impossible for jugglers, priests or sorcerers, any longer to perform miracles. 421 Nature, profoundly studied, must necessarily cause the overthrow of those chimerical theories, which ignorance has substituted to Her powers.

422 Atheism, as it is termed, is only so rare, because everything conspires to intoxicate human with a dazzling enthusiasm, from your most tender age; 423 to inflate you from your earliest infancy, with systematic error, with organised ignorance, which of all others is the most difficult to vanquish, the most arduous to root out. 424 Theology is nothing more than a science of words, which by dint of repetition we accustom ourselves to substitute for things: 425 as soon as we feel disposed to analyse them, we are astonished to find they do not present us with any actual sense.

426 There are, in the whole world, very few people who think deeply: who render to themselves a faithful account of their own ideas; who have keen penetrating minds. 427 Justness of intellect is one of the rarest gifts which Nature bestows on the human species. 428 It is not, however, to be understood by this, that Nature has any choice in the formation of Her beings; 429 it is merely to be considered, that the circumstances very rarely occur which enable the junction of a certain quantity of those atoms or parts, necessary to form the human machine in such due proportions, 430 that one disposition shall not overbalance the others; and thus render the judgment erroneous, by giving it a particular bias.

431 We know the general process of making gunpowder; nevertheless, it will sometimes happen that the ingredients have

been so happily blended, that this destructive article is of a superior quality to the general produce of the manufactory, 432 without, however, the chemist being on that account entitled to any particular commendation; circumstances have been decidedly favourable, and these seldom occur. 433 Too lively an imagination, an over eager curiosity, are as powerful obstacles to the discovery of truth, as too much phlegm, a slow conception, indolence of mind, or the want of a thinking habit: 434 all humans have more or less imagination, curiosity, phlegm, bile, indolence, activity: it is from the happy equilibrium which Nature has observed in their organisation, that depends that invaluable blessing, correctness of mind.

435 Nevertheless, as we have heretofore said, the organic structure of human is subject to change; the accuracy of your mind varies with the mutations of your machine: 436 from hence may be traced those almost perpetual revolutions that take place in the ideas of mortals; 437 above all when there is a question concerning those objects, upon which experience does not furnish any fixed basis whereon to rest their merits. 438 To search after right, to discover truth, requires a keen, penetrating, just, active mind; because everything strives to conceal from us its beauties: 439 it needs an upright heart, one in good faith with itself, joined to an imagination tempered with reason, because our habitual fears make us frequently dread its radiance, sometimes bursting like a meteor on our darkened faculties; 440 besides, it not infrequently happens, that we are actually the accomplices of those who lead us astray, by an inclination we too often manifest to dissimilate with ourselves on this important measure.

441 Truth never reveals itself either to the enthusiast smitten with own reveries; to the

mellifluous fanatic enslaved by your prejudices; to the vain glorious mortal puffed up with your presumptuous ignorance; to the voluptuary devoted to your pleasures; 442 or to the wily reasoner, who, disingenuous with yourself, has a peculiar spontaneity to form illusions to your mind. 443 Blessed, however, with a heart, gifted with a mind such as described, human will surely discover this ‘rara avis’: 444 thus constituted, the attentive philosopher, the geometrician, the moralist, the politician, the theologian, when you shall sincerely seek truth, will find that the corner-stone which serves for the foundation of all superstitious systems, is evidently rested upon fiction.

445 The philosopher will discover in matter a sufficient cause for its existence; they will perceive that its motion, its combination, its modes of acting, are always regulated by general laws, incapable of variation. 446 The geometrician, without quitting Nature, will calculate the active force of matter; it will then become obvious, that to explain its phenomena, it is by no means necessary to have recourse to that which is incommensurable with all known powers. 447 The politician, instructed in the true spring which can act upon the mind of nations, will feel distinctly, that it is not imperative to recur to imaginary theories, 448 whilst there are actual motives to give play to the volition of the citizens; to induce them to labour efficaciously to the maintenance of their association; 449 you will readily acknowledge that fictitious systems are calculated either to slaken the exertions, or to disturb the motion of so complicated a machine an human society.

450 You who shall more honour truth than the vain subtleties of theology, will quickly perceive that this pompous science is nothing more than an unintelligible jumble of false hypothesis; 451 that it continually

begs its principles; is full of sophisms; contains only vitiated circles; embraces the most subdolous distinctions; 452 is ushered to humankind by the most disingenuous arguments, from which it is not possible, under any given circumstances, there should result anything but puerilities-- the most endless disputes. 453 In short, all people who have sound ideas of morality, whose notions of virtue are correct, who understand what is useful to the human being in society, whether it be to conserve yourself individually, or the body of which you are a member, 454 will acknowledge, that in order to discover your relations, to ascertain your duties, you have only to consult your own nature; 455 that you ought to be particularly careful neither to found them upon discrepant systems, nor to borrow them from models that never can do more than disturb your mind; 456 that will only render your conduct fluctuating; that will leave you forever uncertain of its proper character.

457 Thus, every rational thinker, who renounces own prejudices, will be enabled to feel the inutility, to comprehend the fallacy of so many abstract systems; 458 you will perceive that they have hitherto answered no other purpose than to confound the notions of humankind; to render doubtful the clearest truths. 459 In quitting the regions of the empyreum, where your mind can only bewilder itself, in re-entering your proper sphere, in consulting reason, human will discover that of which you needs the knowledge; 460 you will be able to undeceive yourself upon those chimerical theories, which enthusiasm has substituted for actual natural causes; 461 to detect those figments, by which imposture has almost everywhere superseded the real motives that can give activity in Nature; 462 out of which the human mind never rambles, without going

woefully astray; without laying the foundation of future misery.

463 The Deicolists, as well as the theologians, continually reproach their adversaries with their taste for paradoxes-- with their attachment to systems; whilst they themselves found all their reasoning upon imaginary hypothesis-- upon visionary theories; 464 make a principle of submitting their understanding to the yoke of authority; of renouncing experience; of setting down as nothing the evidence of their senses. 465 Would it not be justifiable in the disciples of Nature, to say to these people, who thus despise Her, "We only assure ourselves of that which we see; we yield to nothing but evidence; if we have a system, it is one founded upon facts; 466 we perceive in ourselves, we behold everywhere else, nothing but matter; we therefore conclude from it that matter can both feel and think: we see that the motion of the universe is operated after mechanical laws; 467 that the whole results from the properties, is the effect of the combination, the immediate consequence of the modification of matter; 468 thus, we are content, we seek no other explication of the phenomena which Nature presents.

469 We conceive only an unique world, in which everything is connected; where each effect is linked to a natural cause, either known or unknown, which it produces according to necessary laws; 470 we affirm nothing that is not demonstrable; nothing that you are not obliged to admit as well as ourselves: 471 the principles we lay down are distinct: they are self-evident: they are facts. 472 If we find some things unintelligible, if causes frequently become arduous, we ingenuously agree to their obscurity; that is to say, to the limits of our own knowledge. 473 But in order to explain these effects, we do not imagine an hypothesis; we either consent to be for ever ignorant of them, or else we wait patiently until time, experience, with the progress of the human mind, shall throw them into light: 474 is not, then, our manner of philosophising consistent

with truth? Indeed, in whatever we advance upon the subject of Nature, we proceed precisely in the same manner as our opponents themselves pursue in all the other sciences, such as natural history, experimental philosophy, mathematics, chemistry. 475 We scrupulously confine ourselves to what comes to our knowledge through the medium of our senses; the only instruments with which Nature has furnished us to discover truth.

476 What is the conduct of our adversaries? In order to expound things of which they are ignorant, they imagine theories still more incomprehensible than what they are desirous to explain; 477 theories of which they themselves are obliged to acknowledge they have not the most slender notion. 478 Thus they invert the true principles of logic, which require we should proceed gradually from that which is most known, to that with which we are least acquainted. 479 Again, upon what do they found the existence of these theories, by whose aid they pretend to solve all difficulties? 480 It is upon the universal ignorance of humankind; upon the inexperience of human; upon your fears; upon your disordered imagination; upon a pretended intimate sense, which in reality is nothing more than the effect of vulgar prejudice; the result of dread; 481 the consequence of the want of a reflecting habit, which induces them to crouch to the opinions of others; to be guided by the mandates of authority, rather than take the trouble to examine for their own information.

482 Such, O theologians! are the ruinous foundations upon which you erect the superstructure of your doctrine. 483 Accordingly, you find it impossible to form to yourselves any distinct idea of those theories which serve for the basis of your systems; you are unable to comprehend either their attributes, their existence, the nature of their localities, or their mode of action. 484 Thus, even by your own confession, ye are in a state of profound ignorance, on the primary elements of that which ye constitute the cause of all that exists: 485 of which, according to your own

account, it is imperative to have a correct knowledge. 486 Under whatever point of view, therefore, ye are contemplated, it must be admitted ye are the founders of aerial systems; of fanciful theories: of all systematisers, ye are consequently the most absurd; 487 because in challenging your imagination to create a cause, this cause, at least, ought to diffuse light over the whole; 488 it would be upon this condition alone that its incomprehensibility could be pardonable; but to speak ingenuously, does this cause serve to explain anything? 489 Does it make us conceive more clearly the origin of the world; bring us more distinctly acquainted with the actual nature of human; 490 does it more intelligibly elucidate the faculties of the soul; or point out with more perspicuity the source of good and evil?

491 No! Unquestionably: these subtle theories explain nothing, although they multiply to infinity their own difficulties; they, in fact, embarrass elucidation, by plunging into greater obscurity those matters in which they are interposed. 492 Whatever may be the question agitated, it becomes complicated: as soon as these theories are introduced, they envelope the most demonstrable sciences with a thick, impenetrable mist; 493 render the most simple notions complex; give opacity to the most diaphanous ideas; turn the most evident opinions into insolvable enigmas.

494 What exposition of morality does the theories, upon which ye found all the virtue, present to human? Do not all your oracles breathe inconsistency? 495 Does not your doctrines embrace every gradation of character, however discrepant: every known property, however opposed. 496 All your ingenious systems, all your mysteries, all the subtilties which ye have invented, are they capable of reconciling that discordant assemblage of amiable and unamiable qualities, with which ye have dressed up your figments? 497 In short, is it not by these theories that ye disturb the harmony of the universe; is it not in their name ye follow up your barbarous proscriptions; 498 in their support,

that ye so inhumanly exterminate all who refuse to subscribe to your organised reveries; who withhold assent to those efforts of the imagination which ye have collectively decorated with the pompous name of religion; 499 but which, individually, ye brand as superstition, always excepting that to which ye lend yourselves.

500 Agree, then, O Theologians! Acknowledge, then, ye subtle metaphysicians! Consent, then, ye organisers of fanciful theories! that not only are ye systematically absurd, but also that ye finish by being atrocious; 501 because whenever ye obtain the ascendancy one over the other, your unfortunate pre-eminence is distinguished by the most malevolent persecution; 502 your domination is ushered in with cruelty; 503 your career is described with blood: from the importance which your own interest attaches to your ruinous dogmas; 504 from the pride with which ye tumble down the less fortunate systems of those who started with you for the prize of plunder; 505 from that savage ferocity, under which ye equally overwhelm human reason, the happiness of the individual, and the felicity of nations."

A SUMMARY OF THE CODE OF NATURE

Paul Henri Thiery (Baron D'Holbach)

57 Truth is the only object worthy the research of every wise person; since that which is false cannot be useful to you: whatever constantly injures you cannot be founded upon truth; consequently, ought to be forever proscribed. 2 It is, then, to assist the human mind, truly to labour for your happiness, to point out to you the clew by which you may extricate yourself from those frightful labyrinths in which your imagination wanders; 3 from those sinuosities whose devious course makes you err, without ever finding a termination to your incertitude. 4 Nature alone, known through experience, can furnish you with this desirable thread; Her eternal energies can alone supply the means of

attacking the Minotaur; of exterminating the figments of hypocrisy; 5 of destroying those monsters, who during so many ages, have devoured the unhappy victims, which the tyranny of the ministers of Moloch have exacted as a cruel tribute from affrighted mortals. 6 By steadily grasping this inestimable clew, rendered still more precious by the beauty of the donor, human can never be led astray-- will never ramble out of your course; 7 but if, careless of its invaluable properties, for a single instant you suffers it to drop from your hand; if, like another Theseus, ungrateful for the favour, you abandons the fair bestower, you will infallibly fall again into your ancient wanderings; 8 most assuredly become the prey to the cannibal offspring of the White Bull.

9 In vain shall you carry your views above your head, to find resources which are at your feet; 10 so long as human, infatuated with your superstitious notions, shall seek in an imaginary world the rule of your earthly conduct, you will be without principles; 11 while you shall pertinaciously contemplate the regions of a distempered fancy, so long you will grope in those where you actually finds yourself; 12 your uncertain steps will never encounter the welfare you desires; never lead you to that repose after which you so ardently sighs, nor conduct you to that surety which is so decidedly requisite to consolidate your happiness.

13 But human, blinded by your prejudices; rendered obstinate in injuring your fellow, by your enthusiasm; ranges yourself in hostility even against those who are sincerely desirous of procuring for you the most substantive benefits. 14 Accustomed to be deceived, you are in a state of continual suspicion; habituated to mistrust yourself, to view your reason with diffidence, to look upon truth as dangerous, you treats as enemies even those who most eagerly strive to encourage you; 15 forewarned in early life against delusion, by the subtilty of imposture, you believes

yourself imperatively called upon to guard with the most sedulous activity the bandeau with which they have hoodwinked you; 16 you thinks your eternal welfare involved in keeping it forever over your eyes; you therefore wrestles with all those who attempt to tear it from your obscured optics. 17 If your visual organs, accustomed to darkness, are for a moment opened, the light offends them; you are distressed by its effulgence; you thinks it criminal to be enlightened; you darts with fury upon those who hold the flambeau by which you are dazzled.

18 In consequence, the atheist, as the arch rogue from whom you differs ludicrously calls you, is looked upon as a malignant pest, as a public poison, which like another Upas, destroys everything within the vortex of its influence; 19 you who dares to arouse mortals from the lethargic habit which the narcotic doses administered by the theologians have induced passes for a perturbator; 20 you who attempts to calm their frantic transports, to moderate the fury of their maniacal paroxysms, is yourself viewed as a mad-person, who ought to be closely chained down in the dungeons appropriated to lunatics; 21 you who invites your associates to rend their chains asunder, to break their galling fetters, appears only like an irrational, inconsiderate being, even to the wretched captives themselves: 22 who have been taught to believe that Nature formed them for no other purpose than to tremble: only called them into existence that they might be loaded with shackles. 23 In consequence of these fatal prepossessions, the Disciple of Nature is generally treated as an assassin; 24 is commonly received by own fellow citizens in the same manner as the feathered race receive the doleful bird of night, which as soon as it quits its retreat, all the other birds follow

with a common hatred, uttering a variety of doleful cries.
25 No, mortals blended by terror! The friend of Nature is not your enemy; its interpreter is not the minister of falsehood; the destroyer of your vain phantoms is not the devastator of those truths necessary to your happiness; 26 the disciple of reason is not an irrational being, who either seeks to poison you, or to infect you with a dangerous delirium.
27 If you are desirous to wrest the thunder from those terrible theories that affright ye, it is that ye may discontinue your march, in the midst of storms, over roads that ye can only distinguish by the sudden, but evanescent glimmerings of the electric fluid. 28 If you breaks those idols, which fear has served with myrrh and frankencense-- which superstition has surrounded by gloomy despondency-- which fanaticism has imbrued with blood; 29 it is to substitute in their place those consoling truths that are calculated to heal the desperate wounds ye have received; that are suitable to inspire you with courage, sturdily to oppose yourselves to such dangerous errors; that have power to enable you to resist such formidable enemies. 30 If you throws down the temples, overturns the altars, so frequently bathed with the bitter tears of the unfortunate, blackened by the most cruel sacrifices, smoked with servile incense, 31 it is that you may erect a fane sacred to peace; a hall dedicated to reason; a durable monument to virtue, 32 in which ye may at all times find an asylum against your own phrenzy; a refuge from your own ungovernable passions; a sanctuary against those powerful dogmatists, by whom ye are oppressed. 33 If you attacks the haughty pretensions of deified tyrants, who crush ye with an iron sceptre, 34 it is that ye may enjoy the rights of your nature; it is to the end that ye may be substantively freemen, in mind as

well as in body; that ye may not be slaves, eternally chained to the oar of misery; 35 it is that ye may at length be governed by people who are citizens, who may cherish their own semblances, who may protect mortals like themselves, who may actually consult the interests of those from whom they hold their power. 36 If you battles with imposture, it is to re-establish truth in those rights which have been so long usurped by fiction. 37 If you undermines the base of that unsteady, fanatical morality, which has hitherto done nothing more than perplex your minds, without correcting your hearts; 38 it is to give to ethics an immovable basis, a solid foundation, secured upon your own nature; upon the reciprocity of those wants which are continually regenerating in sensible beings: 39 dare, then, to listen to His voice; you will find it much more intelligible than those ambiguous oracles, which are announced to you as the offspring of capricious theories; as imperious decrees that are unceasingly at variance with themselves. 40 Listen then to Nature, She never contradicts Her own eternal laws.

41 "O thou!" cries this Nature to man, "who, following the impulse I have given you, during your whole existence, incessantly tend towards happiness, do not strive to resist my sovereign law. 42 Labour to your own felicity; partake without fear of the banquet which is spread before you, with the most hearty welcome; you will find the means legibly written on your own heart. 43 Vainly dost thou, O superstitious being! Seek after thine happiness beyond the limits of the universe, in which my hand hath placed thee: 44 vainly shalt thou search it in those inexorable theories, which thine imagination, ever prone to wander, would establish upon my eternal throne: 45 vainly dost thou expect it in those fanciful regions, to which thine own

delirium hath given a locality and a shame: 46 vainly dost thou reckon upon capricious systems, with whose advantages thou art in such ecstasies; whilst they only fill thine abode with calamity-- thine heart with dread-- thy mind with illusions-- thy bosom with groans. 47 Know that when thou neglectest my counsels, the gods will refuse their aid.

48 Dare, then, to affranchise thyself from the trammels of superstition, my self-conceited, pragmatic rival, who mistakes my rights; 49 renounce those empty theories, which are usurpers of my privileges; return under the dominion of my laws, which, however severe, are mild in comparison with those of bigotry. 50 It is in my empire alone that true liberty reigns. Tyranny is unknown to its soil; equity unceasingly watches over the rights of all my subjects, maintains them in the possession of their just claims; 51 benevolence, grafted upon humanity, connects them by amicable bonds; truth enlightens them; never can imposture blind them with own obscuring mists. 52 Return, then, my child, to thy fostering mother's arms! Deserter, trace back thy wandering steps to Nature! She will console thee for thine evils; 53 She will drive from thine heart those appalling fears which overwhelm thee; those inquietudes that distract thee; those transports which agitate thee; those hatreds that separate thee from thy fellow human, whom thou shouldst love as thyself. 54 Return to Nature, to humanity, to thyself!

55 Strew flowers over the road of life: cease to contemplate the future; live to thine own happiness; exist for thy fellow creatures; retire into thyself, examine thine own heart, then consider the sensitive beings by whom thou art surrounded: 56 leave to their inventors those systems which can effect nothing towards thy felicity. 57 Enjoy

thyself, and cause others also to enjoy, those comforts which I have placed with a liberal hand, for all the children of the earth; who all equally emanate from my bosom: 58 assist them to support the sorrows to which necessity has submitted them in common with thyself. 59 Know, that I approve thy pleasures, when without injuring thyself, they are not fatal to thy brethren, whom I have rendered indispensably necessary to thine own individual happiness. 60 These pleasures are freely permitted thee, if thou indulgest them with moderation; with that discretion which I myself have fixed. 61 Be happy, then, O human! Nature invites thee to participate in it; but always remember, thou canst not be so alone; because I invite all mortals to happiness as well as thyself; thou will find it is only in securing their felicity that thou canst consolidate thine own. 62 Such is the decree of thy destiny: if thou shalt attempt to withdraw thyself from its operation, recollect that hatred will pursue thee; vengeance overtake thy steps; and remorse be ever ready at hand to punish the infractions of its irrevocable mandates.

63 "Follow then, O human! in whatever station thou findest thyself, the routine I have described for thee, to obtain that happiness to which thou hast an indispensable right to challenge pretension. 64 Let the sensations of humanity interest thee for the condition of other humans, who are thy fellow creatures; let thine heart have commiserations for their misfortunes: 65 let thy generous hand spontaneously stretch forth to lend succour to the unhappy mortal who is overwhelmed by your destiny; always bearing in thy recollection, that it may fall heavy upon thyself, as it now does upon your fellow. 66 Acknowledge, then, without guile, that every unfortunate has an inalienable right to thy kindness. 67 Above all, wipe from the eyes of oppressed

innocence the trickling crystals of agonised feeling; let the tears of virtue in distress, fall upon thy sympathising bosom; 68 let the genial glow of sincere friendship animate thine honest heart; let the fond attachment of a mate, cherished by thy warmest affection, make thee forget the sorrows of life: 69 be faithful to Her love, responsible to Her tenderness, that She may reward thee by a reciprocity of feeling; 70 that under the eyes of parents united in virtuous esteem, thy offspring may learn to set a proper value on practical virtue; 71 that after having occupied thy riper years, they may comfort thy declining age, gild with content thy setting sun, cheer the evening of thine existence, by a dutiful return of that care which thou shalt have bestowed on their imbecile infancy.

72 "Be just, because equity is the support of human society! Be good, because goodness connects all hearts in adamantine bonds! Be indulgent, because feeble thyself, thou livest with beings who partake of thy weakness! 73 Be gentle, because mildness attracts attention! Be thankful, because gratitude feeds benevolence, nourishes generosity! Be modest, because haughtiness is disgusting to beings at all times well with themselves. 74 Forgive injuries, because revenge perpetuates hatred! Do good to those who injureth thee, in order to show thyself more noble than you are; to make a friend of those who was once thine enemy! 75 Be reserved in thy demeanor, temperate in thine enjoyment, chaste in thy pleasures, because voluptuousness begets weariness, intemperance engenders disease; forward manners are revolting: 76 excess at all times relaxes the springs of thy machine, will ultimately destroy thy being, and render thee hateful to thyself, contemptible to others. 77 "Be a faithful citizen; because the community is necessary to thine own security; to the enjoyment of

thine own existence; to the furtherance of thine own happiness. 78 Be loyal, but be brave; submit to legitimate authority; because it is requisite to the maintenance of that society which is necessary to thyself. 79 Be obedient to the laws; because they are, or ought to be, the expression of the public will, to which thine own particular will ought ever to be subordinate. 80 Defend thy country with zeal; because it is that which renders thee happy, which contains thy property, as well as those beings dearest to thine heart: 81 do not permit this common parent of thyself, as well as of thy fellow citizens, to fall under the shackles of tyranny; because from thence it will be no more than thy common prison. 82 If thy country, deaf to the equity of thy claims, refuses thee happiness--if, submitted to an unjust power, it suffers thee to be oppressed, withdraw thyself from its bosom in silence, but never disturb its peace.

83 "In short, be a human; be a sensible, rational being; be a faithful husband; a tender wife; an equitable master; a zealous citizen; labour to serve thy country by thy prowess; by thy talents; by thine industry; above all, by thy virtues. 84 Participate with thine associates those gifts which Nature has bestowed upon thee; diffuse happiness, among thy fellow mortals; inspire thy fellow citizens with content; 85 spread joy over all those who approach thee, that the sphere of thine actions, enlivened by thy kindness, illumined by thy benevolence, may re-act upon thyself; be assured that the person who makes others happy cannot the self be miserable.

86 In thus conducting thyself, whatever may be the injustice of others, whatever may be the blindness of those beings with whom it is thy destiny to live, thou wilt never be totally bereft of the recompense which is thy due; 87 no power on earth be able to ravish from thee that never

failing source of the purest felicity, inward content; 88 at each moment thou wilt fall back with pleasure upon thyself; thou wilt neither feel the rankling of shame, the terror of internal alarm, nor find thy heart corroded by remorse. 89 Thou wilt esteem thyself; thou wilt be cherished by the virtuous, applauded and loved by all good people, whose suffrages are much more valuable than those of the bewildered multitude. 90 Nevertheless, if externals occupy thy contemplation, smiling countenances will greet thy presence; happy faces will express the interest they have in thy welfare; jocund beings will make thee participate in their placid feelings. 91 A life so spent, will each moment be marked by the serenity of thine own soul, by the affection of the beings who environ thee; will be made cheerful by the friendship of thy fellows; will enable thee to rise a contented, satisfied guest from the general feast; 92 conduct thee gently down the declivity of life, lead thee peaceably to the period of thy days; for die thou must: but already thou wilt survive thyself in thought; thou wilt always live in the remembrance of thy friends; 93 in the grateful recollection of those beings whose comforts have been augmented by thy friendly attentions; thy virtues will, beforehand have erected to thy fame an imperishable monument: 94 if heaven occupies itself with thee, it will feel satisfied with thy conduct, when it shall thus have contented the earth.

95 "Beware, then, how thou complainest of thy condition; be just, be kind, be virtuous, and thou canst never be wholly destitute of felicity. 96 Take heed how thou enviest the transient pleasure of seductive crime; the deceitful power of victorious tyranny; the specious tranquillity of interested imposture; the plausible manners of venal justice; the showy, ostentatious parade of hardened opulence. 97

Never be tempted to increase the number of sycophants to an ambitious despot; to swell the catalogue of slaves to an unjust tyrant; 98 never suffer thyself to be allured to infamy, to the practice of extortion, to the commission of outrage, by the fatal privilege of oppressing thy fellows; 99 always recollect it will be at the expense of the most bitter remorse thou wilt acquire this baneful advantage. 100 Never be the mercenary accomplice of the spoilers of thy country; they are obliged to blush secretly whenever they meet the public eye.

101 "For, do not deceive thyself, it is I who punish, with an unerring hand, all the crimes of the earth; the wicked may escape the laws of human, but they never escape mine. 102 It is I who have formed the hearts, as well an the bodies of mortals; it is I who have fixed the laws which govern them. 103 If thou deliverest thyself up to voluptuous enjoyment, the companions of thy debaucheries may applaud thee; but I shall punish thee with the most cruel infirmities; these will terminate a life of shame with deserved contempt. 104 If thou givest, thyself up to intemperate indulgences, human laws may not correct thee, but I shall castigate thee severely by abridging thy days. 105 If thou art vicious, thy fatal habits will recoil on thine own head. 106 Nobles, those terrestrial divinities, whose power places them above the laws of humankind, are nevertheless obliged to tremble under the silent operation of my decrees. 107 It is I who chastise them; it is I who fill their breasts with suspicion; it is I who inspire them with terror; it is I who make them writhe under inquietude; it is I who make them shudder with horror, at the very name of august truth; 108 it is I who, amidst the crowd of nobles who surround them, make them feel the inward workings of shame;

the keen anguish of guilt; the poisoned arrows of regret; the cruel stings of remorse; 109 it is I who, when they abuse my bounty, diffuse weariness over their benumbed souls; it is I who follow uncreated, eternal justice; 110 it is I who, without distinction of people, know how to make the balance even; to adjust the chastisement to the fault; to make the misery bear its due proportion to the depravity; to inflict punishment commensurate with the crime.

111 The laws of human are just, only when they are in conformity with mine; your judgements are rational, only when I have dictated them: 112 my laws alone are immutable, universal, irrefragable; formed to regulate the condition of the human race, in all ages, in all places, under all circumstances.

113 "If thou doubtest mine authority, if thou questionest the irresistible power I possess over mortals, contemplate the vengeance I wreak on all those who resist my decrees. 114 Dive into the recesses of the hearts of those various criminals, whose countenances, assuming a forced smile, cover souls torn with anguish. 115 Dost thou not behold ambition tormented day and night, with an ardour which nothing can extinguish? 116 Dost not thou see the mighty conquerer become the lord of devastated solitudes; 117 their victorious career, marked by a blasted cultivation, reign sorrowfully over smoking ruins; govern unhappy wretches who curse them in their hearts; while their soul, gnawed by remorse, sickens at the gloomy aspect of their own triumphs? 118 Dost thou believe that the tyrant, encircled with own flatterers, who stun the self with their praise, is unconscious of the hatred which their oppression excites; 119 of the contempt which their vices draw upon them; of the sneers which their inutility call forth; of the scorn which their debaucheries entail

upon their name? 120 Dost thou think that the haughty courtier does not inwardly blush at the galling insults they brooks; 121 despise, from the bottom of their soul, those meannesses by which they are compelled to purchase favours; feel at their heart's core the wretched dependence in which their cupidity places them. 122 "Contemplate the indolent child of wealth, behold them a prey to the lassitude of unmeasured enjoyment, corroded by the satiety which always follows your exhausted pleasures. 123 View the miser with an emaciated countenance, the consequence of own penurious disposition, 124 whose callous heart is inaccessible to the calls of misery, groaning over the accumulating load of useless treasure, which at the expense of the self, they have laboured to amass. 125 Behold the gay voluptuary, the smiling debaucheé, secretly lament the health they have so inconsiderately damaged so prodigally thrown away: 126 see disdain, joined to hatred, reign between those adulterous married couples, who have reciprocally violated the sacred vows they mutually pledged at the altar of Hymen; 127 whose appetencies have rendered them the scorn of the world; the jest of their acquaintance; polluted tributaries to the surgeon. 128 See the liar deprived of all confidence; the knave stript of all trust; the hypocrite fearfully avoiding the penetrating looks of own inquisitive neighbour; the impostor trembling at the very name of formidable truth. 129 Bring under your review the heart of the envious, uselessly dishonoured; that withers at the sight of own neighbour's prosperity. 130 Cast your eyes on the frozen soul of the ungrateful wretch, whom no kindness can warm, no benevolence thaw, no beneficence convert into a genial fluid. 131 Survey the iron feelings of that monster whom the sighs of the unfortunate cannot mollify. 132 Behold the revengeful being nourished with venemous gall, whose very thoughts are serpents; who in own rage consumes the self. 133 Envy, if thou canst, the waking

slumbers of the homicide; the startings of the iniquitous judge; the restlessness of the oppressor of innocence; the fearful visions of the extortioner; whose couches are infested with the torches of the furies.

134 Thou tremblest without doubt at the sight of that distraction which, amidst their splendid luxuries, agitates those farmers of the revenue, 135 who fatten upon public calamnity-- who devour the substance of the orphan-- who consume the means of the widow-- who grind the hard earnings of the poor: 136 thou shudderest at witnessing the remorse which rends the souls of those reverend criminals, whom the uninformed believe to be happy, 137 whilst the contempt which they have for themselves, the unerring shafts of secret upbraidings, are incessantly revenging an outraged nation. 138 Thou seest, that content is forever banished the heart; quiet for ever driven from the habitations of those miserable wretches on whose minds I have indelibly engraved the scorn, the infamy, the chastisement which they deserve. 139 But, no! thine eyes cannot sustain the tragic spectacle of my vengeance. 140 Humanity obliges thee to partake of their merited sufferings; thou art moved to pity for these unhappy people, to whom consecrated errors renders vice necessary; whose fatal habits make them familiar with crime. 141 Yes; thou shunnest them without hating them; thou wouldst succour them, if their contumacious perversity had left thee the means. 142 When thou comparest thine own condition, when thou examinest thine own soul, thou wilt have just cause to felicitate thyself, if thou shalt find that peace has taken up Her abode with thee; that contentment dwells at the bottom of thine own heart. 143 In short, thou seest accomplished upon them, as well as, upon thyself, the unalterable decrees of destiny, which imperiously demand, that crime shall punish itself, that virtue never shall be destitute Of remuneration."

144 Such is the sum of those truths which are contained in the Code-of-Nature; such are the

doctrines, which its disciples can announce. 145 They are unquestionably preferable to that supernatural superstition which never does anything but mischief to the human species. 146 Such is the worship that is taught by that sacred reason, which is the object of contempt with the theologian; which meets the insult of the fanatic; who only estimates that which human can neither conceive nor practise; 147 who make your morality consist in fictitious duties; your virtue in actions generally useless, frequently pernicious to the welfare of society; 148 who for want of being acquainted with Nature, which is before their eyes, believe themselves obliged to seek in ideal worlds imaginary motives, of which everything proves the inefficacy. 149 The motive which the morality of Nature employs, is the self-evident interest of each individual, of each community, of the whole human species, in all times, in every country, under all circumstances. 150 Its worship is the sacrifice of vice, the practise of real virtues; its object is the conservation of the human race, the happiness of the individual, the peace of humankind; 151 its recompences are affection, esteem, and glory; or in their default, contentment of mind, with merited self-esteem, of which no power will ever be able to deprive virtuous mortals; 152 its punishments, are hatred, contempt, and indignation; which society always reserves for those who outrage its interests; from which even the most powerful can never effectually shield themselves.

153 Those nations who shall be disposed to practise a morality so wise, who shall inculcate it in infancy, whose laws shall unceasingly confirm it, will neither have occasion for superstition, nor for chimeras. 154 Those who shall obstinately prefer figments to their dearest interests, will certainly march forward to ruin. 155 If they

maintain themselves for a season, it is because the power of Nature sometimes drives them back to reason, in despite of those prejudices which appear to lead them on to certain destruction. 156 Superstition, leagued with tyranny, for the waste of the human species, are themselves frequently obliged to implore the assistance of a reason which they condemn; of a nature which they disdain; which they debase; which they endeavour to crush under the ponderous bulk of artificial theories. 157 Superstition, in all times so fatal to mortals, when attacked by reason, assumes the sacred mantle of public utility; 158 rests its importance on false grounds, founds its rights upon the indissoluble alliance which it pretends subsists between morality and itself; 159 notwithstanding it never ceases for a single instant to wage against it the most cruel hostility. It is, unquestionably, by this artifice, that it has seduced so many sages.

160 In the honesty of their hearts, they believe it useful to politics; necessary to restrain the ungovernable fury of the passions; 161 thus hypocritical superstition, in order to mask to superficial observers, its own hideous character, like the ass with the lion's skin, always knows how to cover itself with the sacred armour of utility; to buckle on the invulnerable shield of virtue; 162 it has therefore, been believed imperative to respect it, notwithstanding it felt awkward under these incumbrances; 163 it consequently has become a duty to favour imposture, because it has artfully entrenched itself behind the altars of truth; 164 its ears, however, discover its worthlessness; its natural cowardice betrays itself; it is from this entrenchment we ought to drive it; it should be dragged forth to public view; stripped of its surreptitious panoply; exposed

in its native deformity; 165 in order that the human race may become acquainted with its dissimulation; that humankind may have a knowledge of its crimes; 166 that the universe may behold its sacrilegious hands, armed with homicidal poniards, stained with the blood of nations, whom it either intoxicates with its fury, or immolates without pity to the violence of its passions.

167 The MORALITY OF NATURE is the only creed which Her interpreter offers to own fellow citizens; to nations; to the human species; to future races, weaned from those prejudices which have so frequently disturbed the felicity of their ancestors. 168 The friend of humankind cannot be the friend of delusion, which at all times has been a real scourge to the earth. 169 The APOSTLE OF NATURE will not be the instrument of deceitful chimeras, by which this world is made only an abode of illusions; 170 the adorer of truth will not compromise with falsehood; you will make no covenant with error; conscious it must always be fatal to mortals. 171 You knows that the happiness of the human race imperiously exacts that the dark unsteady edifice of superstition should be razed to its foundations; in order to elevate on its ruins a temple suitable to peace-- a fane sacred to virtue. 172 You feels it is only by extirpating, even to the most slender fibres, the poisonous tree, that during so many ages has overshadowed the universe, 173 that the inhabitants of this world will be able to use their own optics-- to bear with steadiness that light which is competent to illumine their understanding-- to guide their wayward steps-- to give the necessary ardency to their souls. 174 If your efforts should be vain; if you cannot inspire with courage, beings too much accustomed to tremble; you will, at least, applaud yourself for having dared the attempt.

NATURE

175 Nevertheless, you will not judge your exertions fruitless, if you have only been enabled to make a single mortal happy: if your principles have calmed the conflicting transports of one honest soul; if your reasoning have cheered up some few virtuous hearts. 176 At least you will have the advantage of having banished from your own mind the importunate terror of superstition; 177 of having expelled from your own heart the gall which exasperates zeal; of having trodden under foot those chimeras with which the uninformed are tormented. 178 Thus, escaped from the peril of the storm, you will calmly contemplate from the summit of your rock, those tremendous hurricanes which superstition excites; 179 you will hold forth a succouring hand to those who shall be willing to accept it; you will encourage them with your voice; 180 you will second them with your best exertions, and in the warmth of your own compassionate heart, you will exclaim: O NATURE; sovereign of all beings! and ye, Her adorable daughters, VIRTUE, REASON, and TRUTH! remain forever our revered protectors: 181 it is to you that belong the praises of the human race; to you appertains the homage of the earth. 182 Show, us then, O NATURE! that which human ought to do, in order to obtain the happiness which thou makest human desire. 183 VIRTUE! Animate us with thy beneficent fire. REASON! Conduct our uncertain steps through the paths of life. TRUTH! Let thy torch illumine our intellect, dissipate the darkness of our road. 184 Unite, O assisting deities! your powers, in order to submit the hearts of humankind to your dominion. 185 Banish error from our mind; wickedness from our hearts; confusion from our footsteps; cause knowledge to extend its salubrious reign; goodness to occupy our souls; serenity to dwell in our bosoms.

186 Let imposture, confounded, never again dare to show its head. Let our eyes, so long, either dazzled or blindfolded, be at length fixed upon those objects we ought to seek. 187 Dispel for ever those mists of ignorance, those hideous phantoms, together with those seducing chimeras, which only serve to lead us astray. 188 Extricate us from that dark abyss into which we are plunged by superstition; overthrow the fatal empire of delusion; crumble the throne of falsehood; wrest from their polluted hands the power they have usurped. 189 Command people, without sharing your authority with mortals: break the chains that bind them down in slavery: tear away the bandeau by which they are hoodwinked; allay the fury that intoxicates them; 190 break in the hands of sanguinary, lawless tyrants, that iron sceptre with which they are crushed to exile; the imaginary regions, from whence fear has imported them, those theories by which they are afflicted.

191 Inspire the intelligent being with courage; infuse energy into your system, that, at length, you may feel your own dignity; that you may dare to love yourself; to esteem your own actions when they are worthy; 192 that a slave only to your eternal laws, you may no longer fear to enfranchise yourself from all other trammels; 193 that blest with freedom, you may have the wisdom to cherish your fellow creature; and become happy by learning to perfection your own condition; 194 instruct you in the great lesson, that the high road to felicity, is prudently to partake yourself, and also to cause others to enjoy, the rich banquet which thou, O Nature! hast so bountifully set before you. 195 Console thy children for those sorrows to which their destiny submits them, by those pleasures which wisdom allows them to partake; teach them to be contented with their condition; to banish envy from their mind; to

yield silently to necessity. 196 Conduct them without alarm to that period which all beings must find; let them learn that time changes all things, that consequently they are made neither to avoid its scythe nor to fear its arrival.

A BRIEF SKETCH OF THE LIFE AND WRITINGS OF M. DE. MIRABAUD

Paul Henri Thiery (Baron D'Holbach)

58 At a time when we are on the eve of an important change in our governmental affairs, which must evidently lead either to the recovery and re-establishment of our liberties, or to a military despotism, 2 those who are connected with the press ought to use every exertion to enlighten their fellow-citizens, and to assert their right of canvassing, in the most free and unrestrained manner, every subject connected with the happiness of human.

3 The priesthood have ever been convenient tools in the hands of tyrants, to keep the bulk of the people in a degraded servility. 4 By the superstitious and slavish doctrines which they infuse into their minds, they prevent them from thinking for themselves and asserting their own independence. 5 At a moment when national schools are erecting in every quarter of the country, not with a sincere desire of enlightening the rising generation, but with the insidious design of instilling into their minds the doctrines of "Church and King," 6 in order to bolster up a little longer the present rotten, tottering, and corrupt system: 7 at a moment, too, when thousands of fanatic preachers are traversing the country, with a view to subjugate the human mind to the baleful empire of visonary enthusiasm and sectarian bigotry to the utter extinction of every noble, humanly, liberal, and pilanthropic principle;-- 8 at such a moment as this, we thought that the "SYSTEM OF NATURE" could not fail to render essential service to the cause both of civil and religious liberty. 9 No work, ancient or modern, has surpassed it, in the eloquence and sublimity of its

language, or in the facility with which it treats the most abtruse and difficult subjects. 10 It is, without exception, the boldest effort the human mind has yet produced, in the investigation of morals and theology-- in the destruction of priestcraft and superstition-- 11 and in developing the sources of all those passions and prejudices which have proved so fatal to the tranquillity of the world.

12 The republic of letters has never produced an author whose pen was so well calculated to emancipate humankind from all those trammels 13 with which the nurse, the schoolmaster and the priest have successively locked up their noblest faculties, before they were capable of reasoning and judging for themselves. 14 The frightful apprehensions of the gloomy bigot, and all the appalling terrors of superstition, are here utterly annihilated, to the complete satisfaction of every unbiassed and impartial person. 15 These we considered as necessary observations to make, previous to any attempt at the biography of the author.

16 Biography may be reckoned among the most interesting of literary productions. Its intrinsic value is such, that, though capable of extraordinary embellishment from the hand of genius, yet no inferiority of execution can so degrade it, as to deprive it of utility. 17 Whatever relates even to human in general, considered only as an aggregate of active and intelligent beings, has a strong claim upon our notice; 18 but that which relates to our author, as distinguished from the rest of own species, moving in a more exalted sphere, 19 and towering above them by the resplendent excellencies of own mind, seems to me to be peculiarly calculated for our contemplation, and ought to form the highest pleasure of our lives. 20 There is a principle of curiosity implanted in us, which leads us, in an especial manner, to investigate our fellow creatures; 21 the eager

inquisitiveness with which the mechanic seeks to know the history of own fellow-workmen 22 and the ardour with which the philosopher, the poet, or the historian hunts for details that may familiarise the self with, a Descartes or a Newton, with a Milton, a Hume, or a Gibbon-- spring from the same source. 23 Their object, however, may perhaps vary; for, in the former, it may be for the sake of detraction, invidious cavil, or malice; in the latter, it is a sweet homage paid by the human heart to the memory of departed genius.

24 It has been repeatedly observed that the life of a scholar affords few materials for biography. This is only negatively true;-- 25 could every scholar have a Boswell, the remark would vanish; or were every scholar a Rousseau, a Gibbon, or a Cumberland it would be equally nugatory. 26 What can present higher objects of contemplation-- what can claim more forcibly our attention-- where can we seek for subjects of a more precious nature, than in the elucidation of the operations of mind, the acquisition of knowledge, the gradual expansion of genius; 27 its application, its felicities, its sorrows, its wreaths of fame, its cold, undeserved neglect? 28 Such scenes, painted by the artist, are a rich bequest to humankind: even when traced by the hand of friendship or the pencil of admiration, they possess a permanent interest in our hearts.

29 I cannot conceive a life more worthy of public notice, more important, more interesting to human nature, than the life of a literary person, were it executed according to the ideas I have formed of it: 30 did it exhibit a faithful delineation of the progress of intellect, from the cradle upwards; did it portray, in accurate colours, the production of what we call genius: by what accident it was first awakened; 31 what were its first tendencies; how directed to a particular object; by what means it was nourished and unfolded; the gradual progress of its operation in the production of a work; its hopes

and fears; its delights; its miseries; its inspirations; 32 and all the thousand fleeting joys that so often invest its path but for a moment, and then fade like the dews of the morning. 33 Let it contain too a transcript of the many nameless transports that float round the heart, that dance in the gay circle before the ardent gazing eye, when the first conception of some future effort strikes the mind; 34 how it pictures undefined delights of fame and popular applause; 35 how it anticipates the bright moments of invention, and dwells with prophetic ecstasy on the felicitous execution of particular parts, that already start into existence by the magic touch of a heated imagination. 36 Let it depict the tender feelings of solitude, the breathings of midnight silence, the scenes of mimic life, of imaged trial, that often occupy the musing mind; 37 let it be such a work, so drawn, so coloured, and who shall pronounce it inferior? 38 Who rather will not confess that it presents a picture of human nature, where every heart may find some corresponding harmony?

39 When, therefore, it is said, that the life of a scholar is barren, it is so only because it has never been properly delineated; 40 because those parts only have been selected which are common, and fail to distinguish you from the common human; 41 because we have never penetrated into your closet, or into your heart; because we have drawn you only as an outward figure, and left unnoticed that internal structure that would delight, astonish, and improve. 42 And then, when we compare the life of such a person with the more active one of a soldier, a statesman, or a lawyer, we pronounce it insipid, uninteresting. 43 True;-- the person of study has not fought for hire-- you have not slaughtered at the command of a master: you would disdain to do so. 44 Though unaccompanied with the glaring actions of public persons, which confound and dazzle by their publicity, but shrink from the estimation of moral truth, it would present a far nobler picture; yes, and a more instructive one:-- 45 the calm

disciple of reason meditates in silence; you walks your road with innoxious humility; you are poor, but your mind is your treasure; you cultivates your reason, and She lifts you to the pinnacle of truth; 46 you learns to tear away the veil of self-love, folly, pride, and prejudice, and bares the human heart to your inspection; you corrects and amends; you repairs the breaches made by passion; 47 the proud person passes you by, and looks upon you with scorn; but you feels your own worth, that ennobling consciousness which swells in every vein, and inspires you with true pride-- with humanly independence: 48 to such a person I could sooner bow in reverence, than to the haughtiest, most successful candidate for the world's ambition. But of such people, for the reason I have already mentioned, our information is scanty. 49 While of others, who have commanded a greater share of public notoriety, venal or mistaken admiration has given more than we wished to know. 50 Among these respected individuals of human nature, may be placed Mirabaud. 51 Had Mirabaud been an Englishman, who doubts but that we should have possessed at least ample details of the usual subjects of biographical notice; while all that has been collected among his own countrymen, is a scanty memoir in a common dictionary. 52 That we are doomed to remain ignorant of the life of such people, speaks a loud disgrace.-- I lament it.

53 JOHN BAPTISTE MIRABAUD, was born at Paris in the year 1674. He prosecuted his infantile studies under the direction of his parents, 54 and was afterwards entered a member of the Congregation of the Priests of the Oratory, where he passed several years, and produced some very bold writings, which were never intended for publication. 55 He was subsequently appointed tutor to the princesses of the House of Orleans, and then took the resolution of destroying the greater part of the manuscripts that he produced while a member of the Congregation; 56 but the treachery of some of his friends, to whom he had confided his manuscripts, rendered this precaution

useless, for some of his works were published during the time he remained the preceptor to his royal pupils; 57 among which number may be reckoned his "New Liberties of Thought," a work but little calculated for gaining him friends in the purlieus of the Court of Orleans. 58 The "Origin and Antiquity of the World," in three parts, was also published at this period, and from the publication of this work, may be dated the resolution of M. de Mirabaud to quit his office of preceptor, which he relinquished, having become more independent; 59 he now gave himself up entirely to his philosophical studies, and produced the "System of Nature," with which he was assisted by Diderot, D'Alembert, Baron D'Olbac, and others.

60 The profound metaphysical knowledge displayed throughout the System of Nature, and the doctrines which are therein advanced, warrants the conclusion, that it is at once the most decisive, boldest, and most extraordinary work, that the human understanding ever had the courage to produce. 61 The study of metaphysics is generally been considered the most terrific to the indolent mind; 62 but the clear and perspicuous reasoning of a Mirabaud, who has united the most profound argument, with the most fascinating eloquence, charm and instruct us at the same time. 63 But it was not, to be expected that such doctrines as are contained in the System of Nature, would be advanced without meeting with some opposition from the superficial and bigoted metaphysicians, who feel an interest in upholding a system of delusion and superstition. 64 No! Certainly not, their interest was threatened, and their craft in danger, and the consequence was, that the Atheists or Disciples of Nature has been abused with every scurrilous epithet, "full of sound and fury, signifying nothing."

65 Atheism is stigmatised with having "opened a wide door for

libertinism, destroying the social and moral compact; and striking a deadly blow at religion. 66 It is asserted that the atheist, who by own opinions has deprived the self of the hope and consolation of a future life, has no motive for the practise of virtue, or to contribute to the well being of society. 67 Deprived of a chimera which religion everywhere presents you, you wanders through the cheerless gloom of scepticism, regardless of the consequences of an abandoned life. 68 Without a God, you acknowledges no benefactor; without divine laws, you knows no rule for the conduct of life, and submits to no law but your passions. 69 An enemy to all social order, you spurns at human laws, and breaks through every barrier opposed to your wickedness." 70 Under such colours is an atheist painted: a short digression must be suffered to examine this picture, and to disprove the assertions so sweepingly made.

71 I admit that atheism strikes a deadly blow at religion; because under the cloak of religion, humankind have been oppressed in all ages; but that it encourages libertinism, or destroys the "social and moral compact," 72 I have yet to learn. In all organised governments, people are restrained from crime and compelled to submission by laws supposed to be made for the general benefit. 73 These laws are the effect of the first formation of society for mutual preservation. Here then is a sufficient motive for the one as well as the other, to contribute to the well-being of society. 74 The laws of Nature are the same in effect on the atheist and the religionist. If human be led captive by own passions, and gives the self to debauchery and voluptuousness, Nature will punish those with bodily infirmities and a debilitated mind. 75 If you be intemperate, She will shorten your days and bring you to the grave with the most poignant remorse. The fatal effects of your vicious propensities will fall upon your own head.

76 A disturber of social order will live in continual fear of the vengeance of society, and that very fear is a more dreadful punishment than the just vengeance which perhaps you escapes. 77 It renders life burdensome, and makes a person hateful to the self. 78 Can people have stronger motives for the practise of virtue? The atheist is in full possession of these motives, and the religionist is most completely swayed by them, whatever may be your pretensions to others derived from religion. 79 But we are assured you have other motives; more powerful incentives, in the promise of future rewards and punishments. 80 This, like all other chimerical doctrines, cannot be maintained if we look at the general practise of humankind. Let us trace the effects of this doctrine, 81 or rather let us examine the actions, conduct, and character of people professing it, and we shall see how little influence it has over them.

82 The bulk of society believes they shall answer in a future life for the deeds done in the present. Nay, I hardly think one in a hundred thousand will say they doubt it. 83 What then is its effect? With this dreadful sentence, "Thou shalt go into everlasting punishment," continually sounded in their ears, do we not daily see the greatest enormities committed? 84 Are not the most horrid crimes perpetrated in all parts of the world? The most vicious propensities and the most extravagant follies are almost indiscriminately gratified. 85 Is not vice frequently triumphant, and virtue compelled to seek its own reward in retirement?

86 The laws of society are broken by the most flagrant injustice, and the laws of Nature outraged by the most shocking depravity. 87 All this evil exists in nations believing themselves to be accountable beings after death. Where then are the beneficial effects arising, to humankind from the promulgation of this doctrine? 88 People who cannot be restrained from doing evil by

human laws, have no dread of any other. Their whole lives and conduct confirm this. 89 Others who live in submission to the laws of society, give themselves up to those vicious habits,-- without fear of divine laws-- which the law does not take cognisance of. 90 People, not wholly depraved, or not without the pale of society, generally respect the laws, and fear the bad opinion of others. 91 Hence we observe, when interest or passion leads them into secret vices, they invariably play the hypocrite; 92 and although they are aware of the denunciations of their God, whom they acknowledge is a witness to all their actions, while they preserve their fair fame they still persevere. 93 In fact, they live as if they disbelieved in own existence; and yet the greatest criminal, the most depraved wretch, would shudder at being told there is no God.

94 The atheist, as a person, is liable to commit the same crimes, and fall into the same vices as the believer; but because you are an atheist, is you a worse criminal than the other? 95 In one respect, I conceive you are not so bad. You only acts in defiance of human laws,-- you only offends people; the other infringes both divine and human;-- you defies both God and humanity. 96 Both are injurious to society and themselves, and both are actuated by the same motives.

97 Again we are told, that the well disposed part of humankind are rendered more virtuous, and the vicious left vicious by this doctrine. How are we to know that? 98 If the virtuous person acts uprightly, does good to own fellow creatures, restrains own passions, and returns good for evil, experience teaches you it is your interest so to do. 99 Those who are viciously disposed are only deterred from crime by penal laws. Societies cannot long exist, where evil has the ascendency. Without social laws, this would really be the case, notwithstanding the threats of an

avenging God. 100 If people were told they would not be answerable for the evil committed in this life to human laws, but that God would punish them after death, it is evident the human race would soon be exterminated.

101 On the other hand, tell them their crimes will never be punished by God, or, in other words, there is no other God than NATURE, but that the laws of humans will avenge the offences against society; 102 so long as those laws are administered with justice and impartiality, so long will such society continue to improve. Hence it is evident that the system which will maintain order in society by itself, must be the best and most rational. 103 A good government without religion would be more solid and lasting, and tend more to the preservation of humankind, than all the theocratical or ecclesiastical governments that ever the world was subject to. Thus much for the opponents of atheism.

104 It has been asserted with a perverse obstinacy, by the advocates for the existence of a deity, that the SYSTEM OF NATURE was never written by the author whose name it bears. 105 It is granted that it was not published during his life: but that circumstance forms no reason why such a conclusion should be drawn. 106 The persecutions which the atheists have endured, were a sufficient excuse for the work not appearing in any form during the life time of its venerable author. 107 The Athenians sought to try Diagoras the Melian, for atheism; but he fled from Athens, and a price was offered for his head. 108 Protagoras was banished from Athens, and his books burnt, because he ventured to assert, that he knew nothing of the gods. 109 Stephen Dolet was burnt at Paris for atheism. Giordano Bruno was burnt by the Inquisitors in Italy. Lucilio Vanini was burnt at Thoulouse, through the kind offices of an Attorney-General. 110 Bayle was under the necessity of fleeing to

Holland. Casimio Liszynski was executed at Grodno;-- and Akenhead at Edinborough. 111 And the body of the eloquent and erudite Hume, was obliged to be watched many nights by his friends, lest it should be taken up by the fanatics, who considered him one of the greatest monsters of iniquity, because he did not happen to believe as they believed. 112 With these pictures of Christian persecution before his eyes, is it surprising that M. de Mirabaud should adopt the resolution of suffering the SYSTEM OF NATURE to appear as a posthumous work? 113 That the same fate would have attended him, the most devout Christian will not undertake to deny. 114 However the sentiments of M. de Mirabaud may be condemned by the fanatics, all those who knew him bear the most brilliant testimony of his integrity, candour, and the soundness of his understanding; in a word, to his social virtues, and the innocence of his manners. 115 He died universally regretted, at Paris, the twenty-fourth of June, 1760, in the 1860 year of his age. 116 The following works, written by him at different periods, were never published:-- *The Life of Jesus Christ*. *Impartial Reflections on the Gospel*. The Morality of Nature. An Abridged History of the Priesthood; Ancient and Modern. The Opinions of the Ancients concerning the Jews. 117 A wretched mutilated edition of this last work was published at Amsterdam, in 1740, in two small volumes, under the title of Miscellaneous Dissertations.

The Fourth Book of Divine Panagogue called

METAPHYSICS

WHAT IS METAPHYSICS?

George Stuart Fullerton

1 The reader has probably already remarked that in the two of the preceding Books the adjectives metaphysical and philosophical have been used as if they were interchangeable, in certain connections, at least. 2 This is justified by common usage; and in the present chapter I shall be expected by no one, I think, to prove that metaphysics is a philosophical discipline. 3 My task will rather be to show how far the words "metaphysics" and "philosophy" have a different meaning. 4 In the Book of Theosophy, I have given a general view of the problems which present themselves to reflective thought, 5 and I have indicated that they are not problems which can conveniently be distributed among the several special sciences. 6 Is there an external world? What is it? What are space and time? What is the mind? How are mind and body related? How do we know that there are other minds than ours? 7 These have been presented as philosophical problems; 8 and when we turn back to the history of speculative thought we find that they are just the problems with which the people whom we agree to call philosophers have chiefly occupied themselves. 9 But when we turn to our treatises on metaphysics, we also find that these are the problems there discussed. 10 Such treatises differ much among themselves, and the problems are not presented in the same form or in the same order; 11 but one who can look beneath the surface will find that the authors are busied with much the same thing-- with some or all of the problems above mentioned.

12 How, then, does metaphysics differ from philosophy? 13 The difference becomes clear to us when we realise that the word philosophy has a broader and looser signification, and that metaphysics is, so to speak, the core, the citadel, of philosophy.

14 We have seen in the Theosophy that the world and the mind, as they seem to be presented in the experience of the plain person, do not stand forth with such clearness and distinctness that you are able to answer intelligently the questions we wish to ask you regarding their nature. 15 It is not merely that your information is limited; it is vague and indefinite as well. 16 And we have seen, too, that, however the special sciences may increase and systematise your information, they do not clear away such vagueness. 17 The person still uses such concepts as "inner" and "outer," "reality," "the mind," "space," and "time," with no very definite notion of what they mean.

18 Now, the attempt to clear away this vagueness by the systematic analysis of such concepts-- in other words, the attempt to make a thorough analysis of our experience-- is metaphysics. 19 The metaphysician strives to limit their task as well as they may, and to avoid unnecessary excursions into the fields occupied by the special sciences, even those which lie nearest to their own, such as psychology and ethics. 20 There is a sense in which you may be said to be working in the field of a special science, though you are using as the material for your investigations concepts which are employed in many sciences; 21 but it is clear that your discipline is not a special science in the same sense in which geometry and physics are special sciences.

22 Nevertheless, the special sciences stand, as we have already seen in the case of several of them, very near to your own. 23 If you broadens your view, and deliberately determines to take a survey of the field of human knowledge as illuminated by the analyses that you are made, you becomes something more than a metaphysician; you becomes a philosopher. 24 This does not in the least mean that you becomes a storehouse of miscellaneous information, and an authority on all the sciences. 25 Sometimes the philosophers have attempted to describe the world of matter and of mind as though they possessed some mysterious power 26 of knowing things that absolved them from the duty of traveling the

weary road of observation and experiment that has ended in the sciences as we have them. 27 When they have done this, they have mistaken the significance of their calling. 28 A philosopher has no more right than another person to create information out of nothing.

29 But it is possible, even for one who is not acquainted with the whole body of facts presented in a science, to take careful note of the assumptions upon which that science rests, 30 to analyse the concepts of which it makes use, to mark the methods which it employs, and to gain a fair idea of its scope and of its relation to other sciences. 31 Such a reflection upon our scientific knowledge is philosophical reflection, and it may result in a classification of the sciences, and in a general view of human knowledge as a whole. 32 Such a view may be illuminating in the extreme; it can only be harmful when its significance is misunderstood. 33 But, it may be argued, why may not the person of science do all this for the self? Why should you leave it to the philosopher, who is presumably less intimately acquainted with the sciences than you are?

34 To this I answer: The work should, of course, be done by the person who will do it best. All our subdivision of labour should be dictated by convenience. 35 But I add, that experience has shown that the workers in the special sciences have not as a rule been very successful when they have tried to philosophise.

36 Science is an imperious mistress; she demands one's utmost efforts; 37 and when a person turns to philosophical reflection merely "by the way," and in the scraps of time at your disposal after the day's work is done, your philosophical work is apt to be rather superficial. 38 Moreover, it does not follow that, because a person is a good mathematician or chemist or physicist, you are gifted with the power of reflective analysis. 39 Then, too, such people are apt to be imperfectly acquainted with what has been done in the past; 40 and those who are familiar with the history of philosophy often have occasion to remark that what is laid before them, in ignorance of

the fact that it is neither new nor original, 41 is a doctrine which has already made its appearance in many forms and has been discussed at prodigious length in the centuries gone by.

42 In certain sciences it seems possible to ignore the past, to a great extent, at least. What is worth keeping has been kept, and there is a solid foundation on which to build for the future. 43 But with reflective thought it is not so. There is no accepted body of doctrine which we have the right to regard as unassailable. 44 We should take it as a safe maxim that the reflections of people long dead may be profounder and more worthy of our study than those urged upon our attention by the people of our day.

45 And this leads me to make a remark upon the titles given to works on metaphysics. It seems somewhat misleading to label them: "Outlines of Metaphysics" or "Elements of Metaphysics." 46 Such titles suggest that we are dealing with a body of doctrine which has met with general acceptance, and may be compared with that found in handbooks on the special sciences. 47 But we should realise that, when we are concerned with the profounder investigations into the nature of our experience, we tread upon uncertain ground and many differences of opinion obtain. 48 We should, if possible, avoid a false semblance of authority.

EPISTEMOLOGY

George Stuart Fullerton

2 We hear a great deal at the present day of Epistemology, or the Theory of Knowledge. I have not classed it as a distinct philosophical science, for reasons which will appear below. 2 We have seen that it is possible to treat of logic in a simple way without growing very metaphysical; 3 but we have also seen that when we go deeply into questions touching the nature of evidence and what is meant by truth and falsity, we are carried back to philosophical reflection at once. 4 We may, for convenience, group together these deeper questions regarding the nature of knowledge and its scope,

and call the subject of our study "Epistemology."

5 But it should be remarked, in the first place, that, when we work in this field, we are exercising a reflective analysis of precisely the type employed in making the metaphysical analyses contained in the Panagogue. 6 We are treating our experience as it is not treated in common thought and in science. 7 And it should be remarked, in the second place, that the investigation of our knowledge inevitably runs together with an investigation into the nature of things known, of the mind and the world. 8 Suppose that I give the titles of the chapters in Part III of Mr. Hobhouse's able work on "The Theory of Knowledge." 9 They are as follows: Validity; the Validity of Knowledge; the Conception of External Reality; Substance; the Conception of Self; Reality as a System; Knowledge and Reality; the Grounds of Knowledge and Belief. 10 Are not these topics metaphysical? Let us ask ourselves how it would affect our views of the validity and of the limits of our knowledge, 11 if we were converted to the metaphysical doctrines of John Locke, or of Bishop Berkeley, or of David Hume, or of Thomas Reid, or of Immanuel Kant.

12 We may, then, regard epistemology as a part of logic-- the metaphysical part-- or as a part of metaphysics; it does not much matter which we call it, since we mean the same thing. 13 But its relation to metaphysics is such that it does not seem worthwhile to call it a separate discipline. 14 Before leaving this subject there is one more point upon which I should touch, if only to obviate a possible misunderstanding.

15 We find in Professor Cornelius's clear little book, "An Introduction to Philosophy" (Leipzig, 1903), that metaphysics is repudiated altogether, and epistemology is set in its place. 16 But this rejection of metaphysics does not necessarily imply the denial of the value of such an analysis of our experience as I have in this work called metaphysical.

17 Metaphysics is taken to mean, not an analysis of experience, but a groping behind the veil of phenomena for some reality not given in experience. 18 In other

words, what Professor Cornelius condemns is what many of the rest of us also condemn under another name.

19 What he calls metaphysics, we call bad metaphysics; and what he calls epistemology, we call metaphysics. 20 The dispute is really a dispute touching the proper name to apply to reflective analysis of a certain kind.

21 As it is the fashion in certain quarters to abuse metaphysics, I set the reader on your guard. Some kinds of metaphysics certainly ought to be repudiated under whatever name they may be presented to us.

THE VALUE OF THE STUDY OF PHILOSOPHY

George Stuart Fullerton

The Question Of Practical Utility

3 Why should people study philosophy? The question is a natural one, for human is a rational being, and when the worth of a thing is not at once evident to you, you usually calls for proof of its worth. 2 Our professional schools, with the exception of schools of theology, usually pay little attention to philosophical studies; 3 but such studies occupy a strong position in our colleges, and a vast number of persons not students in the technical sense think it worth while to occupy themselves with them more or less. 4 Wherever liberal studies are prosecuted they have their place, and it is an honoured place. Is this as it should be?

5 Before we ask whether any given study is of practical value, it is wise to determine what the word "practical" shall be taken to mean. 6 Shall we say that we may call practical only such learning as can be turned to direct account in earning money later? 7 If we restrict the meaning of the word in this way, we seem to strike a blow at liberal studies in general.

8 Thus, no one would think of maintaining that the study of mathematics is not of practical value-- sometimes and to some persons. 9 The physicist and the engineer need to know a good deal about mathematics. But how is it with the merchant, the lawyer, the clergyman, the physician? 10 How much of their algebra, geometry,

and trigonometry do these remember after they have become absorbed in the practice of their several callings, 11 and how often do they find it necessary to use anything beyond certain simple rules of arithmetic?

12 Sometimes we are tempted to condemn the study of the classics as unpractical, and to turn instead to the modern languages and to the physical sciences. 13 Now, it is, of course, a fair question to ask what should and what should not be regarded as forming part of a liberal education, and I shall make no effort to decide the question here. 14 But it should be borne well in mind that one cannot decide it by determining what studies are practical in the sense of the word under discussion.

15 If we keep strictly to this sense, the modern languages are to the majority of Americans of little more practical value than are the Latin and Greek. 16 We scarcely need them except when we travel abroad, and when we do that we find that the concierge and the waiter use English with surprising fluency. 17 As for the sciences, those who expect to earn a living through a knowledge of them, seek, as a rule, that knowledge in a technical or professional school, 18 and the rest of us can enjoy the fruit of their labours without sharing them. 19 It is a popular fallacy that because certain studies have a practical value to the world at large, they must necessarily have a practical value to everyone, and can be recommended to the individual on that account. 20 It is worth while to sit down quietly and ask yourself how many of the bits of information acquired during the course of a liberal education are directly used in the carrying on of a given business or in the practice of a given profession.

21 Nevertheless, we all believe that liberal education is a good thing for the individual and for the race. One must not too much restrict the meaning of the word "practical." 22 A civilised state composed of people who know nothing save what has a direct bearing upon their especial work in life is an absurdity; it cannot exist. 23 There must be a good deal of general enlightenment and there must be a considerable number of

individuals who have enjoyed a high measure of enlightenment.

24 This becomes clear if we consider the part played in the life of the state by the humblest tradesman. 25 If you are to be successful, you must be able to read, write, and keep your accounts, and make, let us say, shoes. 26 But when we have said this, we have summed you up as a workman, but not as a man, and you are also a person. 27 You may marry, and make a good or a bad spouse, and a good or a bad father or mother. 28 You stands in relations to your neighbourhood, to the school, and to the church; and you are not without your influence. 29 You may be temperate or intemperate, frugal or extravagant, law-abiding or the reverse. You have your share, and no small share, in the government of your city and of your state. 30 Your influence is indeed far-reaching, and that it may be an influence for good, you are in need of all the intellectual and moral enlightenment that we can give you. 31 It is of the utmost practical utility to the state that you should know a vast number of things which have no direct bearing upon the making and mending of shoes.

32 And if this is true in the case of the tradesman, it is scarcely necessary to point out that the physician, the lawyer, the clergyman, and the whole army of those whom we regard as the leaders of people 33 and the molders of public opinion have spheres of non-professional activity of great importance to the state. They cannot be mere specialists if they would. 34 They must influence society for good or ill; and if they are ignorant and unenlightened, their influence cannot be good.

35 When we consider the life of human in a broad way, we see how essential it is that many people should be brought to have a share in what has been gained by the long travail of the centuries past. 36 It will not do to ask at every step whether they can put to direct professional use every bit of information gained. 37 Literature and science, sweetness and light, beauty and truth, these are the heritage of the modern world; and unless these permeate its very being, society must undergo

degeneration. 38 It is this conviction that has led to the high appreciation accorded by intelligent people to courses of liberal study, 39 and among such courses those which we have recognised as philosophical must take their place.

WHY PHILOSOPHICAL STUDIES ARE USEFUL

40 But let us ask a little more specifically what is to be gained by pursuing distinctively philosophical studies. 41 Why should those who go to college, or intelligent persons who cannot go to college, care to interest themselves in logic and ethics, psychology and metaphysics? 42 Are not these studies rather dry, in the first place, and rather profitless, in the second?

43 As to the first point, I should stoutly maintain that if they are dry, it is somebody's fault. 44 The most sensational of novels would be dry if couched in the language which some philosophers have seen fit to use in expressing their thoughts. 45 You who defines "existence" as "the still and simple precipitate of the oscillation between beginning to be and ceasing to be" has done your best to alienate our affections from the subject of your predilection. 46 But it is not in the least necessary to talk in this way about matters philosophical. You who is not a slave to tradition can use plain and simple language. 47 To be sure, there are some subjects, especially in the field of metaphysics, into which the student cannot expect to see very deeply at the outset of own studies. 48 People do not expect to understand the more difficult problems of mathematics without making a good deal of preparation; 49 but, unhappily, they sometimes expect to have the profoundest problems of metaphysics made luminous to them in one or two popular lectures.

50 Philosophical studies are not dry, when people are properly taught, and are in a position to understand what is said. They deal with the most fascinating of problems. 51 It is only necessary to pierce through the husk of words which conceals the thoughts

of the philosopher, and we shall find the kernel palatable, indeed. Nor are such studies profitless, to take up our second point. Let us see what we may gain from them.

52 Let us begin with logic-- the traditional logic commonly taught to beginners. Is it worth while to study this? Surely it is. 53 No one who has not tried to introduce the average under-graduate to logic can realise how blindly one uses own reasoning powers, 54 how unconscious you are of the full meaning of the sentences you employs, 55 how easily you may be entrapped by fallacious reasoning where you are not set on your guard by some preposterous conclusion touching matters with which you are familiar.

56 And you are not merely unconscious of the lapses in your processes of reasoning, and of your imperfect comprehension of the significance of your statements; 57 you are unconscious also of the mass of inherited and acquired prejudices, often quite indefensible, which you unquestioningly employs as premises. 58 You fairly represents the larger world beyond the walls of the college. It is a world in which prejudices are assumed as premises, and loose reasoning pass current and are unchallenged until they beget some unpalatable conclusion. 59 It is a world in which people take little pains to think carefully and accurately unless they are dealing with something touching which it is practically inconvenient to make a mistake.

60 You who studies logic in the proper way is not filling your mind with useless facts; you are simply turning the light upon your own thinking mind, and realising more clearly what you have always done rather blindly and blunderingly. 61 You may completely forget the "Barbara, Celarent, Darii, Ferioque prioris," and you may be quite unable to give an account of the moods and figures of the syllogism; 62 but you cannot lose the critical habit if you once has acquired it, and you cannot but be on your guard against yourself as well as against others. 63 There is a keen pleasure in gaining such insight. It gives a feeling of freedom and power, 64 and rids one of that horrid sense that,

although this or that bit of reasoning is certainly bad, it is impossible to tell just what is the matter with it. 65 And as for its practical utility, if it is desirable to get rid of prejudice and confusion, and to possess a clear and reasonable mind, then anything that makes for this must be of value.

66 Of the desirability that all who can afford the luxury of a liberal education should do some serious reading in ethics, it seems hardly necessary to speak. But I cannot forbear dwelling upon it again. 67 What thoughtful person is not struck with the variety of ethical standards which obtain in the same community? 68 The clergyman who has a strong sense of responsibility for the welfare of own flock is sometimes accused of not sufficiently realising the importance of a frank expression of the whole truth about things; 69 the person of science, whose duty it seems to be to peer into the mysteries of the universe, and to tell what you sees or what you guesses, 70 is accused of an indifference to the effect which your utterances may have upon the less enlightened who hear you speak; 71 many criticise the lawyer for a devotion to the interests of own client which is at times in doubtful harmony with the interests of justice in the larger sense; 72 in the business world commercial integrity is exalted, and lapses from the ethical code which do not assail this cardinal virtue are not always regarded with equal seriousness.

73 It is as though people elected to worship at the shrine of a particular saint, and were inclined to overlook the claims of others. 74 For all this there is, of course, a reason; such things are never to be looked upon as mere accident. 75 But this does not mean that these more or less conflicting standards are all to be accepted as satisfactory and as ultimate. 76 It is inevitable that those who study ethics seriously, who really reflect upon ethical problems, should sometimes criticise the judgments of their fellow-people rather unfavorably. 77 Of such independent criticism many persons have a strong distrust. 78 I am reminded here of an eminent mathematician who maintained

that the study of ethics has a tendency to distort the student's judgments as to what is right and what is wrong. 79 You had observed that there is apt to be some divergence of opinion between those who think seriously upon morals and those who do not, and you gave the preference to the unthinking majority.

80 Now, there is undoubtedly danger that the independent thinker may be betrayed into eccentricities of opinion which are unjustifiable and are even dangerous. 81 But it seems a strange doctrine that it is, on the whole, safer not to think, but rather to drift on the stream of public opinion. 82 In other fields we are not inclined to believe that the ignorant person, who has given no especial attention to a subject, is the one likely to be right. Why should it be so in morals?

83 That the youth who goes to college to seek a liberal education has a need of ethical studies becomes very plain when we come to a realisation of the curious limitations of own ethical training as picked up from own previous experience of the world. 84 You have some very definite notions as to right and wrong. 85 You are as ready to maintain the desirability of benevolence, justice, and veracity, as was Bishop Butler, who wrote the famous "Analogy "; 86 although, to be sure, you are most inarticulate when called upon to explain what constitutes benevolence, justice, or veracity. 87 But the strangest thing is, that you seems to place some of the most important decisions of your whole life quite outside the realm of right and wrong.

88 You may admit that a person should not undertake to be a clergyman, unless one possesses certain qualifications of mind and character which evidently qualify one for that profession. 89 But you does not see why you have not the right to become a wearisome professor or an incompetent physician, if you chooses to enter upon such a career. 90 Is a person not free to take up what profession one pleases? You must take the risk, of course; but if you fails, you fails.

91 And when you are asked to consider from the point of view of ethics the question of marriage and

its responsibilities, you are at first inclined to consider the whole subject as rather a matter for jest. 92 Has a person not the right to marry or remain single exactly as one pleases? And are you not free to marry any one whom you can persuade to accept you? 93 Thus, a decision, which may affect your whole life as much as any other that you can be called upon to make, which may practically make it or mar it, 94 is treated as though it were not a matter of grave concern, but a private affair, entailing no serious consequences to any one and calling for no reflection.

95 I wish it could be said that the world outside of the college regarded these matters in another light. But the student faithfully represents the opinions current in the community from which one comes. 96 And you represents, unhappily, the teachings of the stage and of the world of current fiction. 97 The influence of these is too often on the side of inconsiderate passion, which stirs our sympathy and which lends itself to dramatic effect. 98 With the writers of romance the ethical philosophers have an ancient quarrel.

99 It may be said: But the world gets along very well as it is, and without brooding too much upon ethical problems. 100 To this we may answer: Does the world get along so very well, after all? Are there no evils that foresight and some firmness of character might have obviated? 101 And when we concern ourselves with the educated classes, at least, the weight of whose influence is enormous, is it too much to maintain that they should do some reading and thinking in the field of ethics? 102 should strive to attain to clear vision and correct judgment on the whole subject of human's duties?

103 Just at the present time, when psychological studies have so great a vogue, one scarcely feels compelled to make any sort of an apology for them. 104 It is assumed on all hands that it is desirable to study psychology, and courses of lectures are multiplied in all quarters. 105 Probably some of this interest has its root in the fallacy. The science of psychology has revolutionised educational

theory. 106 When those of us who have arrived at middle life look back and survey the tedious and toilsome path along which we were unwillingly driven in our schoolboy days, 107 and then see how smooth and pleasant it has been made since, we are impelled to honour all who have contributed to this result. 108 Moreover, it seems very clear that teachers of all grades should have some acquaintance with the nature of the minds that they are labouring to develop, 109 and that they should not be left to pick up their information for themselves-- a task sufficiently difficult to an unobservant person. 110 These considerations furnish a sufficient ground for insisting that studies in behavioural science should form some part of the education of a teacher. But why should the rest of us care for such studies?

111 To this one may answer, in the first place, that nearly all of us have, or ought to have, some responsibility for the education of children; 112 and, in the second, that we deal with the minds of others every day in every walk in life, and it can certainly do no harm to have our attention called to the way in which minds function. 113 To be sure, some people are by nature tactful, and instinctively conscious of how things strike the minds of those about them. 114 But even such persons may gain helpful suggestions, and, at least, have the habit of attention to the mental processes of others confirmed in them. 115 How often we are impressed at church, at the public lecture, and in private conversations, with the fact that the speaker lives in blissful unconsciousness of what can be understood by or can possibly interest one's hearers! 116 For the confirmed bore, there is, perhaps, no cure; but it seems as though something might be done for those who are afflicted to a minor degree.

117 And this brings me to another consideration, which is that a proper study of behavioural-science ought to be of service in revealing to a person your own nature. 118 It should show you what you are, and this is surely a first step toward becoming something better. 119 It is

wonderful how blind people may be with regard to what passes in their own minds and with regard to their own peculiarities. 120 When they learn to reflect, they come to a clearer consciousness of themselves-- it is as though a lamp were lighted within them. 121 One may, it is true, study psychology without attaining to any of the good results suggested above; 122 but, for that matter, there is no study which may not be pursued in a profitless way, if the teacher be sufficiently unskilled and the pupil sufficiently thoughtless.

METAPHYSICS AND PHILOSOPHY OF RELIGION

123 Perhaps it will be said: For such philosophical studies as the above a good defense may perhaps be made, but can one defend in the same way the plunge into the obscurities of metaphysics? 124 In this field no two people seem to be wholly agreed, and if they were, what would it signify? 125 Whether we call ourselves monists or dualists, idealists or realists, Lockians or Kantians, must we not live and deal with the things about us in much the same way?

126 Those who have dipped into metaphysical studies deeply enough to see what the problems discussed really are; 127 who have been able to reach the ideas concealed, too often, under a rather forbidding terminology; 128 who are not of the dogmatic turn of mind which insists upon unquestioned authority and is repelled by the uncertainties which must confront those who give themselves to reflective thought,-- 129 these will hardly need to be persuaded that it is desirable to give some attention to the question: What sort of a world, after all, is this world in which we live? What is its meaning?

130 To many people the impulse to peer into these things is over-powering, and the pleasure of feeling their insight deepen is extremely keen. 131 What deters us in most instances is not the conviction that such investigations are not, or should not be, interesting, but rather the difficulty of the approach. 132 It is not easy to follow the path which leads from the world of common

thought into the world of philosophical reflection. One becomes bewildered and discouraged at the outset. 133 Sometimes, after listening to the directions of guides who disagree among themselves, we are tempted to believe that there can be no certain path to the goal which we have before us. 134 But, whatever the difficulties and uncertainties of our task, a little reflection must show that it is not one which has no significance for human life.

135 People can, it is true, eat and sleep and go through the routine of the day, without giving thought to science or religion or philosophy, but few will defend such an existence. 136 As a matter of fact, those who have attained to some measure of intellectual and moral development do assume, consciously or unconsciously, some rather definite attitude toward life, 137 and this is not independent of their conviction as to what the world is and means.

138 Metaphysical speculations run out into the philosophy of religion; and, on the other hand, religious emotions and ideals have again and again prompted people to metaphysical construction. 139 A glance at history shows that it is natural to human to embrace some attitude toward the system of things, and to try to justify this by reasoning. 140 Vigorous and independent minds have given birth to theories, and these have been adopted by others. The influence of such theories upon the evolution of humanity has been enormous.

141 Ideas have ruled and still rule the world, some of them very abstract ideas. 142 It does not follow that one is uninfluenced by them, when one has no knowledge of their source or of their original setting. 143 They become part of the intellectual heritage of us all, and we sometimes suppose that we are responsible for them ourselves. 144 Has not the fact that an idealistic or a materialistic type of thought has been current at a particular time influenced the outlook on life of many who have themselves devoted little attention to philosophy? 145 It would be interesting to know how many, to whom Spencer is but a name, have felt the influence of the

agnosticism of which he was the apostle.

146 I say this without meaning to criticise here any of the types of doctrine referred to. 147 My thesis is only that philosophy and life go hand in hand, and that the prying into the deeper mysteries of the universe cannot be regarded as a matter of no practical moment. 148 Its importance ought to be admitted even by the person who has little hope that you will yourself be able to attain to a doctrine wholly satisfactory and wholly unshakable.

149 For, if the study of the problems of metaphysics does nothing else for a given individual, it, at least, enables you to comprehend and criticise intelligently the doctrines which are presented for your acceptance by others. 150 It is a painful thing to feel quite helpless in the face of plausible reasoning which may threaten to rob us of our most cherished hopes, 151 or may tend to persuade us of the vanity of what we have been accustomed to regard as of highest worth. 152 If we are quite unskilled in the examination of such doctrines, we may be captured by the loosest of arguments-- witness the influence of Spencer's argument for the "Unknowable," in the "First Principles"; 153 and if we are ignorant of the history of speculative thought, we may be carried away by old and exploded notions which pose as modern and impressive only because they have been given a modern dress.

154 We can, of course, refuse to listen to those who would talk with us. But this savours of bigotry, and the world will certainly not grow wiser, if people generally cultivate a blind adherence to the opinions in which they happen to be brought up. 155 A cautious conservatism is one thing, and blind obstinacy is another. To the educated person a better way of avoiding error is open-- 156 and it is probable that others will have to depend on opinions taken at second hand.

157 Finally, it will not do to overlook the broadening influence of such studies as we are discussing. 158 How dogmatically people are in the habit of expressing themselves upon those obscure and difficult problems

which deal with matters that lie on the confines of human knowledge! 159 Such an assumption of knowledge cannot but make us uncomprehending and unsympathetic.

160 There are many subjects upon which, if we hold an opinion at all, we should hold it tentatively, waiting for more light, and retaining a willingness to be enlightened. 161 Many a bitter and fruitless quarrel might be avoided, if more persons found it possible to maintain this philosophical attitude of mind. 162 Philosophy is, after all, reflection, and the reflective person must realise that one is probably as liable to error as are other people. 163 You are not infallible, nor has the limit of human knowledge been attained in your day and generation. 164 You who realise this will not assume that your neighbour is always wrong, and you will come to have that wide, conscientious tolerance, which is not indifference, but which is at the farthest remove from the zeal of mere bigotry.

WHY WE SHOULD STUDY THE HISTORY OF RELIGION

George Stuart Fullerton

THE PROMINENCE GIVEN TO THE SUBJECT

4 When one reflects upon the number of lecture courses given every year at our universities and colleges on the history of philosophy, 2 one is struck by the fact that philosophy is not treated as are most other subjects with which the student is brought into contact.

3 If we study mathematics, or chemistry, or physics, or physiology, or biology, the effort is made to lay before us in a convenient form the latest results which have been attained in those sciences. 4 Of their history very little is said; and, lectures on the history of the inductive sciences are apt to be regarded as philosophical in their character and aims rather than as merely scientific.

5 The interest in the history of philosophy is certainly not a diminishing one. Text-books covering the whole field or a part of it are multiplied; 6 extensive

studies are made and published covering the work of individual philosophers; innumerable historical discussions make their appearance in the pages of current philosophical journals. 7 No student is regarded as fairly acquainted with philosophy who knows nothing of Plato and Aristotle, Descartes and Spinoza, Berkeley and Hume, Kant and Hegel, and the rest. 8 We should look upon those as having a very restricted outlook if they had read only the works of the thinkers of our own day; 9 indeed, we should not expect those to have a proper comprehension even of these, for their chapters must remain blind and meaningless to one who has no knowledge of what preceded them and has given birth to the doctrines there set forth.

10 It is a fair question to ask: Why is philosophy so bound up with the study of the past? 11 Why may we not content ourselves with what has up to the present been attained, and omit a survey of the road along which our predecessors have travelled?

THE ESPECIAL IMPORTANCE OF HISTORICAL STUDIES TO REFLECTIVE THOUGHT

12 In some of the preceding chapters dealing with the various philosophical sciences, it has been indicated that, in the sciences we do not regard as philosophical, 13 people may work on the basis of certain commonly accepted assumptions and employ methods which are generally regarded as trustworthy within the given field. 14 The value both of the fundamental assumptions and of the methods of investigation appear to be guaranteed by the results attained. 15 There are not merely observation and hypothesis; there is also verification, and where this is lacking, people either abandon their position or reserve their judgment.

16 Thus, a certain body of interrelated facts is built up, the significance of which, in many fields at least, is apparent even to the layman. 17 Nor is it wholly beyond you to judge whether the results of scientific investigations can be verified. 18 An eclipse, calculated by methods which you

are quite unable to follow, may occur at the appointed hour and confirm your respect for the astronomer. 19 The efficacy of a serum in the cure of diseases may convince you that work done in the labouratory is not labour lost.

20 It seems evident that the several sciences do really rise on stepping stones of their dead selves, and that those selves of the past are really dead and superseded. 21 Who would now think of going back for own science to Plato's "Timaeus," or would accept the description of the physical world contained in the works of Aristotle? 22 What chemist or physicist need busy the self with the doctrine of atoms and their clashings presented in the magnificent poem of Lucretius? 23 Who can forbear a smile-- a sympathetic one-- when you turns over the pages of Augustine's "City of God," and sees what sort of a world this remarkable man believed himself to inhabit?

24 It is the historic and human interest that carries us back to these things. We say: What ingenuity! what a happy guess! 25 how well that was reasoned in the light of what was actually known about the world in those days! 26 But we never forget that what compels our admiration does so because it makes us realise that we stand in the presence of a great mind, and not because it is a foundation-stone in the great edifice which science has erected.

27 But it is not so in philosophy. It is not possible to regard the philosophical reflections of Plato and of Aristotle as superseded in the same sense in which we may so regard their science. 28 The reason for this lies in the difference between scientific thought and reflective thought. 29 It was there pointed out that the sort of thinking demanded in the special sciences is not so very different from that with which we are all familiar in common life. 30 Science is more accurate and systematic, it has a broader outlook, and it is free from the imperfections which vitiate the uncritical and fragmentary knowledge which experience of the world yields the unscientific. 31 But, after all, the world is much the same sort of a world to the person of science and to own

uncritical neighbour. 32 The latter can, as we have seen, understand what, in general, the former is doing, and can appropriate many of own results.

33 On the other hand, it often happens that the person who has not, with pains and labour, learned to reflect, cannot even see that the philosopher has a genuine problem before the self. 34 Thus, the plain person accepts the fact that you have a mind and that it knows the world. 35 That both mental phenomena and physical phenomena should be carefully observed and classified you may be ready to admit. 36 But that the very conceptions of mind and of what it means to know a world are vague and indefinite in the extreme, and stand in need of careful analysis, you does not realise.

37 In other words, you sees that our knowledge needs to be extended and rendered more accurate and reliable, 38 but you does not see that, if we are to think clearly and consciously, all our knowledge needs to be done over in a different way. 39 In common life it is quite possible to use in the attainment of practical ends knowledge which has not been analysed and of the full meaning of which we are ignorant. 40 I hope it has become evident in the course of this volume that something closely analogous is true in the field of science. 41 The person of science may measure space and time, and may study the phenomena of the human mind, 42 without even attempting to answer all the questions which may be raised as to what is meant, in the last analysis, by such concepts as space, time, and the mind.

43 That such concepts should be analysed has, I hope, been made clear, if only that erroneous and misleading notions as to these things should be avoided. 44 But when a person with a genius for metaphysical analysis addresses the self to this task, you cannot simply hand the results attained by your reflections over to your less reflective fellow-person. 45 Your words are not understood; you seems to be dealing with shadows, with unrealities; 46 you have passed from the real world of common thought into another world which appears to have little

relation to the former. 47 Nor can verification, indubitable proof, be demanded and furnished as it can in many parts of the field cultivated by the special sciences. 48 We may judge science fairly well without ourselves being scientists, but it is not possible to judge philosophy without being to some extent a philosopher.

49 In other words, the conclusions of reflective thought must be judged by following the process and discovering its cogency or the reverse. 50 Thus, when the philosopher lays before us an argument to prove that we must regard the only ultimate reality in the world as unknowable, and must abandon our theistic convictions, 51 how shall we make a decision as to whether the philosopher is right or is wrong? 52 May we expect that the day will come when the philosopher will be justified or condemned as is the astronomer on the day predicted for an eclipse? 53 Neither the philosophy of Locke, nor that of Descartes, nor that of Kant, can be vindicated as can a prediction touching an eclipse of the sun. 54 To judge these people, we must learn to think with them, to survey the road by which they travel; and this we cannot do until we have learned the art.

55 Whether we like to admit it or not, we must admit, if we are fair-minded and intelligent, that philosophy cannot speak with the same authority as science, where science has been able to verify its results. 56 There are, of course, scientific hypotheses and speculations which should be regarded as being quite as uncertain as anything brought forward by the philosophers. 57 But, admitting this, the fact remains that there is a difference between the two fields as a whole, and that the philosopher should learn not to speak with an assumption of authority. 58 No final philosophy has been attained, so palpably firm in its foundation, and so admittedly trustworthy in its construction, 59 that we are justified in saying: Now we need never go back to the past unless to gratify the historic interest. 60 It is a weakness of young people, and of older people of partisan temper, to feel very sure of matters which,

in the nature of things, must remain uncertain.

61 Since these things are so, and since people possess the power of reflection in very varying degree, 62 it is not surprising that we find it worth while to turn back and study the thoughts of those who have had a genius for reflection, even though they lived at a time when modern science was awaiting its birth. 63 Some things cannot be known until other things are known; 64 often there must be a vast collection of individual facts before the generalisations of science can come into being. 65 But many of the problems with which reflective thought is still struggling have not been furthered 66 in the least by information which has been collected during the centuries which have elapsed since they were attacked by the early Greek philosophers.

67 Thus, we are still discussing the distinction between "appearance" and "reality," and many and varied are the opinions at which philosophers arrive. 68 But Thales, who heads the list of the Greek philosophers, had quite enough material, given in his own experience, 69 to enable him to solve this problem as well as any modern philosopher, had he been able to use the material. 70 You who is familiar with the history of philosophy will recognise that, although one may smile at Augustine's accounts of the races of people, and of the spontaneous generation of small animals, 71 no one has a right to despise own profound reflections upon the nature of time and the problems which arise out of its character as past, present, and future.

72 The fact is that metaphysics does not lag behind because of our lack of material to work with. The difficulties we have to face are nothing else than the difficulties of reflective thought. 73 Why can we not tell clearly what we mean when we use the word "self," or speak of "knowledge," or insist that we know an "external world"? 74 Are we not concerned with the most familiar of experiences? To be sure we are-- with experiences familiarly, but vaguely and unanalytically, known and, hence, only half known. 75 All these experiences the great people of the past had as well as we; and if they

had greater powers of reflection, perhaps they saw more deeply into them than we do. At any rate, we cannot afford to assume that they did not.

76 One thing, however, I must not omit to mention. Although one person cannot turn over bodily the results of own reflection to another, 77 it by no means follows that one cannot give the other a helping hand, or warn others of dangers by the self stumbling into pitfalls, as the case may be. 78 We have an indefinite advantage over the solitary thinkers who opened up the paths of reflection, for we have the benefit of their teaching.

THE VALUE OF DIFFERENT POINTS OF VIEW

79 The person who has not read is like the person who has not traveled-- you are not an intelligent critic, for you have nothing with which to compare what falls within the little circle of your experiences. 80 That the prevailing architecture of a town is ugly can scarcely impress one who is acquainted with no other town. 81 If we live in a community in which people's manners are not good, and their standard of living not the highest, our attention does not dwell much upon the fact, 82 unless some contrasted experience wakes within us a clear consciousness of the difference. 83 That to which we are accustomed we accept uncritically and unreflectively. 84 It is difficult for us to see it somewhat as one might see it to whom it came as a new experience.

85 Of course, there may be in the one town buildings of more and of less architectural beauty; 86 and there may be in the one community differences of opinion that furnish intellectual stimulus and keep awake the critical spirit. 87 Still, there is such a thing as a prevalent type of architecture, and there is such a thing as the spirit of the times. 88 You who is carried along by the spirit of the age may easily conclude that what is, is right, because you hears few raise their voices in protest.

89 To estimate justly the type of thought in which you have been brought up, you must have something with which to compare

it. 90 You must stand at a distance, and try to judge it as you would judge a type of doctrine presented to you for the first time. 91 And in the accomplishment of this task you can find no greater aid than the study of the history of philosophy.

92 It is at first something of a shock to a person to discover that assumptions which you have been accustomed to make without question have been frankly repudiated by people quite as clever as you, and, perhaps, more critical. 93 It opens the eyes to see that your standards of worth have been weighed by others and have been found wanting. 94 It may well incline you to reexamine reasoning in which you have detected no flaw, when you finds that acute minds have tried them before, and have declared them faulty.

95 Nor can it be without its influence upon your judgment of the significance of a doctrine, 96 when it becomes plain to you that this significance can scarcely be fully comprehended until the history of the doctrine is known. 97 For example, you thinks of the mind as somehow in the body, as interacting with it, as a substance, and as immaterial. 98 In the course of your reading it begins to dawn upon your consciousness that you have not thought all this out for yourself; 99 you have taken these notions from others, who in turn have had them from their predecessors. 100 You begins to realise that you are not resting upon evidence independently found in your own experience, but has upon your hands a sheaf of opinions which are the echoes of old philosophies, 101 and whose rise and development can be traced over the stretch of the centuries. 102 Can you help asking yourself, when you sees this, whether the opinions in question express the truth and the whole truth? Are you not forced to take the critical attitude toward them?

103 And when you views the succession of systems which pass in review before you, noting how a truth may be dimly seen by one writer, denied by another, taken up again and made clearer by a third, and so on, 104 how can you avoid the reflection that, as there was some error mixed with the truth presented in earlier systems, so

there probably is some error in whatever may happen to be the form of doctrine generally received in your own time? 105 The evolution of humanity is not yet at an end; people still struggle to see clearly, and fall short of the ideal; 106 it must be a good thing to be freed from the dogmatic assumption of finality natural to the person of limited outlook. 107 In studying the history of philosophy sympathetically we are not merely calling to our aid critics who possess the advantage of seeing things from a different point of view, 108 but we are reminding ourselves that we, too, are human and fallible.

PHILOSOPHY AS POETRY, AND PHILOSOPHY AS SCIENCE

109 The recognition of the truth that the problems of reflection do not admit of easy solution and that verification can scarcely be expected as it can in the fields of the special sciences, 110 need not, even when it is brought home to us, as it is apt to be, by the study of the history of philosophy, 111 lead us to believe that philosophies are like the fashions, a something gotten up to suit the taste of the day, and to be dismissed without regret as soon as that taste changes.

112 Philosophy is sometimes compared with poetry. It is argued that each age must have its own poetry, even though it be inferior to that which it has inherited from the past. 113 Just so, it is said, each age must have its own philosophy, and the philosophy of an earlier age will not satisfy its demands. 114 The implication is that in dealing with philosophy we are not concerned with what is true or untrue in itself considered, but with what is satisfying to us or the reverse.

115 Now, it would sound absurd to say that each age must have its own geometry or its own physics. 116 The fact that it has long been known that the sum of the interior angles of a plane triangle is equal to two right angles, does not warrant me in repudiating that truth; 117 nor am I justified in doing so, and in believing the opposite, merely because I find the statement uninteresting or

distasteful. 118 When we are dealing with such matters as these, we recognise that truth is truth, and that, if we mistake it or refuse to recognise it, so much the worse for us.

119 Is it otherwise in philosophy? Is it a perfectly proper thing that, in one age, people should be idealists, and in another, materialists; in one, theists, and in another, agnostics? 120 Is the distinction between true and false nothing else than the distinction between what is in harmony with the spirit of the times and what is not?

121 That it is natural that there should be such fluctuations of opinion, we may freely admit. 122 Many things influence a person to embrace a given type of doctrine, and, as we have seen, verification is a difficult problem. 123 But have we here, any more than in other fields, the right to assume that a doctrine was true at a given time merely because it seemed to people true at that time, or because they found it pleasing? 124 The history of science reveals that many things have long been believed to be true, and, indeed, to be bound up with what were regarded as the highest interests of human, and that these same things have later been discovered to be false-- 125 not false merely for a later age, but false for all time; as false when they were believed in as when they were exploded and known to be exploded. 126 No person of sense believes that the Ptolemaic system was true for a while, and that then the Copernican became true. 127 We say that the former only seemed true, and that the enthusiasm of its adherents was a mistaken enthusiasm.

128 It is well to remember that philosophies are brought forward because it is believed or hoped that they are true. 129 A fairy tale may be recited and may be approved, although no one dreams of attaching faith to the events narrated in it. 130 But a philosophy attempts to give us some account of the nature of the world in which we live. 131 If the philosopher frankly abandons the attempt to tell us what is true, and with a Celtic generosity addresses the self to the task of saying what will be agreeable to us, the philosopher

loses own right to the title. 132 It is not enough that you stirs our emotions, and works up your unrealities into something resembling a poem. 133 It is not primarily your task to please, as it is not the task of the serious worker in science to please those whom you are called upon to instruct. 134 Truth is truth, whether it be scientific truth or philosophical truth. 135 And error, no matter how agreeable or how nicely adjusted to the temper of the times, is always error. 136 If it is error in a field in which the detection and exposure of error is difficult, it is the more dangerous, and the more should we be on our guard against it.

137 We may, then, accept the lesson of the history of philosophy, to wit, that we have no right to regard any given doctrine as final in such a sense that it need no longer be held tentatively and as subject to possible revision; 138 but we need not, on that account, deny that philosophy is, what it has in the past been believed to be, an earnest search for truth. 139 A philosophy that did not even profess to be this would not be listened to at all. It would be regarded as too trivial to merit serious attention. 140 If we take the word "science" in the broad sense to indicate a knowledge of the truth more exact and satisfactory than that which obtains in common life, 141 we may say that every philosophy worthy of the name is, at least, an attempt at scientific knowledge. 142 Of course, this sense of the word "science" should not be confused with that in which it has been used elsewhere in this volume.

HOW TO READ THE HISTORY OF PHILOSOPHY

143 You who takes up the history of philosophy for the first time is apt to be impressed with the fact that you are reading something that might not inaptly be called the history of human error. 144 It begins with crude and, to the superficial spectator, seemingly childish attempts in the field of physical science. 145 There are clever guesses at the nature of the physical world, but the boldest of speculations are entered upon with

no apparent recognition of the difficulty of the task undertaken, and with no realisation of the need for caution. 146 Somewhat later a different class of problems makes its appearance-- the problems which have to do with the mind and with the nature of knowledge, 147 reflective problems which scarcely seem to have come fairly within the horizon of the earliest thinkers.

148 These problems even the beginner may be willing to recognise as philosophical; but you may conscientiously harbour a doubt as to the desirability of spending time upon the solutions which are offered. 149 System rises after system, and confronts you with what appear to be new questions and new answers. 150 It seems as though each philosopher were constructing a world for the self independently, and commanding you to accept it, without first convincing you of your right to assume this tone of authority and to set up for an oracle. 151 In all this conflict of opinions where shall we seek for truth? Why should we accept one person as a teacher rather than another? 152 Is not the lesson to be gathered from the whole procession of systems best summed up in the dictum of Protagoras: 153 "Human is the measure of all things"-- each has own truth, and this need not be truth to another?

154 This, I say, is a first impression and a natural one. I hasten to add: this should not be the last impression of those who read with thoughtful attention. 155 One thing should be emphasised at the outset: nothing will so often bear rereading as the history of philosophy. 156 When we go over the ground after we have obtained a first acquaintance with the teachings of the different philosophers, we begin to realise that what we have in our hands is, in a sense, a connected whole. 157 We see that if Plato and Aristotle had not lived, we could not have had the philosophy which passed current in the Middle Ages and furnished a foundation for the teachings of the Church. 158 We realise that without this latter we could not have had Descartes, and without Descartes we could not have had Locke and Berkeley and

Hume. 159 And had not these lived, we should not have had Kant and his successors. Other philosophies we should undoubtedly have had, for the busy mind of human must produce something. 160 But whatever glimpses at the truth these people have vouchsafed us have been guaranteed by the order of development in which they have stood. 161 They could not independently have written the books that have come down to us.

162 This should be evident from what has been said earlier in this chapter and elsewhere in this Book. Let us bear in mind that a philosopher draws own material from two sources. 163 First of all, they have the experience of the mind and the world which is the common property of us all. But it is, as we have seen, by no means easy to use this material. 164 It is vastly difficult to reflect. It is fatally easy to misconceive what presents itself in our experience. 165 With the most earnest effort to describe what lies before us, we give a false description, and we mislead ourselves and others.

166 In the second place, the philosopher has the interpretations of experience which you have inherited from your predecessors. The influence of these is enormous. 167 Each age has, to a large extent, its problems already formulated or half formulated for it. 168 Every person must have ancestors, of some sort, if you are to appear upon this earthly stage at all; and a wholly independent philosopher is as impossible a creature as an ancestor less human.

169 We have seen how Descartes tried to repudiate his debt to the past, and how little successful he was in doing so.

170 Now, we make a mistake if we overlook the genius of the individual thinker. 171 The history of speculative thought has many times taken a turn which can only be accounted for by taking into consideration the genius for reflective thought possessed by some great mind. 172 In the crucible of such an intellect, old truths take on a new aspect, familiar facts acquire a new and a richer meaning. 173 But we also make a mistake if we fail to see in the writings of such a person one

of the stages which has been reached in the gradual evolution of human thought, 174 if we fail to realise that each philosophy is to a great extent the product of the past.

175 When one comes to understand these things, the history of philosophy no longer presents itself as a mere agglomeration of arbitrary and independent systems. 176 And an attentive reading gives us a further key to the interpretation of what seemed inexplicable. 177 We find that there may be distinct and different streams of thought, which, for a while, run parallel without commingling their waters. 178 For centuries the Epicurean followed his own tradition, and walked in the footsteps of his own master. The Stoic was of sterner stuff, and he chose to travel another path. 179 To this day there are adherents of the old church philosophy, Neo-Scholastics, whose ways of thinking can only be understood when we have some knowledge of Aristotle and of his influence upon people during the Middle Ages. 180 We ourselves may be Kantians or Hegelians, and the person at our elbow may recognise as own spiritual father Comte or Spencer.

181 It does not follow that, because one system follows another in chronological order, it is its lineal descendant. 182 But some ancestor a system always has, and if we have the requisite learning and ingenuity, we need not find it impossible to explain why this thinker or that was influenced to give own thought the peculiar turn that characterises it. 183 Sometimes many influences have conspired to attain the result, and it is no small pleasure to address oneself to the task of disentangling the threads which enter into the fabric.

184 Moreover, as we read thus with discrimination, we begin to see that the great people of the past have not spoken without appearing to have sufficient reason for their utterances in the light of the times in which they lived. 185 We may make it a rule that, when they seem to be speaking arbitrarily, to be laying before us reasoning that are not reasoning, dogmas for which no excuse seems to be offered, the fault lies in our lack of comprehension. 186 Until we can

understand how a man, living in a certain century, and breathing a certain moral and intellectual atmosphere, could have said what he did, we should assume that we have read his words, but not his real thought. 187 For the latter there is always a psychological, if not a logical, justification.

188 And this brings me to the question of the language in which the philosophers have expressed their thoughts. 189 The more attentively one reads the history of philosophy, the clearer it becomes that the number of problems with which the philosophers have occupied themselves is not overwhelmingly great. 190 If each philosophy which confronts us seems to us quite new and strange, it is because we have not arrived at the stage at which it is possible for us to recognise old friends with new faces. 191 The same old problems, the problems which must ever present themselves to reflective thought, recur again and again. 192 The form is more or less changed, and the answers which are given to them are not, of course, always the same. 193 Each age expresses itself in a somewhat different way. 194 But sometimes the solution proposed for a given problem is almost the same in substance, even when the two thinkers we are contrasting belong to centuries which lie far apart. 195 In this case, only our own inability to strip off the husk and reach the fruit itself prevents us from seeing that we have before us nothing really new.

196 Thus, if we read the history of philosophy with patience and with discrimination, it grows luminous. 197 We come to feel nearer to the people of the past. We see that we may learn from their successes and from their failures; 198 and if we are capable of drawing a moral at all, we apply the lesson to ourselves.

SOME PRACTICAL ADMONITIONS

George Stuart Fullerton

BE PREPARED TO ENTER UPON A NEW WAY OF LOOKING AT THINGS

5 We have seen that reflective thought tries to analyse experience and to attain to a clear view of the elements that make it up-- 2 to

realise vividly what is the very texture of the known world, and what is the nature of knowledge. 3 It is possible to live to old age, as many do, without even a suspicion that there may be such a knowledge as this, 4 and nevertheless to possess a large measure of rather vague but very serviceable information about both minds and bodies.

5 It is something of a shock to learn that a multitude of questions may be asked touching the most familiar things in our experience, 6 and that our comprehension of those things may be so vague that we grope in vain for an answer. 7 Space, time, matter, minds, realities,-- with these things we have to do every day. 8 Can it be that we do not know what they are? Then we must be blind, indeed. How shall we set about enlightening our ignorance?

9 Not as we have enlightened our ignorance heretofore. We have added fact to fact; but our task now is to gain a new light on all facts, to see them from a different point of view; not so much to extend our knowledge as to deepen it. 10 It seems scarcely necessary to point out that our world, when looked at for the first time in this new way, may seem to be a new and strange world. 11 The real things of our experience may appear to melt away, to be dissolved by reflection into mere shadows and unrealities. 12 Well do I remember the consternation with which, when almost a schoolboy, I first made my acquaintance with John Stuart Mill's doctrine that the things about us are "permanent possibilities of sensation." 13 To Mill, of course, chairs and tables were still chairs and tables, but to me they became ghosts, inhabitants of a phantom world, to find oneself in which was a matter of the gravest concern. 14 I suspect that this sense of the unreality of things comes often to those who have entered upon the path of reflection, 15 It may be a comfort to such to realise that it is rather a thing to be expected.

16 How can one feel at home in a world which one has entered for the first time?17 One cannot become a philosopher and remain exactly the person that one was before. People have tried to do

it,--Thomas Reid is a notable instance; 18 but the result is that one simply does not become a philosopher. It is not possible to gain a new and a deeper insight into the nature of things, and yet to see things just as one saw them before one attained to this.

19 If, then, we are willing to study philosophy at all, we must be willing to embrace new views of the world, if there seem to be good reasons for so doing. 20 And if at first we suffer from a sense of bewilderment, we must have patience, and must wait to see whether time and practice may not do something toward removing our distress. 21 It may be that we have only half understood what has been revealed to us.

BE WILLING TO CONSIDER POSSIBILITIES WHICH AT FIRST STRIKE ONE AS ABSURD

22 It must be confessed that the philosophers have sometimes brought forward doctrines which seem repellent to good sense, and little in harmony with the experience of the world which we have all our lives enjoyed. 23 Shall we on this account turn our backs upon them and refuse them an impartial hearing?

24 Thus, the idealist maintains that there is no existence save psychical existence; that the material things about us are really mental things. 25 One of the forms taken by this doctrine is that alluded to above, that things are permanent possibilities of sensation.

26 I think it can hardly be denied that this sounds out of harmony with the common opinion of humankind. 27 People do not hesitate to distinguish between minds and material things, nor do they believe that material things exist only in minds. 28 That dreams and hallucinations exist only in minds they are very willing to admit; 29 but they will not admit that this is true of such things as real chairs and tables. 30 And if we ask them why they take such a position, they fall back upon what seems given in experience.

31 Now, as the reader of the Panagogue has seen, I think that the plain person is more nearly right in own opinion touching the existence of a world of non-mental

things than is the idealistic philosopher. 32 The latter has seen a truth and misconceived it, thus losing some truth that you had before you began to reflect. 33 The former has not seen the truth which has impressed the idealist, and you have held on to that vague recognition that there are two orders of things given in our experience, 34 the physical and the mental, which seems to us so unmistakable a fact until we fall into the hands of the philosophers.

35 But all this does not prove that we have a right simply to fall back upon "common sense," and refuse to listen to the idealist. 36 The deliverance of unreflective common sense are vague in the extreme; 37 and though it may seem to assure us that there is a world of things non-mental, its account of that world is confused and incoherent. 38 You who must depend on common sense alone can find no answer to the idealists; you refuses to follow them, but you cannot refute them. You are reduced to dogmatic denial.

39 This is in itself an uncomfortable position. And when we add to this the reflection that such a person loses the truth which the idealist emphasises, the truth that the external world of which we speak must be, 40 if we are to know it at all, a world revealed to our senses, a world given in our experience, we see that you who stops your ears remains in ignorance. 41 The fact is that the person who has never weighed the evidence that impresses the idealist is not able to see clearly what is meant by that external world in which we all incline to put such faith. 42 We may say that you feels a truth blindly, but does not see it.

43 Let us take another illustration. If there is one thing that we feel to be as sure as the existence of the external world, it is that there are other minds more or less resembling our own. 44 The solipsists may try to persuade us that the evidence for such minds is untrustworthy. We may see no flaw in their argument, but they cannot convince us. 45 May we ignore them, and refuse to consider the matter at all?

46 Surely not, if we wish to substitute clear thinking for vague and indefinite opinion. We should

listen with attention, strive to understand all the reasoning laid before us, 47 and then, if they seem to lead to conclusions really not in harmony with our experience, go carefully over the ground and try to discover the flaw in them. 48 It is only by doing something like this that we can come to see clearly what is meant when we speak of two or more minds and the relation between them. 49 The solipsists can help us, and we should let them do it.

50 We should, therefore, be willing to consider seriously all sorts of doctrines which may at first strike us as unreasonable. I have chosen two which I believe to contain error. 51 But the person who approaches a doctrine which impresses you as strange has no right to assume at the outset that it contains error. 52 We have seen again and again how easy it is to misapprehend what is given in experience. 53 The philosophers may be in the right, and what they says may repel us because we have become accustomed to certain erroneous notions, and they have come to seem self-evident truths.

DO NOT HAVE TOO MUCH RESPECT FOR AUTHORITY

54 But if it is an error to refuse to listen to the philosopher, it is surely no less an error to accord them an authority above what they have a right to demand. 55 Bear in mind what was said in the last chapter about the difference between the special sciences and philosophy. There is in the latter field no body of doctrine that we may justly regard as authoritative. 56 There are "schools" of philosophy, and their adherents fall into the very human error of feeling very sure that they and those who agree with them are right; 57 and the emphasis with which they speak is apt to mislead those who are not well informed. 58 I shall say a few words about the dangers of the "school."

59 If we look about us, we are impressed by the fact that there are "schools" of philosophy, somewhat as there are religious sects and political parties. 60 An impressive teacher sets the mark of own personality and of own preferences upon those who come under own influence. 61 They are

not at an age to be very critical, and, indeed, they have not as yet the requisite learning to enable them to be critical. 62 They keep the trend which has been given them early in life, and, when they become teachers, they pass on the type of thought with which they have been inoculated, and the circle widens. 63 "Schools" may arise, of course, in a different way. An epoch-making book may sweep people off of their feet and make of them passionate adherents. 64 But you who has watched the development of schools must be impressed with the enormous influence which certain teachers have had in giving a direction to the philosophic thought of those who have come in contact with them. 65 We expect the pupils of a given master to have a given shade of opinion, and very often we are not disappointed in our guess. It is entirely natural that this should be so.

66 Those who betake themselves to the study of philosophy are people like other people. They have the same feelings, and the bending of the twig has the same significance in their case that it has in that of others. 67 It is no small compliment to a teacher that you can thus spread your influence, and leave your proxies even when you passes away. 68 But, when we strive to "put off humanity" and to look at the whole matter under the cold light of reason, 69 we may well ask ourselves, whether you who unconsciously accepts your philosophy, in whole or in part, because it has been the philosophy of your teacher, 70 is not doing what is done by those persons whose politics and whose religion take their colour from such accidental circumstances as birth in a given class or family traditions?

71 I am far from saying that it is, in general, a bad thing for the world that people should be influenced in this way by one another. 72 I say only that, when we look at the facts of the case, we must admit that even our teachers of philosophy do not always become representatives of the peculiar type of thought for which they stand, 73 merely through a deliberate choice from the wealth of material which the history of speculative thought lays before them. 74 They are

influenced by others to take what they do take, and the traces of this influence are apt to remain with them through life. 75 You who wishes to be entirely impartial must be on your guard against such influences as these, 76 and must distrust prejudices for or against certain doctrines, when you finds that you imbibed them at an uncritical age and has remained under their influence ever since. 77 Some do appear to be able to emancipate themselves, and to outgrow what they first learned.

78 It is, as I have said, natural that there should be a tendency to form "schools" in philosophy. 79 And there are certain things that make this somewhat uncritical acceptance of a doctrine very attractive.

80 In the first place, if we are willing to take a system of any sort as a whole, it saves us a vast amount of trouble. 81 We seem to have a citadel, a point of vantage from which we can look out upon life and interpret it. 82 If the house we live in is not in all respects ideal, at least it is a house, and we are not homeless. 83 There is nothing more intolerable to most people than the having of no opinions. 84 They will change one opinion for another, but they will rarely consent to do without altogether. 85 It is something to have an answer to offer to those who persist in asking questions; and it is something to have some sort of ground under one's feet, even if it be not very solid ground.

86 Again. Human is a social creature, and you are greatly fortified in your opinions by the consciousness that others share them with you. 87 If we become adherents of a "school," we have the agreeable consciousness that we are not walking alone through the maze of speculations that confronts those who reflect. 88 There appears to be a travelled way in which we may have some confidence. Are we not following the crowd, or, at least, a goodly number of the pilgrims who are seeking the same goal with ourselves? 89 Under such circumstances we are not so often impelled to inquire anxiously whether we are after all upon the right road. We assume that we have made no mistake.

90 Under such circumstances we are apt to forget that there are many such roads, and that these have been travelled in ages past by troops very much like our own, who also cherished the hope that they were upon the one and only highway. 91 In other words, we are apt to forget the lesson of the history of philosophy. This is a serious mistake.

92 And what intensifies our danger, if we belong to a school which happens to be dominant and to have active representatives, is that we get very little real criticism. 93 The books that we write are usually criticised by those who view our positions sympathetically, and who are more inclined to praise than to blame. 94 You who looks back upon the past is struck with the fact that books which have been lauded to the skies in one age have often been subjected to searching criticism and to a good deal of condemnation in the next. 95 Something very like this is to be expected of books written in our own time. It is, however, a pity that we should have to wait so long for impartial criticism.

96 This leads me to say a word of the reviews which fill our philosophical journals, and which we must read, 97 for it is impossible to read all the books that come out, and yet we wish to know something about them.

98 To the novice it is something of a surprise to find that books by people whom you knows to be eminent for their ingenuity and their learning are condemned 99 in very offhand fashion by quite young people, who as yet have attained to little learning and to no eminence at all. 100 One sometimes is tempted to wonder that people admittedly remarkable should have fathered such poor productions as we are given to understand them to be, and should have offered them to a public that has a right to be indignant.

101 Now, there can be no doubt that, in philosophy, a cat has the right to look at a king, and has also a right to point out his misdoings, if such there be. 102 But it seems just to indicate that, in this matter, certain cautions should be observed. 103 If a great person has been guilty of an error in reasoning, there is no reason why

it should not be pointed out by any one who is capable of detecting it. 104 The authority of the critic is a matter of no moment where the evidence is given. 105 In such a case, we take a suggestion and we do the criticising for ourselves. 106 But where the evidence is not given, where the justice of the criticism is not proved, the case is different. 107 Here we must take into consideration the authority of the critic, and, if we follow you at all, we must follow you blindly. Is it safe to do this?

108 It is never safe in philosophy, or, at any rate, it is safe so seldom that the exceptions are not worth taking into account. 109 People write from the standpoint of some school of opinion; and, until we know their prepossessions, their statements that this is good, that is bad, the third thing is profound, are of no significance whatever. 110 We should simply set them aside, and try to find out from our reviewer what is contained in the book under criticism.

111 One of the evils arising out of the bias I am discussing is, that books and authors are praised or condemned indiscriminately because of their point of view, and little discrimination is made between good books and poor books. 112 There is all the difference in the world between a work which can be condemned only on the ground that it is realistic or idealistic in its standpoint, and those feeble productions which are to be condemned from every point of view. 113 If we consistently carry out the principle that we may condemn all those who are not of our party, we must give short shrift to a majority of the great people of the past.

114 So I say, beware of authority in philosophy, and, above all, beware of that most insidious form of authority, the spirit of the "school." 115 It cannot but narrow our sympathies and restrict our outlook.

REMEMBER THAT ORDINARY RULES OF EVIDENCE APPLY

116 What I am going to say in this section is closely related to what has been said just above. 117 To the disinterested observer it may

seem rather amusing that one should think it worth while to try to show that we have not the right to use a special set of weights and measures when we are dealing with things philosophical. 118 There was a time when people held that a given doctrine could be philosophically false, and, at the same time, theologically true; but surely the day of such twists and turnings is past!

119 I am by no means sure that it is past. With the lapse of time, old doctrines take on new aspects, and come to be couched in a language that suits the temper of the later age. 120 Sometimes the doctrine is veiled and rendered less startling, but remains essentially what it was before, and may be criticised in much the same way.

121 I suppose we may say that every one who is animated by the party spirit discussed above, 122 and who holds to a group of philosophical tenets with a warmth of conviction out of proportion to the authority of the actual evidence which may be claimed for them, 123 is tacitly assuming that the truth or falsity of philosophical dogmas is not wholly a matter of evidence, but that the desires of the philosopher may also be taken into account.

124 This position is often taken unconsciously. Thus, when, instead of proving to others that a given doctrine is false, we try to show them that it is a dangerous doctrine, and leads to unpalatable consequences, 125 we assume that what seems distasteful cannot be true, and we count on the fact that people incline to believe what they like to believe.

126 May we give this position the dignity of a philosophical doctrine and hold that, in the somewhat nebulous realm inhabited by the philosopher, people are not bound by the same rules of evidence that obtain elsewhere? 127 That this is actually done, those who read much in the field of modern philosophy are well aware. 128 Several excellent writers have maintained that we need not, even if there seems to be evidence for them, accept views of the universe which do not satisfy "our whole nature."

129 We should not confuse with this position the very different one which maintains that we have a

right to hold tentatively, and with a willingness to abandon them should evidence against them be forthcoming, 130 views which we are not able completely to establish, but which seem reasonable. 131 One may do this with perfect sincerity, and without holding that philosophical truth is in any way different from scientific truth. 132 But the other position goes beyond this; it assumes that human must be satisfied, and that only that can be true which satisfies you.

133 I ask, is it not significant that such an assumption should be made only in the realm of the unverifiable? 134 No person dreams of maintaining that the rise and fall of stocks will be such as to satisfy the whole nature even of the elect, 135 or that the future history of human on this planet is a thing to be determined by some philosopher who decides for us what would or would not be desirable.

136 Surely all truths of election-- those truths that we simply choose to have true-- are something much less august 137 than that Truth of Evidence which sometimes seems little to fall in with our desires, and in the face of which we are humble listeners, not dictators. 138 Before the latter we are modest; we obey, lest we be confounded. 139 And if, in the philosophic realm, we believe that we may order Truth about, and make her our slave, 140 is it not because we have a secret consciousness that we are not dealing with Truth at all, but with Opinion, 141 and with Opinion that has grown insolent because she cannot be drawn from her obscurity and be shown to be what she is?

142 Sometimes it is suddenly revealed to a person that you have been accepting two orders of truth. 143 I once walked and talked with a good scholar who discoursed of high themes and defended warmly certain theses. 144 I said to him: If you could go into the house opposite, and discover unmistakably whether you are in the right or in the wrong,-- 145 discover it as unmistakably as you can discover whether there is or is not furniture in the drawing-room,--would you go? 146 You thought over the matter for a while, and then answered frankly;

No! I should not go; I should stay out here and argue it out.

AIM AT CLEARNESS AND SIMPLICITY

147 There is no department of investigation in which it is not desirable to cultivate clearness and simplicity in thinking, speaking, and writing. 148 But there are certain reasons why we should be especially on our guard in philosophy against the danger of employing a tongue "not understood of the people." 149 There are dangerous pitfalls concealed under the use of technical words and phrases.

150 The value of technical expressions in the special sciences must be conceded. They are supposed to be more exact and less ambiguous than terms in ordinary use, and they mark an advance in our knowledge of the subject. 151 The distinctions which they indicate have been carefully drawn, and appear to be of such authority that they should be generally accepted. 152 Sometimes, as, for example, in mathematics, a conventional set of symbols may quite usurp the function of ordinary language, 153 and may enormously curtail the labour of setting forth the processes and results of investigation.

154 But we must never forget that we have not in philosophy an authoritative body of truth which we have the right to impose upon all who enter that field. 155 A multitude of distinctions have been made and are made; but the representatives of different schools of thought are not at one touching the value and significance of these distinctions. 156 If we coin a word or a phrase to mark such, there is some danger that we fall into the habit of using such words or phrases, 157 as we use the coins in our purse, without closely examining them, and with the ready assumption that they must pass current everywhere.

158 Thus, there is always a possibility that our technical expressions may be nothing less than crystallised error. Against this we should surely be on our guard.

159 Again. When we translate the language of common life into the

dialect of the learned, there is danger that we may fall into the error of supposing that we are adding to our knowledge, 160 even though we are doing nothing save to exchange one set of words for another. 161 Thus, we all know very well that one mind can communicate with another. One does not have to be a scholar to be aware of this. 162 If we choose to call this "inter-subjective intercourse," we have given the thing a sounding name; but we know no more about it than we did before. 163 The problem of the relation between minds, and the way in which they are to be conceived as influencing each other, remains just what it was. 164 So, also, we recognise the everyday fact that we know both ourselves and what is not ourselves. Shall we call this knowledge of something not ourselves "self-transcendence"? 165 We may do so if we wish, but we ought to realise that this bestowal of a title makes no whit clearer what is meant by knowledge.

166 Unhappily, people too often believe that, when they have come into the possession of a new word or phrase, they have gained a new thought. 167 The danger is great in proportion to the breadth of the gulf which separates the new dialect from the old language of common life in which we are accustomed to estimate things. 168 Many a philosopher would be bereft, indeed, were they robbed of own vocabulary and compelled to express own thoughts in ordinary speech. 169 The theories which are implicit in certain recurring expressions would be forced to come out into the open, and stand criticism without disguise.

170 But can one write philosophical books without using words which are not in common use among the unphilosophic? I doubt it. 171 Some such words it seems impossible to avoid. However, it does seem possible to bear in mind the dangers of a special philosophical terminology and to reduce such words to a minimum.

172 Finally, we may appeal to the humanity of the philosopher. The path to reflection is a sufficiently difficult one as it is; 172 why should they roll rocks upon it and

compel those who come after them to climb over them? 173 If truths are no truer for being expressed in a repellent form, why should you trick them out in a fantastic garb? 174 What we want is the naked truth, and we lose time and patience in freeing our mummy from the wrappings in which learned people have seen fit to encase it.

DO NOT HASTILY ACCEPT A DOCTRINE

175 This brings me to the last of the maxims which I urge upon the attention of the reader. All that has been said so far may be regarded as leading up to it.

176 The difficulty that confronts us is this: On the one hand, we must recognise the uncertainty that reigns in this field of investigation. 177 We must ever weigh probabilities and possibilities; we do not find ourselves in the presence of indubitable truths which all competent persons stand ready to admit. 178 This seems to argue that we should learn to suspend judgment, and should be most wary in our acceptance of one philosophical doctrine and our rejection of another.

179 On the other hand, philosophy is not a mere matter of intellectual curiosity. It has an intimate connection with life. 180 As a person thinks, so is you, to a great extent, at least. How, then, can one afford to remain critical and negative? 181 To counsel this seems equivalent to advising that one abandon the helm and consent to float at the mercy of wind and tide.

182 The difficulty is a very real one. It presents itself insistently to those who have attained to that degree of intellectual development at which one begins to ask oneself questions and to reflect upon the worth and meaning of life. 183 An unreflective adherence to tradition no longer satisfies such persons. 184 They wish to know why they should believe in this or that doctrine, and why they should rule their lives in harmony with this or that maxim. 185 Shall we advise them to lay hold without delay of a set of philosophical tenets, as we might advise a disabled person to aid the self with any staff that

happens to come to hand? 186 Or shall we urge them to close their eyes to the light, and to go back again to the old unreflective life?

187 Neither of these counsels seems satisfactory, for both assume tacitly that it does not much matter what the truth is, and that we can afford to disregard it.

188 Perhaps we may take a suggestion from that prudent man and acute philosopher, Descartes. 189 Discontented with the teachings of the schools as they had been presented to him, he resolved to set out upon an independent voyage of discovery, and to look for a philosophy of his own. 190 It seemed necessary to him to doubt, provisionally at least, all that he had received from the past. 191 But in what house should he live while he was reconstructing his old habitation? 192 Without principles of some sort he could not live, and without reasonable principles he could not live well. 193 So he framed a set of provisional rules, which should guide his life until he had new ground beneath his feet.

194 When we examine these rules, we find that, on the whole, they are such as the experience of humankind has found prudent and serviceable. 195 In other words, we discover that Descartes, until he was in a position to see clearly for himself, was willing to be led by others. 196 He was a unit in the social order, and he recognised that truth.

197 It does not seem out of place to recall this fact to the consciousness of those who are entering upon the reflective life. 198 Those who are rather new to reflection upon philosophical matters are apt to seize single truths, which are too often half-truths, and to deduce their consequences remorselessly. 199 They do not always realise the extreme complexity of society, or see the full meaning of the relations in which they stand to the state and to the church. 200 Breadth of view can only come with an increase of knowledge and with the exercise of reflection.

201 For this reason I advise patience, and a willingness to accept the established order of things until one is very sure that one has attained to some truth--

202 some real truth, not a mere truth of election-- which may serve as the basis of a reconstruction. The first glimpses of truth cannot be depended upon to furnish such a foundation.

203 Thus, we may suspend judgment, and, nevertheless, be ready to act. But is not this a mere compromise? 204 Certainly. All life is a compromise; and in the present instance it means only that we should keep our eyes open to the light, whatever its source, 205 and yet should nourish that wholesome self-distrust that prevents a person from being an erratic and revolutionary creature, unmindful of own limitations. 206 Prudent people in all walks in life make this compromise, and the world is the better for it.

METAPHYSICS AND EPISTEMOLOGY

THE IMPOSSIBILITY OF AN ABSOLUTE DIVISION OF THE PROBLEM OF PHILOSOPHY

Ralph Barton Perry

6 The stand-point and purpose of the philosopher define their task, but they do not necessarily prearrange the division of it. 2 That the task is a complex one, embracing many subordinate problems which must be treated 'seriatim', 3 is attested both by the breadth of its scope and the variety of the interests from which it may be approached. 4 But this complexity is qualified by the peculiar importance which here attaches to unity. 5 That which lends philosophical quality to any reflection is a steadfast adherence to the ideals of inclusiveness and consistency. 6 Hence, though the philosopher must of necessity occupy the self with subordinate problems, these cannot be completely isolated from one another, and solved successively. 7 Perspective is your most indispensable requisite, and you have solved no problem finally until you have provided for the solution of all. 8 Your own peculiar conceptions are those which order experience, and reconcile such aspects of it as other interests have distinguished. 9 Hence the compatibility of any idea with all other ideas is the prime test of its philosophical sufficiency. 10 On these grounds it may confidently be asserted that

the work of philosophy cannot be assigned by the piece to different specialists, and then assembled. 11 There are no special philosophical problems which can be finally solved upon their own merits. 12 Indeed, such problems could never even be named, for in their discreteness they would cease to be philosophical.

13 The case of metaphysics and epistemology affords an excellent illustration. The former of these is commonly defined as the theory of reality or of first principles, the latter as the theory of knowledge. 14 But the most distinctive philosophical movement of the nineteenth century issues from the idea that knowing and being are identical. 15 The prime reality is defined as a knowing mind, and the terms of reality are interpreted as terms of a cognitive process. Ideas and logical principles constitute the world. 16 It is evident that in this Hegelian philosophy epistemology embraces metaphysics. 17 In defining the relations of knowledge to its object, one has already defined one's fundamental philosophical conception, while 'logic', as the science of the universal necessities of thought, will embrace the first principles of reality. 18 Now, were one to divide and arrange the problems of philosophy upon this basis, it is evident that one would not have deduced the arrangement from the general problem of philosophy, but from a single attempted solution of that problem. 19 It might serve as an exposition of Hegel, but not as a general philosophical programme.

20 Another case in point is provided by the present-day interest in what is called "pragmatism." 21 This doctrine is historically connected with Kant's principle of the "primacy of the practical reason," 22 in which he maintained that the consciousness of duty is a profounder though less scientific insight than the knowledge of objects. 23 The current doctrine maintains that thought with its fruits is an expression of interest, and that the will which evinces and realises such an interest is more original and significant than that which the thinking defines. 24 Such a view attaches a peculiar importance to

the springs of conduct, and in its more systematic development has regarded ‘ethics’ as the true propædeutic and proof of philosophy. 25 But to make ethics the key-stone of the arch, is to define a special philosophical system; 26 for it is the very problem of philosophy to dispose the parts of knowledge with a view to systematic construction. 27 The relation of the provinces of metaphysics, epistemology, logic, and ethics cannot, then, be defined without entering these provinces and answering the questions proper to them.

THE DEPENDENCE OF THE ORDER OF PHILOSOPHICAL PROBLEMS UPON THE INITIAL INTEREST

28 Since the above terms exist, however, there can be no doubt but that important divisions within the general aim of philosophy have actually been made. 29 The inevitableness of it appears in the variety of the sources from which that aim may spring. 30 The point of departure will always determine the emphasis and the application which the philosophy receives. 31 If philosophy be needed to supplement more special interests, it will receive a particular character from whatever interest it so supplements. 32 You who approaches it from a definite stand-point will find in it primarily an interpretation of that stand-point.

PHILOSOPHY AS THE INTERPRETATION OF LIFE

Ralph Barton Perry

7 There are two sources of the philosophical aim, which are perennial in their human significance. 2 You, firstly, who begins with the demands of life and its ideals, looks to philosophy for a reconciliation of these with the orderly procedure of Nature. 3 Your philosophy will receive its form from its illumination of life, and it will be an ethical or religious philosophy. 4 Spinoza, the great seventeenth-century philosopher who justified mysticism after the manner of mathematics, displays this temper in his philosophy: 5 "After experience had taught me that all

the usual surroundings of social life are vain and futile; 6 seeing that none of the objects of my fears contained in themselves anything either good or bad, except in so far as the mind is affected by them, 7 I finally resolved to inquire whether there might be some real good having power to communicate itself, which would affect the mind singly, to the exclusion of all else: 8 whether, in fact, there might be anything of which the discovery and attainment would enable me to enjoy continuous, supreme, and unending happiness."

9 In pursuance of this aim, though he deals with the problem of being in the rigorous logical fashion of his day, the final words of his great work are, "Of Human Freedom": 10 "Whereas the wise person, in so far as you are regarded as such, is scarcely at all disturbed in spirit, 11 but, being conscious of the self, and of God, and of things, by a certain eternal necessity, never ceases to be, but always possesses true acquiescence of His spirit. 12 If the way which I have pointed out as leading to this result seems exceedingly hard, it may nevertheless be discovered. Needs must it be hard, since it is so seldom found. 13 How would it be possible if salvation were ready to our hand, and could without great labour be found, that it should be by almost all people neglected? 14 But all things excellent are as difficult as they are rare."

PHILOSOPHY AS THE EXTENSION OF SCIENCE

Ralph Barton Perry

8 One who looks to philosophy for the extension and correction of scientific knowledge will be primarily interested in the philosophical definition of ultimate conceptions, and in the method wherewith such a definition is obtained. 2 Thus the philosophy of the scientist will tend to be logical and metaphysical. 3 Such is the case with Descartes and Leibniz, who are nevertheless intimately related to Spinoza in the historical development of philosophy.

4 "Several years have now elapsed," says the former, "since I first became aware that I had accepted, even from my youth, many false opinions for true, 5 and that consequently what I afterward based on such principles was highly doubtful; 6 and from that time I was convinced of the necessity of undertaking once in my life to rid myself of all the opinions I had adopted, 7 and of commencing anew the work of building from the foundation, if I desired to establish a firm and abiding superstructure in the sciences."

8 Leibniz's mind was more predominantly logical even than Descartes's. He sought in philosophy a supreme intellectual synthesis, a science of the universe. 9 "Although," he says retrospectively, "I am one of those who have worked much at mathematics, I have none the less meditated upon philosophy from my youth up; 10 for it always seemed to me that there was a possibility of establishing something solid in philosophy by clear demonstrations. . . . 11 I perceived, after much meditation, that it is impossible to find the 'principles of a real unity' in matter alone, or in that which is only passive, since it is nothing but a collection or aggregation of parts 'ad infinitum'."

THE HISTORICAL DIFFERENTIATION OF THE PHILOSOPHICAL PROBLEM

12 Though these types are peculiarly representative, they are by no means exhaustive. 13 There are as many possibilities of emphasis as there are incentives to philosophical reflection. 14 It is not possible to exhaust the aspects of experience which may serve as bases from which such thought may issue, and to which, after its synthetic insight, it may return. 15 But it is evident that such divisions of philosophy represent in their order, and in the sharpness with which they are sundered, the intellectual autobiography of the individual philosopher. 16 There is but one method by which that which is peculiar either to the individual, or to the special position which they adopts, may be eliminated. 17 Though it is

impossible to tabulate the empty programme of philosophy, we may name certain special problems that have appeared in its history. 18 Since this history comprehends the activities of many individuals, a general validity attaches to it. 19 There has been, moreover, a certain periodicity in the emergence of these problems, so that it may fairly be claimed for them that they indicate inevitable phases in the development of human reflection upon experience. 20 They represent a normal differentiation of interest which the individual mind, in the course of its own thinking, tends to follow. 21 It is true that it can never be said with assurance that any age is utterly blind to any aspect of experience. 22 This is obviously the case with the practical and theoretical interests which have just been distinguished. 23 There is no age that does not have some practical consciousness of the world as a whole, nor any which does not seek more or less earnestly to universalise its science. 24 But though it compel us to deal abstractly with historical epochs, there is abundant compensation in the possibility which this method affords of finding the divisions of philosophy in the manifestation of the living philosophical spirit.

METAPHYSICS SEEKS A MOST FUNDAMENTAL CONCEPTION

Ralph Barton Perry

9 To Thales, one of the Seven Wise Men of Greece, is commonly awarded the honour of being the founder of European philosophy. 2 If he deserve this distinction, it is on account of the question which he raised, and not on account of the answer which he gave to it. 3 Aristotle informs us that Thales held "water" to be "the material cause of all things." 4 This crude theory is evidently due to an interest in the totality of things, an interest which is therefore philosophical. 5 But the interest of this first philosopher has a more definite character. It looks toward the definition in terms of some single conception, of ‘the constitution’ of the world. 6 As a child might conceivably think the moon to be made of green cheese,

so philosophy in its childhood thinks here of all things as made of water. 7 Water was a well-known substance, possessing well-known predicates. To define all of Nature in terms of it, was to maintain that in spite of superficial differences, all things have these predicates in common. 8 They are the predicates which qualify for reality, and compose a community of nature from which all the individual objects and events of Nature arise. 9 The successors of Thales were evidently dissatisfied with his fundamental conception, because of its lack of generality. 10 They seized upon vaguer substances like air and fire, for the very definiteness of the nature of water forbids the identification of other substances with it. 11 But what is so obviously true of water is scarcely less true of air and fire; 12 and it appeared at length that only a substance possessing the most general characters of body, such as shape, size, and mobility, could be thought as truly primeval and universal. 13 In this wise a conception like our modern physical conception of matter came at length into vogue. 14 Now the problem of which these were all tentative solutions is, in general, the problem of metaphysics; 15 although this term belongs to a later era, arising only from the accidental place of the discussion of first principles after physics in the system of Aristotle. 16 The attempt to secure a most fundamental conception which attaches some definite meaning to the reality including and informing every particular thing, is metaphysics.

Monism and Pluralism

17 It must not be supposed that metaphysics is dogmatically committed to the reduction of all reality to a unity of Nature. 18 It is quite consistent with its purpose that the parts of reality should be found to compose a group, or an indefinite multitude of irreducibly different entities. 19 But it is clear that even such an account of things deals with what is true of all reality, and even in acknowledging the variety of its constituents, attributes to them some kind of relationship. 20 The degree to

which such a relationship is regarded as intimate and essential, determines the degree to which any metaphysical system is ‘monistic’, rather than ‘pluralistic’. 21 But the significance of this difference will be better appreciated after a further differentiation of the metaphysical problem has been noted.

ONTOLOGY AND COSMOLOGY CONCERN BEING AND PROCESS

22 It has already been suggested that the test of Thales's conception lay in the possibility of deriving Nature from it. A world principle must be fruitful. 23 Now an abstract distinction has prevailed more or less persistently in metaphysics, between the general definition of being, called ontology, and the study of the processes wherewith being is divided into things and events. 24 This latter study has to do primarily with the details of experience enumerated and systematised by the natural sciences. 25 To reconcile these, or the course of Nature, with the fundamental definition of being, is the problem of cosmology.

26 Cosmology is the construing of the prima-facie reality in terms of the essential reality. It is the proof and the explanation of ontology. 27 Since the most familiar part of the prima-facie reality, the part almost exclusively noticed by the naive mind, is embraced within the field of the physical sciences, 28 the term cosmology has come more definitely to signify the philosophy of Nature. 29 It embraces such an examination of space, time, matter, causality, as seeks to answer the most general questions about them, and provide for them in the world thought of as most profoundly real. 30 Such a study receives its philosophical character from its affiliation with ontology, as the latter would find its application in cosmology.

MECHANICAL AND TELEOLOGICAL COSMOLOGIES

31 But in addition to the consideration of the various parts of Nature, cosmology has commonly dealt with a radical and

far-reaching alternative that appeared at the very dawn of metaphysics. 32 Differences may arise within a world constituted of a single substance or a small group of ultimate substances, by changes in the relative position and grouping of the parts. Hence the virtue of the conception of motion. 33 The theory which explains all differences by motions of the parts of a qualitatively simple world, is called mechanism. 34 Another source of change familiar to naive experience is will, or the action of living creatures. 35 According to the mechanical theory, changes occur on account of the natural motions of the parts of matter; 36 according to the latter or teleological conception, changes are made by a formative agency directed to some end. 37 Among the early Greek philosophers, Leucippus was an exponent of mechanism. 38 "He says that the worlds arise when many bodies are collected together into the mighty void from the surrounding space and rush together. 39 They come into collision, and those which are of similar shape and like form become entangled, and from their entanglement the heavenly bodies arise."

40 Anaxagoras, on the other hand, was famed for his doctrine of the Nous, or Intelligence, to whose direction he attributed the whole process of the world. 41 The following is translated from extant fragments of his book, "περὶ φύσεως": "And Nous had power over the whole revolution, so that it began to revolve in the beginning. 42 And it began to revolve first from a small beginning; but the revolution now extends over a larger space, and will extend over a larger still. 43 And all the things that are mingled together and separated off and distinguished are all known by the Nous. 44 And Nous set in order all things that were to be and that were, and all things that are not now and that are, 45 and this revolution in which now revolve the stars and the sun and the moon, and the air and the ether that are separated off."

DUALISM

46 It is clear, furthermore, that the doctrine of Anaxagoras not only names a distinct kind of cause, but also ascribes to it an independence and intrinsic importance that do not belong to motion. 47 Whereas motion is a property of matter, intelligence is an originative power working out purposes of its own choosing. Hence we have here to do with a new ontology. 48 If we construe ultimate being in terms of mind, we have a definite substitute for the physical theories outlined above. 49 Such a theory is scarcely to be attributed to any Greek philosopher of the early period; it belongs to a more sophisticated stage in the development of thought, after the rise of the problem of epistemology. 50 But Anaxagoras's sharp distinction between the material of the world on the one hand, and the author of its order and evolution on the other, is in itself worthy of notice. 51 It contains the germ of a recurrent philosophical dualism, which differs from pluralism in that it finds two and only two fundamental divisions of being, the physical, material, or potential on the one hand, and the mental, formal, or ideal on the other.

THE NEW MEANING OF MONISM AND PLURALISM

52 Finally, the alternative possibilities which these cosmological considerations introduce, bear directly upon the general question of the interdependence of the parts of the world, 53 a question which has already appeared as pertinent in ontology. 54 Monism and pluralism now obtain a new meaning. Where the world process is informed with some singleness of plan, as teleology proposes, the parts are reciprocally necessary, and inseparable from the unity. 55 Where, on the other hand, the processes are random and reciprocally fortuitous, as Leucippus proposes, the world as a whole is an aggregate rather than a unity. 56 In this way uniformity in kind of being may prevail in a world the relations of whose parts are due to chance, 57 while

diversity in kind of being may prevail in a world knit together by some thorough-going plan of organisation. 58 Thus monism and pluralism are conceptions as proper to cosmology as to ontology.

59 But enough has been said to demonstrate the interdependence of ontology and cosmology, of the theory of being and the theory of differentiation and process. 60 Such problems can be only abstractly sundered, and the distinctive character of any metaphysical system will usually consist in some theory determining their relation. 61 Philosophy returns to these metaphysical problems with its thought enriched and its method complicated, after becoming thoroughly alive to the problems of epistemology, logic, and ethics.

EPISTEMOLOGY SEEKS TO UNDERSTAND THE POSSIBILITY OF KNOWLEDGE

Ralph Barton Perry

10 Epistemology is the theory of the possibility of knowledge, and issues from criticism and scepticism. 2 If we revert again to the history of Greek philosophy, we find a first period of enterprising speculation giving place to a second period of hesitancy and doubt. 3 This phase of thought occurs simultaneously with the brilliantly humanistic age of Pericles, 4 and it is undoubtedly true that energy is withdrawn from speculation largely for the sake of expending it in the more lively and engaging pursuits of politics and art. 5 But there are patent reasons within the sphere of philosophy itself for entailment of activity and taking of stock. 6 For three centuries people have taken their philosophical powers for granted, and used them without questioning them. 7 Repeated attacks upon the problem of reality have resulted in no consensus of opinion, but only in a disagreement among the wise people themselves.

8 A great variety of mere theories has been substituted for the old unanimity of religious tradition and practical life. 9 It is natural under these circumstances to infer that in philosophy human has overreached the self. 10 You would more profitably busy yourself with affairs that belong to your own sphere, and find a basis for life in your immediate relations with your fellows. 11 The sophists, learned in tradition, and skilled in disputation, but for the most part entirely lacking in originality, are the new prophets. 12 As teachers of rhetoric and morals, they represent the practical and secular spirit of their age; 13 while in their avoidance of speculation, and their critical justification of that course, they express its sceptical philosophy.

SCEPTICISM, DOGMATISM, AND AGNOSTICISM

14 In their self-justification certain of the sophists attached themselves to a definite doctrine maintained by those of their predecessors and contemporaries who were atomists, or followers of that same Leucippus whom we have quoted. 15 This doctrine was the result of an attempt to construe perception in terms of the motion of atoms. 16 Outer objects were said to give off fine particles which, through the mediation of the sense organs, impinged upon the soul-atom. 17 But it was evident even to the early exponents of this theory that according to such an account, each perceiver is relegated to a world peculiar to own stand-point. 18 Your perception informs you concerning your own states as affected by things, rather than concerning the things themselves. 19 Upon this ground the great sophist Protagoras is said to have based his dictum: Πάντων χρημάτων μέτρον ἄνθρωπος,-- "Human is the measure of all things." 20 This is the classic statement of the doctrine of relativity. But we have now entered into the province of epistemology, and various alternatives confront us. 21 Reduce thought to perception, define perception as relative to each individual, and you arrive at scepticism, or the denial of the

possibility of valid knowledge. 22 Plato expounds this consequence in the well-known discussion of Protagoras that occurs in the "Theætetus."

23 "I am charmed with his doctrine, that what appears is to each one, 24 but I wonder that he did not begin his book on Truth with a declaration that a pig or a dog-faced baboon, or some other yet stranger monster which has sensation, is the measure of all things; 25 then he might have shown a magnificent contempt for our opinion of him by informing us at the outset that while we were reverencing him like a God for his wisdom, he was no better than a tadpole, not to speak of his fellow-people-- 26 would not this have produced an overpowering effect? 27 For if truth is only sensation, and no human can discern another's feelings better than you, or has any superior right to determine whether your opinion is true or false, 28 but each, as we have several times repeated, is to the self the sole judge, and everything that you judges is true and right, 29 why, my friend, should Protagoras be preferred to the place of wisdom and instruction, and deserve to be well paid, and we poor ignoramuses have to go to him, if each one is the measure of own wisdom? . . . 30 The attempt to supervise or refute the notions or opinions of others would be a tedious and enormous piece of folly, if to each person one's own are right; 31 and this must be the case if Protagoras's Truth is the real truth, and the philosopher is not merely amusing himself by giving oracles out of the shrine of his book."

32 This is the full swing of the pendulum from dogmatism, or the uncritical conviction of truth. 33 A modified form of scepticism has been developed in these later days under the influence of natural science, and is called 'agnosticism' or 'positivism'. 34 It accepts the Protagorean doctrine only in the sense of attributing to human knowledge as a whole an incapacity for exceeding the range of perception. 35 Beyond this realm of natural science, where theories can be sensibly verified, lies the unknowable realm, more real, but forever inaccessible.

THE SOURCE AND CRITERION OF KNOWLEDGE ACCORDING TO EMPIRICISM AND RATIONALISM. MYSTICISM

36 It is important to note that both scepticism and agnosticism agree in regarding perception as the essential factor in knowledge. 37 So far at any rate as our knowledge is concerned, the certification of being consists in perceivability. 38 Knowledge is coextensive with actual and possible human experience. 39 This account of the source and criterion of knowledge is called empiricism, in distinction from the counter-theory of rationalism.

40 The rationalistic motive was a quickening influence in Greek philosophy long before it became deliberate and conspicuous in Socrates and Plato. 41 Parmenides, founder of the Eleatic School, has left behind him a poem divided into two parts: "The Way of Truth" and "The Way of Opinion." 42 In the first of these he expounds his esoteric philosophy, which is a definition of being established by dialectical reasoning. 43 He finds that being must be single, eternal, and changeless, because otherwise it cannot be thought and defined without contradiction.

44 The method which Parmenides here employs presupposes that knowledge consists in understanding rather than perception. 45 Indeed, he regards the fact that the world of the senses is manifold and mutable as of little consequence to the wise person. 46 The world of sense is the province of vulgar opinion, while that of reason is the absolute truth revealed only to the philosopher. 47 The truth has no concern with appearance, but is answerable only to the test of rationality. 48 That world is real which one is able by thinking to make intelligible. 49 The world is what a world must be in order to be possible at all, and the philosopher can deduce it directly from the very conditions of thought which it must satisfy. 50 You who would know reality may disregard what seems to be, provided you can by reflective analysis discover certain general necessities to which being must conform. This is rationalism in its extreme form.

51 The rationalism of Socrates was more moderate, as it was more fruitful than that of Parmenides. 52 As is well known, Socrates composed no philosophical books, but sought to inculcate wisdom in his teaching and conversation. 53 His method of inculcating wisdom was to evoke it in his interlocutor by making him considerate of the meaning of his speech. 54 Through his own questions he sought to arouse the questioning spirit, which should weigh the import of words, and be satisfied with nothing short of a definite and consistent judgment. 55 In the Platonic dialogues the Socratic method obtains a place in literature. 56 In the "Theætetus," which is, perhaps, the greatest of all epistemological treatises, Socrates is represented as likening his vocation to that of the midwife. 57 "Well, my art of midwifery is in most respects like theirs, but differs in that I attend men, and not women, and I look after their souls when they are in labour, and not after their bodies: 58 and the triumph of my art is in thoroughly examining whether the thought which the mind of the young man brings forth is a false idol or a noble and true birth. 59 And, like the midwives, I am barren, and the reproach which is often made against me, that I ask questions of others and have not the wit to answer them myself, is very just; 60 the reason is that the god compels me to be a midwife, but does not allow me to bring forth. 61 And therefore I am not myself at all wise, nor have I anything to show which is the invention or birth of my own soul, but those who converse with me profit. . . . 62 It is quite clear that they never learned anything from me; the many fine discoveries to which they cling are of their own making."

63 The principle underlying this method is the insistence that a proposition, to be true of reality, must at least bespeak a mind that is true to itself, internally luminous, and free from contradiction. 64 That which is to me nothing that I can express in form that will convey precise meaning and bear analysis, is so far nothing at all. 65 Being is not, as the empiricist would have it, ready at hand, ours for the looking,

but is the fruit of critical reflection. 66 Only reason, overcoming the relativity of perception, and the chaos of popular opinion, can lay hold on the universal truth.

67 A very interesting tendency to clothe the articulations of thought with the immediacy of perception is exhibited in mysticism, 68 which attributes the highest cognitive power to an experience that transcends thought, an ineffable insight that is the occasional reward of thought and virtuous living. 69 This theory would seem to owe its great vigour to the fact that it promises to unite the universality of the rational object with the vivid presence of the empirical object, though it sacrifices the definite content of both. 70 The mystic, empiricist, and rationalist are in these several ways led to revise their metaphysics upon the basis of their epistemology, or to define reality in terms dictated by the means of knowing it.

THE RELATION OF KNOWLEDGE TO ITS OBJECT ACCORDING TO REALISM, AND THE REPRESENTATIVE THEORY

71 But within the general field of epistemology there has arisen another issue of even greater significance in its bearing upon metaphysics. 72 The first issue, as we have seen, has reference to the criterion of knowledge, to the possibility of arriving at certainty about reality, and the choice of means to that end. 73 A second question arises, concerning the relation between the knowledge and its object or that which is known. 74 This problem does not at first appear as an epistemological difficulty, but is due to the emphasis which the moral and religious interests of people give to the conception of the self. 75 My knowing is a part of me, a function of that soul whose welfare and eternal happiness I am seeking to secure. 76 Indeed, my knowing is, so the wise people have always taught, the greatest of my prerogatives. 77 Wisdom appertains to the philosopher, as folly to the fool. 78 But though my knowledge be a

part of me, and in me, the same cannot, lightly at any rate, be said of what I know. 79 It would seem that I must distinguish between the knowledge, which is my act or state, an event in my life, and the known, which is object, and belongs to the context of the outer world.

80 The object of knowledge would then be quite independent of the circumstance that I know it. 81 This theory has acquired the name of realism, and is evidently as close to common sense as any epistemological doctrine can be said to be. 82 If the knowledge consists in some sign or symbol which in my mind stands for the object, but is quite other than the object, realism is given the form known as the representative theory. 83 This theory is due to a radical distinction between the inner world of consciousness and the outer world of things, 84 whereby in knowledge the outer object requires a substitute that is qualified to belong to the inner world. 85 Where, on the other hand, no specific and exclusive nature is attributed to the inner world, realism may flourish without the representative theory. 86 In such a case the object would be regarded as itself capable of entering into any number of individual experiences or of remaining outside them all, and without on either account forfeiting its identity. 87 This view was taken for granted by Plato, but is elabourately defended in our own day. 88 During the intervening period epistemology has been largely occupied with difficulties inherent in the representative theory, 89 and from that discussion there has emerged the theory of idealism, the great rival theory to that of realism.

THE RELATION OF KNOWLEDGE TO ITS OBJECT ACCORDING TO IDEALISM

90 The representative theory contains at least one obvious difficulty. If the thinker be confined to own ideas, and if the reality be at the same time beyond these ideas, how can you ever verify their report? 91 Indeed, what can it mean that an idea should be true of that which belongs to a wholly different category? 92 How

under such circumstances can that which is a part of the idea be attributed with any certainty to the object? 93 Once grant that you know only your ideas, and the object reduces to an unknown ‘x’, which you retain to account for the outward pointing or reference of the ideas, but which is not missed if neglected. 94 The obvious though radical theory of idealism is almost inevitably the next step. Why assume that there is any object other than the state of mind, since all positive content belongs to that realm? 95 The eighteenth century English philosopher, Bishop Berkeley, was accused by his contemporaries of willful eccentricity, and even madness, for his boldness in accepting this argument and drawing this conclusion:

96 "The table I write on I say exists; that is, I see and feel it: and if I were out of my study I should say it existed; 97 meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. 98 There was an odour-- that is, it was smelt; there was a sound-- that is, it was heard; a colour or figure, and it was perceived by sight or touch. 99 This is all that I can understand by these and the like expressions. For as to what is said of the absolute existence of unthinking things, without any relation to their being perceived, that is to me perfectly unintelligible. 100 Their “esse is percipi”; nor is it possible that they should have any existence out of the minds or thinking thing which perceives them."

PHENOMENALISM, SPIRITUALISM, AND PANPSYCHISM

Ralph Barton Perry

11 In this paragraph Berkeley maintains that it is essential to things, or at any rate to their qualities, that they be perceived. 2 This principle when expressed as an epistemological or metaphysical generalisation, is called phenomenalism. 3 But in another phase of his thought Berkeley emphasises the perceiver, or spirit. 4 The theory which maintains that the only real substances are these active selves, with their powers and their states,

has been called somewhat vaguely by the name of spiritualism. 5 Philosophically it shows a strong tendency to develop into either panpsychism or transcendentalism. The former is radically empirical. 6 Its classic representative is the German pessimist Schopenhauer, who defined reality in terms of will because that term signified to him most eloquently the directly felt nature of the self. 7 This immediate revelation of the true inwardness of being serves as the key to an "intuitive interpretation" of the gradations of Nature, and will finally awaken a sense of the presence of the universal Will.

TRANSCENDENTALISM, OR ABSOLUTE IDEALISM

8 Transcendentalism, or absolute idealism, on the other hand, emphasises the rational activity, rather than the bare subjectivity, of the self. 9 The term "transcendental" has become associated with this type of idealism through Kant, 10 whose favorite form of argument, the "transcendental deduction," was an analysis of experience with a view to discovering the categories, or formal principles of thought, implied in its meaning. 11 From the Kantian method arose the conception of a standard or absolute mind for the standard experience. 12 This mind is transcendental not in the sense of being alien, but in the sense of exceeding the human mind in the direction of what this means and strives to be. 13 It is the ideal or normal mind, in which the true reality is contained, with all the chaos of finite experience compounded and redeemed. 14 There is no being but the absolute, the one all-inclusive spiritual life, in whom all things are inherent, and whose perfection is the virtual implication of all purposive activities.

15 "God's life . . . sees the one plan fulfilled through all the manifold lives, the single consciousness winning its purpose by virtue of all the ideas, of all the individual selves, and of all the lives. 16 No finite view is wholly illusory. Every finite intent taken precisely in its wholeness is fulfilled in the Absolute. 17 The least life is not

neglected, the most fleeting act is a recognised part of the world's meaning. 18 You are for the divine view all that you know yourself at this instant to be. But you are also infinitely more. 19 The preciousness of your present purposes to yourself is only a hint of that preciousness which in the end links their meaning to the entire realm of Being."

20 The fruitfulness of the philosopher's reflective doubt concerning own powers is now evident. 21 Problems are raised which are not merely urgent in themselves, but which present wholly new alternatives to the metaphysician. 22 Rationalism and empiricism, realism and idealism, are doctrines which, though springing from the epistemological query concerning the possibility of knowledge, may determine an entire philosophical system. 23 They bear upon every question of metaphysics, whether the fundamental conception of being, or the problems of the world's unity, origin, and significance for human life.

COMMON ERRORS ON THE MIND

Alexander Bain

12 On the prevailing errors on the mind, proposed to be considered in the Panagogue, some relate to the Feelings, others to the Will. 2 In regard to Mind as a whole, there are still to be found among us some remnants of a mistake, once universally prevalent and deeply rooted, 3 namely, the opinion that mind is not only a different fact from body-- which is true, and a vital and fundamental truth-- but is to a greater or less extent independent of the body. 4 In former times, the remark seldom occurred to any one, unless obtruded by some extreme instance, that to work the mind is also to work a number of bodily organs; 5 that not a feeling can arise, not a thought can pass, without a set of concurring bodily processes. 6 At the present day, however, this doctrine is very generally preached by people of science. 7 The improved treatment of the insane has been one consequence of its reception. 8 The husbanding of mental power,

through a bodily régime, is a no less important application.

9 Instead of supposing that mind is something indefinite, elastic, inexhaustible,-- a sort of perpetual motion, or magician's bottle, all expenditure, and no supply,-- 10 we now find that every single throb of pleasure, every smart of pain, every purpose, thought, argument, imagination, must have its fixed quota of oxygen, carbon, and other materials, combined and transformed in certain physical organs. 11 And, as the possible extent of physical transformation in each person's framework is limited in amount, the forces resulting cannot be directed to one purpose without being lost for other purposes. 12 If an extra share passes to the muscles, there is less for the nerves; if the cerebral functions are pushed to excess, other functions have to be correspondingly abated. 13 In several of the prevailing opinions about to be criticised, failure to recognise this cardinal truth is the prime source of mistake.

TO BEGIN WITH THE FEELINGS

14 We shall first consider an advice or prescription repeatedly put forth, not merely by the unthinking mass, but by people of high repute: 15 it is, that with a view to happiness, to virtue, and to the accomplishment of great designs, we should all be cheerful, light-hearted, gay.

16 I quote a passage from the writings of one of the Apostolic Fathers, the Pastor of Hermas, as given in Dr. Donaldson's abstract:-- 17 "Command tenth affirms that sadness is the sister of doubt, mistrust, and wrath; that it is worse than all other spirits, and grieves the Holy Spirit. 18 It is therefore to be completely driven away, and, instead of it, we are to put on cheerfulness, which is pleasing to God. 19 'Every cheerful person works well, and always thinks those things which are good, and despises sadness. The sad person, on the other hand, is always bad.'"

FALLACY OF PRESCRIBING CHEERFULNESS

20 Dugald Stewart inculcates Good-humour as a means of happiness and virtue; his language implying that the quality is one within our power to appropriate. 21 In Mr. Smiles's work entitled "Self-Help," we find an analogous strain of remarks:-- "To wait patiently, however, human must work cheerfully. 22 Cheerfulness is an excellent working quality, imparting great elasticity to the character. 23 As a Bishop has said, 'Temper is nine-tenths of Christianity,' so are cheerfulness and diligence [a considerable make-weight] nine-tenths of practical wisdom."

24 Sir Arthur Helps, in those essays of his, combining profound observation with strong genial sympathies and the highest charms of style, repeatedly adverts to the dulness, the want of sunny light-hearted enjoyment of the English temperament, 25 and, on one occasion, piquantly quotes the remark of Froissart on our Saxon progenitors: "They took their pleasures sadly, as was their fashion; _ils se divertirent moult tristement à la mode de leur pays"

26 There is no dispute as to the value or the desirableness of this accomplishment. 27 Hume, in his "Life," says of himself, "he was ever disposed to see the favourable more than the unfavourable side of things; 28 a turn of mind which it is more happy to possess than to be born to an estate of ten thousand a year". 29 This sanguine, happy temper, is merely another form of the cheerfulness recommended to general adoption.

30 I contend, nevertheless, that to bid a human be habitually cheerful, you not being so already, is like bidding you treble your fortune, or add a cubit to your stature. 31 The quality of a cheerful, buoyant temperament partly belongs to the original cast of the constitution-- 32 like the bone, the muscle, the power of memory, the aptitude for science or for music; and is partly the outcome of the whole manner of life. 33 In order to sustain the quality, the physical-- as the support of the mental --forces of the system must run largely in one particular channel; 34 and, of

course, as the same forces are not available elsewhere, so notable a feature of strength will be accompanied with counterpart weaknesses or deficiencies. 35 Let us briefly review the facts bearing upon the point.

36 The first presumption in favour of the position is grounded in the concomitance of the cheerful temperament with youth, health, abundant nourishment. 37 It appears conspicuously along with whatever promotes physical vigour. 38 The state is partially attained during holidays, in salubrious climates, and health-bringing avocations; it is lost, in the midst of toils, in privation of comforts, and in physical prostration. 39 The seeming exception of elated spirits in bodily decay, in fasting, and in ascetic practices, is no disproof of the general principle, but merely the introduction of another principle, 40 namely, that we can feed one part of the system at the expense of degrading and prematurely wasting others.

LIGHT-HEARTEDNESS NOT IN OUR OWN POWER

41 A second presumption is furnished also from our familiar experience. The high-pitched, hilarious temperament and disposition commonly appear in company with some well-marked characteristics of corporeal vigour. 42 Such persons are usually of a robust mould; often large and full in person, vigorous in circulation and in digestion; able for fatigue, endurance, and exhausting pleasures. 43 An eminent example of this constitution was seen in Charles James Fox, whose sociability, cheerfulness, gaiety, and power of dissipation were the marvel of his age. 44 Another example might be quoted in the admirable physical frame of Lord Palmerston. 45 It is no more possible for an ordinarily constituted person to emulate the flow and the animation of these men, than it is to digest with another person's stomach, or to perform the twelve labours of Hercules.

46 A third fact, less on the surface, but no less certain, is, that the

people of cheerful and buoyant temperament, as a rule, sit easy to the cares and obligations of life. 47 They are not much given to care and anxiety as regards their own affairs, and it is not to be expected that they should be more anxious about other people's. 48 In point of fact, this is the constitution of somewhat easy virtue: it is not distinguished by a severe, rigid attention to the obligations and the punctualities of life. 49 We should not be justified in calling such persons selfish; still less should we call them cold hearted: 50 their exuberance overflows upon others in the form of heartiness, geniality, joviality, and even lavish generosity. 51 Still, they can seldom be got to look far before them; they do not often assume the painfully circumspect attitude required in the more arduous enterprises. 52 They are not conscientious in trifles. They cast off readily the burdensome parts of life. All which is in keeping with our principle. 53 To take on burdens and cares is to draw upon the vital forces-- to leave so much the less to cheerfulness and buoyant spirits. 54 The same corporeal framework cannot afford a lavish expenditure in several different ways at one time. 55 Fox had no long-sightedness, no tendency to forecast evils, or to burden himself with possible misfortunes. 56 It is very doubtful if Palmerston could have borne the part of Wellington in the Peninsula; his easy-going temperament would not have submitted itself to all the anxieties and precautions of that vast enterprise. 57 But Palmerston was hale and buoyant, and the Prime Minister of England at eighty: Wellington began to be infirm at sixty.

LIMITATIONS OF THE MENTAL FORCES

58 To these three experimental proofs we may add the confirmation derived from the grand doctrine named the Correlation, Conservation, Persistence, or Limitation of Force, as applied to the human body and the human mind. 59 We cannot create force anywhere; we merely appropriate existing force.

60 The heat of our fires has been derived from the solar fire. We cannot lift a weight in the hand without the combustion of a certain amount of food; 61 we cannot think a thought without a similar demand; and the force that goes in one way is unavailable in any other way. 62 While we are expending ourselves largely in any single function-- in muscular exercise, in digestion, in thought and feeling, the remaining functions must continue for the time in comparative abeyance. 63 Now, the maintenance of a high strain of elated feeling, unquestionably costs a great deal to the forces of the system. All the facts confirm this high estimate. 64 An unusually copious supply of arterial blood to the brain is an indispensable requisite, even although other organs should be partially starved, and consequently be left in a weak condition, or else deteriorate before their time.

65 To support the excessive demand of power for one object, less must be exacted from other functions. 66 Hard bodily labour and severe mental application sap the very foundations of buoyancy; they may not entail much positive suffering, but they are scarcely compatible with exuberant spirits. 67 There may be exceptional individuals whose total of power is a very large figure, who can bear more work, endure more privation, and yet display more buoyancy, without shortened life, than the average human being. 68 Hardly any person can attain commanding greatness without being constituted larger than own fellows in the sum of human vitality. 69 But until this is proved to be the fact in any given instance, we are safe in presuming that extraordinary endowment in one thing implies deficiency in other things. 70 More especially must we conclude, provisionally at least, that a buoyant, hopeful, elated temperament lacks some other virtues, aptitudes, or powers, such as are seen flourishing in the people whose temperament is sombre, inclining to despondency. 71 Most commonly the contradictory demand is reconciled by the proverbial "short life and merry".

72 Adverting now to the object that Helps had so earnestly at heart--

namely, to rouse and rescue the English population from their comparative dulness to a more lively and cheerful flow of existenc-- 73 let us reflect how, upon the foregoing principles, this is to be done. Not certainly by an eloquent appeal to the nation to get up and be amused. The process will turn out to be a more circuitous one.

74 The mental conformation of the English people, which we may admit to be less lively and less easily amused than the temperament of Irishmen, Frenchmen, Spaniards, Italians, or even the German branch of our own Teutonic race, 75 is what it is from natural causes, whether remote descent, or that coupled with the operation of climate and other local peculiarities. 76 How long would it take, and what would be the way to establish in us a second nature on the point of cheerfulness?

77 Again, with the national temperament such as it is, there may be great individual differences; 78 and it may be possible by force of circumstances, to improve the hilarity and the buoyancy of any given person. 79 Many of our country people are as joyous themselves, and as much the cause of joy in others, as the most light-hearted Irishman, or the gayest Frenchman or Italian. 80 How shall we increase the number of such, so as to make them the rule rather than the exception?

SOLE MEANS OF ATTAINING CHEERFULLNESS

81 The only answer not at variance with the laws of the human constitution is-- Increase the supports and diminish the burdens of life. 82 For example, if by any means you can raise the standard of health and longevity, you will at once effect a stride in the direction sought. 83 But what an undertaking is this! It is not merely setting up what we call sanitary arrangements, to which, in our crowded populations, there must soon be a limit reached-- 84 for how can you secure to the mass of people even the one condition of sufficient breathing-space?,-- 85 it is that health cannot be attained, in

any high general standard, without worldly means far above the average at the disposal of the existing population; 86 while the most abundant resources are often neutralised by ineradicable hereditary taint. 87 To which it is to be added, that humankind can hardly as yet be said to be in earnest in the matter of health.

88 Farther: it is especially necessary to cheerfulness, that a human should not be overworked, as many of us are, whether from choice or from necessity. 89 Much, I believe, turns upon this circumstance. Severe toil consumes the forces of the constitution, without leaving the remainder requisite for hilarity of tone. 90 The Irishman fed upon three meals of potatoes a day, the lazy Highlander, the Lazaroni of Naples living upon sixpence a week, are very poorly supported; 91 but then their vitality is so little drawn upon by work, that they may exceed in buoyancy of spirits the well-fed but hard-worked labourer. 92 We, the English people, would not change places with them, notwithstanding: our ideal is industry with abundance; but then our industry sobers our temperament, and inclines us to the dulness that Helps regrets. 93 Possibly, we may one day hit a happier mean; but to the human mind extremes have generally been found easiest.

94 Once more: the light-hearted races trouble themselves little about their political constitution, about despotism or liberty; 95 they enjoy the passing moments of a despot's smiles, and if you turns round and crushes them, they quietly submit. 96 We live in dread of tyranny. Our liberty is a serious object; it weighs upon our minds. 97 Now any weight upon the mind is so much taken from our happiness; hilarity may attend on poverty, but not so well on a serious, forecasting disposition. 98 Our regard to the future makes us both personally industrious and politically anxious; a temper not to be amused with the relaxations of the Parisian in own café on the boulevards, or with the Sunday merry-go-round of the light-hearted Dane. 99 Our very pleasures have still a sadness in them.

100 Then, again, what are to be our amusements? By what recreative stimulants shall we irradiate the gloom of our idle hours and vacation periods? 101 Doubtless there have been many amusements invented by the benefactors of our species-- society, games, music, public entertainments, books; 102 and in a well-chosen round of these, many contrive to pass their time in a tolerable flow of satisfaction. 103 But they all cost something; they all cost money, either directly, to procure them, or indirectly, to be educated for them. 104 There are few very cheap pleasures. Books are not so difficult to obtain, but the enjoying of them in any high degree implies an amount of cultivation that cannot be had cheaply.

105 Moreover, look at the difficulties that beset the pursuit of amusements. How fatiguing are they very often! How hard to distribute the time and the strength between them and our work or our duties! 106 It needs some art to steer one's way in the midst of variety of pleasures. 107 Hence there will always be, in a cautious-minded people, a disposition to remain satisfied with few and safe delights; 108 to assume a sobriety of aims that Helps might call dullness, but that many of us call the middle path.

FALLACY OF PRESCRIBING TASTES

109 A second error against the limits of the human powers is the prescribing to persons indiscriminately, certain tastes, pursuits, and subjects of interest, 110 on the ground that what is a spring of enjoyment to one or a few may be taken up, as a matter of course, by others with the same relish. 111 It is, indeed, a part of happiness to have some taste, occupation, or pursuit, adequate to charm and engross us-- a ruling passion, a favourite study. 112 Accordingly, the victims of dullness and ‘ennui’ are often advised to betake themselves to something of this potent character. 113 Kingsley, in his little book on the "Wonders of the Shore," endeavoured to convert humankind at large into marine naturalists; 114 and, some time ago, there appeared in the

newspapers a letter from Carlyle, regretting that he himself had not been indoctrinated into the zoology of our waysides. 115 I have heard a man out of health, hypochondriac, and idle, recommended to begin botany, geology, or chemistry, as a diversion of his misery. 116 The idea is plausible and superficial. An overpowering taste for any subject--botany, zoology, antiquities, music-- is properly affirmed to be born with a human.

117 The forces of the brain must from the first incline largely to that one species of impressions, to which must be added years of engrossing pursuit. 118 We may gaze with envy at the fervour of a botanist over own dried plants, and may wish to take up so fascinating a pursuit: 119 we may just as easily wish to be Archimedes when he leaped out of the bath; a person cannot re-cast own brain nor re-live own life. 120 A taste of a high order, founded on natural endowment, formed by education, and strengthened by active devotion, is also paid for by the atrophy of other tastes, pursuits, and powers. 121 Carlyle might have contracted an interest in frogs, and spiders, and bees, and the other denizens of the wayside, 122 but it would have been with the surrender of some other interest, the diversion of his genius out of its present channels.

123 The strong emotions of the mind are not to be turned off and on, to this subject and to that. 124 If you begin early with a human being, you may impress a particular direction upon the feelings, you may even cross a natural tendency, and work up a taste on a small basis of predisposition. 125 Place any youth in the midst of artists, and you may induce a taste for art that shall at length be decided and strong. 126 But if you were to take the same person in middle life and immured in a labouratory, that one might become an enthusiastic chemist, the limits of human nature would probably forbid your success.

127 Such very strong tastes as impart a high and perennial zest to one's life are merely the special direction of a natural exuberance of feeling or emotion. 128 A spare and thin emotional temperament

will undoubtedly have preferences, likings and dislikings, but it can never supply the material for fervour or enthusiasm in anything.

129 The early determining of natural tastes is a subject of high practical interest. We shall only remark at present that a varied and broad groundwork of early education is the best known device for this end.

RELATION OF FEELINGS TO IMAGINATION

130 A third error, deserving of brief comment, is a singular inversion of the relationship of the Feelings to the Imagination. 131 It is frequently affirmed, both in criticism and in philosophy, that the Feelings depend upon, or have their basis in, the Imagination.

132 An able and polished writer, discussing the character of Edmund Burke, remarks: "The passions of Burke were strong; this is attributable in great measure to the intensity of the imaginative faculty". 133 Again, Dugald Stewart, observing upon the influence of the Imagination on Happiness, says: "All that part of our happiness or misery which arises from our hopes or our fears derives its existence entirely from the power of imagination". 134 He even goes the length of affirming that "cowardice is entirely a disease of the imagination". 135 Another writer accounts for the intensity of the amatory sentiments in Robert Burns by the strength of his imagination.

IMAGINATION GROUNDED IN FEELING

136 Now, I venture to affirm that this view very nearly reverses the fact. The Imagination is determined by the Feelings, and not the Feelings by the Imagination. 137 Intensity of feeling, emotion, or passion, is the earlier fact: the intellect swayed and controlled by feeling, shaping forms to correspond with an existing emotional tone, is Imagination. 138 It was not the imaginative faculty that gave Wordsworth, Byron, Shelley, and the poets generally, their great enjoyment of Nature; 139 but the love of Nature, pre-existing,

turned the attention and the thoughts upon Nature, filling the mind as a consequence with the impressions, images, recollections of Nature; out of which grew the poetic imaginings.

140 Imagination is a compound of intellectual power and feeling. 141 The intellectual power may be great, but if it is not accompanied with feeling, it will not minister to feeling; or it will minister to many feelings by turns, and to none in particular. 142 As far as the intellectual power of a poet goes, few people have excelled Bacon. 143 He had a mind stored with imagery, able to produce various and vivid illustrations of whatever thought came before him; 144 but these illustrations touched no deep feeling; they were fresh, original, racy, fanciful, picturesque, a play of the head that never touched the heart. 145 The man was by nature cold; he had not the emotional depth or compass of an average Englishman. 146 Perhaps his strongest feeling of an enlarged or generous description was for human progress, but it did not rise to passion; there was no fervour, no fury in it.

147 Compare him with Shelley on the same subject, and you will see the difference between meagreness and intensity of feeling. 148 What intellect can be, without strong feeling, we have in Bacon; what intellect is, with strong feeling, we have in Shelley. 149 The feeling gives the tone to the thoughts; sets the intellect at work to find language having its own intensity, to pile up lofty and impressive circumstances; 150 and then we have the poet, the orator, the thoughts that breathe, and the words that burn. 151 Bacon wrote on many impressive themes-- on Truth, on Love, on Religion, on Death, and on the Virtues in detail; he was always original, illustrative, fanciful; 152 if intellectual means and resources could make a person feel in these things, he would have felt deeply; yet he never did. 153 The material of feeling is not contained in the intellect; it has a seat and a source apart. 154 There was nothing in mere intellectual gifts to make Byron a misanthrope: 155 but, given that state of the feelings, the intellect would be detained and engrossed by it; would minister to,

expand, and illustrate it; and intellect so employed is Imagination.

156 Burke had indisputably a powerful imagination. He had both elements:-- the intellectual power, or the richly stored and highly productive mind; and the emotional power, or the strength of passion that gives the lead to intellect. 157 His intellectual strength was often put forth in the Baconian manner of illustration, in light and sportive fancies. 158 There were many occasions where his feelings were not much roused. 159 He had topics to urge, views to express, and he poured out arguments, and enlivened them with illustrations. 160 He was, on those occasions, an able expounder, and no more. 161 But when his passions were stirred to the depths by the French Revolution, his intellectual power, taking a new flight, supplied him with figures of extraordinary intensity; 162 it was no longer the play of a cool man, but the thunders of an aroused man; we have then "the hoofs of the swinish multitude,"-- "the ten thousand swords leaping from their scabbards". 163 Such feelings were not produced by the speaker's imagination: they were produced by themselves; 164 they had their independent source in the region of feeling: coupled with adequate powers of intellect, they burst out into strong imagery.

165 The Orientals, as a rule, are distinguished for imaginative flights. This is apparent in their religion, their morality, their poetry, and their science. 166 The explanation is to be sought in the strength of their feelings, coupled with a certain intellectual force. The same intellect, without the feelings, would have issued differently. The Chinese are the exception. 167 They want the feelings, and they want the imagination. They are below Europeans in this respect. 168 When we bring before them our own imaginative themes, our own cast of religion, accommodated as it is to our own peculiar temperament, we fail in the desired effect. 169 Our august mysteries are responded to, not with reverential regard, but with, cold analysis.

170 The Celt and the Saxon are often contrasted on the point of imagination; the prior fact is the comparative endowment for emotion.

HOW HAPPINESS SHOULD BE AIMED AT

171 There is a fallacious mode of presenting the attainment of happiness; namely, that happiness is best secured by not being aimed at. We should be aiming always at something else. 172 When examined closely, the doctrine resolves itself into a kind of paradox. All sorts of puzzles come up when we attempt to follow it to its consequences.

173 We might ask, first, whether there is any other object of pursuit in the same predicament-- wealth, health, knowledge, fame, power. 174 These are, every one, a means or instrument of happiness, if not happiness itself. Must we, then, in the case of each, avoid aiming straight at the goal? Must we look askance in some other direction?

175 Next, in the case of happiness proper, are we to aim at nothing at all, to drift at random; or may we aim at a definite object, provided it is not happiness; or, lastly, is there one side aim in particular that we must take? 176 The answer here would probably be-- Aim at duty in general, and at the good of others in particular. 177 These ends are not the same as happiness, yet by keeping them steadily in the view, and not thinking of self at all, we shall eventually realise our greatest happiness.

178 Without, at present, raising any question as to the fact alleged, we must again remark that the prescription seems to contradict itself. 179 Moralists of the austere type will never allow us to pursue happiness at all; we must never mention the thing to ourselves: duty or virtue is the one single aim and end of being. 180 Such teachers may be right or they may be wrong, but they do not contradict themselves. 181 When, however, we are told that by aiming at virtue, we are on the best possible road to happiness, this is but another way of letting us into the secret of happiness, of putting us on the right, instead of on the wrong track to attain it. 182 Our

teacher assumes that we are in search of happiness, and they tells us how we are to proceed; not by keeping it straight in the view, but by keeping virtue straight in the view. 183 Instead of pointing us to the vulgar happiness-seeker who would take the goal in a line, they corrects the course, and shows us the deviation that is necessary in order to arrive at it; 184 like the sailor making allowance for the deviation of the magnetic pole, in steering. 185 Happiness is not gained by a point-blank aim; we must take a boomerang flight in some other line, and come back upon the target by an oblique or reflected movement. 186 It is the idea of Young on the Love of Praise (Satire I., 5.)--

> The love of Praise howe'er
> concealed by art,
> Reigns more or less and glows in
> every heart,
> The proud to gain it, toils on toils
> endure,
> The modest shun it but to make it
> sure.

187 Under this corrected method, we are happiness seekers all the same; only our aims are better directed, and our fruition more assured.

188 These remarks are intended to show that the doctrine of making people aim at virtue, in order to happiness, has no further effect than to teach us to include the interests of others with our own; 189 by showing that our own interests do not thereby suffer, but the contrary. 190 The doctrine does not substitute a virtuous motive for a selfish one; it is a refined artifice for squaring the two. 191 The world is no doubt a gainer by the change of view, although the individual is not made really more meritorious.

192 We must next consider whether, in fact, the oblique aim at happiness is really the most effectual. 193 A few words, first, as to the original source of the doctrine of a devious course. 194 Bishop Butler is renowned for his distinction between Self-Love and Appetite; he contends that in Appetite the object of pursuit is not the pleasure of eating, but the food: 195 consequently, eating is not properly a self-seeking act, it is an indifferent or disinterested act, to which there is an incidental

accompaniment of pleasure. 196 We should, under the stimulus of Hunger, seek the food, whether it gave us pleasure or not.

197 Now, any truth that there is in Butler's view amounts to this:-- In our Appetites we are not thinking every instant of subduing pain and attaining pleasure; we are ultimately moved by these feelings; 198 but, having once seen that the medium of their gratification is a certain material object (food), we direct our whole aim to procuring that. 199 The hungry wolf ceases to think of own pains of hunger when it is in sight of a sheep; 200 but for these pains it would have paid no heed to the sheep; yet when the sheep has to be caught, the hunger is submerged for the time; 201 the only relevant course, even on its account, is to give the whole mind and body to the chase of the sheep. 202 Butler calls this indifferent or disinterested pursuit; and as much as says, that the wolf is not self-seeking, but sheep-seeking, in its chase. 203 Now, it is quite true that if the wolf could give no place in its mind for anything but its hungry pains, it would be in a bad way. 204 It is wiser than that; it knows the remedy; it is prepared to dismiss the pains from its thoughts, in favour of a concentrated attention upon the distant flock. 205 This proves nothing as to its unselfishness; nor does it prove that Appetite is a different thing from self-seeking or self-love.

APPETITE DECLARED UNSELFISH

206 There may be disinterested motives in our constitution; but Appetite is not in any sense one of these. 207 We may have instincts answering to the traditional phrase used in defining instinct, "a blind propensity" to act, without aiming at anything in particular, and without any expectation of pleasure or benefit. 208 Such instincts would conform to Butler's notion of appetite: they would be entirely out of the course of self-love or self-seeking of any sort. 209 Whether the nest-building activity of birds, and the constructiveness of ants, bees, and beavers, comply with this

condition, I do not undertake to say. 210 There is one process better known to ourselves, not exactly an instinct, but probably a mixture of instinct and acquirement-- I mean the process of Imitation-- which works very much upon this model. 211 Although coming under the control of the Will, yet in its own proper character it operates blindly, or without purpose; neither courting pleasure, nor chasing pain. 212 In like manner, Sympathy, in its most characteristic form, proceeds without any distinct aim of pleasure to ourselves.

213 Nothing of this can be affirmed of the Appetites. In them, Nature places us, as Bentham says, under the government of two sovereign masters, pain and pleasure. 214 An appetite would cease to move us, if its painful and pleasurable accompaniments were done away with. 215 It matters not that we remit our attention, at times, to the pain or the pleasure; these are always in the background; and the strength of the appetite is their strength.

216 So far as concerns Butler's example of the Appetites, there is no case for the view that to obtain happiness we must avoid aiming at it directly. 217 If we do not aim at the pleasure in its own subjective character, we aim at the thing that immediately brings the pleasure; which is, for all practical purposes, to aim at the pleasure.

218 The prescription to look away from the final end, Happiness, in order to secure that end, may be tested on the example of one of our intermediate pursuits, as Health. 219 It is not a good thing to be always dwelling on the state of our health: by doing so, we get into a morbid condition of self-consciousness, which is in itself pernicious. 220 It does not follow that we are to live at random, without ever giving a thought to our health. There is a plain middle course. 221 Guided by our own experience, and by the experience of those that have gone before us, we arrange our plan of life so as to preserve health; and our actions consist in adhering to that plan in the detail. 222 So long as our scheme answers expectation, we think of nothing but of putting it in force, as occasion arises; we do not dwell upon our states of good

health at all. 223 It is some interruption that makes us self-conscious; and then it is that we have to exercise ourselves about a remedial course. 224 This, when found, is likewise objectively pursued; our only subjectiveness lies in being aware of gradual recovery; and we are glad to get back to the state of paying no attention to the workings of our viscera. 225 We do not, therefore, remit our pursuit; only, it is enough to observe the routine of outward actions, whose sole motive is to keep us in health.

226 The pursuit of the still wider end, Happiness, has much in common with the narrower pursuit. 227 When we have discovered what things promote, and what things impede our happiness, we transfer our attention to these, as the most direct mode of compassing the end. 228 If we are satisfied that working for other people brings us happiness, we work accordingly; this is no side aim, it is as direct as any aim can be. 229 It may involve immediate sacrifice, but that does not alter the case; we can get no considerable happiness from any source without temporary sacrifice.

HAPPINESS AND VIRTUE DISTINCT AIMS

230 If it be said that the best mode of attaining happiness is to put ourselves entirely out of account, and to work for others exclusively, this, as already noted, is a self-contradiction. 231 It is to tell people not to think of their own happiness, and yet to know that they are securing that in the most effectual way. It is also very questionable, indeed absolutely erroneous, in fact. 232 The most apparent way to secure happiness is to ply all the known means of happiness, just as far as, and no farther than, they are discovered to produce the effect. 233 We must keep a check upon the methods that we employ, and abandon those that do not answer. 234 So long as we find happiness in serving others, so long we continue in that course. 235 And it is a melancholy fact that Pope's bold assertion-- "Virtue alone is happiness below," --cannot be

upheld against the stern realities of life. 236 Life needs to be made up of two aims-- the one, Happiness, the other Virtue, each on its own account. 237 There is a certain mutual connection of the two, but all attempts at making out their identity are failures.

238 It is of very great importance to teach people the bearings of virtue on happiness, so far as these are known. 239 There will, however, always remain a portion of duty that detracts from happiness, and must be done as duty, nevertheless. 240 People are entitled to pursue happiness as directly as ever they please; only, they must couple with the pursuit their round of duties to others; in which they may or may not reap a share of the coveted good for self.

241 Let us, next, consider some of the difficulties and mistakes attaching to the WILL. Here there are the questions of world-renown, questions known even in Pandemonium-- Free-will, Responsibility, Moral Ability, and Inability. 242 It is now suspected, on good grounds, that, on these questions, we have somehow got into a wrong groove-- that we are lost in a maze of our own constructing.

A STRONG WILL
THE GIFT OF NATURE

243 We shall first notice a misconception akin to some of the foregoing mistakes respecting the feelings. 244 In addressing people with a view to spur their activity, there is usually a too low estimate of what is implied in great and energetic efforts of will. 245 Here, exactly as in the cheerful temperament, we find a certain constitutional endowment, a certain natural force of character, having its physical supports of brain, muscle, and other tissue; 246 and neither persuasion, nor even education, can go very far to alter that character. 247 If there be anything at all in the observations of phrenology, it is the connection of energetic determination with size of brain. 248 Lay your hand first on the head of an energetic person, and then on the head of a feeble person, and you will find a difference that is not to be explained away. 249 Now it passes all the powers of persuasion and

education combined to make up for a great cranial inequality. 250 Something always comes of assiduous discipline; but to set up a King Alfred, or a Luther, as a model to be imitated by an ordinary person, on the points of energy, perseverance, endurance, courage, is to pass the bounds of the human constitution. 251 Persistent energy of a high order, like the temperament for happiness, costs a great deal to the human system. 252 A large share of the total forces of the constitution go to support it; and the diversion of power often leaves great defects in other parts of the character, as for example, a low order of the sensibilities, and a narrow range of sympathies. 253 The people of extraordinary vigour and activity-- our Roman emperors and conquering heroes-- are often brutal and coarse. 254 Nature does not supply power profusely on all sides; and delicate sympathies, of themselves, use up a very large fraction of the forces of the organisation. 255 Even intellectually estimated, the power of sympathising with many various minds and conditions would occupy as much room in the brain as a language, or an accomplishment. 256 A person both energetic and sympathetic-- a Pericles, a King Alfred, an Oliver Cromwell-- is one of Nature's giants, several people in one.

257 There is no more notable phase of our active nature than Courage. 258 Great energy generally implies great courage, and courage-- at least in nine-tenths of its amount-- comes by Nature. 259 To exhort any one to be courageous is waste of words. We may animate, for the time, a naturally timid person, by explaining away the signs of danger, and by assuming a confident attitude ourselves; 260 but the absolute force of courage is what neither we nor the person can add to. 261 A long and careful education might effect a slight increase in this, as in other aspects of energy of character: 262 we can hardly say how much, because it is a matter that is scarcely ever subjected to the trial; the very conditions of the experiment have not been thought of.

263 The moral qualities expressed by Prudence, Forethought, Circumspection, are talked of with

a like insufficient estimate of what they cost. 264 Great are the rewards of prudence, but great also is the expenditure of the prudent person. 265 To retain an abiding sense of all the possible evils, risks and contingencies of an ordinary person's position-- professional, family, and personal-- is to go about under a constant burden; 266 the difference between a thorough-going and an easy-going circumspection is a large additional demand upon the forces of the brain. 267 The being on the alert to duck the head at every bullet is a charge to the vital powers; so much so, that there comes a point when it is better to run risks than to pile up costly precautions and bear worrying anxieties.

268 Lastly, the attribute of our active nature called Belief, Confidence, Conviction, is subject to the same line of remark. 269 This great quality-- the opposite of distrust and timidity, the ally of courage, the adjunct of a buoyant temperament-- is not fed upon airy nothings. 270 It is, indeed, a true mental quality, an offshoot of our mental nature; yet, although not material, it is based upon certain forces of the physical constitution; it grows when these grow, and is nourished when they are nourished. 271 People possessed of great confidence have it as a gift all through life, like a broad chest or a good digestion. 272 Preaching and education have their fractional efficacy, and deserve to be plied, provided the operator is aware of Nature's impassable barriers, and does not suppose that you are working by charm. 273 It is said of Hannibal that he dissolved obstructions in the Alps by vinegar; in the moral world, barriers are not to be removed either by acetic acid or by honey.

PREJUDICES DUE TO PERSONAL DIGNITY

274 The question of Free-will might be a text for discoursing on some of the most inveterate erroneous tendencies of the mind. 275 For one thing, it gives occasion to remark on the influence exerted over our opinions by the feeling of Personal Dignity. 276 Of sources of bias, prejudices, "Idola,"

"fallacies a-priori" this may be allowed precedence. 277 For example, the maxim has been enunciated by some philosophers, that, of two differing opinions, preference is to be given-- not to what is true, but-- to what ennobles and dignifies human nature. 278 One of the objections seriously entertained against Darwin's theory is that it humbles our ancestral pride. 279 So, to ascribe to our mental powers a material foundation is held to be degrading to our nobler part. 280 Again, a philosopher of our own day-- Sir W. Hamilton-- has placed on the title-page of his principal work this piece of rhetoric: "On earth, there is nothing great but human; in human, there is nothing great but mind". 281 Now one would suppose that there are on earth many things besides human deserving the appellation of "great"; 282 and that the mechanism of the body is, in any view, quite as remarkable a piece of work as the mechanism of the mind. 283 There was one step more that Hamilton, as an Aristotelian, should have made: "In mind, there is nothing great but intellect". 284 Doubtless, we ought not to dissect an epigram; but epigrams brought into a perverting contact with science are not harmless. 285 Such gross pandering to human vanity must be held as disfiguring a work on philosophy.

286 The sentiment of dignity has much to answer for in the doctrine of Free-will. 287 In Aristotle, the question had not assumed its modern perplexity; but the vicious element of factitious personal importance had already peeped out, 288 it being one of the few points wherein the bias of the feelings operated decidedly in his well-balanced mind. 289 In maintaining the doctrine that vice is voluntary, he argues, that if virtue is voluntary, vice-- its opposite-- must also be voluntary; 290 now to assert virtue not to be voluntary would be to cast an indignity upon it. 291 This is the earliest association of the feeling of personal dignity with the exercise of the human will.

FALSE PRIDE IN CONNECTION WITH FREE-WILL

292 The Stoics are commonly said to have started the free-will difficulty. This needs an explanation. 293 A leading tenet of theirs was the distinction between things in our power and things not in our power; and they greatly overstrained the limits of what is in our power. 294 Looking at the sentiment about death, where the idea is everything, and at many of our desires and aversions, also purely sentimental, that is, made and unmade by our education-- as, for example, pride of birth--, 295 they considered that pains in general, even physical pains and grief for the loss of friends, could be got over by a mental discipline, by intellectually holding them not to be pains. 296 They extolled and magnified the power of the will that could command such a transcendent discipline, and infused an emotion of pride into the consciousness of this greatness of will. 297 In subsequent ages, poets, moralists, and theologians followed up the theme; and the appeal to the pride of will may be said to be a standing engine of moral suasion. 298 This originating of a point of honour or dignity in connection with our Will has been the main lure in bringing us into the jungle of Free-will and Necessity.

299 It is in the Alexandrian school that we find the next move in the question. In Philo Judaeus, the good person is spoken of as free, the wicked person as a slave. 300 Except as the medium of a compliment to virtue, the word "freedom" is not very apposite, seeing that, to the highest goodness, there attaches submission or restraint, rather than liberty.

301 The early Christian Fathers-- notably Augustine-- advanced the question to the Theological stage, by connecting it with the great doctrines of Original Sin and Predestination; 302 in which stage it shared all the speculative difficulties attaching to these doctrines. 303 The Theological world, however, has always been divided between Free-will and Necessity; and probably the weightiest names are to be found among the Necessitarians. 304 No person ever brought greater

acumen into theological controversy than did Jonathan Edwards; and he took the side of Necessity.

305 Latterly, however, since the question has become one of pure metaphysics, Free-will has been the favourite dogma, as being most consonant to the dignity of human, which appears to be its chief recommendation, and its only argument. 306 The weight of reasoning is, I believe, in favour of necessity; but the word carries with it a seeming affront, and hardly any amount of argument will reconcile people to indignity.

307 Another weakness of the human mind receives illustration from the free-will controversy, and deserves to be noticed, as helping to account for the prolonged existence of the dispute: 308 I mean the disposition to regard any departure from the accustomed rendering of a fact as denying the fact itself. 309 The rose under another name is not merely less sweet, it is not a rose at all. Some of the greatest questions have suffered by this weakness.

ANALYSIS DOES NOT DESTROY THE FACT

310 The physical theory of matter that resolves it into points of force will seem to many as doing away with matter no less effectually than the Berkeleyan Idealism. 311 A universe of inane mathematical points, attracting and repelling each other, must appear to the ordinary mind a sorry substitute for the firm-set earth, and the majestically-fretted vault of heaven, with its planets, stars, and galaxies. 312 It takes a special education to reconcile any one to this theory. 313 Even if it were everything that a scientific hypothesis should be, the previously established modes of speech would be a permanent obstruction to its being received as the popular doctrine.

314 But the best illustrations occur in the Ethical and Metaphysical departments. For example, some ethical theorists endeavour to show that Conscience is not a primitive and distinct power of the mind, 315 like the sense of colour, or the feeling of resistance, but a growth and a compound, being

made up of various primitive impulses, together with a process of education. 316 Again and again has this view been represented as denying conscience altogether. Exactly parallel has been the handling of the sentiment of Benevolence. 317 Some have attempted to resolve it into simpler elements of the mind, and have been attacked as denying the existence of the sentiment. 318 Hobbes, in particular, has been subjected to this treatment. Because he held pity to be a form of self-love, his opponents charged him with declaring that there is no such thing as pity or sympathy in the human constitution.

319 A more notable example is the doctrine of the alliance of Mind with Matter. It is impossible that any mode of viewing this alliance can erase the distinction between the two modes of existence-- the material and the mental; 320 between extended inert bodies, on the one hand, and pleasures and pains, thoughts and volitions, on the other. 321 Yet, after the world has been made familiar with the Cartesian doctrine of two distinct substances-- the one for the inherence of material facts, and the other for mental facts-- 322 any thinker maintaining the separate mental substance to be unproved, and unnecessary, is denounced as trying to blot out our mental existence, and to resolve us into watches, steam-engines, or speaking and calculating machines. 323 The upholder of the single substance has to spend the self in protestations that one is not denying the existence of the fact, or the phenomena called mind, but is merely challenging an arbitrary and unfounded hypothesis for representing that fact.

PERCEPTION OF A MATERIAL WORLD

324 The still greater controversy-- distinct from the foregoing, although often confounded with it-- relating to the Perception of a Material World, is the crowning instance of the weakness we are considering. 325 Berkeley has been unceasingly stigmatised as holding that there is no material world, merely because he exposed a self-contradiction in the mode of

viewing it, 326 common to the vulgar and to philosophers, and suggested a mode of escaping the contradiction by an altered rendering of the facts. The case is very peculiar. 327 The received and self-contradictory view is exceedingly simple and intelligible in its statement; it is well adapted, not merely for all the commoner purposes of life, but even for most scientific purposes. 328 The supposition of an independent material world, and an independent mental world, created apart, and coming into mutual contact-- 329 the one the objects perceived, and the other the mind perceiving-- expresses or over-expresses the division of the sciences into sciences of matter and sciences of mind; 330 and the highest laws of the material world at least are in no respect falsified by it.

331 On the other hand, any attempt to state the facts of the outer world on Berkeley's plan, or on any plan that avoids the self-contradiction, is most cumbrous and unmanageable. 332 A smaller, but exactly parallel instance of the situation is familiar to us. 333 The daily circuit of the sun around the earth, supposed to be fixed, so exactly answers all the common uses that, in spite of its being false, we adhere to it in the language of every-day life. 334 It is a convenient misrepresentation, and deceives nobody. And such will, in all likelihood, be the usage regarding the external world, after the contradiction is admitted, and rectified by a metaphysical circumlocution. 335 Speculators are still only trying their hand at an unobjectionable circumlocution; but we may almost be sure that nothing will ever supersede, for practical uses, the notion of the distinct worlds of Mind and Matter. 336 If, after the Copernican demonstration of the true position of the sun, we still find it requisite to keep up the fiction of his daily course; 337 much more, after the final accomplishment of the Berkeleyan revolution-- to my mind inevitable--, shall we retain the fiction of an independent external world: 338 only, we shall then know how to fall back upon some mode of stating the case, without incurring the contradiction.

339 To return to the Will. The fact that we have to save, and to represent in adequate language, is this:-- A voluntary action is a sequence distinct and ‘sui generis’; 340 a human being avoiding the cold, searching for food, and clinging to other beings, is not to be confounded with a pure material sequence, as the fall of rain, or the explosion of gunpowder. 341 The phenomena, in both kinds, are phenomena of sequence, and of regular or uniform sequence; but the things that make up the sequence are widely different: 342 in the one, a feeling of the mind, or a concurrence of feelings, is followed by a conscious muscular exertion; in the other, both steps are made up of purely material circumstances. 343 It is the difference between a mental or psychological, and a material or physical sequence-- in short, the difference between mind and matter; the greatest contrast within the whole compass of Nature, within the universe of being.

344 Now language must be found to give ample explicitness to this diametrical antithesis; 345 still, I am satisfied that rarely in the usages of human speech has a more unfortunate choice been made than to employ, in the present instance, the antithetic couple-- Freedom and Necessity. 346 It misses the real point, and introduces meanings alien to the case. 347 It converts the glory of the human character into a reproach-- although its leading motive throughout has been to pay us a compliment. 348 The constancy of human's emotional nature-- but for which our life would be a chaos, an impossibility-- 349 has to be explained away, for no other reason than that, at one time, a blundering epithet was applied to designate the mental sequences. 350 Great is the difference between Mind and Matter; but the terms Freedom and Necessity represent the point of agreement as the point of difference; 351 and this being made familiar, through iteration, as the mode of expressing the contrast, the rectification is supposed to unsettle everything, and to obliterate the wide distinction of the two natures.

SEIZING A QUESTION BY THE WRONG END

352 What is called Moral Ability and Inability is another artificial perplexity in regard to the will, and might also be the text for a sermon on prevailing errors. 353 More especially, it exemplifies what may be termed seizing a question by the wrong end.

354 The votary, we shall say, of alcoholic liquor is found fault with, and makes the excuse, you cannot help it-- you cannot resist the temptation. So far, the language may pass. 355 But what shall we say to the not uncommon reply,-- You could help it if you would. 356 Surely there is some mystification here; it is not one of those plain statements that we desire in practical affairs. 357 Whether we are dealing with matter or with mind, we ought to point out some clear and practicable method of attaining an end in view. 358 To get a good crop, we till and enrich the soil; to make the youths knowing in mathematics, we send them to good masters, and stimulate their attention by combined reward and punishment.

359 There are also intelligible courses of reforming the vicious: withdraw them from temptation till their habits are re-modelled; 360 entice them to other courses, by presenting objects of superior attraction; or, at lowest, keep the fact of punishment before their eyes. 361 By these methods many are kept from vices, and not a few reclaimed after having fallen. 362 But to say, "You can be virtuous if you will," is either unmeaning, or it disguises a real meaning. 363 If it have any force at all-- and it would not be used unless, some efficacy had been found attaching to it,-- the force must be in the indirect circumstances or accompaniments. 364 What, then, is the meaning that is so unhappily expressed? In the first place, it is a vehicle for conveying the strong wish and determination of the speaker; 365 it is a clumsy substitute for-- "I do wish you would amend your conduct"; an expression containing a real efficacy, greater or less according to the estimate formed of the speaker by the person spoken to. 366 In the next place, it

presents to the mind of the delinquent the ideal of improvement, which might also be done in unexceptionable phrase; 367 as one might say-- "Reflect upon your own state, and compare yourself with the correct and virtuous liver". Then, there is a touch of the stoical dignity and pride of will. 368 Lastly, there may be a hint or suggestion to the mind of good and evil consequences, which is the most powerful motive of all. 369 In giving rise to these various considerations, even the objectionable expression may have a genuine efficacy; 370 but that does not justify the form itself, which by no interpretation can be construed into sense or intelligibility.

MEANING OF MORAL INABILITY

371 Moral Inability means that ordinary motives are insufficient, but not all motives. 372 The confirmed drunkard or thief has got into the stage of moral inability; the common motives that keep humankind sober and honest have failed. 373 Yet there are motives that would succeed, if we could command them. 374 People may be sometimes cured of intemperance when the constitution is so susceptible that pain follows at once on indulgence.

375 And so long as pleasure and pain, in fact and in prospect, operate upon the will, so long as the individual is in a state wherein motives operate, there may be moral weakness, but there is nothing more. 376 In such cases, punishment may be properly employed as a corrective, and is likely to answer its end. 377 This is the state termed accountability, or, with more correctness, PUNISHABILITY, for being accountable is merely an incident bound up with liability to punishment. 378 Moral weakness is a matter of a degree, and in its lowest grades shades into insanity, the state wherein motives have lost their usual power-- when pleasure and pain cease to be apprehended by the mind in their proper character. 379 At this point, punishment is unavailing; the moral inability has passed into something like physical inability;

the loss of self-control is as complete as if the muscles were paralysed.

380 In the plea of insanity, entered on behalf of any one charged with crime, the business of the jury is to ascertain whether the accused is under the operation of the usual motives-- whether pain in prospect has a deterring effect on the conduct. 381 If a person is as ready to jump out of the window as to walk downstairs, of course you are not a moral agent; 382 but so long as you observes, of your own accord, the usual precautions against harm to yourself, you are to be punished for your misdeeds.

383 These various questions respecting the Will, if stripped of unsuitable phraseology, are not very difficult questions. 384 They are about as easy to comprehend as the air-pump, the law of refraction of light, or the atomic theory of chemistry. 385 Distort them by inapposite metaphors, view them in perplexing attitudes, and you may make them more abstruse than the hardest proposition of the "Principia". 386 What is far worse, by involving a simple fact in inextricable contradictions, they have led people gravely to recognise self-contradiction as the natural and the proper condition of a certain class of questions. 387 Consistency is very well so far, and for the humbler matters of every-day life, but there is a higher and a sacred region where it does not hold; 388 where the principles are to be received all the more readily that they land us in contradictions. 389 In ordinary matters, inconsistency is the test of falsehood; in transcendental subjects, it is accounted the badge of truth.

ERRORS OF SUPPRESSED CORRELATIVES

Alexander Bain

13 By Relativity is here meant the all-pervading fact of our nature that we are not impressed, made conscious, or mentally alive, without some change of state or impression. 2 An unvarying action on any of our senses is the same as no action at all. 3 An even temperature, such as that enjoyed by the fishes in the tropical seas, leaves the mind an entire blank as

regards heat and cold. 4 We can neither feel nor know without recognising two distinct states. Hence all knowledge is double, or is the knowledge of contrasts or opposites: 5 heavy is relative to light; up supposes down; being awake implies the state of sleep.

6 The applications of the law in the sphere of emotion are chiefly contemplated in what follows. 7 Pleasure and pain are never absolute states; they have reference always to the previous condition. 8 Until we know what that has been in any case, we cannot pronounce upon the efficacy of a present stimulation. 9 We see a person reposing, apparently in luxurious ease; if the state has been immediately consequent upon a protracted and severe exertion, we are right in calling it highly pleasurable. Under other circumstances, it might be quite the reverse. 10 There is an offshoot or modification of the principle, arising out of the operation of habit. 11 Impressions made upon us are greatest when they are absolutely new: after repetition they all lose something of their power; 12 although, by remission and alternative, the causes of pleasure and pain have still a very considerable efficacy. 13 Many of the consequences of this great fact are sufficiently acknowledged, or, if they are not, it is from other causes than our ignorance. 14 The weakness is moral, rather than intellectual, that makes us expect that the first flush of a great pleasure, a newly-attained joy or success, will continue unabated. 15 The poor person, probably, does not overrate the gratification of newly-attained wealth; what you fails to allow for is the deadening effect of an unbroken experience of ease and plenty.

16 The author of "Romola" says of the hero and the heroine, in the early moments of their affection, that they could not look forward to a time when their kisses should be common things. 17 So it is with the attainment of all great objects of pursuit: the first access of good fortune may not disappoint us; 18 but as we are more and more removed from the state of privation, as the memory of the prior experience fades away, so does the vividness of the present

enjoyment. 19 It is the same with changes for the worse: the agony of a great loss is at first overpowering; gradually, however, the system accommodates itself to the new condition, and the severity dies away. 20 What is called on these occasions the "force of custom" is the application of the law of Accommodation, or Relativity modified by habit.

RELATIVITY IN PLEASURES

21 It is a familiar experience of humankind, yet hard to realise upon mere testimony, that the pleasures of rest, repose, retirement, are wholly relative to foregone labour and toil; 22 after the first shock of transition, they are less and less felt, and can be renewed only after a renewal of the contrasting experience. 23 The description, in "Paradise Lost," of the delicious repose of Adam and Eve in Eden is fallacious; the poet credits them with an intensity of pleasure attainable only by the brow-sweating labourer under the curse.

24 The delights of Knowledge are relative to previous Ignorance; for, although the possession of knowledge is in many ways a lasting good, 25 yet the full intensity of the charm is felt only at the moment of passing from mystery to explanation, from blankness of impression to intellectual attainment. 26 This form of the pleasure is sustained only by new acquisitions and new discoveries. 27 Moreover, in the minor forms of the gratification due to knowledge, we never escape the law of relativity; the "power" delights us by relation to our previous impotence. 28 Plato supposed that, in knowledge, we have an example of a pure pleasure, meaning one that had no reference to foregone privation or pain; 29 but such "purity" would be a barren fact, not unlike the pure air of a bladeless and waterless desert. 30 A state of uninterrupted good health, although a prime condition of enjoyment, is of itself a state of neutrality or indifference. 31 The person that has never been ill cannot sing the joys of health; the exultation of

that strain is attainable only by the valetudinarian.

32 These examples have been remarked upon in every age. It is the moral weakness of being carried away by a present strong feeling, as if the state would last for ever, that blinds each of us in turn to the stern reality of the fact. 33 There are, however, numerous instances, coming under Relativity, wherein the indispensable correlative is more or less dropped out of sight and disavowed. 34 These are the proper errors or fallacies of Relativity, a branch of the comprehensive class termed "Fallacies of Confusion". 35 The object of the Panagogue is to exhibit a few of these errors as they occur in questions of practical moment.

36 When it is said, as by Carlyle and others, "speech is silvern, silence is golden," there is implied a condition of things where speech has been in excess; and but for this excess, the assertion is untrue. 37 One might as well talk of the delights of hunger, or of cold, or of solitary confinement, on the ground of there being times when food, warmth, or society may be in excess, and when the opposing states would be a joyful change.

38 The Relativity of Pleasures, although admitted in many individual cases, has often been misconceived. 39 The view is sometimes expressed, that there can be no pleasure without a previous pain; but this goes beyond the exigencies of the principle. 40 We cannot go on for ever with any delight; but mere remission, without any counterpart pain, is enough for our entering with zest on many of our pleasures. 41 A healthy person enjoys own meals without any sensible previous pain of hunger. 42 We do not need to have been miserable for some time as a preparation for the reading of a new poem. 43 It is true that if the sense of privation has been acute, the pleasure is proportionally increased; and that few pleasures of any great intensity grow up from indifference: 44 still, remission and alternation may give a zest for enjoyment without any consciousness of pain.

45 The principle of Comparison is capriciously made use of by Paley, in his account of the elements of

Happiness. 46 He applies it forcibly and felicitously to depreciate certain pleasures-- as greatness, rank, and station-- 47 and withholds its application from the pleasures that he more particularly countenances,-- namely, the social affections, the exercise of the faculties, and health.

SIMPLICITY OF STYLE A RELATIVE MERIT

48 The great praise often accorded to Simplicity of Style, in literature, is an example of the suppression of the correlative in a case of mutual relationship. 49 Simplicity is not an absolute merit; it is frequently a merit by correlation. 50 Thus, if a certain subject has never been treated except in abstruse and difficult terminology, a person of surpassing literary powers, setting it forth in homely and intelligible language, produces a work whose highest praise is expressed by Simplicity. 51 Again, after the last century period of artificial, complex, and highly-wrought composition, the reaction of Cowper and Wordsworth in favour of simplicity was an agreeable and refreshing change, and was in great part acceptable because of the change. 52 It does not appear that Wordsworth comprehended this obvious fact; to him, a simplicity that cost nothing to the composer, and brought no novelty to the reader, had still a transcendent merit.

53 It has been a frequent practice of late years to celebrate the praises of Knowledge. Many eloquent speakers have dilated on the happiness and the superiority of the enlightened and the cultivated person. 54 Now, the correlative or obverse must be equally true: there must be a corresponding degradation and disqualification attaching to ignorance and the want of instruction. 55 This correlative and equally cogent statement is suppressed on certain occasions, and by persons that would not demur to the praises of knowledge: 56 as, when we are told of the native good sense, the untaught sagacity, the admirable instincts of the people,-- that is, of the ignorant or the uneducated. 57 Hence the great value of the

expository device of following up every principle with its counter-statement, the matter denied when the principle is affirmed. 58 If knowledge is a thing superlatively good, ignorance-- the opposite of knowledge-- is a thing superlatively bad. There is no middle standing ground.

59 In the way that people use the argument from Authority, there is often an unfelt contradiction from not adverting to the correlative implication. 60 If I lay stress upon some one's authority as lending weight to my opinion, I ought to be equally moved in the opposite direction when the same authority is against me. 61 The common case, however, is to make a great flourish when the authority is one way, and to ignore it when it is the other way. 62 This is especially the fashion in dealing with the ancient philosophers. Socrates, Plato, and Aristotle are quoted with much complacency when they chime in with a modern view; 63 but, in points where they contradict our cherished sentiments, we treat them with a kind of pity as half-informed pagans. 64 It is not seen that people liable to such gross errors as they are alleged to have committed-- say on Ethics-- are by that fact deprived of all weight in allied subjects, as, for example, Politics-- in which Aristotle is still quoted as an authority.

DIGNITY OF ALL LABOUR ABSURD

65 Many of the sins against Relativity can be traced to rhetorical exaggeration. Some remarkable instances of this can be cited. 66 When a system of ranks and dignities has once been established, there are associations of dignity and of indignity with different conditions and occupations. 67 It is more dignified to serve in the army than to engage in trade; to be a surgeon is more honourable than to be a watchmaker. 68 In this state of things a fervid rhetorician, eager to redress the inequalities of humankind, starts forth to preach the dignity of all labour. 69 The device is a self-contradiction. Make all labour alike dignified, and nothing is dignified; you simply abolish dignity by

depriving it of the contrast that it subsists upon. 70 Pope's lines--

> Honour and shame from no condition rise;
> Act well your part; there all the honour lies--

cannot be exempted from the fallacy of self-contradiction. 71 Differences of condition are made by differences in the degree of honour thereto attached. 72 If every person that did own work well were put on a level, in point of honour, with every other person that did the same; 73 if the gatekeeper of a mansion, by being unfailingly punctual in opening the gate, were to be equally honoured with a great leader of the House of Commons, 74 then, indeed, equality of pay would be the only thing wanted to abolish all differences of condition. 75 There is, no doubt, in society, a quantity of misplaced honour; but so long as there are employments exceptionally arduous, and virtues signally beneficent in their operation, 76 honour is a legitimate spur and reward, and should be graduated according to the desert in each case.

77 In spurring the ardour of youth to studious exertion, it is common to repeat the Homeric maxim, "to supplant every one else, and stand out first". 78 The stimulating effect is undoubted; it is strong rhetorical brandy. Yet only one person can be first, and the exhortation is given simultaneously to a thousand.

JUSTICE ADMIRABLE ONLY IF RECIPROCATED

79 In the discussion and inculcation of the moral duties and virtues, there has been, in all ages, a tendency to suppress correlative facts, and to affirm unconditionally what is true only with a condition. 80 Thus, the admirable nature of Justice, and the happiness of the Just person, are a proper theme to be extolled with all the power of eloquence. It has been so with every civilised people, pagan as well as Christian. 81 In the dialogues of Plato, justice is a prominent subject, and is adorned with the full splendour of his genius. 82 Aristotle, in one of the few moments when he rises to

poetry, pronounces justice "greater than the evening-star or the morning-star". 83 Now all this panegyric is admissible only on the supposition of reciprocal justice. 84 Plato, indeed, had the hardihood to say that the just person is happy in the self, and by reason of own justice, even although others are unjust to you; but the position is untenable. 85 A person is happy in own justice if it procure for you justice in return; as a citizen is happy in own civil obedience, if it gain you protection in return. 86 There are two parties in the case, and the moralist should obtain access to both; 87 you should induce the one to fulfill your share before promising to the other the happiness of justice and obedience.

88 It may be rhetorical, but it is not true, that justice will make a person happy in a society where it is not reciprocated. 89 Justice, in these circumstances, is highly noble, praiseworthy, virtuous; but the applying of these lofty compliments is the proof that it does not bring happiness, and is an attempt to compensate the deficiency. 90 There is a certain tendency, not very great as human nature is constituted, for justice to beget justice in return-- for social virtue on one side to procure it on the other side. 91 This is a certain encouragement to each person to perform own part, in hope that the other party concerned may do the same. 92 Still, the reciprocity occasionally fails, and with that the benefits to the just agent.

93 It is necessary to urge strongly upon individuals, to impress upon the young, the necessity of performing their duty to society; 94 it is equally implied, and equally indispensable, that society should perform its part to them. 95 The suppressing of the correlative obligation of the State to the individual leaves a one-sided doctrine; the motive of the suppression, doubtless, is that society does not often fail of its duties to the individual, 96 whereas individuals frequently fail of their duties to society. This may be the fact generally, but not always. 97 It is not the fact where there are bad laws and corrupt administration. It is not the fact where the restraints on liberty are greater than the exigencies of the State demand. It

is not the fact, so long as there is a single vestige of persecution for opinions. 98 To be thoroughly veracious, for example, in a society that restrains the discussion and expression of opinions, is more than such a society is entitled to.

PLEASURES OF BENEVOLENCE CONDITIONAL

99 The same fallacy occurs in an allied theme,-- the joys of Love and Benevolence. 100 That love and benevolence are productive of great happiness is beyond question; but then the feeling must be mutual, it must be reciprocated. 101 One-sided love or benevolence is a virtue, which is as much as to say it is not a pleasure. 102 The delights of benevolence are the delights of reciprocated benevolence; until reciprocated, in some form, the benevolent person has, strictly speaking, the sacrifice and nothing more. 103 There is a great reluctance to encounter this simple naked truth; to state it in theory, at least, for it is fully admitted in practice. 104 We fence it off by the assumption that benevolence will always have its reward somehow; that if the objects of it are ungrateful, others will make good the defect at last. 105 Now these qualifications are very pertinent, very suitable to be urged after allowing the plain truth, that benevolence is intrinsically a sacrifice, a painful act; 106 and that this act is redeemed, and far more than redeemed, by a fair reciprocity of benevolence. 107 Only such an admission can keep us out of a mesh of contradictions. 108 Like justice in itself, Benevolence in itself is painful; any virtue is pain in the first instance, although, when equally responded to, it brings a surplus of pleasure. 109 There may be acts of a beneficent tendency that cost the performer nothing, or that even may chance to be agreeable; but these examples must not be given as the rule, or the type. 110 It is the essence of virtuous acts, the prevailing character of the class, to tax the agent, to deprive you of some satisfaction to yourself; this is what we must start from; 111 we are then in a position to explain

how and when, and under what circumstances, and with what limitations, the virtuous person, whether your virtue be justice or benevolence, is from that cause a happy person.

112 It is a fallacy of the suppressed relative to describe virtue as determined by the moral nature of God, as opposed to His arbitrary will. 113 The essence of Morality is obedience to a superior, to a Law; where there is no superior there is nothing either moral or immoral. 114 The supreme power is incapable of an immoral act. Parliament may do what is injurious, it cannot do what is illegal. 115 So the Deity may be beneficent or maleficent, He cannot be moral or immoral.

116 Among the various ways, proposed in the seventeenth century, of solving the difficulty of the mutual action of the heterogeneous agencies-- matter and mind-- one was a mode of Divine interference, called the "Theory of Occasional Causes". 117 According to this view, the Deity exerted Himself by a perpetual miracle to bring about the mental changes corresponding to the physical agents operating on our senses-- light, sound. 118 Now in the mode of action suggested there is nothing self-contradictory; but in the use of the word "miracle" there is a mistake of relativity. 119 The meaning of a miracle is an exceptional interference; it supposes an habitual state of things, from which it is a deviation. 120 The very idea of miracle is abolished if every act is to be alike miraculous.

MYSTERY CORRELATES WITH THE INTELLIGIBLE

121 We shall devote the remainder of this exposition to a still more notable class of mistakes due to the suppression of a correlative member in a relative couple-- 122 those, namely, connected with the designation, "Mystery," a term greatly abused, in various ways, and especially by disregarding its relative character. 123 Mystery supposes certain things that are plain, intelligible, knowable, revealed; and, by contrast to these, refers to certain other things that are obscure, unintelligible,

unknowable, unrevealed. 124 When a person's conduct is entirely plain, straightforward, or accounted for, we call that an intelligible case; when we are perplexed by the tortuosities of a crafty, double-dealing person, we say it is all very mysterious. 125 So, in Nature, we consider that we understand certain phenomena: such as gravity, and all its consequences, in the fall of bodies, the flow of rivers, the motions of the planets, the tides. 126 On the other hand, earthquakes and volcanoes are very mysterious; we do not know what they depend upon, how or in what circumstances they are produced.

127 Some of the operations of living bodies are understood,-- as the heart's action in the mechanical propulsion of the blood; others, and the greater number, are mysterious, as the whole process of germination and growth. 128 Now the existence of the contrast between things plainly understood, and things not understood, gives one distinct meaning to the term Mystery. 129 In some cases, a mystery is formed by an apparent contradiction, as in the Theological mystery of Free-will and Divine Foreknowledge; here, too, there is a contrast with the great mass of consistent and reconcilable things. 130 But now, when we are told by sensational writers, that everything is mysterious; 131 that the simplest phenomenon in Nature-- the fall of a stone, the swing of a pendulum, the continuance of a ball shot in the air-- are wonderful, marvellous, miraculous, 132 our understanding is confounded; there being then nothing lain at all, there is nothing mysterious. 133 The wonderful rises from the common; as the lofty is lofty by relation to something lower: 134 if there is nothing common, then there is nothing wonderful; if all phenomena are mysterious, nothing is mysterious; 135 if we are to stand aghast in amazement because three times four is twelve, what phenomenon can we take as the type of the plain and the intelligible? 136 You must always keep up a standard of the common, the easy, the comprehensible, if you are to regard other things as wonderful, difficult, inexplicable.

LOCKE ON THE LIMITS OF THE UNDERSTANDING

137 The real character of a MYSTERY, and what constitutes the Explanation of fact, have been greatly misconceived. 138 The changes of view on these points make up a chapter in the history of the education of the human mind. 139 Perhaps the most decisive turning point was the publication of Locke's "Essay concerning Human Understanding," 140 the motive of which, as stated in the homely and forcible language of the preface, was to ascertain what our understandings can do, what subjects they are fit to deal with, and where they should stop. I quote a few sentences:--

141 "If by this inquiry into the nature of the Understanding, I can discover the powers thereof; how far they reach; to what things they are in any degree proportionate; and where they fail us: 142 I suppose it may be of use, to prevail with the busy mind of human to be more cautious in meddling with things exceeding its comprehension; 143 to stop when it is at the utmost extent of its tether; and to sit down in a quiet ignorance of those things which, upon examination, are proved to be beyond the reach of our capacities." 144 "The candle that is set up in us, shines bright enough for all our purposes. The discoveries we can make with this ought to satisfy us. 145 And we shall then use our Understandings aright, when we entertain all objects in that way and proportion that they are suited to our faculties, and upon those grounds they are capable of being proposed to us." 146 "It is of great use for the sailor to know the length of own line, though you cannot fathom with it all the depths of the ocean."

147 The course of physical science was preparing the same salutary lesson. 148 Locke's great contemporary and friend, Isaac Newton, was his fellow-worker in this tutorial undertaking; 149 nor should Bacon be forgotten, although there is dispute as to the extent and character of his influence. 150 The combined operation of these great leaders of thought was apparent in the altered views of scientific inquirers as to what is competent in research--

what is the proper aim of inquiry. 151 There arose a disposition to abandon the pursuit of mysterious essences and grand pervading unities, and ascertain with precision the facts and the laws of natural phenomena. 152 The study of astronomy was inaugurated in Greenwich Observatory. The experiments of Priestley and of Franklin farther exemplified the eighteenth-century key to the secrets of the universe. 153 The lesson imparted by Newton and Locke and their successors still remains to be carried out and embodied in the subtler inquiries. 154 The bearing upon what constitutes a Mystery, and what constitutes Explanation, or the accounting for appearances, may be expressed thus:--

155 In the first place, the Understanding can never pass out of its own experience-- its acquired knowledge, whether of body or of mind. 156 What we obtain by our various sensibilities to the world about us, and by our self-consciousness, are the foundation, the ABC of everything that we are capable of knowing. 157 We know colours, and we know sound; we know pleasure and pain, and the various emotions of wonder, fear, love, anger. 158 If there be any being endowed with senses different from ours, with that being we can have no communion. 159 If there be any phenomena that escape our limited sensibilities, they transcend the possibility of our knowledge.

160 It is necessary, however, to take account of the combining or constructive aptitudes of the mind. 161 We can go a certain length in putting together our alphabet of sensation and experience into many various compounds. 162 We can imagine a paradise or a pandemonium; but only as made up of our own knowledge of things good and evil. 163 The limits of this constructive power are soon reached. We are baffled to enter into the feelings of our own kindred, when they are far removed in character and circumstances from ourselves. 164 The youth at twenty cannot approximate to the feelings of people unable to comprehend the life of the invalid.

TIME AND SPACE RELATIVE TO OUR FACULTIES

165 To come to the practical applications. The great leading notions called Time and Space are known to us only under the conditions of our own sensibility. 166 Time is made known by all our actions, all our senses, all our feelings, and by the succession of our thoughts; 167 it is experienced as a continuance and a repetition of movement, sight, sound, fear, or any other state of feeling, or of thinking. 168 One motion or sensation is continued longer than another; or it is more frequently repeated after intermission, giving the numerical estimate of time, as in the beats of the pendulum. 169 In these ways we form estimates of seconds, minutes, hours, days. And our constructive faculty can be brought into play to conceive the larger tracts of duration-- a century, or a hundred centuries.

170 Nay, by our arithmetical powers we can put down in cipher, or conceive symbolically-- which is the meagrest of all conceptions-- millions of millions of centuries; 171 these being after all but compounds of our alphabet of enduring or repeated sensations and thoughts. 172 We can suppose this arithmetical process to operate upon past duration or upon future duration, and there is no limit to the numbers that we can write down. 173 But there is one thing that we cannot do; we cannot fix upon a point when Time or succession began, or upon a point when it will cease. 174 That is an operation not in keeping with our faculties; the very supposition is impracticable. 175 We cannot entertain the notion of a state of things wherein the fact of continuance had no place; the effort belies itself. 176 Time is inseparable from our mental nature; whatever we imagine, we must imagine as enduring.

177 Some philosophers have supposed that we must be endowed by nature with the conception of Time, before we begin to exercise our senses; 178 but the difficulty would be to deprive us of that adjunct without extinguishing our mental nature. 179 Give us sensibility, and you cannot withhold the element of Time. 180 The supposition of Kant

and others, that it is implanted in us as an empty form, before we begin to employ our senses upon things, is needless; 181 for as soon as we move, see, hear, think, are pleased or pained, we create time. 182 And our notion of Time in general is exactly what these sensibilities make it, only enlarged by our constructive power already spoken of.

MATTER AND VOID SUPPLEMENTARY

183 While all our senses and feelings give us time, it is our experience of Motion and Resistance,-- the energetic or active side of our nature alone,-- that gives us Space. 184 The simplest feature of Space is the alternation of Resistance and Non-Resistance, of obstructed motion and freedom to move. 185 The hand presses dead upon an obstacle; the obstacle gives way and allows free motion; these two contrasting experiences are the elements of the two contrasting facts-- Matter and Space. 186 By none of the five senses, in their pure and proper character as senses, can we obtain these experiences; 187 and hence at an earlier stage of inquiry into the mind, when our knowledge-giving sensibilities were referred to the five senses, there was no adequate account of the notion of Space or Extension. 188 Space includes more than this simple contrast of the resisting and the non-resisting; it includes what we call the Co-existing or Contemporaneous, 189 the great aggregate of the outspread world, as existing at any moment, a somewhat complicated attainment, which I am not now specially concerned with.

190 It sufficiently illustrates the limitation of our knowledge by our sensibilities, from the nature of space, to fasten attention on the double and mutually supplementing experience of Matter and Void; 191 the one resisting movement, and giving the consciousness of resistance, or dead strain, the other permitting movement, and giving the consciousness of the unobstructed sweep of the limbs or members. 192 Whatever else may be in space, this freedom to move, to soar, to

expatiate-- in contrast to being hemmed in, obstructed, held fast--, is an essential part of the conception, and is formed out of our active or moving sensibilities.

193 Now, as far as movement is concerned, we must be in one of two states;-- we must be putting forth energy without effecting movement, being met by obstacles called matter; 194 or we must be putting forth energy unresisted and effecting movement, which is what we mean by empty space. 195 There is no third position in the matter of putting forth our active energy. 196 Where resistance ends and freedom begins, there is space; where freedom ends, and obstruction begins, there is matter. 197 We find our sentient life to be made up, as regards movement, of a certain number and range of these two alternations; in other words, free spaces and resisting barriers. 198 And we can, by the constructive power already mentioned, imagine other proportions of the two experiences; 199 we can imagine the scope for movement, the absence of obstruction, to be enlarged more and more, to be counted by thousands and millions of miles; but the only terminus or boundary that we can imagine is resistance, a dead obstacle.

200 We are able to conceive the starry spaces widened and prolonged from galaxy to galaxy through enormous strides of increasing amplitude, 201 but when we try to think an end to this career, we can think only of a dead wall. 202 There is no other end of space within the grasp of our faculties; and that termination is not an end of extension; 203 for we know that solid matter, viewed in other ways than as obstructing movement, has the same property of the extended belonging to the empty void. 204 The inference is, that the limitation of our means of knowledge renders altogether incompetent the imagination of an end to either Time or Space. 205 The greatest efforts of our combining faculty cannot exceed the elements presented to it, and these elements contain nothing that would set forth the situation of space ending, and obstruction not beginning.

ARE TIME AND SPACE INFINITE?

206 Under these circumstances, it is an irrevelant enquiry, to ask, Are Time and Space finite or infinite? 207 Many philosophers have put the question, and even answered it. They say Time has no beginning and no end, and Space has no boundaries; or, as otherwise expressed,--Time and Space are Infinite: 208 an answer of such vagueness as to mean anything, from a harmless and proper assertion of the limits of our faculties, up to the verge of extravagance and self-contradiction.

209 When, in fact, people talk of the Infinite in Time and Space, they can point to one intelligible signification; 210 as to the rest, this word is not a subject for scientific propositions, and the attempt at such can lead only to contradictions. 211 The Infinite is a phrase most various in its purport: it is for the most part an emotional word, expressing human desire and aspiration; 212 a word of poetry, imagination, and preaching, not a word to be discussed under science; no intellectual definition would exhibit its emotional force.

213 The second property of our intelligence is, that we can generalise many facts into one. 214 Tracing agreement among the multifarious appearances of things, we can comprehend in one statement a vast number of details. 215 The single law of gravity expresses the fall of a stone, the flow of rivers, the retention of the moon in its circuit round the earth. 216 Now, this generalising sweep is a real advance in our knowledge, an ascent in the matter of intelligence, a step towards centralising the empire of science. 217 What is more, this is the only real meaning of EXPLANATION. A difficulty is solved, a mystery unriddled; when it can be shown to resemble something else; to be an example of a fact already known. 218 Mystery is isolation, exception, or, it may be, apparent contradiction; the resolution of the mystery is found in assimilation, identity, fraternity. 219 When all things are assimilated, so far as assimilation can go, so far as likeness holds, there is an end to

explanation; there is an end to what the mind can do, or can intelligently desire.

GRAVITY NOT A MYSTERY

220 Thus, when Gravity was generalised, by assimilating the terrestrial attraction seen in falling bodies with the celestial attraction of the sun and planets; 221 and when, by fair presumption, the same power was extended to the remote stars; 222 when, also, the law was ascertained, so that the movements of the various bodies could be computed and predicted, there was nothing further to be done; explanation was exhausted. 223 Unless we can find some other force to fraternise with gravity, so that the two might become a still more comprehensive unity, we must rest in gravity as the ultimatum of our faculties. 224 There is no conceivable modification, or substitute, that would better our position. 225 Before Newton, it was a mystery what kept the moon and the planets in their places; the assimilation with falling bodies was the solution.

226 But, say many persons, is not gravity itself a mystery? We say No; gravity has passed through all the stages of legitimate and possible explanation; 227 it is the most highly generalised of all physical facts, and by no assignable transformation could it be made more intelligible than it is. 228 It is singularly easy of comprehension; its law is exactly known; 229 and, excepting the details of calculation, in its more complex workings, there is nothing to complain of, nothing to rectify, nothing to pretend ignorance about; 230 it is the very pattern, the model, the consummation of knowledge. 231 The path of science, as exhibited in modern times, is towards generality, wider and wider, until we reach the highest, the widest laws of every department of things; 232 there explanation is finished, mystery ends, perfect vision is gained.

233 What is always reckoned the mystery by pre-eminence is the union of BODY and MIND. 234 How, then, should we treat this

Mystery according to the spirit of modern thought, according to the modern laws of explanation? 235 The course is to conceive the elements according to the only possible plan, our own sensibility or consciousness; 236 which gives us matter as one class of facts-- extension, inertness, weight, and so on; and mind as another class of facts-- pleasures, pains, volitions, ideas. 237 The difference between these two is total, diametrical, complete; there is really nothing common to the experience of pleasure and the experience of a tree; 238 difference has here reached its acme; agreement is eliminated; there is no higher genus to include these two in one; 239 as the ultimate, the highest elements of knowledge, they admit of 110-fusion, no resolution, no unity. 240 Our utmost flight of generality leaves us in possession of a double, a couple of absolutely heterogeneous elements. 241 Matter cannot be resolved into mind; mind cannot be resolved into matter; each has its own definition; each negatives the other.

242 This being the fact, we accept it, and acquiesce. There is surely nothing to be dissatisfied with, to complain of, in the circumstance that the elements of our experience are, in the last resort, two, and not one. 243 If we had been provided with fifty ultimate experiences, none of them having a single property in common with any other; 244 and if we had only our present limited intellects, we might be entitled to complain of the world's mysteriousness in the one proper acceptation of mystery-- namely, as overpowering our means of comprehension, as loading us with unassimilable facts. 245 As it is, matter, in its commoner aspects and properties, is perfectly intelligible; 246 in the great number and variety of its endowments or properties, it is revealed to us slowly and with much difficulty, and these subtle properties-- the deep affinities and molecular arrangements--- are the mysteries rightly so called. 247 Mind in itself is also intelligible; a pleasure is as intelligible as would be any transmutation of it into the inscrutable essence that people often desiderate. 248 It is one of

the facts of our sensibility, and has a great many facts of its own kindred, which makes it all the more intelligible.

249 The varieties of pleasure, pain, and emotion are very numerous; and to know, remember, and classify them, is a work of labour, a legitimate mystery. 250 The subtle links of thought are also very various, although probably all reducible to a small number; 251 and the ascertaining and following out of these has been a work of labour and time; they have, therefore, been mysterious; mystery and intellectual toil being the real correlatives. 252 The complications of matter and the complications of mind are genuine mysteries; 253 the reducing or simplifying of these complications, by the exertions of thinking people, is the way, and the only way out of the darkness into light.

UNION OF MIND AND BODY

254 But what now of the mysterious union of the two great ultimate facts of human experience? 255 What should the followers of Newton and Locke say to this crowning instance of deep and awful mystery? 256 Only one answer can be given. Accept the union, and generalise it. 257 Find out the fewest number of simple laws, such as will express all the phenomena of this conjoint life. 258 Resolve into the highest possible generalities the connections of pleasure and pain, with all the physical stimulants of the senses-- food, tastes, odours, sounds, lights-- 259 with all the play of feature and of gesture, and all the resulting movements and bodily changes; 260 and when you have done that, you have so far truly, fully, finally explained the union of body and mind.

261 Extend your generalities to the course of the thoughts; determine what physical changes accompany the memory, the reason, the imagination, 262 and express those changes in the most general, comprehensive laws, and you have explained the how and the why brain causes thought, and thought works in brain. 263 There is no other explanation needful, no other

competent, no other that would be explanation. 264 Instead of our being "unfortunate," as is sometimes said, in not being able to know the essence of either matter or mind-- in not comprehending their union; 265 our misfortune would be to have to know anything different from what we do or may know. 266 If there be still much mystery attaching to this linking of the two extreme facts of our experience, it is simply this: that we have made so little way in ascertaining what in one goes with what in the other.

267 We know a good deal about the feelings and their alliances, some of which are open and palpable to all humankind; and we have obtained some important generalities in these alliances. 268 Of the connections of thought with physical changes we know very little: these connections, therefore, are truly and properly mysterious; but they are not intrinsically or hopelessly so. 269 The advancing study of the physical organs, on the one hand, and of the mental functions, on the other, may gradually abate this mystery. 270 And if a day arrive when the links that unite our intellectual workings with the workings of the nervous system and the other bodily organs shall be fully ascertained and adequately generalised, 271 no one thoroughly educated in the scientific spirit of the last two centuries will call the union of mind and body any longer inscrutable or mysterious.

METAPHYSICS AND DEBATING SOCIETIES

Alexander Bain

14 By "Metaphysical Study," or "Metaphysics," I here mean-- what seems intended by the designation in its current employment at present-- the circle of the mental or subjective sciences. 2 The central department of the field is PSYCHOLOGY, and the adjunct to psychology is LOGIC, which has its foundations partly in psychology, but still more in the sciences altogether, whose procedure it gathers up and formulates. 3 The outlying and dependent branches are: the narrower metaphysics or Ontology, Ethics, Sociology,

together with Art or Aesthetics. 4 There are other applied sciences of the department, as Education and Philology.

5 The branches most usually looked upon as the cognate or allied studies of the subjective department of human knowledge are, Psychology, Logic, Ontology, Ethics. 6 The debates in a society like the present will generally be found to revolve in the orbit thus chalked out. 7 It is the sphere of the most animated controversies, and the widest discordance of view. 8 The additional branch most nearly connected with the group is Sociology, which under that name, and under the older title, the Philosophy of History, has opened up a new series of problems, of the kind to divide opinions and provoke debate. 9 A quieter interest attaches to Aesthetics, although the subject is a not unfruitful application and test of psychological laws.

10 My remarks will embrace, first, the aims, real and factitious, in the study of this group of sciences; and next, the polemic conduct of such study, or the utility and management of debating societies, instituted in connection therewith.

PSYCHOLOGY AND LOGIC FUNDAMENTAL

11 The two sciences--PSYCHOLOGY and LOGIC-- I consider the fundamental and knowledge-giving departments. 12 The others are the applications of these to the more stirring questions of human life. 13 Now, the successful cultivation of the field requires you to give at least as much attention to the root sciences as you give to the branch sciences. 14 That is to say, psychology, in its pure and proper character, and logic, in its systematic array, should be kept before the view, concurrently with ontology, ethics, and sociology. 15 Essays and debates tending to clear up and expound systematic psychology and systematic logic should make a full half of the society's work.

16 Does any one feel a doubt upon the point, as so stated? If so, it will be upon you to show that Psychology, in its methodical pursuit, is a needless and

superfluous employment of strength; 17 that the problems of ethics, ontology, can be solved without it-- a hard task indeed, so long as they are unsolved in any way. 18 I have no space for indulging in a dissertation on the value of methodical study and arrangement in the extension of our knowledge, 19 as opposed to the promiscuous mingling of different kinds of facts, which is often required in practice, but repugnant to the increase of knowledge. 20 If you want to improve our acquaintance with the sense of touch, you accumulate and methodise all the experiences relating to touch; 21 you compare them, see whether they are consistent or inconsistent, select the good, reject the bad, improve the statement of one by light borrowed from the others; 22 you mark desiderata, experiments to be tried, or observations to be sought. All that time, you refrain from wandering into other spheres of mental phenomena. 23 You make use of comparison with the rest of the senses, it may be, but you keep strictly to the points of analogy, where mutual lights are to be had. 24 This is the culture of knowledge as such, and is the best, the essential, preparation for practical questions involving the particular subject along with others.

25 To take an example from the question of the Will. I do not object: to the detaching and isolating of the problem of free-will, as a matter for discussion and debate; 26 but I think that it can be handled to equal, if not greater advantage, in the systematic psychology of voluntary power. 27 Those that have never tried it in this last form have not obtained the best vantage-ground for overcoming the inevitable subtleties that invest it.

28 The great problem of External Perception has a psychological place, where its difficulties are very much attenuated, to say the least of it; 29 and, however convenient it may be to treat it as a detached problem, we should carry with us into the discussion all the lights that we obtain while regarding it as it stands among the intellectual powers.

30 It is in systematic Psychology that we are most free to attend to the defining of terms-- without

which a professed science is mere moonshine--, 31 to the formulating of axioms and generalities, to the concatenating and taking stock of all the existing knowledge, and to the appraising of it at its real value. 32 If these things are neglected, there is nothing that I see to constitute a psychology at all.

DISCUSSIONS IN LOGIC PROPER

33 As to the other fundamental science, LOGIC, the same remarks may be repeated. 34 Of debated questions, a certain number pertain properly to logic; yet most of these relate to logic at its points of contact with psychology. 35 Since we have got out of the narrow round of the Aristotelian syllogism, we have agreed to call logic ‘ars artium’, or, better still, ‘scientia scientiarum’, the science that deals with the sciences altogether-- both object sciences and subject sciences. 36 Now this I take to be a study quite apart from psychology in particular, although, as I have said, touching it at several points. 37 It reviews all science and all knowledge, as to its structure, method, arrangement, classification, probation, enlargement. It deals in generalities the most general of any. 38 By taking up what belongs to all knowledge, it seems to rise above the matter of knowledge to the region of pure form; 39 it demands, therefore, a peculiar subtlety of handling, and may easily land us, as we are all aware, in knotty questions and quagmires. 40 Now what I have to repeat in this connection is, that you should, in your debates, overhaul portions or chapters of systematic logic, with a view to present the difficulties in their natural position in the subject. 41 You might, for example, take up the question as to the Province of logic, with its divisions, parts, and order-- all which admit of many various views-- and bring forward the vexed controversies under lights favourable to their resolution. 42 Regarding logic as an aid to the faculties in tackling whatever is abstruse, you should endeavour to cultivate and enhance its powers, in this particular, by detailed

exposition and criticism of all its canons and prescriptions. 43 The department of Classification is a good instance; a region full of delicate subtleties as well as "bread-and-butter" applications.

44 It is in this last view of logic that we can canvass philosophical systems upon the ground of their method or procedure alone. 45 Looking at the absence, in any given system, of the arts and precautions that are indispensable to the establishment of truth in the special case, we may pronounce against it, à-priori; 46 we know that such a system can be true only by accident, or else by miracle. 47 We may reasonably demand of a system-builder-- Are you in the narrow way that leadeth to truth, or in the broad way that leadeth somewhere else?

48 I have said that I consider the connection between Logic and Psychology to be but slender, although not unimportant. 49 The amount and nature of this connection would reward a careful consideration. 50 There would be considerable difficulty in seeing any connection at all between the Aristotelian Syllogism and psychology, 51 but for the high-sounding designations appended to the notion and the proposition-- simple apprehension and judgment-- of which I fail to discover the propriety or relevance. 52 I know that Grote gave a very profound turn to the employment of the term "judgment" by Aristotle, as being a recognition of the relativity of knowledge to the affirming mind.

53 I am not to say, absolutely, "Ice is cold"; I am to say that, to the best of my judgment or belief, or in so far as I am concerned, ice is cold. 54 This, however, has little to do with the logic of the syllogism, and not much with any logic. 55 So, when we speak of a "notion," we must understand it as apprehended by some mind; 56 but for nearly all purposes, this is assumed tacitly; it need not appear in a formal designation, which, not being wanted, is calculated to mislead.

METAPHYSICS

APPLIED OR DERIVATIVE SCIENCES

57 With these remarks on the two fundamental sciences of our group, I now turn to the applied or derivative sciences, wherein the great controversies stand out most conspicuous, which, in fact, exist for the purpose of contention--Ontology and Ethics. 58 These branches were in request long before the mother sciences--psychology and logic-- came into being at all. 59 They had occupied their chief positions without consulting the others, partly because these were not there to consult, and partly because they were not inclined to consult any extraneous authority. 60 By Ontology we may designate the standing controversies of the intellectual powers--perception, innate ideas, nominalism versus realism, and noumenon versus phenomenon. 61 I am not going to pronounce upon these questions; I have already recommended the alternative mode of approaching them under systematic psychology and logic; 62 and I will now regard them as constituents of the fourfold enumeration of the metaphysical sciences.

63 The Germans may be credited for teaching us, or trying to teach us, to distinguish "bread and butter" from what passes beyond, transcends bread and butter. 64 With them the distinction is thoroughly ingrained, and comes to hand at a moment's notice. 65 If I am to review in detail what may be considered the practical or applied departments of logic and psychology, I am in danger of trenching on their "bread-and-butter" region. 66 Before descending, therefore, into the larder, let us first spend a few seconds in considering psychology as the pursuit of truth in all that relates to our mental constitution. 67 If difficulty be a stimulus to the human exertions, it may be found here. 68 To ascertain, fix, and embody the precise truth in regard to the facts of the mind is about as hard an undertaking as could be prescribed to a human. 69 But this is another way of saying that psychology is not a very advanced science; 70 is not well stored with clear and certain doctrines; and is unable, therefore, to confer any

very great precision on its dependent branches, whether purely speculative or practical. 71 In a word, the greatest modesty or humility is the deportment most becoming to all that engage in this field of labour, even when doing their best; 72 while the same virtues in even greater measure are due from those engaging in it without doing their best.

73 It must be admitted, however, that the highest evidence and safeguard of truth is application. In every other science, the utility test is final. 74 The great parent sciences-- mathematics, physics, chemistry, physiology-- have each a host of filial dependents, in close contact with the supply of human wants; 75 and the success of the applications is the testimony to the truth of the sciences applied. 76 Thus, although we may not narrow the sphere of truth to bread and butter, yet we have no surer test of the truth itself. 77 Our trade requires navigation, and navigation verifies astronomy; and, but for navigation, we may be pretty confident that astronomy would now have very little accuracy to boast of.

78 To come then to the practical bearings or outgoings of psychology, assisted by logic. My contention is that the parent sciences and the filial sciences should be carried on together; 79 that theses should be extracted by turns from all; that the lights thus obtained would be mutual. 80 I will support the position by a review of the subjects thus drawn into the metaphysical field.

PROBLEMS OF EDUCATION

81 Foremost among these applied sciences I would place EDUCATION, the subject of the day. 82 The priority of mention is due not so much to its special or pre-eminent importance, as to its being the most feasible and hopeful of the practical applications of conjoined psychology and logic. 83 I say this, however, with a more express eye to intellectual education. I deem it quite possible to frame a practical, science applicable to the training of the intellect that shall be precise and definite in a very considerable measure. 84 The elements that

make up our intellectual furniture can be stated with clearness; 85 the laws of intellectual growth or acquisition are almost the best ascertained generalities of the human mind; 86 even the most complicated studies can be analysed into their components, partly by psychology and partly by the higher logic. 87 In a word, if we cannot make a science of education, as far as Intellect is concerned, we may abandon metaphysical study altogether.

88 I do not speak with the same confidence as to moral education. There has long been in existence a respectable rule-of-thumb practice in this region, the result of a sufficiently wide experience. 89 There are certain psychological laws, especially those relating to the formation of moral habits, that have a considerable value; 90 but to frame a theory of moral education, on a level in a point of definiteness with the possible theory of intellectual education, is a task that I should not like to have imposed upon me. 91 In point of fact, two problems are joined in one, to the confusion of both. 92 There is first the vast question of moral control, which stretches far and wide over many fields, and would have to be tracked with immense labour: 93 it belongs to the arts of government; it comes under moral suasion, as exercised by the preacher and orator; it even implicates the tact of diplomacy. 94 I do not regard this as a properly educational question-- although it refers to an art that every teacher must try to master--; 95 that is to say, its solution is not connected with education processes strictly so called. 96 The second problem of moral education is the one really within the scope of the subject-- the problem of fixing moral bents or habits, when the right conduct is once initiated. 97 On this head, some scientific insight is attainable; and suggestions of solid value may in time accrue, although there never can be the precision attainable in the intellectual region.

98 I will next advert to the applied science of Art or Aesthetics, long a barren ground, so far as scientific handling was concerned, but now a land of promise. 99 The old thesis, "What is Beauty?" a good debating society topic, is, I hope,

past contending about. 100 The numerous influences that concur in works of art, or in natural beauty, present a fine opening for delicate analysis; 101 at the same time, they implicate the vaguest and least advanced portion of psychology-- the Emotions. 102 The German philosophers have usually ranked aesthetics as one of the subjective sciences; but, it is only of late that the department has taken shape in their country. 103 Lessing gave a great impulse to literary art, and originated a number of pregnant suggestions; and the German love of music has necessarily led to theories as well as to compositions.

104 We are now in the way to that consummation of aesthetics which may be described as containing (1) a reference to psychology as the mother science, 105 (2) a classification, comparison, and contrast of the fine arts themselves, and (3) an induction of the principles of art composition from the best examples. 106 Anything like a thorough sifting of fine-art questions would strain psychology at every point-- senses, emotions, intellect; and, if criticism is to go deep, it must ground upon psychological reasons. 107 Now the mere artist can never be a psychologist; the art critic may, but seldom will; hence, as they will not come over to us, some of us must go over to them. 108 The Art discussion of the greatest fountains of human feeling-- love and anger-- would react with advantage upon the very difficult psychology of these emotions, so long the sport of superficiality.

AESTHETICS: HEDONICS

109 But I hold that aesthetics is but a corner of a larger field that is seldom even named among the sciences of mind; 110 I mean human happiness as a whole, "eudaemonics," or "hedonics," or whatever you please to call it. 111 That the subject is neglected, I do not affirm; but it is not cultivated in the proper place, or in the proper light-giving connection-- that is to say, under the psychology of the human feelings. 112 It should have at once a close reference to psychology, and an

independent construction; while either in comprehending aesthetics, or in lying side by side with that, it would give and receive illumination. 113 The researches now making into the laws and limits of human sensibility, if they have any value, ought to lead to the economy of pleasure and the abatement of pain. 114 The analysis of sensation and of emotion points to this end. Whoever raises any question as to human happiness should refer it, in the first instance, to psychology; 115 in the next, to some general scheme that would answer for a science of happiness; 116 and, thirdly, to an induction of the facts of human experience; the three distinct appeals correcting one another. 117 If psychology can contribute nothing to the point, it confesses to a desideratum for future inquirers.

HEDONICS SEPARATE FROM ETHICS

118 I am not at all satisfied with the coupling of happiness with ethics, as is usually done. Ethics is the sphere of duty; happiness is mentioned only to be repressed and discouraged. 119 This is not the situation for unfolding all the blossoms of human delight, nor for studying to allay every rising uneasiness. 120 You would be a rare ethical philosopher that would permit full scope to such an operation within your grounds; neither Epicurus nor Bentham could come up to this mark. 121 But even if the thing were permitted, the lights are not there; 122 it is only by combining the parent psychology and the hedonic derivative, that the work can be done. 123 It is neither disrespect nor disadvantage to duty, that it is not mentioned in the department until the very end. 124 To cultivate happiness is not selfishness or vice, unless you confine it to self; and the mere act of inquiring does not so confine it. 125 If you are in other respects a selfish person, you will apply your knowledge for your own sole behoof; 126 if you are not selfish, you will apply it for the good of your fellows also, which is another name for virtue.

127 But the obstacles to a science of happiness are not solely clue to

the gaps and deficiencies in our psychological knowledge; they are equally owing to the prevailing terrorism in favour of self-denial at all hands. 128 Many of the maxims as to happiness would not stand examination if people felt themselves free to discuss them. 129 You must work yourselves into a fervour of revolt and defiance, before you call in question Paley's declaration that "happiness is equally distributed among all orders of the community". 130 I do not know whether I should wonder most at the cheerful temperament or the complacent optimism of Adam Smith, 131 when he asks, "What can be added to the happiness of the person who is in health, who is out of debt, and has a clear conscience?" 132 When the greatest philosophers talk thus, what is to be expected from the unphilosophic mob? 133 The dependence of health on activity is always kept very loose, it may be for the convenience of shutting our mouths against complaints of being overworked. To render this dependence precise is a matter of pure psychology.

SOCIOLOGY

134 Before coming to Ethics I must, as a preparation, view another derivative branch of psychology, the old subject of politics and society, under its new name, SOCIOLOGY. 135 It is obvious that all terms used in describing social facts and their generalities are terms of mind: command and obedience, law and right, order and progress, are notions made up of human feelings, purposes, and thoughts.

136 Sociology is usually studied in its own special field, and nowhere else; 137 that is to say, the sociologist employs the self in observing and comparing the operations of societies under all varieties of circumstances, and in all historic ages. 138 The field is essentially human nature, and the laws arrived at are laws of human nature. 139 A consummate sociologist is not often to be found; the really great theorists in society could be counted on one's fingers. 140 Some of them have been psychologists as well; I need mention only Aristotle, Hobbes, Locke, Hume, the Mills. 141

Others as Vico, Montesquieu, Millar, Condorcet, Auguste Comte, De Tocqueville, have not independently studied the mind on the broad psychological basis. 142 Now the bearings on sociology of a pure psychological preparation can be convincingly shown. 143 The laws of society, if not the merest empiricisms, are derivative laws of the mind; 144 hence a theorist cannot be trusted with the handling of a derivative law, unless you knows, as well as can be known, the simple or constituent laws. 145 All the elements of human character crop up in human's social relations; 146 in the foreground are their self-interest or sense of self-preservation, together with their social and anti-social promptings; 147 a little farther back are their active energy, their intelligence, their artistic feelings, and their religious susceptibilities. 148 Now all these should be broadly examined as elements of the mind, without an immediate reference to the political machine.

149 Of course, the social feelings need a social situation, and cannot be studied without that; 150 but there are many social situations that give scope for examining them, besides what is contemplated in political society; 151 and the psychologist proper ought to avail the self of all the opportunities of rendering the statement of these various elements precise. 152 For this purpose, your chief aim is the ultimate analysis of the various faculties and feelings. 154 This analysis nobody but yourself cares to institute; and yet a knowledge of the ultimate constitution of an emotional tendency is one of the best aids in appreciating its mode of working. 155 Without a good preliminary analysis of the social and anti-social emotions, for example, you are almost sure to be counting the same thing twice over, or else confounding two different facts under one designation. 156 On the one hand, the precise relationship of the states named love, sympathy, disinterestedness; and, on the other hand, the common basis of domination, resentment, pride, egotism,-- should be distinctly cleared up, as is possible only in psychological study strictly so

called. 157 The workings of the religious sentiment cannot be shown sociologically, without a previous analysis of the constituent emotions.

SOCIOLOGICAL FOUNDATIONS OF ETHICS

158 An allusion so very slender to so vast a subject as sociology would be a waste of words, but for the conviction, that through sociology is the way to the great field of Ethics. 159 This is to reverse the traditional arrangement-- ethics, politics, or government-- followed even by Bentham. 160 The lights of ethics are, in the first instance, psychological; its discussions presuppose a number of definitions and distinctions that are pure psychology. 161 But before these have to be adduced, the subject has to be set forth as a problem of sociology. 162 "How is the King's government to be carried on?" "How is society to be held together?" Is the first consideration; and the sociologist-- as constitution-builder, administrator, judge-- is the person to grapple with the problem. 163 It is with you that law, obligation, right, command, obedience, sanction, have their origin and their explanation. 164 Ethics is an important supplement to social or political law. But it is still a department of law. In any other view it is a maze, a mystery, a hopeless embroilment.

165 That ethics is involved in society is of course admitted; what is not admitted is, that ethical terms should be settled under the social science in the first place. 166 I may refer to the leading term "law," whose meaning in sociology is remarkably clear; in ethics remarkably the reverse. 167 The confusion deepens when the moral faculty is brought forward. In the eye of the sociologist, nothing could be simpler than the conception of that part of our nature that is appealed to for securing obedience. 168 You assumes a certain effort of the intelligence for understanding the signification of a command or a law; 169 and, for the motive part, you counts upon nothing but volition in its most ordinary form--

the avoidance of a pain. 170 Intelligence and Will, in their usual and recognised workings, are all that are required for social obedience; 171 law is conceived and framed exactly to suit the every-day and every-hour manifestations of these powers. 172 The lawgiver does not speak of an obedience-faculty, nor even of a social-faculty. 173 If there were in the mind a power unique and apart, having nothing in common with our usual intelligence, and nothing in common with our usual will or volition, 174 that power ought to be expressed in terms that exclude the smallest participation of both knowledge and will; it ought to have a form special to itself, and not the form:--" Do this, and ye shall be made to suffer".

175 I am quite aware that there are elements in ethics not included in the problem of social obedience; 176 what I contend for is, that the ground should be cleared by marking out the two provinces, as is actually done by a very small number of theorists, of whom John Austin is about the best example.

177 The ethical philosopher, from not building on a foregone sociology, is obliged to extemporise, in a paragraph, the social system; 178 just as the physical philosopher would, if you had no regularly constructed mathematics to fall back upon, but had to stop every now and then to enunciate a mathematical theorem.

179 The question of the ethical end should first appear as the question of the sociological end. For what purpose or purposes is society maintained? 180 All the ethical difficulties are here met by anticipation, and in a form much better adapted to their solution. 181 It is from the point of view of the social ruler, that you learn reserve, moderation, and sobriety in your aims; 182 you learn to think that something much less than the Utopias-- universal happiness and universal virtue-- should be propounded; 183 you find that a definite and limited province can be assigned, separating what the social power is able to do, must do, and can advantageously do, from what it is unable to do, need not do, and cannot with advantage do; 184 and this or a similar demarcation is reproducible in ethics.

PRECEPTS OF ETHICS MAINLY SOCIAL

185 The precepts of ethics are mainly the precepts of social authority; at all events the social precepts and their sanctions have the priority in scientific method. 186 Some of the highest virtues are sociological; patriotic self-sacrifice is one of the conditions of social preservation. 187 The inculcation of this and of many other virtues would not appear in ethics at all, or only in a supplementary treatment, if social science took its proper sphere, and fully occupied that sphere.

188 Once more. The great problem of moral control, which I would remove entirely from a science of education, would be first dealt with in Sociology. 189 It there appears in the form of the choice and gradation of punishments, in prison discipline, and in the reformation of criminals,-- 191 all which have been made the subject of enlightened, not to say scientific, treatment. 191 It is in the best experience in those subjects that I would begin to seek for lights on the comprehensive question. 192 I would next go to diplomacy for the arts of delicate address in reconciling opposing interests; 193 after which I would look to the management of parties and conflicting interests in the State. 194 I would farther inquire how armies are disciplined, and subordination combined with the enthusiasm that leads to noble deeds.

195 There is an abundant field for the application of pure psychology to ethics, when it takes its own proper ground. 196 The exact psychological character of disinterested impulse needs to be assigned; 197 and, if that impulse can be fully referred to the sympathetic or social instincts and habits, the supposed moral faculty is finally eviscerated of its contents for all ethical purposes.

198 So far I have exemplified what seems to me real or genuine aims and applications of metaphysical study. I now proceed to the objects that are more or less factitious. 199 We are here on delicate ground, and run the risk of discrediting our pursuit, as regards the very things that in the eyes of many people make its value.

200 First, then, as psychology involves all our sensibilities, pleasures, affections, aspirations, capacities, it is thought on that ground to have a special nobility and greatness, and a special power of evoking in the student the feelings themselves. 201 The mathematician, dealing with conic sections, spirals, and differential equations, is in danger of being ultimately resolved into a function or a co-efficient; 202 the metaphysician, by investigating conscience, must become conscientious; driving fat oxen is the way to grow fat.

HUMAN'S RELATIONS TO THE INFINITE

203 But to pass to a far graver application. It has usually been supposed that metaphysical theory is more especially akin to the speculation that mounts to the supernatural and the transcendental world. 204 "Human's relations to the infinite" is a frequent phrase in the mouth of the metaphysician. 205 Metaphysics is supposed to be "philosophy" by way of eminence; and philosophy in the large sense has not merely to satisfy the curiosity of the human mind, 206 it has to provide scope for its emotions and aspirations; in fact, to play the part of theology. 207 In times when the prevailing orthodox beliefs are shaken, some scheme of philosophy is brought forward to take their place.

208 If I understand aright the drift of the German metaphysical systems for century back, they all more or less propose to themselves to supply the same spiritual wants as religion supplies. 209 In our own country, such of us as are not under German influence put the matter differently; but we still consider that we have something to say on the "highest questions". 210 We are apt to believe that on us more than on any other class of thinkers, does it depend whether the prevailing theology shall be upheld, impugned, or transformed. 211 The chief weapons of the defenders of the faith are forged in the schools of metaphysics. Locke and Butler, Reid, Stewart and Brown are theological authorities. 212 And when theology is attacked, its metaphysical

buttresses have to be assailed as the very first thing. 213 If these are declared unsound, either it must fall, or it must change its front. 214 It is Natural Theology, more particularly, that is thus allied to metaphysics; yet, not exclusively; 215 for the defence of Revelation by miracles involves at the outset a point of logic.

216 Now I do not mean to say, that this is a purely factitious and ill-grounded employment of the metaphysical sciences. 217 I fully admit that the later defences of theology, as well as the attacks, have been furnished from psychology, logic, ethics, and ontology. 218 The earliest beliefs in religion, the greatest and strongest convictions, had little to do with any of these departments of speculation. 219 But when simple traditionary faith gave place to the questionings of the reason, the basis of religion was transferred to the reason-built sciences; and metaphysics came in for a large share in the decision.

METAPHYSICS AND THEOLOGY

220 What I maintain is, that there is something factitious in the degree of prominence given to metaphysics in this great enterprise; 221 that its pretentions are excessive, its importance over-stated; and when most employed for such a purpose, it is least to be trusted. 222 Theological polemic is only in part conducted through science; and physical science shares equally with moral. 223 The most serious shocks to the traditional orthodoxy have come from the physical sciences. 224 The argument from Design has no doubt a metaphysical or logical element-- the estimate of the degree of analogy between the universe and a piece of human workmanship; 225 but the argument itself needs a scientific survey of the entire phenomena of Nature, both matter and mind. 226 Our Bridgewater Treatises proceeded upon this view; they embraced the consideration of the whole circle of the sciences, as bearing on the theological argument. 227 The scheme was so far just and to the purpose; the

obvious drawback to the value of the Treatises lay in their being special pleadings, backed by a fee of a thousand pounds to each writer for maintaining one side. 228 If a similar fee had been given to nine equally able writers to represent the other side, the argument from design would have been far more satisfactorily sifted than by the exclusively metaphysical criticism of Kant.

229 When theology is supported exclusively by such doctrines as-- an independent and immaterial soul, a special moral faculty, and what is called free-will,-- the metaphysician is a person of importance in the contest; 230 you are powerful either to uphold or to subvert the fabric. 231 But, if these were ever to constitute the chief stronghold of the faith, its tenure would not be very secure. 232 It is only a metaphysician, however, that believes or disbelieves in metaphysical grounds alone; such a person as Cousin, no doubt, rests own whole spiritual philosophy on this foundation. 233 But the great mass will either adhere to religion in spite of metaphysical difficulties, or else abandon it notwithstanding its metaphysical evidences. 234 An eminent man now departed said in my hearing, that he was a believer in Christianity until he became acquainted with geology, 235 when, finding the first chapter of Genesis at variance with geological doctrines, he applied to the Bible the rule ‘falsus in uno, falsus in omnibus,’ and thenceforth abandoned his old belief. 236 I never heard of any one that was so worked upon by a purely metaphysical argument.

237 The aspect of theological doctrine that has come most to the front of late is the question of the Divine goodness, as shown in the plan of the universe. 238 Speculations are divided between optimism and pessimism. How shall we decide between these extremes, or, if repudiating both, how shall we fix the mean? 239 Is a metaphysician more especially qualified to find out the truth? I hardly think so. I believe you could contribute, with others, to such a solution as may be possible. 240 You have, we shall suppose, surveyed closely the compass of the human sensibilities, and is able

to assign, with more than common precision, what things operate on them favourably or unfavourably. 241 So far good. Then, as a logician, you are more expert at detecting bad inferences in regard to the form of reasoning; 242 but whether certain allegations of fact are well or ill founded, you may not be able to say, at least out of your own department. 243 If a mixed commission of ten were nominated to adjudicate upon this vast problem, metaphysics might claim to be represented by two.

FILLING THE THEOLOGICAL VOID

244 Least of all, do I understand the claims made on behalf of this department to supply the spiritual void in case the old theology is no longer accredited. 245 When one looks closely at the stream and tendency of thought, one sees a growing alliance and kinship between religion and poetry or art. 246 There is, as we know, a dogmatic, precise, severe, logical side of theology, by which creeds are constructed, religious tests imposed, and belief made a matter of legal compulsion. 247 There is also a sentimental, ideal, imaginative side that resists definition, that refuses dogmatic prescription, and seeks only to satisfy spiritual needs and emotions. 248 Metaphysics may no doubt take a part in the dogmatic or doctrinal treatment, but it must qualify itself by biblical study, and become altogether theology.

249 In the other aspect, metaphysics, as I conceive it, is unavailing; the poet is the proper medium for keeping up the emotional side, under all transformations of doctrinal belief. 250 But as conceived by others, metaphysics is philosophy and poetry in one, to which I can never agree. 251 The combination of the two, as hitherto exhibited, has been made at the expense of both. 252 The leading terms of philosophy-- reason, spirit, soul, the ideal, the infinite, the absolute, phenomenal truth, being, consciousness-- are lubricated with emotion, and thrown together in ways that defy the understanding. 253 The unintelligible, which ought

to be the shame of philosophy, is made its glory.

254 These remarks prepare for the conclusion that I arrive at as to the scope of metaphysics with reference to the higher questions. 255 That it has bearings upon these questions I allow; and those bearings are legitimately within the range of metaphysical debates. 256 But I make a wide distinction between metaphysical discussion and theological discussion; and do not consider that they can be combined to advantage. 257 In the great latitude of free inquiry in the present day, theology is freely canvassed, and societies might be properly devoted to that express object; 258 but I cannot see any benefit that would arise by a philosophical society undertaking, in addition to its own province, to raise the questions belonging to theology. 259 I am well aware that there is one society of very distinguished persons in the metropolis, calling itself metaphysical, that freely ventures upon the perilous seas of theological debate. 260 No doubt good comes from any exercise of the liberty of discussion, so long restrained in this region; yet, I can hardly suppose that purely metaphysical studies can thrive in such a connection. 261 Many of the members must think far more of the theological issues than of the cultivation of mental and logical science; and a purely metaphysical debate can seldom be pursued with profit under these conditions.

POLEMICS IN GREECE

262 I now pass to the POLEMICAL handling of the metaphysical subjects. We owe to the Greeks the study of philosophy through methodised debate; 263 and the state of scientific knowledge in the age of the early Athenian schools was favourable to that mode of treatment. 264 The conversations of Socrates, the Dialogues of Plato, and the Topics of Aristotle, are the monuments of Greek contentiousness, 265 turned to account as a great refinement in social intercourse, as a stimulus to individual thought, and a means of advancing at least the speculative departments of knowledge. 266 Grote, both in his "Plato," and in

his "Aristotle," while copiously illustrating all these consequences, has laid extraordinary stress on still another aspect of the polemic of Socrates and Plato, 267 the aspect of free-thought, as against venerated tradition and the received commonplaces of society. 268 The assertion of the right of private judgment in matters of doctrine and belief, was, according to Grote, the greatest of all the fruits of the systematised negation begun by Zeno, and carried out in the "Search Dialogues" of Plato. 269 In the "Exposition Dialogues" it is wanting; and in the "Topica," where Eristic is reduced to method and system by one of Aristotle's greatest logical achievements, the freethinker's wings are very much clipt; the execution of Socrates probably had to answer for that. 270 It is to the Platonic dialogues that we look for the full grandeur of Grecian debate in all its phases. 271 The Plato of Grote is the apotheosis of Negation; it is not a philosophy so much as an epic; the theme--"The Noble Wrath of the Greek Dissenter".

272 At all times, there is much that has to be achieved by solitary thinking. 273 Some definite shape must be given to our thoughts before we can submit them to the operation of other minds; the greater the originality, the longer must be the process of solitary elabouration. 274 The "Principia" was composed from first to last by recluse meditation; 275 probably the attempt to discuss or debate any parts of it would have only fretted and paralysed the author's invention. 276 Indeed, after an enormous strain of the constructive intellect, a person may be in no humour to have own work carped at, even to improve it. 277 In the region of fact, in observation and experiment, there must be a mass of individual and unassisted exertion. 278 The use of allies in this region is to check and confirm the accuracy of the first observer.

279 Again, an inquirer, by dint of prolonged familiarity with a subject, may be own best critic; you may be better able to detect flaws than any one you could call in. 280 This is another way of stating the superiority of a particular individual over all others in the same walk. 281 Such

a monarchical position as removes a person alike from the rivalry and from the sympathy of own fellows, is the exception; mutual criticism and mutual encouragement are the rule. 282 The social stimulants are of avail in knowledge and in truth as well as everything else.

283 A comparison of the state of speculation in the golden age of debate, with the state of the sciences in the present day, both metaphysical and physical, shows us clearly enough, what are the fields where polemic is most profitable. 284 I set aside the struggles of politics and theology, and look to the scientific form of knowledge, which is, after all, the type of our highest certainty everywhere. 285 Now, undoubtedly, it is in classifying, generalising, defining, and in the so-called logical processes-- induction and deduction-- that a person can be least left to the self. 286 Until many people have gone over the same field of facts, a classification, a definition, or an induction, cannot be held as safe and sound. 287 In modern science, there are numerous matters that have passed through the fiery furnace of iterated criticism, seven times purified; 288 but there are, attaching to every science, a number of things still in the furnace. 289 Most of all does this apply to the metaphysical or subject sciences, where, according to the popular belief, nothing has yet passed finally out of the fiery trial. 290 In psychology, in logic, in eudaemonics, in sociology, in ethics, the facts are nearly all around our feet; the question is how to classify, define, generalise, express them. 291 This was the situation of Zeno, Socrates, and Plato, for which they invoked the militant ardour of the mind. 292 Human, they saw, is a fighting being; if fighting will do a thing, you will do it well.

MOST USEFUL CLASSES OF DEBATES

293 In conformity with this view, the foremost class of debates, and certainly not the least profitable, are such as discuss the meanings of important terms. 294 The genius of Socrates perceived that this was the beginning of all valid

knowledge, and, in seeing this, laid the foundation of reasoned truth. 295 I need not repeat the leading terms of metaphysical philosophy; but you can at once understand the form of proceeding by such an instance as "consciousness," 296 debated so as to bring out the question whether, as Hamilton supposed, it is necessarily grounded on knowledge.

297 Next to the leading terms are the broader and more fundamental generalities: for example, the law of relativity; 298 the laws of memory and its conditions, such as the intensity of the present consciousness; Hamilton's inverse relationship of sensation and perception. These are a few psychological instances. 299 The value of a debate on any of these questions depends entirely upon its resolving itself into an inductive survey of the facts, and such surveys are never without fruit.

300 A debating society that includes logic in its sphere should cultivate the methods of debate; setting an example to other societies and to humankind in general. 301 The "Topica" of Aristotle shows an immensity of power expended on this object, doubtless without corresponding results. 302 Nevertheless the attempt, if resumed at the present day, with our clearer and wider views of logical method, would not be barren. 303 This is too little thought of by us; and we may say that polemic, as an art, is still immature. 304 The best examples of procedure are to be found in the Law Courts, some of whose methods might be borrowed in other debates. 305 For one thing, I think that each of the two leaders should provide the members beforehand with a synopsis of the leading arguments or positions to be set forth in the debate. 306 This, I believe, should be insisted on everywhere, not even excepting the debates of Parliament.

307 It is the custom of debating societies to alternate the Debate and the Essay: a very important distinction, as it seems to me; and I will endeavour to indicate how it should be maintained. 308 Frequently there is no substantial distinction observed; an essay is simply the opening of a debate, and a debate the criticism of an

essay. 309 I should like to see the two carried out each on its own principle, as I shall now endeavour to explain.

THE DEBATE: A FIGHT FOR MASTERY

310 The Debate is the fight for mastery as between two sides. The combatants strain their powers to say everything that can be said so as to shake the case of their opponents. 311 The debate is a field-day, a challenge to a trial of strength. 312 Now, while I admit that the intellectual powers may be quickened to unusual perspicacity under the sound of the trumpet and the shock of arms, 313 I also see in the operation many perils and shortcomings, when the subject of contest is truth. 314 In a heated controversy, only the more glaring and prominent facts, considerations, doctrines, distinctions, can obtain a footing. 315 Now truth is the still small voice; it subsists often upon delicate differences, unobtrusive instances, fine calculations. 316 Whether or not human is a wholly selfish being, may be submitted to a contentious debate, because the facts and appearances on both sides are broad and palpable; 317 but whether all our actions are, in the last resort or final analysis, self-regarding, is almost too delicate for debate. 318 Chalmers upholds, as a thesis, the intrinsic misery of the vicious affections: there could not be a finer topic of pure debate.

319 My conception of the Essay, on the other hand, is that it should represent amicable co-operation, with an eye to the truth. 320 By it you should rise from the lower or competitive, to the higher or communistic attitude. There may be a loss of energy, but there is a gain in the manner of applying it. 321 The essayist should set the self to ascertain the truth upon a subject; you should not be anxious to make a case. 322 The listeners, in the same spirit, should welcome all your suggestions, help you out where you are in difficulties, be indulgent to your failings, endeavour to see good in everything. 323 If there be a real occasion for debate, it should be purposely forborne and reserved.

324 In propounding subjects, the respective fitness for the debate and for the essay might be taken into account.

CO-OPERATIVE DISCUSSION IN THE ESSAY

325 When questions have been often debated without coming nearer to a conclusion, it should be regarded as a sign that they are too delicate and subtle for debate. 326 A trial should then be made of the amicable or co-operative treatment represented by the Essay. 327 The Freedom of the Will might, I think, be adjusted by friendly accommodation, but not by force of contention. 328 External Perception is beyond the province of debate. It is fair and legitimate to try all problems by debate, in the first instance, because the excitement quickens the intelligence, and leads to new suggestions; 329 but if the question involves an adjustment of various considerations and minute differences, the contending sides will be contentious still.

330 A society that really aims at the furtherance of knowledge, might test its operations by now and then preparing a report of progress; 331 setting forth what problems had been debated, what themes elucidated, and with what results. 332 It would be very refreshing to see a candid avowal that after several attempts-- both debate and essay-- some leading topic of the department remained exactly where it stood at the outset. 333 After such a confession, the Society might well resolve itself into a Committee of the Whole House, to consider its ways, and indeed its entire position, with a view to a new start on some more hopeful track.

334 My closing remark is, as to avoiding debates that are in their very nature interminable. 335 It is easy to fix upon a few salient features that make all the difference between a hopeful and a hopeless controversy. 336 For one thing, there is a certain intensity of emotion, interest, bias, or prejudice if you will, that can neither reason nor be reasoned with. 337 On the purely intellectual side, the disqualifying

circumstances are complexity and vagueness. 338 If a topic necessarily hauls in numerous other topics of difficulty, the essay may do something for it, but not the debate. 339 Worst of all is the presence of several large, ill-defined, or unsettled terms, of which there are still plenty in our department. 340 A not infrequent case is a combination of the several defects each perhaps in a small degree. 341 A tinge of predilection or party, a double or triple complication of doctrines, and one or two hazy terms, will make a debate that is pretty sure to end as it began. 342 Thus it is that a question, plausible to appearance, may contain within it capacities of misunderstanding, cross-purposes, and pointless issues, 343 sufficient to occupy the long night of Pandemonium, or beguile the journey to the nearest fixed star.

THE ART OF STUDY

Alexander Bain

15 Of hackneyed subjects, a foremost place may be assigned to the Art of Study. 2 Allied to the theory and practice of Education generally, it has still a field of its own, although not very precisely marked out. 3 It relates more to self-education than to instruction under masters; it supposes the voluntary choice of the individual rather than the constraint of an outward discipline. 4 Consequently, the time for its application is when the pupil is emancipated from the prescription and control of the scholastic curriculum.

5 There is another idea closely associated with our notion of study namely, learning from books. 6 We may stretch the word, without culpable licence, to comprise the observation of facts of all kinds, but it more naturally suggests the resort to book lore for the knowledge that we are in quest of. 7 There is a considerable propriety in restricting it to this meaning; or, at all events, in treating the art of becoming wise through reading, as different from the arts of observing facts at first hand. 8 In short, study should not be made co-extensive with knowledge getting, but with book learning. 9 In thus narrowing the field, we have the obvious

advantage of cultivating it more carefully, and the unobvious, but very real, advantage of dealing with one homogeneous subject.

10 In the current phrase, "studying under some one," there is a more express reference to being taught by a master, as in listening to lectures. 11 There is, however, the implication that the learner is applying own mind to the special field, and, at the same time, is not neglecting the other sources of knowledge, such as books. 12 The master is looked upon rather as a guide to enquiry, than as the sole fountain of the information sought. 13 Thus, then, the mental exercise that we now call "study" began when books began; when knowledge was reduced to language and laid out systematically in verbal compositions. 14 A certain form of it existed in the days when language was as yet oral merely; 15 when there might be long compositions existing only in the memory of experts, and communicable by speech alone. 16 But study then was a very simple affair: it would consist mainly in attentive listening to recitation, so as to store up in the memory what was thus communicated. 17 The art, if any, would attach equally to the reciter and to the listener; the duty of the one would be to accommodate own lessons in time, quantity, and mode of delivery to the retentive capacity of the other; 18 who, in own turn, would be required to con and recapitulate what you had been told, until you made it your own, whatever it might be worth.

BOOK STUDY AMONG THE ANCIENTS

19 Even when books came into existence, an art of study would be at first very simple. 20 The whole extent of book literature among the Jews before Christ would be soon read; and, when once read, there was nothing left but to re-read it in whole or in part, with a view of committal to memory, whether for meditative reflection, or for awakening the emotions. 21 We see, in the Psalms of David, the emphasis attached to mental dwelling on the particulars of the

Mosaic Law, as the nourishment of the feelings of devotion.

22 The Greek Literature about 350 B.C., when Aristotle and Demosthenes had reached manhood-- being then 34--, had attained a considerable mass; as one may see at a glance from Jebb's chronology attached to own Primer. 23 There was a splendid poetical library, including all the great tragedians, with the older and the middle Comedy. 24 There were the three great historians-- Herodotus, Thucydides, and Xenophon; and the orators--- Lysias, Isocrates, and Isaeus; there were the precursors of Socrates in Philosophy; and, finally, the Platonic Dialogues. 25 To overtake all these would employ several years of learned leisure; and to imbibe their substance would be a rich and varied culture, especially of the poetic and rhetorical kind. 26 To make the most of the field, a judicious procedure would be very helpful; there was evident scope for an art of study. 27 The fertile intellect of the Greeks produced the first systematic guides to high culture; the Rhetorical art for Oratory and Poetry, the Logical art for Reasoning, and the Eristic art for Disputation. 28 There was nothing precisely corresponding to an Art of Study, but there were examples of the self-culture of celebrated people. 29 The most notorious of these is Demosthenes; of whom we know that, while he took special lessons in the art of oratory, he also bestowed extraordinary pains upon the general cultivation of his intellectual powers. 30 His application to Thucydides in particular is recounted in terms of obvious mythical exaggeration; 31 showing, nevertheless, his idea of fixing upon a special book with a view to extracting from it every particle of intellectual nourishment that it could yield: in which we have an example of the art of study as I have defined it. 32 Then, it is said that, in his anxiety to master his author, he copied the entire work eight times, with his own hand, and had it by heart verbatim, so as to be able to re-write it when the manuscripts were accidentally destroyed.

33 We do not possess from the genius of Aristotle-- the originator or improver of so many practical

departments-- an Art of Study. The omission was not supplied by any other Greek writer known to us. 34 The oratorical art was a prominent part of education both in Greece and in Rome; and was discussed by many authors-- notably by Cicero himself; but the exhaustive treatment is found in Quintilian. 35 The very wide scope of the "Institutes of Oratory" comprises a chapter upon the orator's reading, in which the author reviews the principal Greek and Roman classics from Homer to Seneca, with remarks upon the value of each for the mental cultivation of the oratorical pupil. 36 Something of this sort might be legitimately included in the art of study, but might also be withheld, as being provided in the critical estimates already formed respecting all writers of note.

MODERN GUIDES TO STUDY

37 After Ouintilian, it is little use to search for an art of study, either among the later Latin classics, or among the mediaeval authors generally. 38 I proceed at once to remark upon the well-known essay of Bacon, which shows his characteristic subtlety, judiciousness, and weight; yet is too short for practical guidance. 39 He hits the point, as I conceive it, when he identifies study with reading, and brings in, but only by way of contrast and complement, conference or conversation and composition. 40 He endeavours to indicate the worth of book learning, as an essential addition to the actual practice of business, and the experience of life. 41 He marks a difference between books that we are merely to dip into-- books to be tasted-- and such as are to be mastered; without, however, stating examples. 42 He ventures also to settle the respective kinds of culture assignable to different departments of knowledge-- history, poetry, mathematics, natural philosophy, moral philosophy, logic and rhetoric; 43 a very useful attempt in its own way, and one that may well enough enter into a comprehensive art of study, if not provided for in the still wider theory of Education at large.

44 Bacon's illustrious friend, Hobbes, did not write on studies, but made a notable remark bearing on one topic connected with the art,-- 45 namely, that if he had read as much as other people, he should have remained still as ignorant as other people. 46 This must not be interpreted too literally. Hobbes was really a great reader of the ancients, and must have studied with care some of the philosophers immediately preceding himself. 47 Still, it indicates an important point for discussion in the art of study, in which great people have gone to opposite extremes-- I mean in reference to the amount of attention to be given to previous writers, in taking up new ground.

48 To come down to another great name, we have Milton's ideal of Education, given in his short Tractate. 49 Here, with many protestations of knowing things, rather than words, we find an enormous prescription of book reading, including, in fact, every known author on every one of a wide circle of subjects. 50 This was characteristic of the man: he was a voracious reader himself, and an example to show, in opposition to Hobbes, that original genius is not necessarily quenched by great or even excessive erudition. 51 As bearing on the art of study, especially for striplings under twenty, Milton's scheme is open to two criticisms: 52 first, that the amount of reading on the whole is too great; second, that in subjects handled by several authors of repute, one should have been selected as the leading text-book and got up thoroughly; 53 the others being taken in due time as enlarging or correcting the knowledge thus laid in. Think of a child learning Rhetoric upon six authors taken together!

LOCKE'S CONDUCT OF THE UNDERSTANDING

54 The transition from Milton to Locke is the inverse of that from Hobbes to Milton. Locke was also a man of few books. 55 If he had been sent to school under Milton, as he might have been, he would have very soon thrown up the learned drudgery prescribed for him, and would have bolted.

56 The practical outcome of Locke's enquiries respecting the human faculties is to be found in the little treatise named-- "The Conduct of the Understanding". 57 It is an earnest appeal in favour of devotion to the attainment of truth, and an exposure of all the various sources of error, moral and intellectual; more especially prejudices and bias. 58 There are not, however, many references to book study; and such as we find are chiefly directed to the one aim of painful and labourious examination, 59 first, of an author's meaning, and next of the goodness of own arguments. Two or three sentences will give the clue.

60 "Those who have read of everything, are thought to understand everything too; but it is not always so. 61 Reading furnishes the mind only with materials of knowledge; it is thinking makes what we read ours. 62 We are of the ruminating kind, and it is not enough to cram ourselves with a great deal of collections, unless we chew them over again, they will not give us strength and nourishment." 63 Farther: "Books and reading are looked upon to be the great helps of the understanding, and instruments of knowledge, as it must be allowed that they are; 64 and yet I beg leave to question whether these do not prove a hindrance to many, and keep several bookish people from attaining to solid and true knowledge". 65 Here, again, is his stern way of dealing with any author:-- "To fix in the mind the clear and distinct idea of the question stripped of words; 66 and so likewise, in the train of argumentation, to take up the authors' ideas, neglecting their words, observing how they connect or separate those in the question." Of this last, more afterwards.

WATT'S IMPROVEMENT OF THE MIND

67 A disciple of Locke, and a man of considerable and various powers, the non-conformist divine Isaac Watts, produced perhaps the first considerable didactic treatise on Study. 68 I refer, of course, to his well-known work entitled "The

Improvement of the Mind"; on which, he tells us, he was occupied at intervals for twenty years. 69 It has two Parts: one on the acquisition of knowledge; the other on Communication or leaching. 70 The scheme is a very wide one. Observation, Reading, attending Lectures, Conversation,-- are all included. 71 To the word "Study," Watts attaches a special meaning, namely Meditation and Reflection, together with the control or regulation of all the exercises of the mind. 72 I doubt if this meaning is well supported by usage. At all events it is not the signification that I propose to attach to the term. 73 Observation is an art in itself: so is Conversation, whether amicable or contentious. 74 The proportions that these exercises should bear to reading, would fairly claim a place in the complete Art of Study.

75 Watts has two short chapters on Books and Reading, containing sensible remarks. 76 He urges the importance of thorough mastery of select authors; but assumes a power of discriminating good and bad beyond the reach of a learner, and does not show how it is to be attained. 77 He is very much concerned all through as to the moral tone and religious orthodoxy of the books read, he also reproves hasty and ill-natured judgments upon the authors.

78 Watts's Essay is so pithily written, and so full of sense and propriety, that it long maintained a high position in our literature; he tells us, that it had become a text-book in the University. 79 I do not know of any better work on the same plan. 80 A "Student's Guide," by an American named Todd, was in vogue with us, some time ago; but anyone looking at its contents, will not be sorry that it is now forgotten. 81 It would not, however, be correct to say that the subject has died out. 82 If there have not been many express didactic treatises of late, there has been an innumerable host of small dissertations, 83 in the form of addresses, speeches, incidental discussions, leading articles, sermons-- all intended to guide both young and old in the path of useful study. 84 What to read, when to read, and how to read,-- have been themes of many an

essay, texts of many a discourse. 85 According as Education at large has been more and more discussed, the particular province of self-education, as here marked out, has had an ample share of attention from more or less qualified advisers.

86 What we have got before us, then, is, first, to define our ground, and then to appropriate and value the accumulated fruits of the labour expended on it. 87 I have already indicated how I would narrow the subject of Study, so as to occupy a field apart, and not jumble together matters that follow distinct laws. 88 The theory of Education in general is the theory of good Teaching: that is a field by itself, although many things in it are applicable also to self-education. 89 To estimate the values of different acquisitions--Science, Language, and the rest, is good for all modes of culture. 90 The laws of the understanding in general, and of the memory in particular, must be taken into account under every mode of acquiring knowledge. 91 Yet the alteration of circumstances, when a pupil is carving out own course, and working under own free-will, leads to new and distinct rules of procedure. 92 Also, that part of self-education consisting in the application to books is distinct from the other forms of mental cultivation, namely, conversing, disputing, original composition, and tutorial aid. 93 Each of these has its own rules or methods, which I do not mean to notice except by brief allusion.

94 In connection with the Plan of study, it is material to ask what the individual is studying for. Each profession, each accomplishment, has its own course of education. 95 If book reading is an essential part, then the choice of books must follow the line of the special pursuit. This is obvious; but does not do away with the consideration of the best modes of studying whatever books are suitable for the end. 96 One person has to read in Chemistry, another in Law, another in Divinity, and so on. For each and all of these, there is a profitable and an unprofitable mode of working, and the speciality of the matter is unessential.

DIFFERENT ENDS OF STUDY

97 The more important differences of subject, involving differences of method, are seen in such contrasted departments as science and language, thought and style, reality and poetry, generality and particularity. 98 In applying the mind to these various branches, and in using books as the medium of acquisition, there are considerable differences in the mode of procedure. 99 The study of a book of science is not on the same plan as the study of a history or a poem. 100 yet even in these last, there are many circumstances in common, arising out of the constitution of our faculties and the nature of a verbal medium of communication of thought.

101 An art of study in general should not presume to follow out in minute detail the education of the several professions. 102 There should still be, for example, a distinct view of the training special in an orator, on which the ancients bestowed so much pains; 103 there being no corresponding course hitherto chalked out for a Philosopher as such, or even for a Poet.

104 Next, there is an important distinction between studies for a professional walk, and the studies of a human's leisure, with a view to gratifying a special taste, 105 or for the higher object of independent thinking on all the higher questions belonging to a citizen and a person. 106 Both positions has its peculiarities; and an art of study should be catholic enough to embrace them. 107 To have the best part of the day for study, and the rest for recreation and refreshment, is one thing: and to study in by-hours, in snatches of time, and in holidays is quite another thing. 108 In the latter case, the choice of subjects, and the extent of them, must be considerably different; 109 while the consideration of the best modes of economising time and strength, and of harmonising one's life as a whole, is more pressing and more arduous. 110 But, when the course is chalked out, the details of study must conform to the general conditions of all acquirements in knowledge

through the instrumentality of books.

111 One, and only one, more preliminary clearing. When an instructor proceeds, as Milton in his school, or as James Mill with his son, by prescribing to each pupil a mass of books to be read, with more or less of examination as to their contents; 112 in such a case, education from without has passed into study in our narrow sense; and the procedure for one situation is applicable to both. 113 The two cases are equally in contrast to educating by the direct instruction of the teacher. 114 In so far, however, as any teacher requires book study to co-operate with own addresses, to that extent do the methods laid down for private study come into play.

115 Under every view, it is a momentous fact, that the person of modern times has become a book-reading animal. 116 The acquisition of knowledge and the cultivation of the intellectual powers of the mind, form only a small part of the use of books; although the part more properly named Study. 117 The moral tendencies are controlled; the emotions regulated; sympathy with humankind, or the opposite, generated; pleasurable excitement afforded. 118 These other uses may be provided apart, as in our literature of amusement, or they may be given in combination with the element of knowledge, 119 in which case they are apt to be a disturbing force, rendering uncertain our calculations as to the efficacy of particular modes of study.

120 The practical problem of Study is not to be approached by any high ‘priori’ road; in other words, by setting out from abstract principles as to the nature of the mind's receptivity and the operation of book-reading upon that receptivity. 121 A humbler line of approach will be more likely to succeed.

122 There exist a number of received maxims on study, the result of many people’s experience and wisdom. 123 Our endeavour will be to collect these, arrange them in a methodical plan, so that they may give mutual aid, and supply each other's defects. 124 We shall go a little farther, and criticise them according to the best

available lights; and, when too vague or sweeping, supply needful qualifications.

125 The Choice of Books, in the first instance, depends on the merits attributed to them severally by persons most conversant with the special department. 126 In some degree, too, this choice is controlled by the consideration of the best modes of study, as will soon be apparent.

A TEXT-BOOK-IN-CHIEF

127 Our first maxim is-- "Select a Text-book-in-chief". The meaning is, that when a large subject is to be overtaken by book study alone, some one work should be chosen to apply to, in the first instance, which work should be conned and mastered before any other is taken up. 128 There being, in most subjects, a variety of good books, the thorough student will not be satisfied in the long run without consulting several, and perhaps making a study of them all; 129 yet, it is unwise to distract the attention with more than one, while the elements are to be learnt.

130 In Geometry, the pupil begins upon Euclid, or some other compendium, and is not allowed to deviate from the single line of own author. 131 If you are once thoroughly at home on the main ideas and the leading propositions of Geometry, you are safe in dipping into other manuals, 132 in comparing the differences of treatment, and in widening your knowledge by additional theorems, and by various modes of demonstration.

133 In principle, the maxim is generally allowed. Nevertheless, it is often departed from in practice. This happens in several ways.

KEEPING TO A SINGLE LINE OF THOUGHT

134 One way is exemplified in Milton's Tractate, already referred to. His method of teaching any subject would appear to have been to take, the received authors, and to read them one after another, probably according to date; 135 the reading pace, and degree of concentration, being apparently equal all through. His six authors

on Rhetoric were-- Plato (select Dialogues, of course), Aristotle, Phalereus, Cicero, Hermogenes, Longinus. 136 To read their several treatises through in the order named, with equal attention, would undoubtedly leave in the mind a good many thoughts on Rhetoric, but in a somewhat chaotic state. 137 Much better would it have been to have adopted a Text-book-in-chief, the choice lying between Aristotle and Ouintilian-- who comes in at a prior stage of the Miltonic curriculum. 138 The book so chosen would be read, and re-read; or rather each chapter would be gone over several times, with appropriate testing exercises and examinations. 139 The other works might then be overtaken and compared with the principal text-book; 140 the judgment of the pupil being so far matured, as to see what in them was already superseded, and what might be adopted as additions to own already acquired stock of ideas.

141 Milton's views of education embraced the useful to a remarkable degree; he was no pamperer of imagination and the ornamental. 142 His list of subjects might be said to be utility run wild:-- comprising the chief parts of Mathematics, together with Engineering, Navigation, Architecture, and Fortification; 143 Natural Philosophy; Natural History; Anatomy, and Practice of Physic; Ethics, Politics, Economics, Jurisprudence, Theology; a full course of the Orators and Poets; Logic, Rhetoric, and Poetics. 144 He tumbles out a whole library of reading: but only in Ethics, does he indicate a leading or preferential work; 145 the half-dozen of classical books on the subject are to be perused, "under the determinate sentence" of the scripture authorities. 146 With all this voracity for the useful, Milton had no conception of scientific form, or method; 147 and indeed, few of the subjects had as yet passed the stage of desultory treatment; so that the idea of casting the knowledge into some one form, under the guidance of a chosen author, would never occur to him.

148 Better things might have been expected of James Mill, in

conducting the education of his son. 149 Yet we find his plan to have been to require an even and exhaustive perusal of nearly every book on nearly every subject, without singling out any one to impart the best known form in each case. 150 The disadvantage of the process would be that, at first, all the writers were regarded as profitable alike. 151 Nevertheless, in the special subjects that he knew himself, he gave his own instructions as the leading text, and his pupil's knowledge took form according to these. 152 In some cases, accident gave a text-in-chief, as when young Mill at ten years of age, studied Thomson's Chemistry, without the distraction of any other work. 153 If there had been half-a-dozen Chemical manuals in existence, he would probably have read them all, and fared much worse. 154 It happens, however, that, in the more exact sciences, there is a greater sameness in the leading ideas, than in Politics, Morals, or the Human Mind; and the evil of distraction is so much smaller.

155 Undoubtedly, the best of all ways of learning anything is to have a competent master to dole out a fixed quantity every day, just sufficient to be taken in, and no more; 156 the pupils to apply themselves to the matter so imparted, and to do nothing else. 157 The singleness of aim is favourable to the greatest rapidity of acquirement; and any defects are to be left out of account, until one thread of ideas is firmly set in the mind. 158 Not infrequently, however, and not improperly, the teacher has a text-book in aid of his oral instructions. 159 To make this a help, and not a hindrance, demands the greatest delicacy; the sole consideration being that the pupil must be kept in one single line of thought, and never be required to comprehend, on the same point, conflicting or varying statements.

160 Even the foot-notes to a work may have to be disregarded, in the first instance. They may act like a second author, and keep up an irritating friction. 161 There is, doubtless, a consummate power of annotation that anticipates difficulties, and clears away haze, without distracting the mind. 162 There is also an art of bringing out

relief by an accompaniment, like the two images of the stereoscope. 163 This is most likely to arise through a living teacher or commentator, who, by own tones and emphasis, as well as by own very guarded and reserved additions, can make the meaning of the author take shape and fullness.

164 As the chief text-book is chosen, among other reasons, for its method and system, any defects on this head may be very suitably supplied, during the reader's progress, by notes or otherwise. 165 When the end is clearly kept in view, we shall not go wrong as to the means: the spirit will remedy an undue bias to the letter.

166 The subjects that depend for their full comprehension upon a certain method and order of details, are numerous, and include the most important branches of human culture. 167 The Sciences, in mass, are avowedly of this character: even such departments as Theology, Ethics, Rhetoric, and Criticism have their definite form; 168 and, until the mind of the student is fully impressed with this, all the particulars are vague and chaotic, and comparatively useless for practical application. 169 So, any subject cast in a polemic form must be received and held in the connection thereby given to it. 170 If the arguments pro and con fall out of their places in the mind of the reader, their force is missed or misconceived.

171 History is pre-eminently a subject for method, and, therefore, involves some such plan as is here recommended. 172 Every narrative read otherwise than for mere amusement, as we read a novel, should leave in the mind-- 173 (1) the Chronological sequence (more or less detailed); and (2) the Causal sequence, that is, the influences at work in bringing about the events. 174 These are best gained by application to a single work in the first place; other works being resorted to in due time.

175 Of the non-methodical subjects, forming an illustrative contrast, mention may be made of purely didactic treatises, where the precepts are each valuable for itself, and by itself: 176 such as, until very recently, the works on Agriculture, and even on

Medicine. 177 A book of Domestic Receipts, consulted by index, is not a work for study.

178 Poems and fictitious narrations will naturally be regarded as of the un-methodical class. 179 If there are exceptions, they consist of long poems-- Epics and Dramas-- whose plan is highly artistic, and must be felt in order to the full effect. 180 Probably, however, this is the merit that the generality of readers are content to miss, especially if greater strain of attention is needed to discover it. 181 Readers bent on enjoyment dwell on the passing page, and are not inclined to carry with them what has gone before, in order to understand what is to follow.

REPUDIATION OF METHOD BY MEN OF REPUTE

182 Very intelligent and superior people have wholly repudiated the notion of study by method. 183 We must not lay too much stress upon these disclaimers, seeing that they are usually cited from those in advanced years, or people whose day of methodical education is passed. 184 When Johnson said-- "A man ought to read just as inclination leads him," he was not thinking of beginners, for whom he would probably have dictated a different course. 185 Still, it is a prevailing tendency of many minds, to read all books equally, provided the interest or enjoyment of them is equal. 186 Macaulay, Sir William Hamilton, De Quincey, as well as Johnson, and a numerous host besides, were book-gluttons, books in breeches; they imbibed information copiously, and also retained it, but as a matter of chance. 187 The enjoyment of their life was to read; whereas, to master thoroughly a considerable field of knowledge, can never be all enjoyment. 188 Gibbon was a book devourer, but he had a plan; he was organising a vast work of composition. 189 Macaulay, also, showed himself capable of realising a scheme of composition; both his History and his Speeches have the stamp of method, even to the pitch of being valuable as models. 190 Hamilton and De Quincey, each in his way, could form high ideals of work, and in part execute them; but their productiveness suffered from too

much bookish intoxication. 191 While readers generally mix the motive of instruction with stimulation, the class that seek instruction solely is but small; the other extreme is frequent enough.

DIFFICULTY IN CHOOSING A FIRST TEXT-BOOK

192 In many subjects, the difficulties of fixing upon the proper Text-book are not inconsiderable. 193 The mere reputation of a book may be great, and well-founded; and yet the merits may not be of the kind that fits it for the commencing student. 194 Such conditions as the following must be taken into account. The Form or Method should be of a high order: this we shall have occasion to illustrate under the next head. 195 It should be abreast: of the time, on its own subject. It should be moderately full, without being necessarily exhaustive in detail. It is on this point that the cheap primers of the present day are mainly defective. 196 They state general ideas, and lay down outlines; but they do not provide sufficiently expanded illustration to stamp these on the mind of the learner. 197 A shilling primer is really a more advanced book than one on a triple scale, that should embrace the same compass of leading ideas. 198 As a farther condition, the work chosen should not have so much of individuality as to fail in the character of representing the prevailing views. 199 The greatest authors often err on this point; and, while a work of genius is not to be neglected, it may, for this reason, have to take the second place in the order of study.

200 Newton's ‘Principia’ could never be a work suited for an early stage of mathematical study. 201 Lyell's Geology has been a landmark in the history of the subject; but it is not cast in the form for a beginner in Geology. 202 It is, in its whole plan, argumentative; setting up and defending a special thesis in Geology; the facts being arrayed with that view. 203 Many other great works have assumed a like form; such are Malthus on Population, Grove's Correlation of Physical Forces, Darwin's Origin

of Species. 204 Even expressly didactic works are often composed more to bring forward a peculiar view, than from the desire to develop a subject in its due proportions. 205 Locke's Essay on the Understanding does not propose to give a methodical and exhaustive handling of the Powers of the Mind, or even of the Intellect. That was reserved for Reid.

206 The question as between old writers and new, would receive an easy solution upon such grounds as the foregoing, were it not for the sentiment of veneration for the old, because they are old. 207 If an ancient writer retains a place by virtue of surpassing merits, as against all subsequent writers, own case is quite clear. 208 In the nature of things, this must be rare: if there be an example, it is Euclid; yet his position is held only through the mutual jealousy of his modern rivals. 209 The only motive for commencing a study upon a very old writer is a desire to work out a subject historically; which, in some instances may be allowed, but not very often.

210 In Politics, Ethics, and Rhetoric, the plan might have its advantages; but, with this imperative condition, that we shall follow out the development in the modern works. 211 In proportion as a subject assumes a scientific shape, it must carefully define its terms, marshal its propositions in proper dependence, and offer strict proof of all matters of fact; 212 now, in these respects, every known branch of knowledge has improved with the lapse of ages; so that the more recent works are necessarily the best for entering upon the study. 213 A historical sequence may be proper to be observed; but that should be backward and not forward. 214 The earlier stages of some subjects are absolutely worthless; as, for example, Physics, Chemistry, and most of Biology, 215 in other subjects, as Politics and Ethics, the tentatives of such men as Plato and Aristotle have an undying value; nevertheless, the student should not begin, but end, with them.

216 There is an extreme form of putting our present doctrine that runs it into paradox: namely, the one-book-and-no-more maxim. 217

Scarcely any book in existence is so all-sufficient for its purpose that a student is better occupied in re-reading it for the tenth time, than in reading some others once. 218 Even the merits of the one book are not fully known unless we compare it with others; 219 nor have we grasped any subject unless we are able to see it stated in various forms, without being distracted or confused. 220 It is not a high knowledge of horsemanship that can be gained by the most thorough acquaintance with one horse.

NO WORK ENTIRELY SELF-SUFFICIENT

221 Any truth that there is in the paradox of excluding all books but one from perusal, belongs to it as a form of the maxim we have now been considering. 222 There is not in existence a work corresponding to the notion of absolute self-sufficiency. 223 Suppose we were to go over the chef-d'oeuvres of human genius, we should not find one in the position of entire independence of all others. 224 Take, for example, the poems of Homer; the Republic and a few other of Plato's pre-eminent Dialogues; the great speeches of Demosthenes; the Ethics and Politics of Aristotle; 225 the poems of Dante; Shakespeare, as a whole; Bacon's Novum Organum; Newton's Principia; Locke on the Understanding; the Méchanique Céleste of Laplace. 226 No one of all these could produce its effect on the mind without referring to other works, previous, contemporary, or following. 227 The remark is not confined to works of elucidation and comment merely-- as the contemporary history of Greece, or the speeches of Demosthenes-- but extends to other compositions, of the very same tenor, by different, although inferior, writers. 228 Shakespeare himself is made much more profitable by a perusal of the other Elizabethans, and by a comparison with dramatic models before and after him.

229 The nearest approach to a perfectly all-sufficing book is seen in scientific compilations by a conjunction of highly accomplished editors. 230 A new

edition of Quain's Anatomy, revised and brought up to date by the best anatomists, would, for the moment, probably be fully adequate to the wants of the student, and dispense with all other references whatsoever. 231 Not that even then, it would be desirable to abstain from ever opening a different compendium; although undoubtedly there would be the very minimum of necessity for doing so. 232 Nevertheless, literature presents few analogous instances. One of the great works of an original genius, like Aristotle, might, by profuse annotation, be made nearly sufficing; 233 but this is another way of reading by quotation a plurality of writers; and it would be better still to peruse some of these in full, there being no need for studying them with the degree of intensity bestowed on a main work.

LOCKE'S TREATMENT OF THE BIBLE

234 The example, by pre-eminence, of one self-sufficing work is the Bible. Being the sole and ultimate authority of Christian doctrine, it holds a position entirely apart; 235 and, among Protestants at least, there is a becoming jealousy of allowing any extraneous writing to overbear its contents. 236 Yet we are not to infer, as many have done practically, that no other work needs to be read in company with it. 237 Granting that its genuine doctrines have been overlaid by subsequent accretions, the way to get clear of these is not to neglect the entire body of fathers, commentators, and theologians, and to give the whole attention to the scriptural text. 238 Locke himself set an example of this attempt. He proposed, in his "Reasonableness of Christianity," to ascertain the exact meaning of the New Testament, 239 by casting aside all the glosses of commentators and divines, and applying his own unassisted judgment to spell out its teachings. 240 He did not disdain to use the lights of extraneous history, and the traditions of the heathen world; he only refused to be bound by any of the artificial creeds and systems devised in later ages to embody

the doctrines supposed to be found in the Bible.

241 The fallacy of his position obviously was, that he could not strip himself of his education and acquired notions, the result of the teaching of the orthodox church. 242 He seemed unconscious of the necessity of trying to make allowance for his unavoidable prepossessions. 243 In consequence, he simply fell into an old groove of received doctrines; and these he handled under the set purpose of simplifying the fundamentals of Christianity to the utmost. 244 Such purpose was not the result of his Bible study, but of his wish to overcome the political difficulties of the time. 245 He found, by keeping close to the Gospels and by making proper selections from the Epistles, that the belief in Christ as the Messiah could be shown to be the central fact of the Christian faith; 246 that the other main doctrines followed out of this by a process of reasoning; and that, as all minds might not perform the process alike, these doctrines could not be essential to the acceptance of Christianity. 247 He got out of the difficulty of framing a creed, as many others have done, by simply using Scripture language, without subjecting it to any very strict definition; 248 certainly without the operation of stripping the meaning of its words, to see what it amounted to. 249 That his short and easy method was not very successful, the history of the Deistical controversy sufficiently proves. 250 The end in view would, in our time, be sought by an opposite course. 251 Instead of disregarding commentators, and the successions of creed embodiments, a scholar of the present day would ascend through these to the original, 252 and find out its meaning, after making allowance for all the tendencies that operated to give a bias to that meaning. 253 As to putting us in the position of listening to the Bible authors at first hand, we should trust more to the erudition of a Pusey or an Ewald, than to the unassisted judgment of a Locke.

254 "What constitutes the study of a book?" Mere perusal at the average reading pace is not the way to imbibe the contents of any

work of importance, especially if the subject is new and difficult.

255 There are various methods in use among authoritative guides. To revert to the Demosthenic traditions: we find two modes indicated-- namely, repeated copying, and committing to memory verbatim. 256 A third is, making abstracts in writing. A fourth may be designated the Lockian method. Let us consider the respective merits of the four.

STUDY BY LITERAL COPYING

257 Of copying a book literally through, there is this to be said, that it engages the attention upon every word, until the act of writing serves to impress the memory. 258 But there are very important qualifications to be assigned in judging of the worth of the exercise. Observe what is the main design of the copyist. It is to produce a replica of an original upon paper. 259 You cannot do this without a certain amount of attention to the original; enough at least to enable you to put down the exact words in the copy; and, by such attention, you are so far impressed with the matter, that a certain portion may remain in the memory. 260 If, however, instead of the paper, you could write directly on the brain, you would be aiming straight at your object. 261 Now, experience shows that the making of a copy of any document is compatible with a very small amount of attention to the purport. 262 The extreme case is the copying clerk. You can literally reproduce an original, with entire forgetfulness of what it is about. 263 If your eye takes a faithful note of the sequence of words, you may entirely neglect the meaning. In point of fact, you constantly does so. 264 You remembers nobody's secrets; and you cannot be counted on to check blunders that make nonsense of your text. 265 Probably no one could go on copying for eight hours a day unless the strain of attention to the originals were at a minimum.

266 I conceive, therefore, that copying habits arising from a certain amount of experience at the vocation, would be utterly fatal to the employment of the exercise as

a means of study. 267 It may be valuable to such as have seldom used their pen except in original composition. 268 Very probably, in school lessons, to write an exercise two or three times may be a help to the usual routine of staying off the book. 269 I have heard experienced teachers testify to the good effects of the practice. Yet very little would turn the attention the wrong way. 270 Even the requirement of neatness on the part of the master, or the pupil's own liking for it, would abate the desired impression. 271 The multiplied copying set as punishment might stamp a thing on the memory through disgust; it might also engender the mechanical routine of the copyist. 272 In short, to sit down and copy a long work is about the last thing that I should dream of, as a means of study. 273 To copy Thucydides eight times, as the tradition respecting Demosthenes goes, would be about the same as copying Gibbon three times: and who would undertake that?

COMMITTING TO MEMORY WORD FOR WORD

274 Committing to memory verbatim, or nearly so. This too belongs to the same tradition regarding Demosthenes, and is probably as inaccurate as the other. 275 Certainly the eight copyings would not suffice for having the whole by heart. 276 Excepting a professional rhapsodist, or some one gifted with extraordinary powers of memory that would hardly be compatible with a great understanding, nobody would think of committing Thucydides to memory. 277 That Demosthenes should be a perfect master both of the narrated facts, and of the sagacious theorisings of Thucydides in those facts, we may take for granted. 278 And, farther, the orations delivered by opposing speakers in the great critical debates, might very well have been committed verbatim by a young orator; many of them are masterpieces of oratory in every point of view. 279 But the reason for getting them by heart does not apply to the general narrative. 280

Even to imbibe the best qualities of the style of Thucydides would not require whole pages to be learnt verbatim; a much better way would readily occur to any intelligent person.

281 In fact, there is no case where it is profitable to load the memory with a whole book, or with large portions of a book. 282 There are many small portions of every leading work that might be committed with advantage. Principal propositions ought to be retained to the letter. 283 Passages, here and there, remarkable for compact force, for argumentative power, or elegant diction, might be read and re-read till they clung to the memory; but this should be the consummation of a thorough and critical estimate of their merits. 284 To commit to memory without thinking of the meaning is a senseless act; and could not be ascribed to Demosthenes. 285 At the stage when the young student is forming a style, one is assisted by laying up ‘memoriter’ a number of passages of great authors; but it is never necessary to go beyond select paragraphs. 286 Detached sentences are valuable, and strain the memory least. Entire paragraphs have a farther value in impressing good paragraph connection; 287 but, to string a number of paragraphs together, or to learn whole chapters by memory, has nothing to recommend it in the way of mental culture.

288 There is a memory in extension that holds a long string of words and ideas together. Its value is to get readily at anything occurring in a certain train, as in a given book. It is the memory of easy reference. 289 There is also a memory of ‘intension’, that takes a strong grasp of brief expressions and thoughts, and brings them out for use, on the slightest relevancy. 290 The two modes interfere with each other's development; we cannot be great in both; 291 while, for original force, the second is worth the most: it extracts and resets gems to tesselate our future structures; it constitutes depth as against fluency.

292 To commit poetical passages to memory is a valuable contribution to our stock of material for emotional resuscitation in after years. 293 It also aids in adorning

our style, even although we may not aspire to compose in poetry. But the burden of holding the connection of a long poem should be eschewed. 294 Children can readily learn a short psalm or hymn, and can retain it in permanence; but to repeat the 119th psalm from the beginning is the mere tour-de-force of a strong natural memory, and a waste of power; 295 just as much as committing an entire book of the Aeneid or of Paradise Lost.

MAKING ABSTRACTS

296 Making Abstracts.-- This is the plan of studying that most advances our intelligent comprehension of any work of difficulty, and also impresses it on the memory in the best form. 297 But there are many ways of doing it; and beginners, from the very fact that they are beginners, are not competent to choose the best. 298 If a book has an obvious and methodical plan in itself, the reader can follow that plan, taking down the leading positions, 299 selecting some of the chief examples or illustrations, giving short headings of chapters and paragraphs, and thus making a synopsis, or full table of contents. All this is useful. 300 The memory is much better impressed through the exertion of picking, choosing, and condensing, than by copying verbatim; and the plan or evolution of the whole is more fully comprehended. 301 But, if a work does not easily lend itself to a methodical abstract, the task of the beginner is much harder.

302 To abstract the treatises of Aristotle was fitting employment for Hobbes. 303 The "Wealth of Nations" is not easy to abstract; but, at the present day, it would not be chosen as the Text-book-in-chief for Political Economy: as a third or fourth work to be perused at a reading pace, it would have its proper effect. 304 The best studious exercise upon it would be to mark the agreements and disagreements with the newer authority, the weak and strong points of the exposition, and the perennial force of a certain number of the propositions and examples. 305 Many parts could be skipped entirely as not even repaying

historical study. Yet, as the work of a great and original mind, its interest is perennial.

306 To go back once more to the example of Thucydides. Setting aside, from intrinsic improbability, both the traditions-- the copyings, and the committal to memory verbatim,-- we can easily see what Demosthenes could find in the work, and how he could make the most of it. 307 The narrative or story could be indelibly fixed in his memory by a few perusals, and, if need be, by a full chronology drawn up by his own hand. 308 The speeches could be committed in whole or in part, for their arguments and language; 309 and a minute study could be made of the turns of expression, as they seemed to be either meritorious or defective. 310 The young orator had already studied the more finished styles of Isocrates, Lysias, Isanis, and Plato, and could make comparisons between their forms and the peculiarities of Thucydides, which belonged to an earlier age. 311 This, however, was a discipline altogether apart, and had nothing to do with copying, committing, or abstracting. 312 It involved one exercise more or less allied to the last, namely, ‘making changes upon an author, according to ones best ideal at the time’: 313 changes, if possible, for the better, but perhaps not; still requiring, however, an effort of mind, and so far favourable to culture.

VARIOUS MODES OF ABSTRACTING

314 Every one's first attempts at abstracting must be very bad. There is no more opportune occasion for the assistance of a tutor or intelligent monitor, than to revise an abstract. 315 The weaknesses of a beginner are apparent at a glance; even better than by a viva-voce interrogation. 316 Useful abstracting comes at a late stage of study, when one or two subjects have been pretty well mastered. 317 It is then that the pupil can best overtake more advanced works on the subjects already commenced, or can enter upon an entirely new department, in the light of previous acquisitions.

318 Any work that deserves thorough study deserves the labour of making an abstract; without which, indeed, the study is not thorough. 319 It is quite possible to read so as to comprehend the drift of a book, and yet forget it entirely. The point for us to consider is-- Are we likely to want any portion of it afterwards? 320 If we can fix upon the parts most likely to be useful, we either copy or abstract these, or preserve a reference so as to turn them up when wanted. 321 In the case of a work, containing a mass of new and valuable materials, such as we wish to incorporate with our intellectual structure, we must act the part of the beginner in a new field, and make an abstract on the most approved plan: 322 that is, by such changes as shall at once preserve the author's ideas, and intersperse them with our own. 323 There is an ideal balance of two opposing tendencies: one to take down the writer too literally, which fails to impress the meaning; 324 the other to accommodate the writer too much to our own language and thinking, in which case, we shall remember more, but it will be remembering ourselves and not the writer. 325 You that can hit the just mean between these extremes is the perfect student.

326 There are easier modes of abstracting, such as serve many useful purposes, although not sufficient for the mastery of a leading Text-book, or even of a second or third in a new subject. 327 We may pencil on the margin, or underscore, all the leading propositions, and the typical examples. 328 In a well-composed scientific manual, the proceeding is too obvious to be impressive. 329 Very often, however, the main points are not given in the most methodical way, but have to be searched out by carefully scanning each paragraph. 330 This is an exercise that both instructs and impresses us; it is the kind of change that calls our faculties into play, and gives us a better hold of an author, without superseding the author.

331 A Table of Contents carefully examined is favourable to a comprehensive view of the whole; and, this attained, the details are remembered in the best possible

way, that is, by taking their place in the scheme. 332 Any other form of recollection is of the desultory kind.

LOCKE'S RECOMMENDATIONS

333 Let us next glance at Locke's method of reading, which is unique and original, like the man himself. 334 It is given with much iteration in his Conduct of the Understanding, but comes in substance to this:-- 335 We are to fix in the mind the author's ideas, stripped of his words; to distinguish between such ideas as are pertinent to the subject, and such as are not; 336 to keep the precise question steadily before our minds; to appreciate the bearing of the arguments; and, finally, to see what the question bottoms upon, or what are the fundamental verities or assumptions underneath.

337 All this is very thorough in its way; but, in the first place, it applies chiefly to argumentative works, and, in the second place, it is entirely beyond the powers of ordinary students. 338 Such an examination of an author as Locke contemplates is not seen many times in a generation. His own controversies give but indifferent examples of it; 339 several of Bentham's works and a few of John Mill's polemical articles also give an idea of thorough handling; 340 but it is not so properly a studious effort, as the consummated product of a highly logical discipline, and is within the reach of only a small elect number. 341 Locke would have been more intelligible, if, instead of telling us to strip an author's meaning of the words, he had impressed strongly the necessity of defining all leading terms; and of making sure that each was always used in the same meaning. 342 While, in order to veracious conclusions, it is necessary that every matter of fact should be truly given, it is equally necessary that the language should be free from ambiguity. 343 If an author uses the word "law," at one time as an enactment: by some authority, and at another time, as a sequence in the order of Nature, the author is sure to land us in fallacy and confusion, as Butler

did in explaining the Divine government. 344 The remedy is, not to perform the operation of separating the meaning entirely from the language, but to vary the language, so as to substitute terms that have no ambiguity. 345 "Law" is equivocal; "social enactment," and "order of Nature," are both unequivocal; and when one is chosen, and adhered to, the confusion is at an end.

346 The mere art of study is no preparation for such a task. It demands a very advanced condition of knowledge on the particular subject, as well as a logical habit of mind, however acquired; 347 and to include it in a practical essay on the Conduct of the Understanding is to overstep the limits of the subject.

348 As our present head represents the very pith and marrow of the art of study, we may dwell a little longer on the process of changing the form of an author, 349 whether by condensing, expanding, varying the expression, altering the order, selecting, and rejecting,-- or by any other known device. 350 Worst of all is change for the mere sake of change; it is simply better than literal copying. But, to rise above it, needs a sense of FORM already attained. 351 According as this sense is developed, the exercise of altering or amending is more and more profitable. 352 Consequently, there should be an express application of the mind to the attainment of form; and particular works pre-eminent for that quality should be sought out and read. 353 "Form" is doubtless a wide word, and comprises both the logical or pervading method of a work, and the expression or dress throughout. 354 Method by itself can be soonest acquired because it turns on a small number of points; 355 language is a multifarious acquirement, and can hardly be forced, although it will come eventually by due application.

EXAMPLE FROM PRACTICE OF MEDICINE

356 To show what is meant by learning Form, with a view to the more effectual study of subject-matter, I will take the example of a work on the Practice of Medicine; in which the idea is to describe

Diseases ‘seriatim’, with their treatment or cures. 357 At the present day, this subject possesses method or form: there is a systematic classification of diseased processes and diseases; 358 also, a regular plan of setting forth the specific marks of each disease, its diagnosis, and, finally, its remedies. 359 There are more and less perfect models of the methodical element; while there are differences among authors in the fullness of the detailed information. 360 There is, besides, a Logic of Medicine, representing the absolute form, in a kind of logical synopsis, by which it is more easily comprehended in the first instance: 361 not to mention the general body of the Logic of the Inductive Sciences, of which medicine is one. 362 Now, undoubtedly, the best work to begin with-- the Text-book-in-chief-- would be one where Form is in its highest perfection; the amount of matter being of less consequence.

363 In a subject of great complication, and vast detail, the student cannot too soon get possession of the best method or form of arrangement. 364 When a work of this character is before you, you are to read and re-read it, till the form becomes strongly apparent; 365 you are to compare one part with another, to see how the author adheres to your own pervading method; 366 you should, if possible, make a synopsis of the plan in itself, disentangling it from the applications, for greater clearness. 367 The scheme of a medical work, for example, comprises the Classification of Diseases, the parting off of Diseased Processes--- Fever, Inflammation,-- from Diseases properly so called; 368 the modes of defining Disease; the separation of defining marks, from predications, and so on: all involved in a strict Logic of Disease. 369 Armed with these logical or methodical preliminaries, the student next attacks one of the extended treatises on the Practice of Medicine. 370 You are now prepared to work the process of abstracting to the utmost advantage, both for clearness of understanding, and for impressing the memory. 371 As in such a vast

subject, no one author is deemed adequate to a full exposition, and as, moreover, a great portion of the information occurs, apart from systems, in detached memoirs or monographs,-- 372 the only mode of unifying and holding together the aggregate, is to reduce all the statements to a common form and order, by help of the pre-acquired plan. 373 The progress of study may amend the plan, as well as add to the particular information; but absolute perfection in the scheme is not so essential as strict adherence to it through all the details. 374 To work without a plan at all, is not merely to tax the memory beyond its powers, but probably also to misconceive and jumble the facts.

375 To enhance the illustration of the two main heads of the Art of Study, I will so far deviate from the idea of the essay, 376 as to take up a special branch of education, which, more than any other, has been reduced to form and rule, I mean the great accomplishment of Oratory, or the Art of Persuasion. 377 The practical Science of Rhetoric, cultivated both by ancients and by moderns, has especially occupied itself with directions for acquiring this great engine of influencing humankind. 378 It was emphatically averred by the ancient teachers of the Oratorical art, that it must be grounded on a wide basis of general information. 379 I do not here discuss the exact scope of this preparatory study, as my purpose is to narrow the illustration to what is special to the faculty of persuasion. 380 I must even omit all those points relating to delivery or elocution, on which so much depends; 381 and also the consideration of how to attain readiness or fluency in spoken address, except in so far as that follows from abundant oratorical resources. 382 We thus sink the difference between spoken oratory, and persuasion through the press.

383 Even as thus limited, oratory is still too wide for a pointed illustration: and, so, I propose farther to confine my references to the department of Political Oratory; 384 coupling with that, however, the Forensic branch-- which has much in common with the other, and has given birth to

some of our most splendid examples of the art of persuasion.

385 While declining to enter on the wide field of the general education of the orator, I may not improperly advert to the more immediate preparation for the political orator, by a familiar acquaintance with History and Political Philosophy, howsoever obtained. 386 Then, on the other hand, the course here to be chalked out assumes a considerable proficiency in language or expression. 387 The special education will incidentally improve both these accomplishments, but must not be relied on for creating them, or for causing a marked advance in either. 388 The effect to be looked for is rather to give them direction for the special end.

EXAMPLE FROM THE ART OF ORATORY

389 These things premised, the line of proceeding manifestly is to study the choicest examples of the oratorical art, according to the methods already laid down, with due adaptation to the peculiarities of the case.

390 Now, we have not, as in a Science, two or three systematic works, one of which is to be chosen as a chief, to be followed by a reference more or less to the others. 391 Our material is a long series of detached orations; from these we must make a selection at starting, 392 and such selection, which may comprise ten or twenty or more, will have to be treated with the intense single-minded devotion that we hitherto limited to a single work. 393 Repeated perusal, with a process of abstracting to be described presently, must be bestowed upon the chosen examples, before embarking, as will be necessary, upon the wide field of miscellaneous oratory.

394 No doubt, an oratorical education could be grounded in a general and equal study of the orators at large, taking the ancients either first or last, according to fancy. 395 Probably the greater number of students have fallen into this apparently obvious course. 396 Our present contention is, that it is better to make a

thorough study of a proper selection of the greatest speeches, together with the most persuasive unspoken compositions. 397 This, however, is not all. We are following the wisdom of the ancients, in insisting on the farther expedient of proceeding to the study of the great examples by the aid of an oratorical scheme.

398 At a very early stage of Oratory in Greece, its methods began to be studied, and, in the education of the orator, these methods were made to accompany the study of exemplary speeches. 399 The principles of Rhetoric at large, and of the Persuasive art in particular, have been elaborated by successive stages, and are now in a tolerable state of advancement. 400 The learner will choose the scheme that is judged best, and will endeavour to master it provisionally, before entering on the oratorical models; holding it open to amendment from time to time, as your education goes on. 401 The scheme and the examples mutually act and re-act: the better the scheme, the more rapidly will the examples fructify; and the scheme will, in its turn, profit by the mastery of the details.

NECESSITY OF AN ORATORICAL ANALYSIS

402 One great use of an oratorical analysis, as supplied by the teachers of Rhetoric, is to part off the different merits of a perfect oration; and to show which are to be extracted from the various exemplary orators. 403 One person excels in forcible arguments, another in the lucid array of facts; one is impressive and impassioned, another is quiet but circumspect. 404 Now, the benefit of studying on principle, instead of working at random, is, that we concentrate attention on each one's strong points, and disregard the rest. But it needs a preparatory analysis, in order to make the discrimination. 405 All that the uninstructed reader or hearer of a great oration knows is, that the oration is great: this may be enough for the persons to be moved; it is insufficient for an oratorical disciple.

406 In the hazardous task of pursuing the illustration by naming the examples of oratory most suitable to commence with, I shall pass over living people, and choose from the past orators of our own country. 407 Without discussing minutely the respective merits of individuals, I am safe in selecting, as in every way suitable for our purpose, Burke, Fox, Erskine, Canning, Brougham, and Macaulay. 408 Burke's Speeches on America; Fox on the Westminster Scrutiny; Erskine on Stockdale, and on Hardy, Tooke; Canning on the Slave Trade; Brougham, Lyndhurst, and Denman in the Queen's Trial; Macaulay on the Reform Bill,-- 409 would comprise, in a moderate compass, a considerable range of oratorical excellence. 410 I doubt if any member of the list would be more suitable for a beginning than Macaulay's Reform Speeches. 411 These are no mere displays of a brilliant imagination: they are known to have influenced thousands of minds otherwise averse to political change. 412 The reader finds in them an immense repository of historical facts as well as of doctrines; but facts and doctrines, by themselves, do not make oratory. 413 It is the use made of these, that gives us the instruction we are now in quest of. 414 In a first or second reading, however, matter and form equally captivate the mind. 415 It would be impossible, at that early stage, to make an abstract such as would separate the oratorical from the non-oratorical merits. 416 Only when, by help of our scheme, we have made a critical distinction between the two kinds of excellence, are we able to arrive at an approach to a pure oratorical lesson; and, for a long time, we shall fail to make the desired isolation. 417 We have to learn not to expect too much from any one speech: to pass over in Macaulay, what is more conspicuously shown, say in Fox, or in Erskine. 418 If our political and historical education has made some progress, the mere thoughts and facts do not detain us; their employment for the end of persuasion is what we have to take account of.

COMPREHENSIVE PRINCIPLE OF ORATORY

419 It is impossible here to indicate, except in a very general way, the successive steps of the operation. 420 The one summary consideration in the Rhetoric of Oratory, from which flows the entire array of details, is the regard to the dispositions and state of mind of the audience; 421 the presenting of topics and considerations that chime in with these dispositions, and the avoiding of everything that would conflict with them. 422 To grasp this comprehensive view, and to follow it out in some of the chief circumstantials of persuasive address-- 423 the leading forms of argument, and the appeals to the more prominent feelings,-- would soon provide a touchstone to a great oration, and lead us to distinguish the materials of oratory from the use made of them.

424 Take the circumstance of negative tact; by which is meant the careful avoidance of whatever might grate on the minds of those addressed. 425 Forensic oratory in general, and the oratory of Parliamentary leaders in particular, will show this in perfection; and, for a first study of it, there is probably nothing to surpass the Erskine Speeches above cited. 426 It could, however, be found in Macaulay; although in a different proportion to the other merits.

427 The Macaulay Speeches have the abundance of matter, and the powers of style, that minister to oratory, although not constituting its distinctive feature. 428 In these speeches, we may note how he guages the minds of the men of rank and property, in and out of Parliament, who constituted the opposition to Reform; 429 how tenderly he deals with their prejudices and class interests; how he shapes and adduces his arguments so as to gain those very feelings to the side he advocates; 430 how he brings his accumulated store of historical illustrations to his aid, under the guidance of both the positive and the negative tact of the orator; saying everything to gain, and nothing to alienate the dispositions that he has carefully measured.

431 After Erskine and Macaulay have yielded their first

contribution to the oratorical student, he could turn with profit to Burke, who has the materials of oratory in the same high order as Macaulay, 432 but who in the employment of them so often miscarries-- sometimes partially, at other times wholly. 433 It then becomes an exercise to distinguish his successes from his failures; to resolve these into their elementary merits and defects, according to the oratorical scheme. 434 The close study of one or two orations is still the preferable course; and the most profitable transition from the Burke sample is to the selected speech or speeches of some other orator as Canning or Brougham. 435 All the time, the pupil must be enlarging and improving his analytic scheme, which is the means of keeping his mind to the point in hand, amid the distraction of the orator's gorgeous material.

436 The subsequent stages of oratorical study are much plainer than the commencement. 437 A time comes when the pupil will roam freely over the great field of oratory, modern and ancient, knowing more and more exactly what to appropriate and what to neglect. 438 You will be quite aware of the necessity of rivalling the great masters in resources of knowledge on the one hand, and of style on the other; but you will look for these elsewhere, as well as in the professed orators.

EXAMPLES OF PERSUASIVE ART

439 Moreover, as the persuasive art is exemplified in people that have never been public speakers, the oratorical pupil will make a selection from the most influential of this class. 440 You will find, for example, in the argumentative treatises of Johnson, in the Letters of Junius, in the writings of Godwin, in Sydney Smith, in Bentham, in Cobbett, in Robert Hall, in Fonblanque, in J.S. Mill, in Whately, 441 and a host besides, the exemplification of oratorical merits, together with materials that are of value. 442 It is understood, however, that the search for materials and the acquisition of oratorical form, are not made to advantage on the same lines, and,

for this and other reasons, should not go together.

443 The extreme test of the principle of concentration as against equal application, is the acquirement of Style, or the extending of our resources of diction and expression in all its particulars. 444 Being a matter of endless minute details, we may feel ourselves at a loss to compass it by the intensive study of a narrow and select example. 445 Still, with due allowance for the speciality of the case, the principle will still be found applicable. 446 We should, however, carry along with us, the maxim exemplified under oratory, of separating in our study, as far as may be, the style from the matter. 447 We begin by choosing a treatise of some great master. We may then operate either (1) by simple reading and re-reading, or (2) by committing portions to memory 'verbatim', or (3), best of all, by making some changes according to an already acquired ideal of good composition. 448 This to shows the great importance of attaining as early as possible some regulating principles of goodness of style: 449 the action and reaction of these, on the most exemplary authors, constitute our progress in the art, and, in the quickest way, store the memory with the resources of good expression.

ECONOMICS OF BOOK READING

450 The head just now finished includes really by far the greatest portion of the economy of study. 451 There are various other devices of importance in their way, but much less liable to error in practice. 452 Of these, a leading place may be assigned to the best modes of Distributing the Attention in reading. 453 Such questions as the following present themselves for consideration to the earnest student. How many distinct studies can be carried on together? What interval should be allowed in passing from one to another? 454 How much time should be given to the art of reading, and how much to subsequent meditating or ruminating on what has been read? 455 These points are all susceptible of being determined, within

moderate limits of error. 456 As to the first, the remark was made by Quintilian, that, in youth, we can most easily pass from one study to another. 457 The reason of this, however, is, that youth does not take very seriously to any study. 458 When a special study becomes engrossing, the alternatives must rather be recreative than acquisitive; 458 not much progress being made in what is slighted, or left over to the exhaustion caused by attention to the favourite topic. 459 A more precise answer can be made to the second and third queries, namely, as to an interval for recall and meditation, after putting down a book, and before turning the attention into other channels. 460 There is a very clear principle of economy here. We should save as far as possible the fatigue of the reading process, or make a given amount of attention to the printed page yield the greatest impression on the memory. 461 This is done by the exercise of recalling without the book; an advantage that we do not possess in listening to a lecture, until the whole is finished, when we have too much to recall. 462 To hurry from book to book is to gain stimulation at the cost of acquisition.

463 I have alluded to the case of an engrossing subject, which starves all accompanying studies. 464 There are but two ways of obviating the evil, if it be an evil; which it indeed becomes, when the alternative demands also are legitimate. 465 The one is peremptorily to limit the time given to it daily, so as to rescue some portion of the strength for other topics. 466 The other is to intermit it wholly for a certain period, and let other subjects have their swing. 467 In advancing life, and when our studious leisure is only what is left from professional occupation, two different studies can hardly go on together. 468 The alternative of a single study needs to be purely recreative.

469 One other point may be noted under this head. In the application to a book of importance and difficulty, there are two ways of going to work: to move on slowly, and master as we go; or to move on quickly to the end, and begin again. 470 There is most to be said for the first method, although

distinguished people have worked upon the other. 471 The freshness of the matter is taken off by a single reading; the re-reading is so much flatter in point of interest. 472 Moreover, there is a great satisfaction in making our footing sure at each step, as well as in finishing the task when the first perusal is completed. 473 We cannot well dispense with re-reading, but it need not extend to the whole; marked passages should show where the comprehension and mastery are still lagging.

DESULTORY READING

474 Another topic is Desultory Reading. This is the whole of the reading of the unstudious mass; it is but a part of the reading of the true student. 475 It may mean, for one thing, jumping from book to book, perhaps reading no one through, except for pure amusement. 476 It may also include the reading of periodicals, where no one subject is treated at any length. 477 As a general rule, such reading does not give us new foundations, or constitute the point of departure of a fresh department of knowledge; 478 yet the amount of labour and thought bestowed upon articles in periodicals, may render them efficacious in adding to a previous stock of materials, or in correcting imperfect views.

479 The truth is, that to the studious person, the desultory is not desultory. The only difference with you is that you have two attitudes that you may assume--the severe and the easy-going; 480 the one is most associated with systematic works on leading subjects; the other with short essays, periodicals, newspapers, and conversation. 481 In this last attitude, which is reserved for hours of relaxation, you skips matters of difficulty, and absorbs scattered and interesting particulars without expressly aiming at the solution of problems or the discussion of abstract principles. 482 There is no reason why an essay in a periodical, a pamphlet, or a speech in Parliament, may not take a first place in anyone's education. 483 All the labour and resource that go to form a work of magnitude may

be concentrated in any one of these. 484 Still, they are presented in the form that we are accustomed to associate with our desultory work, and our times of relaxation; and so, they seldom produce in the minds of readers the effect that they are capable of producing. 485 The thorough student will not fail to extract materials from one and all of them, but even you will scarcely choose from such sources the text for the commencement of a new study.

486 The desultory is not a bad way of increasing our resources of expression. 487 Although there be a systematic and a best mode of acquiring language, there is also an inferior, yet not ineffective mode; namely, reading copiously whatever authors have at once a good style and a sustaining interest. 488 Hence, for this purpose, shifting from book to book, taking up short and light compositions, may be of considerable value; 489 anything is better than not reading at all, or than reading compositions inferior in point of style. 490 The desultory person will not be without a certain flow of language as well as a command of ideas; notwithstanding which, you will never be confounded with the studious person.

491 A fifth point is the proportion of book-reading to Observation of the facts at first hand. 492 From want of opportunity, or from disinclination, many persons have all their information on certain subjects cast in the bookish mould, and do not fully conceive the particular facts as these strike the mind in their own character. 493 A reader of History, with no experience of affairs, is likely to have imperfect bookish notions; just as a person of affairs, not a reader, is subject to narrowness of another kind. 494 It was remarked by Sir G. Cornewall Lewis, that the German historians of the Athenian Democracy write like people that never had any actual experience of popular assemblies. 495 A lawyer must be equally versed in principles and in cases as heard in court: this is a type of knowledge generally. 496 In the Natural History Sciences, observation and reading go hand in hand from the first. 497 In the science of the Human Mind, there

are general doctrines, contrived to embrace the world of mental phenomena: 498 the student may have to begin with these, and work upon them exclusively for a time, 499 but in the end, phenomena must be independently viewed by you in their naked character, as exhibited directly in your own mind, and inferentially in the minds of those that fall under your observation. 500 Book knowledge of Disease has to be coupled with bed-side knowledge; neither will take the place of the other.

501 I began by limiting the meaning of study to the reading of books, and have reviewed the various points in the economy of this process. 502 The other means of attaining, enlarging, deepening our knowledge, namely, Observation of facts, Conversation, Disputation, Composition, have each an art of its own-- especially Disputation, which has long been reduced to rule. 503 Observation also admits of specific directions, but, in stating the necessity of combining observation with book theories and descriptions, I have assumed the knowledge of how to observe.

AIDS OF CONVERSATION AND COMPOSITION

504 Of all the adjuncts of study, none is so familiar, so available, and, on the whole, so helpful, as Conversation. 505 The authors of Guides to Students, as Isaac Watts, give elaborate rules for carrying on conversation, a good many of them being more moral than intellectual; 506 but an art of conversation would be very difficult to formulate; it would take quite as long an essay as I have devoted to study, and even then would not follow half of the windings of the subject. 507 The only notice of it that my plan requires, is such as I have already bestowed upon Observation: 508 namely, to point out the advantage of combining a certain amount of reading with, conversation; a thing that almost everybody does according to their opportunities.

509 To rehearse what we have read to some willing and sympathising listener, is the best way of impressing the memory and of clearing up difficulties to the

understanding. 510 It brings in the social stimulus, which ranks so high among human motives. 511 It is a wholesome change of attitude; relieving the fatigue of book-study, while adding to its fruitfulness. 512 Even beginners in study are mutually helpful, by exchanging the results of their several book acquirements; while it is possible to raise conversation to the rank of a high art, both for intellectual improvement and for mutual delectation. 513 I cannot say that the ideal is often realised; since two or more must combine to conversation, and it is not often that the mutual action and re-action is perfectly adjusted for the highest effect.

514 The last great adjunct of study is original Composition, which also would need to be formulated distinct from the theory of book-study. 515 Viewed in the same way as we have viewed the other collateral exercises, one can pronounce it to an invaluable adjunct to book-reading, as well as an end in itself; 516 it is a variation of effort that diverts the mental strain, and re-acts powerfully upon the extraction of nutriment from books. 517 Besides the pride of achievement, it evokes the social stimulus with the highest effect; our compositions being usually intended for some listeners. 518 But, when to begin the work of original composition, as distinct from the written exercises upon books, in the way of abstracting, amending, and the rest; 519 what forms it should assume at the outset, and by what steps it should gradually ascend to the culminating effects of the art,--would all admit of expansion and discussion as an altogether separate theme.

520 Enough to remark here, that a course of book-reading without attempts at original composition is as faulty an extreme, as to begin and carry on writing upon a stinted basis of reading. 521 The thorough student, as concerned in the Panagogue, carrying on book-study in the manner I have sketched, will almost infallibly end, at the proper time, in a self-thinker, and a self-originator. 522 An adequate familiarity with the great writers of the past both checks presumptuous or hasty efforts of reproduction, 523 and

encourages modest attempts of our own as we feel ourselves becoming gradually invigorated through the combined influence of all the various modes of well-directed study.

RELIGIOUS TESTS AND SUBSCRIPTIONS

Alexander Bain

16 Every person has an interest in arriving at truth for the self. 2 However useful it may be to mislead other people, however sweet to look down from a height on the erring throng beneath, it is neither useful nor sweet to be ourselves at sea without a compass. 3 We may not care to walk by the light we have, but we do not choose to exchange it for darkness.

4 This reflection is most obvious with reference to the order of Nature. Our life depends on adapting means to ends; which supposes that we know cause and effect in the world around us. 5 A long story is cut short by the adage, "Knowledge is power"; otherwise rendered, "Truth is bliss".

6 The bearing of truth is free from all doubt when the problem is, how to gain certain ends-- how to be fed, how to get from one place to another, how to cure disease. A new case is presented by the choice of ends. 7 The tyrannical French minister, when appealed to by a starving peasantry in the terms, "We must live," replied, "I do not see the necessity". 8 There was here no question of true and false, no problem for science to solve. It was a question of ends, and could not be re-argued. 9 The only possible retort was to ask, "What does your Excellency consider a necessity?" 10 If the reply were, "That I and my King may rule France and be happy," then might the starving wretches find some aid from a political scientist who could show that, in the order of Nature, ruler and people must stand or fall together. 11 So, it is no question of true or false in the order of Nature, whether I shall adopt, as the end of life, my own gratification purely, the good of others purely, or part of both.

12 In like manner the Benthamite, who propounds happiness as the general end of human society, cannot prove this, 13 as Newton could prove that gravity follows the inverse square of the distance; nor can his position be impugned in the way that Newton impugned the vortices of Descartes, by showing that they were at variance with fact.

14 There is a third case. Assertions are made out of the sphere of the sensible world, and beyond the reach of verification by the methods of science. 15 There is a region of the supersensible or supernatural, where cause and effect may be affirmed and human interests involved, but where we cannot supply the same evidence or the same confutation as in sublunary knowledge. 16 That all human beings shall have an existence after death is matter of truth or falsehood, 17 but the evidence is of a kind that would not be adduced for proving that a caterpillar becomes a butterfly or that a seed turns to a plant. 18 The reasoning employed, no doubt, makes references to facts of the order of Nature; but it is circuitous and analogical, and is admitted merely because better cannot be had.

THREE DIFFERENT CLASSES OF ASSERTIONS

19 The peculiarity of this last class of affirmations is that they give great room for the indulgence of our likings. 20 So little being fixed with any precision, we can shape our beliefs to please ourselves. 21 Even as regards the sensible world, we can sometimes accommodate our views to what we wish, as when we assume that our favourite foods and stimulants are wholesome; 22 but such license soon meets with checks in the physical sphere, while there are no such checks in the realms of the super-physical.

23 Now, in all these three departments of opinion, the interest of humankind lies in obtaining the best views that can possibly be obtained. 24 As regards the first and third-- the region of true and false, one in the sensible, the other in the supersensible world-- we are

clearly interested in getting the truth. 25 As regards the second-- the region of ends-- if there be one class of ends preferable to another, we should find out that class.

26 The only doubt that can arise anywhere is, whether in the third case-- the case of the supernatural,-- truth is of the same consequence to us. 27 Such a doubt, however, begs the whole question at issue. If the truth be of no consequence here, it is because we shall never be landed in any reality corresponding to what is declared: 28 that the nature of the future life is purely imaginary and not to be converted into fact; in other words, that there is no future life; 29 that there is merely a land of dreams and fiction, which can never be proved true and never proved false.

30 It would then be a projection of thought from the present life, and would cease with that life. 31 All that people could claim in the matter would be the liberty of imagination; and this being so, we are not to be committed to any one form. 32 In short, we are to picture what we please in a world that cannot be made out to exist. 33 The point is not, to be true or false; it is, to be well or ill imagined.

34 What, then, is to be the criterion of proper or improper imagination? 35 On what grounds are we to make our preference between the different schemes of the super-sensible world? 36 Is each one of us to be free to imagine for ourselves, or are we to submit to the dictation of others? 37 These questions lead up to another. How far are the interests of the present life concerned in the form given to our conceptions of a future life?

38 It would seem to be an unanswerable assumption that, in all the three situations above supposed, we should do the very best that the case admits of. 39 In the order of Nature we should get, as far as possible, the truth and the whole truth; 40 in the choice of ends for this life we should embrace the best ends; 41 in the shaping of another life we should be free to follow out whatever may be the course suitable to the operation.

METAPHYSICS

EARLY SOURCES
OF INTOLERANCE

42 The means for arriving at truth in the order of Nature is an active search according to certain well-known methods. 43 It farther involves the negative condition of perfect freedom to canvass, to controvert, or to refute, every received doctrine or opinion. 44 There is no use in going after new facts, or in rising to new generalities, if we are not to be allowed to displace errors. 45 This is now conceded, except at the points of contact of the natural and the supernatural. 46 In spite of the wide separation of the two worlds-- the world of fact and the world of imagination,-- we cannot conceive the second except in terms of the first; 47 and if the shaping of the supernatural acquires fixity and consecration, the natural facts made use of in the fabric acquire a corresponding fixity, even although the rendering is found to be inaccurate. 48 The prevailing conception of a future life needs a view of the separate and independent subsistence of the mental powers of human, very difficult to reconcile with present knowledge.

49 The growth of intolerance is quite explicable, but the explanation is not necessarily a justification. 50 Although every division of the human family must have passed through many social phases, and must therefore have experienced revolutionary shocks, 51 yet the rule of human's existence has been a rigorous fixity of institutions, with a hatred of change. 52 Innovations, when not the effect of conquest, would be made under the pressure of some great crisis, or some tremendous difficulty that could not otherwise be met. 53 The idea of individuals being allowed, in quiet times, to propose alterations in government, in religion, in morals, or even in the common arts of life, was thought of only to be stamped out. 54 There was a step in advance of the ancient and habitual order of things, when an innovating citizen was permitted to make own proposal to the assembled tribe, with a rope about the neck, to be drawn tight if one failed to convince own audience. 55 This might make people think

twice before advancing new views, but it was not an entire suppression of them.

56 The first introduction of the great religions of the world would in each case afford an interesting study of the difficulties of change and of the modes of surmounting these difficulties. 57 There must always have concurred at least two things,-- general uneasiness or discontent from some cause or other; 58 and the moral or intellectual ascendency of some one person, whose views, although original, were yet of a kind to be finally accepted by the people. 59 These conditions are equally shown in political changes, and are historically illustrated in many notable instances. It is enough to cite the Greek legislation of Lycurgus and of Solon.

60 Such changes are the exceptions in human affairs; they occur only at great intervals. 61 In the ordinary course of societies, the governing powers not merely adhere to what is established, but forbid under severe penalties the very suggestion of change. 62 The chronic misery of the race is compatible with unreasoning acquiescence in a state of things once established; incipient reformers are at once immolated ‘pour encourager les autres’. 63 It is the aim of governments to make themselves superfluously strong; they take precautions against unfavourable ideas no less than against open revolt. 64 In this, they are seconded by the general community, which would make things too hot even for a reforming king.

SEPARATION OF RELIGION FROM POLITICS

65 It is said by the evolution or historical school of politicians, that this was all as it should be. The free permission to question the existing institutions, political and religious, would have been incompatible with stability. 66 In early society more especially, religion and morality were a part of civil government; a dissenter in religion was the same thing as a rebel in politics; the distinction between the civil and the religious could not yet be drawn.

67 Without saying whether this was the case or not-- for I should not like to commit myself to the position, "Whatever was, was right" at the time-- 68 I trust we are now far on the way to being agreed that the civil and the religious are no longer to be identified; that the State, as a state, is not concerned to uphold any one form of religious belief. 69 Modern civilised communities are believed capable of existing without an official religion; the citizens being free to form themselves into self-governed religious bodies, as various as the prevailing modes of religious belief. 70 It may be long ere this goal be fully reached; but even the upholders of the present state religions admit that, supposing these were not in existence, nobody would now propose to institute them.

71 The foregoing remarks may appear somewhat desultory, as well as too brief for the extent of the theme. 72 They must be accepted, however, as an introduction to a more limited topic, which presupposes in some measure the general principle of toleration by the state of all forms of religious opinion. 73 Whether with or without established religions, perfect freedom of dissent is now demanded, and, with some hankering reservations, pretty generally conceded. 74 Individuals are allowed to congregate into religious societies, on the most various and opposite creeds.

75 So far good. Yet there remains a difficulty. Long before the age of toleration, when each state had an established religion, the people in general formed their habits of religious observance in connection with the State Church-- 76 its doctrines, its ritual, its buildings, and its sacred places. 77 When disruption took place, the separatists formed themselves into societies on the original model, merely dropping the matters of disagreement. 78 Fixity of creed and of ritual was still enacted; the only remedy for dissatisfaction on either subject was to swarm afresh, and set up a new variety of doctrine or of ritual, to which a rigid adherence was still expected as a condition of membership.

79 By this costly and troublesome process, Churches have been

multiplied according to the changes of view among sections of the community. 80 A certain energy of conviction has always been necessary to such a result. 81 Equally great changes of opinion occur among members of the older Church communities, without inducing them to break with these; so that nominal membership ceases to be a mark of real adhesion to the articles of belief.

EVILS OF PENAL RESTRAINT ON DISCUSSION

82 These few commonplaces are meant to introduce the enquiry-- now a pressing one-- whether, and how far, fixed creeds are desirable or expedient in religious bodies generally; 83 no difference being made between state Churches and voluntary Churches. This is the question of Subscription to Articles by the clergy.

84 Let us now review the evils attendant on subscription, and next consider the objections to its removal. 85 In the first place, the process of restraining discussion by penal tests is inherently untenable, absurd, and fallacious.

86 In support of this strong assertion, we have only to repeat, that every person has an interest in getting at the truth, and consequently in whatever promotes that end. 87 We live by the truth; error is death. To stand between a person and the attainment of truth, is to inflict an injury of incalculable amount. 88 The circumstances wherein the prohibition of truth is desirable, must be extraordinary and altogether exceptional. 89 The few may have a self-interest in withholding truth from the many; neither the few nor the many have an interest in its being withheld from themselves. 90 Each one of us has the most direct concern in knowing on what plan this universe is constituted, what are its exact arrangements and laws. 91 Whether for the present life, or for any other life, we must steer our course by our knowledge, and that knowledge needs to be true. 92 Obstruction to the truth recoils upon the obstructors. To flee to the refuge of lies is not the greatest happiness of anybody.

93 It has been maintained that there are illusions so beneficial as to be preferable to truth. 94 Occasionally, in private life, we practise little deceptions upon individuals when the truth would cause some great temporary mischief. 95 This case need not be discussed. The important instance is in reference to religious belief. 96 A benevolent Deity and a future life are so cheering and consoling, it is said, that they should be secured against challenge or criticism; they ought not to be weakened by discussion. 97 This, of course, assumes that these doctrines are unable to maintain themselves against opponents, that, with all their intrinsic charm--which nobody can be indifferent to--, they would give way under a free handling. 98 Such a confession is fatal. People will go on cherishing pleasing illusions, but not such as need to be protected in order to exist. 99 According to Plato, the belief in the goodness of the Deity was of so great importance that it was to be maintained by state penalties--about the worst way of making the belief efficacious for its end. 100 What should we think of an Act passed to imprison whoever disputed the goodness of King Alfred, the Man of Ross, or Howard?

101 Granting that certain illusions are highly beneficial, it does not follow that they are to be exempted from criticism. Their effect depends on the prestige of their truth. That is, they must have reasons on their side. 102 But a doctrine is not supported by reasons, unless the objections are stated and answered; not sham objections, but the real difficulties of an enquiring mind. 103 If the statement of such difficulties is forcibly suppressed, the rational foundations will sooner or later be sapped.

FREEDOM ESSENTIAL TO THE SEARCH FOR TRUTH

104 If illusions are themselves good, freedom of thought will give us the best. 105 Why should we protect inferior illusions against the discovery of the superior? 106 The unfettered march of the intellect may improve the quality

of our illusions as illusions, while also strengthening their foundations. 107 If religion be a good thing, the best religion is the best thing; and we cannot be sure of having the best, if people are forbidden to make a search.

108 Supposing, then, truth is desirable, the means to the end are desirable. Now one of the means is perfect liberty to call in question every opinion whatsoever. 109 This is not all that is necessary; it is not even the principal condition of the discovery of new truth. It is, however, an indispensable adjunct, a negative condition. 110 While labourious search for facts, care in comparing them, genius in detecting deep identities, are the highways to knowledge,-- the permission to promulgate new doctrines and to counter-argue the old is equally essential. 111 People cannot be expected to go through the toil of making discoveries at the hazard of persecution. If a few have done so, it is their glory and everybody else's shame.

112 That the torch of truth should be shaken till it shine, is generally admitted. Still, exceptions are made; otherwise the present argument would be superfluous. 113 On certain subjects there is a demand for protection against innovating views. The implication is that, in these subjects, truth is better arrived at by delegating the search to a few, and treating their judgment as final. 114 I need not ask where we should have been, if this mode of arriving at truth had been followed universally. 115 The monopoly of enquiry claimed for the higher subjects, if set up in the lower, would be treated as the empire of darkness.

116 Second. The subscription to articles, and the enforcement of a creed by penalties, are nugatory for their own purpose; they fail to secure uniformity of belief.

117 This is shown in various ways. For instance, to inculcate adhesion to a set of articles, is merely to ensure that none shall use words that formally deny one or other of the doctrines prescribed. 118 It does not say, that the subscriber shall teach the whole round of doctrines, in their due order and proportion. 119 A preacher may at pleasure omit from own pulpit discourses any single doctrine; so that, in so far as own ministrations

are concerned, to the hearers such doctrine is non-existent; without being denied, it is ignored. 120 Against omission, a prosecution for heresy would not hold. In this way, the clergy have always had a certain amount of liberty, and have freely used it. 121 In so doing, they have altered the whole character of the prescribed creed, without being technically heterodox. 122 Everyone of us has listened to preachers of this description. Some ignore the Trinity, some the Atonement; many nowadays, without denying future punishment, never mention hell to ears polite. 123 If the rigorous exclusion of a leading doctrine should excite misgivings, a very slight, formal, and passing admission may be made, while the stress of exhortation is thrown upon quite different points.

SUBSCRIPTION FAILS TO ATTAIN ITS END

124 To attain a conviction for heresy, involving deprivation of office, the forms of justice must be respected. 125 It is only under peculiar circumstances, that the ecclesiastical authority can be content with saying, "I do not like thee, Dr. Fell, or Dr. Smith, and I depose thee accordingly". 126 A regular trial, with proof of specific contradiction of specific articles, allowing the accused the full benefit of own explanations, must be the rule in every corporation that respects justice. 127 In the Church of England, a person cannot be deprived unless you contradict the articles clearly and consistently; 128 the smallest incoherence on your part, the slightest vacillation in the rigour of your denial, is enough to save you. 129 We may easily imagine, therefore, how widely a clergyman may stray from the fair, ordinary, current rendering of the doctrines of the Church, without danger. 130 The whole essence of Christianity may be perverted under a few cunning precautions and by observing a few verbal formalities. 131 It has been pointed out, many times over, that the legally imposed creeds were the creatures of accident and circumstances at the time of their enactment, 132 and are wholly unsuitable to the

conservation of the more permanent and essential articles of the Christian faith. 133 The amount of heresy, as against the more truly representative doctrines, that may pass through their meshes is very great.

134 This weakness is aggravated by another-- the want of any provision for amending the creed from time to time. 135 If it were desirable to adopt measures for maintaining uniformity of opinions among the clergy, the creed should be excised, or added to, according to the needs of every age. 136 That this is not done, shows that the machinery of tests is altogether abnormal; it is not within the type of regular legislation. 137 That any given creed should be regarded as out of keeping, as both redundant and defective, and yet that the ecclesiastical authority should shrink from applying a remedy to its most obvious defects, proves that the system itself is bad. 138 All healthy legislation lends itself to perpetual improvement; that the enactments of articles of belief cannot be reconsidered, is a sign of rottenness.

139 A third objection to tests is, that mere dogmatic uniformity, if it were more complete than any tests can make it, is at best but a part of the religious character. 140 It does nothing to secure or promote fervour, feeling, the emotional element in religion. 141 It is by moral heat, far more than by its mould of doctrine, that religion influences humankind. 142 There is no means of censuring preachers for coldness or languid indifference; or rather, there is another and more legitimate means than penal prosecutions, namely, expressed dissatisfaction and the preference of those that excel in the quality. 143 A warm, glowing manner, an unctuous delivery, commands hearers and conducts to popularity and importance. 144 The people of cold and unfeeling natures may get into office, but they are lightly esteemed. 145 They are not had up to a public trial and deposed, but they are treated, and spoken of, in such a way as to discourage people of their type from becoming preachers, and to encourage the other sort. 146 There are many qualifications that go to forming a good preacher; the

holding of the creed of the body is only one. 147 Yet, with the exception of gross immorality or abandonment of duty, correctness of creed is the only one that is subjected to the extreme penalty of loss of office; the others are secured by different means. 148 Is it too much to infer that, without the extreme penalty, a reasonable conformity to the prevailing creed might also be secured?

ELEMENT OF FEELING NOT SECURED

149 The importance of the element of feeling has been most perceived in times when the religious current was strongest. 150 At these times, its expression would not be hemmed in by rigorous formulas. 151 The first communication of religious doctrines has always partaken of a broad and free rendering; apparent discrepancies were disregarded. 152 To reduce all the utterances of the prophets and the apostles to definite forms and rigid dogmas, was to misconceive the situation. 153 We may well suppose that the New Testament writers would have refused to subscribe the Athanasian Creed or the Westminster Confession; 154 not because these were in flat contradiction to Scripture, but because the way of embodying the religious verities in these documents would be repugnant to their ideas of form in such matters. 155 The creed-builders may have been never so anxious to give exact equivalents of the original authorities; 156 yet their fine distinctions and subtle logic would have, in all probability, been ranked by Paul and Peter among the latter-day perversions of the faith. 157 The very composition of a creed would have been as distasteful to the first century, as it is incongruous to the nineteenth.

158 The evil operation of religious tests, and of the accompanying intolerance of the public mind as shown towards any form of dissent from the stereotyped orthodoxy, admits of a very wide handling. 159 It is of course the problem of religious liberty. 160 Some parts of the argument need to be reproduced here, to help us in replying to the objections against

an unconditional abolition of compulsory creeds.

161 In conversing, many years ago, with the late Jules Mohl, the great Oriental scholar, professor of Persian in the College de France, I was much struck with his account of the nature of his duties as an expounder of the modern Persian authors. 162 These authors, for example the poet Sadi, were in creed adherents of the ancient Persian fire-worship, notwithstanding the Mohammedan conquest of their country. 163 They were, of course, forbidden to avow that creed directly; and in consequence, they had recourse to a form of composition by ‘doubles entendres’, veiling the ancient creed under Mohammedan forms. 164 Mohl's business, as their expounder, was to strip off the disguise and show the true bearings of the writers, under their show of conformity to the established opinions.

165 This is a typical illustration of what has happened in Europe for more than two thousand years. The first recorded martyr to free speculation in philosophy was Anaxagoras in Greece. 166 Muleted in the sum of five talents, and expelled from Athens, he was considered fortunate in being allowed to retire to Lampsacus and end his days there. 167 His fate, however, was soon eclipsed by the execution of Socrates,-- an event whereby the Athenian burghers were enabled to bias the expression of free opinions from that time to this. 168 The first person to feel the shock was Plato. That he was affected by it, to the extent of suppressing his views on the higher questions, we can infer with the greatest probability.

CONSEQUENCES OF THE EXECUTION OF SOCRATES

169 Aristotle was equally cowed. A little before his death, the chief priest of Eleusis, following the Socratic precedent, entered an indictment against him for impiety. 170 This indictment was supported by citations of certain heretical doctrines from his published writings; 171 on which Grote makes the significant remark, that his paean in honour of

his friend Hermeias would be more offensive to the feelings of an ordinary Athenian citizen than any philosophical dogma extracted from the ‘cautious prose compositions’ of Aristotle. 172 That is to say, the execution of Socrates was always before his eyes; he had to pare his expressions so as not to give offence to Athenian orthodoxy. 173 We can never know the full bearings of such a disturbing force. The editors of Aristotle complain of the corruptness of his text; a far worse corruptness lies behind. 174 In Greece, Socrates alone had the courage of his opinions. While his views as to a future life, for example, are plain and frank, the real opinion of Aristotle on the question is an insoluble problem. 175 Now, considering the enormous sway of Aristotle in modern Europe,-- how desirable was it that his real sentiments had reached us unperverted by the Athenian burgher and the hemlock!

175 It would be too adventurous to continue the illustration in detail through the Christian ages. 176 It is well known that the later schoolmen strove to represent reason as against authority, but wrote under the curb of the Papal power; hence their aims can only be divined. A modern instance or two will be still more effective.

177 It can at last be clearly seen what was the motive of Carlyle's perplexing style of composition. 178 We now know what his opinions were, when he began to write, and that to express them then would have been fatal to his success; yet he was not a man to indulge in rank hypocrisy. 179 He, accordingly, adopted a studied and ambiguous phraseology, which for long imposed upon the religious public, who put their own interpretation upon his mystical utterances, and gave him the benefit of any doubts.

180 In the "Life of Sterling" he threw off the mask, but still was not taken at his word. 181 Had there been a perfect tolerance of all opinions he would have begun as he ended; and his strain of composition, while still mystical and high-flown, would never have been identified with our national orthodoxy.

182 I have grave doubts as to whether we possess Macaulay's real opinions on religion. 183 His way of dealing with the subject is so like the hedging of an unbeliever that, without some good assurance to the contrary, I must include him also among the imitators of Aristotle's "caution". 184 Some future critic will devote the self, like Professor Mohl, to expounding own ambiguous utterances.

EVIL
OF DISFRANCHISING THE CLERGY

185 When Sir Charles Lyell brought out his "Antiquity of Man" he too was cautious. 186 Knowing the dangers of his footing, he abstained from giving an estimate of the extension of time required by his evidences of human remains. 187 Society in London, however, would not put up with that reticence, and he had to disclose at dinner parties what he had withheld from the public-- 188 namely, that, in his opinion, the duration of human could not be less than fifty thousand years.

189 These few instances must suffice to represent a long history of compelled reticence on the part of the people best qualified to instruct humankind. 190 The question now is-- What has been gained by it? What did the condemnation of Socrates do for the Athenian public? What did the chief priest of Eleusis hope to attain by indicting Aristotle? 191 Unless we can show, as is no doubt attempted, that the set of opinions that happen to be consecrated at any one time, whether right or wrong, were essential to the existence of society,-- 192 then the attempt to improve upon them was truly meritorious, instead of being censurable. 193 If the good of society as a whole is not plainly implicated, there remains only the interest of the place-holders under the existing system, as opposed to the interest of the mass of the people, who are, one and all, concerned in knowing the truth.

194 Again contracting the discussion to the narrow limits of the title of the essay, I must urge the special injury done to humankind by disfranchising the

whole clerical class; 195 that is to say, by depriving their authority of its proper weight in matters of faith. 196 It is an incontrovertible rule of evidence, that the authority of an interested party is devoid of worth. 197 Reasons are good in themselves, whoever utters them; but in trusting to authority, apart from reason, we need a disinterested authority. 198 This the clergy at present are not, except on the points left undecided by the articles. If a person has five thousand a year, conditional on holding certain views, the holding those views says nothing in their favour. 199 For a much less bribe, plenty of people can be 'got to maintain any opinions whatsoever. 200 When to this is added that, for certain other views, the holders are subjected to loss-- it may be to fine, imprisonment, or death,-- the value of people's adhesion to the favoured creed, as mere authority, is simply ‘nil’.

201 Truth, honesty, outspokenness, are not so well established as virtues, that we can afford to subject them to discouragement. 202 The contrary course would be more for the general good in every way. When the law is intolerant in principle, people will be hypocrites from policy. 203 You cannot train children to speak the truth if, from whatever cause, they have an interest in deception. 204 A repressive discipline induces a coarse outward submission, but cannot reach the inward parts: it only engenders hatred, and substitutes for open revolt an insidious secret retaliation. 205 Those only that come under the generous nurture of freedom can be counted on for hearty and willing devotion. 206 If we would reap the higher virtues, we must sow on the soil of liberty. 207 Encourage a person to say whatever one thinks, and you make the most of the person; 208 for difficult questions, where the mind needs all its powers, there should be no burdensome 'caution' in giving out the results.

RELAXATION NOW PRESSING

209 The imposing of subscription has its defenders, and these have to be fairly met. First, however, let us advert to the reasons why

relaxation is more pressing now than formerly.

210 It is known that, among dissentients from the leading dogmas of the prevailing creed of Christendom, are to be included some of the most authoritative names of the last three centuries; 211 our present formulas would not have been subscribed by Bacon, Newton, Locke, Kant; unless from mere pliancy and for the sake of quiet, like Hobbes. 212 If they had been in clerical orders, and had freely avowed their opinions as we know them, they would have been liable to deposition. 213 Yet the difficulties that these men might feel were far less than those that now beset the profession of our prevailing creeds. 214 The advances of knowledge on all the subjects that come into contact with the various articles, as received by the orthodox Churches, may not, indeed, compel the relinquishment of those articles, but will force the holders to change front, to re-shape them in different forms. 215 To such necessary modification, the creeds are a fatal obstacle. On a few points, such as the Creation in six days, these have been found elastic. 216 The doctrine that death came by the fall has been explained away as spiritual death. This process cannot go much further, without too much paltering with obvious meanings. 217 The recently-proclaimed doctrine of the Antiquity of Man comes into apparent conflict with human's creation and fall, as set forth in Genesis, on which are suspended the most vital doctrines of our creed. 218 A reconciliation may be possible, but not without a very extensive modification of the scheme of the Atonement. 219 It is not necessary to press Darwin's doctrine of Evolution; the deficiency of positive proof for that hypothesis may always be pleaded, as against the havoc it would make with the more distinctive points of Christian doctrine. 220 But the existence of human on the earth, at the very lowest statement, must be carried back twenty thousand years; this is not hypothesis, but fact. 221 The record of the creation and the fall of man will probably have to be subjected to a process of allegorising, but with inevitable

loss. 222 Now, whoever refuses a matter of fact counts on being severely handled; it is a different thing to refuse an allegory.

223 The modern doctrine named the "struggle for existence" is the old difficulty, known as "the origin of evil," presented in a new shape. 224 It is rendered more formidable, as a stumbling-block to the benevolence of the Author of Nature, by making what was considered exceptional the rule. 225 It gathers up into one comprehensive statement the scattered occasions of misery, and reveals a system whereby the few thrive at the expense of the many. 226 The apologists for Divine goodness has thus an aggravation of their load, and needs to be freed from all unnecessary trammels in the shaping of their creed.

OPPOSING DOGMAS TO THE RECONCILED

227 It has not escaped attention, that the honours paid to the illustrious Darwin, are an admission that our received Christianity is open to revision. 228 In consequence of a few conciliatory phrases, Darwin has been credited with theism; nevertheless he has ridden rough-shod over all that is characteristic in our established creeds. 229 Can the creeds come scathless out of the ordeal?

230 It is passing from the greater to the less, to dwell upon the increasing difficulties connected with the Inspiration of the Bible. 231 The Church-of-Englander luckily escapes making shipwreck here; the legal interpretation of the formularies saves them. 232 Yet to humankind, generally, it seems necessary that a superior weight should attach to a revealed book; and the other Churches cling to some form of inspiration, notwithstanding the growing difficulties attending it. 233 Here too there must be more freedom given to the people that would extricate the situation. At all events, the doctrine should be made an open question. 234 Even Cardinal Newman suggests doubts as to its being an imperative portion of the creed.

235 The attacks made on all sides against the Miraculous element in religion will force on a change of

front. 236 When an eminent popular writer and sincere friend of the Church of England surrenders miracles without the slightest compunction, 237 it needs not the elaborate argumentation of "Supernatural Religion" to show that some new treatment of the question is called for. 238 But may it not be impossible to put the new wine into the sworn bottles?

239 Like most great innovations, the proposal to liberate the clergy from all restraint as to the opinions that they may promulgate, necessarily encounters opposition. We are, therefore, bound to consider the reasons on the other side.

240 These reasons may be quoted in mass. As regards Established Churches in particular, it is said there is a State compact or understanding with the clergy that they should teach certain doctrines and no other; 241 that if tests were abolished, there would be no security against the most extreme opinions; 242 people eating the bread of a Reformed Church might inculcate Romanism instead of Protestantism; the pulpits might give forth Deism or Agnosticism. 243 No sect could hope to maintain its principles, if the clergy might preach any doctrine that pleased themselves. 244 More especially would it be monstrous and unjust, to allow the rich benefices of our highly endowed Church of England to be enjoyed by people whose hearts are in some quite different form of religion, 245 or no religion, and who would occupy themselves in drawing people away from the faith.

246 On certain assumptions, these arguments have great force. Clearly a person ought not to take pay for doing one thing and do something quite different. 247 When a body of religionists come together upon certain tenets, it would be a ‘reductio ad absurdum’ for any of its ministers to be occupied in denying and controverting these tenets.

248 All this supposes, however, that people will not be made to conform by any means short of prosecution and deprivation; 249 that the suspending of a severe penalty over people's heads is in itself a harmless device; 250 and that religious systems are now stereotyped to our satisfaction, so

that to deviate from them is mere wantonness and love of singularity. 251 Such are the assumptions that we feel called upon to challenge.

252 The plea that the Church has engaged itself to the State to teach certain tenets, in return for its emoluments and privileges, has lost its point in our time. 253 'L'état, c'est moi.' The Church and the State are composed of the same persons. Gibbon's famous ‘mot’ has collapsed. 254 'The religions of the Roman world,' he says, 'were all considered by the people as equally true, by the philosopher as equally false, and by the magistrate as equally useful'. 255 The people are now their own magistrates, and the true and the useful must contrive to unite upon the same thing. 256 If the Church feels subscription and fixity of creed a burden, it has only to turn its members to account in their capacity of citizens of the State to relieve itself. 257 If it silently ignores the creed, it is still responsible mainly to itself.

POSSIBLE ABUSES OF CLERICAL FREEDOM

258 The more serious objection is the possible abuse of the freedom of the clergy to utter opinions at variance with the prevailing creed. This position needs a careful scrutiny.

259 In the first place, the argument: supposes a condition of things that has now ceased. 260 When creeds were accepted in their literality by the bodies professing them, when the state of general opinion contained nothing hostile, and suggested no difficulties,-- 261 for any one member of a body to turn traitor may have well seemed mere perversity, temper, love of singularity, or anything but a wish to get at truth. 262 The offence assumed the character of a moral obliquity, and discipline can never be relaxed for immorality proper.

263 All the circumstances are now changed. The ministers and members of religious communities no longer cherish the same set of doctrines with only immaterial varieties; they no longer accept their articles in the sense of the original framers. 264 The body at

large has contracted the immoral taint; the whole head is sick; any remaining soundness is not with the acquiescent mass, but with the out-spoken individuals. 265 In such a state of things, ordinary rules are inapplicable. 266 There is a sort of paralysis of authority, an uncertainty whether to punish or to wink at flagrant heresy. 267 To say in such a case that the relaxation of the creed is not a thing to be proposed, is to confess, like Livy on the condition of Rome, that we can endure neither our vices nor their remedies.

268 Too much has at all times been made of individual divergences from the established creed. 269 The influence of a solitary preacher smitten with the love of heretical peculiarity has been grossly overrated. 270 The assumption is, that your own flock will, as a matter of course, follow their shepherd; 271 that is to say, the adhesion of individual congregations to the creed of the Church depends upon its being faithfully reproduced by their regular minister. 272 Such is not by any means the fact; the creed of the members of a Church is not at the mercy of any passing influence. 273 It has been engrained by a plurality of influences; one person did not make it, and one person cannot unmake it. 274 Moreover, allowance should be made for the spirit of opposition found in Church members, as well as in other people.

INDIVIDUAL DIVERGENCES UNIMPORTANT

275 It may be said that persons ought not to be subjected to the annoyance of hearing attacks upon their hereditary tenets, in which they expect to be more and more confirmed by their spiritual teacher. 276 This is of course, in itself, an evil. 277 We are not to expect ordinary people to recognise the necessity of listening to the arguments against their views, in order to hold these all the stronger. 278 If this height were generally reached, every Church would invite, as a part of its constituted machinery, a representative of all the heresies afloat; 279 a certain number of its ministers should be the avowed

champions of the views most opposed to its own-- ‘advocati diaboli’, so to speak. 280 There would then be nothing irregular in the retention of converts from its own number to these other doctrines. 281 It would be, however, altogether improper to found any argument on the supposition of such a state of matters.

282 It is an incident of every institution made up of a large collection of officials, that some one or more are always below the standard of efficiency, whence those that depend on their services must suffer inconvenience. 283 A great amount of dullness in preaching has always to be tolerated; so also might an occasional deviation from orthodoxy; 284 the more so, that the severity of the discipline for heresy has a good deal to do with the dullness.

285 If heretical tendencies have shown themselves in a Church communion, either they are absurd, unmeaning, irrelevant-- 286 perhaps a reversion to some defunct opinion,-- or they are the suggestion of new knowledge in theology, or outside of it. 287 In the first case, they will die a natural death, unless prosecution gives them importance; in the other case, they are to be candidly examined, to be met by argument rather than by deposition. 288 An individual heretic can always be neglected; if you are enthusiastic and able, you may have a temporary following, especially when the community has sunk into torpor. 289 If two or three in a hundred adopt erroneous opinions, it is nothing; if thirty or forty in a hundred have been led astray, the matter hangs dubious, and discretion is advisable. 290 When a majority is gained, the fullness of the time has arrived; the heresy has triumphed.

291 However strong may be the theoretical reasons for the abolition of the penal sanctions to orthodoxy, they do not dispense with the confirmation of experience; 292 and I must next refer to the more prominent examples of Churches constituted on the principle of freedom to the clergy.

THE ENGLISH PRESBYTERIAN CHURCH EXEMPLARY

293 The most remarkable and telling instance is that furnished by the English Presbyterian Church, with its coadjutor in Ireland. 294 The history of this Church is not unfamiliar to us; the great lawsuit relating to Lady Hewley's charity gave notoriety to the changes of opinion that had come over it in the course of a century. 295 But whoever is earnest on the question as to the expediency of tests should study the history thoroughly, as being in every way most instructive. 296 The leading facts, as concerns the present argument, are mainly these:-- First, the great decision at the Salters' Hall conference, on the 10th of March, 1719, when, by a majority of 73 to 69, it was resolved to exact no test from the clergy as a condition of their being ordained ministers of the body. 297 The point more immediately at issue was the Trinity, on which opinions had been already divided; but the decision was general. 298 The principle of the right of private judgment admitted of no exceptions.

299 Second. Long before this decision, the minds of the ministers had been ripening to the conviction, that creeds and subscriptions could do no good, and often did harm, indeed, the terms employed by some of them are everything that we now desire. 300 For example, Joseph Hunter, on the eve of the decision, wrote thus: "We have always thought that such human declarations of faith were far from being eligible on their own account, 301 since they tend to narrow the foundations of Christianity and to restrain that latitude of expression in which our great Legislator has seen fit to deliver His Will to us".

302 Third. Most remarkable is it to witness the consequences of this great act of emancipation. 303 A hundred and sixty-five years have elapsed-- a sufficient time for judging of the experiment. 304 The Presbyterian body at the time were made up partly of Arians, partly of Trinitarians, who held each other in mutual tolerance; the ministers freely exchanging pulpits. 305 No bad consequence followed. We do

not hear of individual ministers going to extravagant lengths in either direction. 306 A large body gravitated, in the course of time, to the modern Unitarian position; but, considering the start, the stride was not great.

307 In such a century as the eighteenth, there might well have been greater modifications of the creeds than actually occurred. 308 Evidently, in the absence of any compulsory adherence to settled articles, there was an abundant tendency to conservatism. 309 Commencing with Baxter, Howe, and Calamy, we find, in the course of the century, such names as Lardner, Price, Priestley, Belsham, Kippis, James Lindsay, Lant Carpenter—310 people of liberal and enlightened views on all political questions, and earnest in their good works. 311 These men's testimony to what is truth in religion, is of more value to us than the opinions of the creed-bound clergy. 312 Reason is still reason, but the weight of authority is with the free enquirers.

313 Fourth. The history of the Presbyterians answers a question that may be properly asked of the creed-abolitionist; namely, What bond is left to hold a religious community together? 314 The bond, in their case, simply was voluntary adhesion and custom. A religious community may hold together, like a political party, with only a vague tacit understanding. 315 When a body is once formed, it has an outward cohesion, which is quite enough for maintaining it in the absence of explosive materials. 316 The established Churches could retain their historical continuity under any modification of the articles. 317 By the present system, they have been habituated to take their creed as their legal definition; for that they could substitute their history and framework.

MODES OF TRANSITION FROM THE PRESENT SYSTEM

318 Various modes have been suggested for making the transition from the present system. One way is, to fall back upon the Bible as a test. This is the same as no test at all. 319 A person could not call the self a Christian minister, if you did not accept the

Bible in some sense; 320 and it would be obviously impracticable to frame a libel, and conduct a process for heresy, on an appeal to the Old and New Testaments at large. 321 The Bible may be the first source of the Christian faith, but other confluent streams have entered into its development; 322 and we must accept the consequences of a fact that we cannot deny. 323 However much religion may have to be broadened and liberalised, the operation cannot consist in reverting to the literal phraseology of the Bible.

324 A second method is, to prune away the portions of the creed that are no longer tenable. 325 It could not have been intended by the original framers of the creeds, that they should remain untouched for centuries. 326 With many Churches, there was a clear understanding that the formulas should be revised at brief intervals. The non-established Churches show a disposition to resume this power. 327 The United Presbyterian Church of Scotland has had the courage to make a beginning; still, relief will not in this way be given to minorities, and small changes do not correspond to the demands of new situations.

328 A more effectual mode is to discourage and suspend prosecutions for heresy. 329 The practice of heresy-hunting might be allowed to fall into disuse. Instead of deposing heretics, the orthodox champions should simply refute them.

330 In the Church of England, in particular, a change of the law may be necessary to give the desired relaxation. 331 The judges before whom heretics are tried are very exacting in the matter of evidence, but they cannot stop a prosecution made in regular form. 332 The Church of Scotland has more latitude in this respect, and has already given indications of entering on the path leading to desuetude.

The Fifth Book of Divine Panagogue called

MATTER

HUMAN OR MATTER
Ernst Lehrs

1 When I first made acquaintance with Rudolf Steiner and his work, I was finishing my academic training as an electrical engineer. 2 At the end of the 1914-18 war my first thought had been to take up my studies from where I had let them drop, four years earlier. 3 The war seemed to imply nothing more than a passing interruption of them. This, at any rate, was the opinion of my former teachers; 4 the war had made no difference whatever to their ideas, whether on the subject-matter of their teaching or on its educational purpose. 5 I myself, however, soon began to feel differently. It became obvious to me that my relationship to my subject, and therefore to those teaching it, had completely changed.

6 What I had experienced through the war had awakened in me a question of which I had previously been unaware; now I felt obliged to put it to everything I came across.

7 As a child of my age I had grown up in the conviction that it was within the scope of human to shape own life according to the laws of reason within you; 8 your progress, in the sense in which I then understood it, seemed assured by your increasing ability to determine your own outer conditions with the help of science. 9 Indeed, it was the wish to take an active part in this progress that had led me to choose my profession. 10 Now, however, the war stood there as a gigantic social deed which I could in no way regard as reasonably justified. 11 How, in an age when the logic of science was supreme, was it possible that a great part of humankind, including just those peoples to whom science had owed its origin and never-ceasing expansion, could act in so completely unscientific a way? 12 Where lay the causes of the contradiction thus revealed between human thinking and human doing?

13 Pursued by these questions, I decided after a while to give my studies a new turn. 14 The kind of

training then provided in Germany at the so-called Technische Hochschulen was designed essentially to give students a close practical acquaintance with all sorts of technical appliances; 15 it included only as much theory as was wanted for understanding the mathematical calculations arising in technical practice. 16 It now seemed to me necessary to pay more attention to theoretical considerations, so as to gain a more exact knowledge of the sources from which science drew its conception of Nature. 17 Accordingly I left the Hochschule for a course in mathematics and physics at a university, though without abandoning my original idea of preparing for a career in the field of electrical engineering. 18 It was with this in mind that I later chose for my Ph.D. thesis a piece of experimental research on the uses of high-frequency electric currents.

19 During my subsequent years of stuffy, however, I found myself no nearer an answer to the problem that haunted me. All that I experienced, in scientific work as in life generally, merely gave it an even sharper edge. 20 Everywhere I saw an abyss widening between human knowing and human action. 21 How often was I not bitterly disillusioned by the behaviour of humans for whose ability to think through the most complicated scientific questions I had the utmost admiration!

22 On all sides I found this same bewildering gulf between scientific achievement and the way people conducted their own lives and influenced the lives of others. 23 I was forced to the conclusion that human thinking, at any rate in its modern form, was either powerless to govern human actions, or at least unable to direct them towards right ends. 24 In fact, where scientific thinking had done most to change the practical relations of human life, as in the mechanisation of economic production, conditions had arisen which made it more difficult, not less, for people to live in a way worthy of human. 25 At a time when humanity was equipped as never before to investigate the order of the universe, and had achieved triumphs of design in mechanical constructions, human

life was falling into ever wilder chaos. Why was this?

26 The fact that most of my contemporaries were apparently quite unaware of the problem that stirred me so deeply could not weaken my sense of its reality. 27 This slumber of so many souls in face of the vital questions of modern life seemed to me merely a further symptom of the sickness of our age. 28 Nor could I think much better of those who, more sensitive to the contradictions in and around them, sought refuge in art or religion. 29 The catastrophe of the war had shown me that this departmentalising of life, which at one time I had myself considered a sort of ideal, was quite inconsistent with the needs of to-day. 30 To make use of art or religion as a refuge was a sign of their increasing separation from the rest of human culture. 31 It implied a cleavage between the different spheres of society which ruled out any genuine solution of social problems.

32 I knew from history that religion and art had once exercised a function which is to-day reserved for science, for they had given guidance in even the most practical activities of human society. 33 And in so doing they had enhanced the quality of human living, whereas the influence of science has had just the opposite effect. 34 This power of guidance, however, they had long since lost, and in view of this fact I came to the conclusion that salvation must be looked for in the first place from science. 35 Here, in the thinking and knowing of human, was the root of modern troubles; here must come a drastic revision, and here, if possible, a completely new direction must be found.

36 Such views certainly flew in the face of the universal modern conviction that the present mode of knowledge, with whose help so much insight into the natural world has been won, is the only one possible, given once for all to human in a form never to be changed. 37 But is there any need, I asked myself, to cling to this purely static notion of human's capacity for gaining knowledge? 38 Among the greatest achievements of modern science, does not the conception of evolution take a foremost place? 39

And does not this teach us that the condition of a living organism at any time is the result of the one preceding it, and that the transition implies a corresponding functional enhancement? 40 But if we have once recognised this as an established truth, why should we apply it to organisms at every stage of development except the highest, namely the human, where the organic form reveals and serves the self-conscious spirit?

41 Putting the question thus, I was led inevitably to a conclusion which science itself had failed to draw from its idea of evolution. 42 Whatever the driving factor in evolution may be, it is clear that in the kingdoms of Nature leading up to human this factor has always worked on the evolving organisms from outside. 43 The moment we come to human, however, and see how evolution has flowered in your power of conscious thought, we have to reckon with a fundamental change.

44 Once a being has recognised itself as a product of evolution, it immediately ceases to be that and nothing more. 45 With its very first act of self-knowledge it transcends its previous limits, and must in future rely on its own conscious actions for the carrying on of its development.

46 For me, accordingly, the concept of evolution, when thought through to the end, began to suggest the possibility of further growth in human's spiritual capacities. 47 But I saw also that this growth could no longer be merely passive, and the question which now beset me was: by what action of your own can human break your way into this new phase of evolution? 48 I saw that this action must not consist merely in giving outer effect to the natural powers of human thinking; that was happening everywhere in the disordered world around me. 49 The necessary action must have inner effects; indeed, it had to be one whereby the will was turned upon the thinking-powers themselves, entirely transforming them, and so removing the discrepancy between the thinker and the doer in modern human.

50 Thus far I could go through my own observation and reflexion, but no further. 51 To form a general idea of the deed on which

everything else depended was one thing; it was quite another to know how to perform the deed, and above all where to make a start with it. 52 Anyone intending to make a machine must first learn something of mechanics; 53 in the same way, anyone setting out to do something constructive in the sphere of human consciousness - and this, for me, was the essential point – must begin by learning something of the laws holding sway in that sphere. But who could give me this knowledge?

54 Physiology, psychology and philosophy in their ordinary forms were of no use to me, for they were themselves part and parcel of just that kind of knowing which had to be overcome. 55 In their various accounts of human there was no vantage point from which the deed I had in mind could be accomplished, for none of them looked beyond the ordinary powers of knowledge. 56 It was the same with the accepted theory of evolution; as a product of the current mode of thinking it could be applied to everything except the one essential - this very mode of thinking.

57 Obviously, the laws of the development of human consciousness cannot be discovered from a standpoint within the modern form of that consciousness. 58 But how could one find a viewpoint outside, as it were, this consciousness, from which to discover its laws with the same scientific objectivity which it had itself applied to discovering the laws of physical Nature?

59 It was when this question stood before me in all clarity that destiny led me to Rudolf Steiner and his work. 60 The occasion was a conference held in 1921 in Stuttgart by the Anthroposophical Movement; it was one of several arranged during the years 1920-2 especially for teachers and students at the Hochschulen and Universities. 61 What chiefly moved me to attend this particular conference was the title of a lecture to be given by one of the pupils and co-workers of Rudolf Steiner - 'The Overcoming of Einstein's Theory of Relativity'.

62 The reader will readily appreciate what this title meant for me. In the circles where my work lay, an intense controversy was

just then raging round Albert Einstein's ideas. 63 I usually took sides with the supporters of Einstein, for it seemed to me that Einstein had carried the existing mode of scientific thinking to its logical conclusions, whereas I missed this consistency among his opponents. 64 At the same time I found that the effect of this theory, when its implications were fully developed, was to make everything seem so 'relative' that no reliable world-outlook was left. 65 This was proof for me that our age was in need of an altogether different form of scientific thinking, equally consistent in itself, but more in tune with human's own being.

66 What appealed to me in the lecture-title was simply this, that whereas everyone else sought to prove Albert Einstein right or wrong, 67 here was someone who apparently intended, not merely to add another proof for or against his theory-there were plenty of those already - but to take some steps to overcome it. 68 From the point of view of orthodox science, of course, it was absurd to speak of 'overcoming' a theory, as though it were an accomplished fact, but to me this title suggested exactly what I was looking for.

69 Although it was the title of this lecture that drew me to the Stuttgart Conference-- circumstances prevented me from hearing just this lecture,-- 70 it was the course given there by Rudolf Steiner himself which was to prove the decisive experience of my life. 71 It comprised eight lectures, under the title: 'Mathematics, Scientific Experiment and Observation, and Epistemological Results from the Standpoint of Anthroposophy'; what they gave me answered my question beyond all expectation.

72 In the course of a comprehensive historical survey the lecturer characterised, in a way I found utterly convincing, the present mathematical interpretation of Nature as a transitional stage of human consciousness-- 73 a kind of knowing which is on the way from a past pre-mathematical to a future post-mathematical form of cognition. 74 The importance of mathematics, whether as a discipline of the human spirit or as

an instrument of natural science, was not for a moment undervalued. 75 On the contrary, what Rudolf Steiner said about Projective (Synthetic) Geometry, for instance, its future possibilities and its role as a means of understanding higher processes of Nature than had hitherto been accessible to science, 76 clearly explained the positive feelings I myself had experienced - without knowing why - when I had studied the subject.

77 Through his lectures and his part in the discussions - they were held daily by the various speakers and ranged over almost every field of modern knowledge-- I gradually realised that Rudolf Steiner was in possession of unique powers. 78 Not only did he show himself fully at home in all these fields; he was able to connect them with each other, and with the nature and being of human, in such a way that an apparent chaos of unrelated details was wrought into a higher synthesis. 79 Moreover, it became clear to me that one who could speak as he did about the stages of human consciousness past, present and future, must have full access to all of them at will, and be able to make each of them an object of exact observation. 80 I saw a thinker who was himself sufficient proof that human can find within the resources of own spirit the vantage-ground for the deed which I had dimly surmised, and by which alone true civilisation could be saved. 81 Through all these things I knew that I had found the teacher I had been seeking.

82 Thus I was fully confirmed in my hopes of the Conference; but I was also often astonished at what I heard. 83 Not least among my surprises was Rudolf Steiner's presentation of Goethe as the herald of the new form of scientific knowledge which he himself was expounding. 84 I was here introduced to a side of Goethe which was as completely unknown to me as to so many others among my contemporaries, who had not yet come into touch with Anthroposophy. 85 For me, as for them, Goethe had always been the great thinker revealing his thoughts through poetry. 86 Indeed, only shortly before my meeting with Rudolf Steiner it was in his poetry that Goethe had

become newly alive to me as a helper in my search for a fuller human experience of Nature and my fellow-humans. 87 But despite all my Goethe studies I had been quite unaware that more than a century earlier he had achieved something in the field of science, organic and inorganic alike, 88 which could help modern human towards the new kind of knowledge so badly needed to-day. 89 This was inevitable for me, since I shared the modern conviction that art and science were fields of activity essentially strange to one another. 90 And so it was again Rudolf Steiner who opened the way for me to Goethe as botanist, physicist and the like.

91 I must mention another aspect of the Stuttgart Conference which Belongs to this picture of my first encounter with Anthroposophy, and gave it special weight for anyone in my situation at that period. 92 In Stuttgart there were many different activities concerned with the practical application of Rudolf Steiner's teachings, and so one could become acquainted with teachings and applications at the same time. 93 There was the Waldorf School, founded little more than a year before, with several hundred pupils already.

94 It was the first school to undertake the transformation of anthroposophical knowledge of human into educational practice; later it was followed by others, in Germany and elsewhere. 95 There was one of the clinics, where qualified doctors were applying the same knowledge to the study of illness and the action of medicaments.

96 In various laboratories efforts were made to develop new methods of experimental research in physics, chemistry, biology and other branches of science. 97 Further, a large business concern had been founded in Stuttgart in an attempt to embody some of Rudolf Steiner's ideas for the reform of social life. 98 Besides all this I could attend performances of the new art of movement, again the creation of Rudolf Steiner and called by him 'Eurhythmy', 99 in which the astounded eye could see how noble a speech can be uttered by the human body when its limbs are moved in accordance with its

inherent spiritual laws. 100 Thus, in all the many things that were going on besides the lectures, one could find direct proof of the fruitfulness of what one heard in them.

101 Under the impression of this Conference I soon began to study the writings of Rudolf Steiner. Not quite two years later, I decided to join professionally with those who were putting Anthroposophy into outer practice. 102 Because it appeared to me as the most urgent need of the time to prepare the new generation for the tasks awaiting it through an education shaped on the entire human being, 103 I turned to Rudolf Steiner with the request to be taken into the Stuttgart School as teacher of natural science. 104 On this occasion I told him of my general scientific interests, and how I hoped to follow them up later on. 105 I spoke of my intended educational activity as something which might help me at the same time to prepare myself for this other task.

106 Anyone who learns so to see Nature that your ideas can be taken up and understood by the living, lively soul of the growing child will thereby be training the self, I thought, in just that kind of observation and thinking which the new science of Nature demands. 107 Rudolf Steiner agreed with this, and it was not long afterwards that I joined the school where I was to work for eleven years as a science master in the senior classes, which activity I have since continued outside Germany in a more or less similar form.

108 This conversation with Rudolf Steiner took place in a large hall where, while we were talking, over a thousand people were assembling to discuss matters of concern to the Anthroposophical Movement. 109 This did not prevent him from asking me about the details of my examination work, in which I was still engaged at that time; he always gave himself fully to whatever claimed his attention at the moment. 110 I told him of my experimental researches in electrical high-frequency phenomena, briefly introducing the particular problem with which I was occupied.

111 I took it for granted that a question from such a specialised branch of physics would not be of much interest to him. 112 Judge of my astonishment when he at once took out of his pocket a note-book and a huge carpenter's pencil, made a sketch and proceeded to speak of the problem as one fully conversant with it, 113 and in such a way that he gave me the starting point for an entirely new conception of electricity. 114 It was instantly borne in on me that if electricity came to be understood in this sense, results would follow which in the end would lead to a quite new technique in the use of it. 115 From that moment it became one of my life's aims to contribute whatever my circumstances and powers would allow to the development of an understanding of Nature of this kind.

116 The speaker was the late Dr. Elizabeth Vreede, for some years leader of the Mathematical-Astronomical Section at the Goetheanum, Dornach, Switzerland. 117 The activities mentioned above do not exhaust the practical possibilities of Spiritual Science. 118 At that time (1921) Rudolf Steiner had not yet given his indications for the treatment of children needing special care of soul and body, 119 or for the renewal of the art of acting, or for the conquest of materialistic methods in agricultural practice. 120 Nor did there yet exist the movement for religious renewal Which Dr. Fr. Rittelmeyer later founded, with the help and advice of Rudolf Steiner.

WHERE DO WE STAND TO-DAY?

Ernst Lehrs

2 In the year 1932, when the world celebrated the hundredth anniversary of Goethe's death, Professor W. Heisenberg, one of the foremost thinkers in the field of modern physics, delivered a speech before the Saxon Academy of Science 2 which may be regarded as symptomatic of the need in recent science to investigate critically the foundations of its own efforts to know Nature. 3 In this speech Heisenberg draws a picture of the progress of science which differs significantly from the one

generally known. 4 Instead of giving the usual description of this progress as 'a chain of brilliant and surprising discoveries', 5 he shows it as resting on the fact that, with the aim of continually simplifying and unifying the scientific conception of the world, human thinking, in course of time, has narrowed more and more the scope of its inquiries into outer Nature. 6 'Almost every scientific advance is bought at the cost of renunciation, almost every gain in knowledge sacrifices important standpoints and established modes of thought. 7 As facts and knowledge accumulate, the claim of the scientist to an understanding of the world in a certain sense diminishes.' 8 Our justifiable admiration for the success with which the unending multiplicity of natural occurrences on earth and in the stars has been reduced to so simple a scheme of laws-- 9 Heisenberg implies-- must therefore not make us forget that these attainments are bought at the price 'of renouncing the aim of bringing the phenomena of Nature to our thinking in an immediate and living way'.

10 In the course of his exposition, Heisenberg also speaks of Goethe, in whose scientific endeavours he perceives a noteworthy attempt to set scientific understanding upon a path other than that of progressive self-restriction. 11 'The renouncing of life and immediacy, which was the premise for the progress of natural science since Newton, formed the real basis for the bitter struggle which Goethe waged against the physical optics of Isaac Newton. 12 It would be superficial to dismiss this struggle as unimportant: there is much significance in one of the most outstanding people directing all of own efforts to fighting against the development of Newtonian optics.' 13 There is only one thing for which Heisenberg critises Goethe: 'If one should wish to reproach Goethe, it could only be for not going far enough-- 14 that is, for having attacked the views of Newton instead of declaring that the whole of Newtonian Physics-Optics, Mechanics and the Law of Gravitation - were from the devil.' 15 Although the full significance of Heisenberg's remarks on Goethe will become apparent only at a

later stage of our discussion, they have been quoted here because they form part of the symptom we wish to characterise. 16 Only this much may be pointed out immediately, that Goethe - if not in the scientific then indeed in the poetical part of his writings - did fulfilll what Heisenberg rightly feels to have been his true task.

17 We mentioned Heisenberg's speech as a symptom of a certain tendency, characteristic of the latest phase in science, to survey critically its own epistemological foundations. 18 A few years previous to Heisenberg's speech, the need of such a survey found an eloquent advocate in the late Professor A. N. Whitehead, in his book ‘Science and the Modern World’, 19 where, in view of the contradictory nature of modern physical theories, he insists that 'if science is not to degenerate into a medley of ad-hoc hypotheses, it must become philosophical and enter upon a thorough criticism of its own foundations'.

20 Among the scientists who have felt this need, and who have taken pains to fulfilll it, the late Professor A. Eddington obtains an eminent position. 21 Among his relevant utterances we will quote here the following, because it contains a concrete statement concerning the field of external observation which forms the basis for the modern scientific world-picture. 22 In his Philosophy of Physical Science we find him stating that 'ideally, all our knowledge of the universe could have been reached by visual sensation alone-- in fact by the simplest form of visual sensation, colourless and non-stereoscopic'. 23 In other words, in order to obtain scientific cognition of the physical world, human has felt constrained to surrender the use of all own senses except the sense of sight, and to limit even the act of seeing to the use of a single, colour-blind eye.

24 Let us listen to yet another voice from the ranks of present-day science, expressing a criticism which is symptomatic of our time. 25 It comes from the late physiologist, Professor A, Carrel, who, concerning the effect which scientific research has had on human's life in general, says in his book, Human the Unknown: 26

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'The sciences of inert matter have led us into a country that is not ours. ... Human is a stranger in the world you have created.'

27 Of these utterances, Eddington's is at the present point of our discussion of special interest for us; 28 for he outlines in it the precise field of sense-perception into which science has withdrawn in the course of that general retreat towards an ever more restricted questioning of Nature which was noted by Heisenberg.

29 The pertinence of Eddington's statement is shown immediately one considers what a person would know of the world if your only source of experience were the sense of sight, still further limited in the way Eddington describes. 30 Out of everything that the world brings to the totality of our senses, there remains nothing more than mere movements, with certain changes of rate, direction, and so on. 31 The picture of the world received by such an observer is a purely kinematic one. And this is, indeed, the character of the world-picture of modern physical science. 32 For in the scientific treatment of natural phenomena all the qualities brought to us by our other senses, such as colour, tone, warmth, density and even electricity and magnetism, are reduced to mere movement-changes.

33 As a result, modern science is prevented from conceiving any valid idea of 'force'. In so far as the concept 'force' appears in scientific considerations, it plays the part of an 'auxiliary concept', 34 and what human naively conceives as force has come to be defined as merely a 'descriptive law of behaviour'. 35 We must leave it for later considerations to show how the scientific mind of human has created for itself the conviction that the part of science occupied with the actions of force in Nature can properly be treated with purely kinematic concepts. 36 It is the fact itself which concerns us here. In respect of it, note as a characteristic of modern text-books that they often simply use the term 'kinetics' (a shortening of kinematics) to designate the science of 'dynamics'.

37 In the course of our investigations we shall discover the peculiarity in human nature

which - during the first phase, now ended, of human's struggle towards scientific awareness-- 38 has caused this renunciation of all sense-experiences except those which come to human through the sight of a single colour-blind eye. 39 It will then also become clear out of what historic necessity this self-restriction of scientific inquiry arose. 40 The acknowledgment of this necessity, however, must not prevent us from recognising the fact that, as a result of this restriction, modern scientific research, which has penetrated far into the dynamic substrata of Nature, 41 finds itself in the peculiar situation that it is not at all guided by its own concepts, but by the very forces it tries to detect. 42 And in this fact lies the root of the danger which besets the present age.

43 You who recognises this, therefore, feels impelled to look for a way which leads beyond a one-eyed, colour-blind conception of the world. 44 It is the aim of this book to show that such a way exists and how it can be followed. 45 Proof will thereby be given that along this way not only is a true understanding achieved of the forces already known to science-- though not really understood by it,-- 46 but also that other forces, just as active in Nature as for example electricity and magnetism, come within reach of scientific observation and understanding. 47 And it will be shown that these other forces are of a kind that requires to be known to-day if we are to restore the lost balance to human civilisation.

48 There is a rule known to physicians that 'a true diagnosis of a case contains in itself the therapy'. 49 No true diagnosis is possible, however, without investigation of the 'history' of the case. 50 Applied to our task, this means that we must try to find an aspect of human development, both individual and historical, 51 which will enable us to recognise in human's own being the cause responsible for the peculiar narrowing of the scope of scientific inquiry, as described by the scientists cited above.

52 A characteristic of scientific inquiry, distinguishing it from human's earlier ways of solving the riddles of the world, 53 is that

it admits as instruments of knowledge exclusively those activities of the human soul over which we have full control because they take place in the full light of consciousness. 54 This also explains why there has been no science, in the true sense of the word, prior to the beginning of the era commonly called 'modern'--that is, before the fifteenth century. 55 For the consciousness on which human's scientific striving is based is itself an outcome of human evolution. 56 This evolution, therefore, needs to be considered in such a way that we understand the origin of modern human's state of mind, 57 and in particular why this state of mind cannot of itself have any other relationship to the world than that of a spectator. 58 For let us be clear that this peculiar relationship by no means belongs only to the scientifically engaged mind. 59 Every adult in our age is, by virtue of your psycho-physical structure, more or less a world-spectator. 60 What distinguishes the state of human's mind when engaged in scientific observation is that it is restricted to a one-eyed colour-blind approach.

61 'Death is the price human has to pay for own brain and own personality'-- 62 this is how a modern physiologist (A. Carrel in his aforementioned book, Human the Unknown) describes the connexion between human's bodily functions and your waking consciousness. 63 It is characteristic of the outlook prevailing in the nineteenth century that thinking was regarded as the result of the life of the body; that is, of the body's matter-building processes. 64 Hence no attention was paid at that time to the lonely voice of the German philosopher, C. Fortlage (1806-81), who in his System of Psychology as Empirical Science suggested that consciousness is really based on death processes in the body. 65 From this fact he boldly drew the conclusion (known to us today to be true) that if 'partial death' gave rise to ordinary consciousness, then 'total death' must result in an extraordinary enhancement of consciousness.

66 Again, when in our century Rudolf Steiner drew attention to the same fact, which he had found

along his own lines of investigation, 67 showing thereby the true role of the nervous system in regard to the various activities of the soul, official science turned a deaf ear to his pronouncement. 68 To-day the scientist regards it as forming part of 'unknown human' that life must recede-- in other words, that the organ-building processes of the body must come to a standstill-- if consciousness is to come into its own.

69 With the recognition of a death process in the nervous system as the bodily foundation of consciousness, and particularly of human's conceptual activities, 70 the question arises as to the nature of those activities which have their foundation in other systems, such as that of the muscles, where life, not death, prevails. 71 Here an answer must be given which will surprise the reader acquainted with modern theories of psycho-physical interaction; but if you meets it with an open mind you will not find it difficult to test.

72 Just as the conceptual activity has as its bodily foundation the brain, with the nervous appendages, 73 so it is volitional activity which is based on processes taking place in the muscular region of the body and in those organs which provide the body's metabolism.

74 A statement which says that human's will is as directly based on the metabolic processes of the body, both inside and outside the muscles, as is your perceiving and thought-forming mind on a process in the nerves, is bound to cause surprise. 75 Firstly, it seems to leave out the role commonly ascribed to the so-called motoric part of the nervous system in bringing about bodily action; 76 and secondly, the acknowledgment of the dependence of consciousness on corporeal 'dying' implies that willing is an unconscious activity because of its being based on life processes of the body.

77 The first of these two problems will find its answer at a later stage of our discussion when we shall see what entitles us to draw a direct connexion between volition and muscular action. 78 To answer the second problem, simple self-observation is required. This tells us that, when we move a limb, all

that we know of is the intention-- in its conceptual form-- which rouses the will and gives it its direction, and the fact of the completed deed. 79 In between, we accompany the movement with a dim awareness of the momentary positions of the parts of the body involved, so that we know whether or not they are moving in the intended manner.

80 This awareness is due to a particular sense, the 'sense of movement' or 'muscular sense' - one of those senses whose existence physiology has lately come to acknowledge. 81 Nothing, however, is known to us of all the complex changes which are set into play within the muscles themselves in order to carry out some intended movement. And it is these that are the direct outcome of the activity of our will.

82 Regarding human's psycho-physical organisation thus, we come to see in it a kind of polarity-- 83 a death-pole, as it were, represented by the nerves including their extension into the senses, and a life-pole, represented by the metabolic and muscular systems; 84 and connected with them a pole of consciousness and one of unconsciousness-- or as we can also say, of waking and sleeping consciousness. 85 For the degree of consciousness on the side of the life-pole is not different from the state in which the entire human being dwells during sleep.

86 It is by thus recognising the dependence of consciousness on processes of bodily disintegration that we first come to understand why consciousness, once it has reached a certain degree of brightness, is bound to suffer repeated interruptions. 87 Every night, when we sleep, our nervous system becomes alive-- though with gradually decreasing intensity-- in order that what has been destroyed during the day may be restored. 88 While the system is kept in this condition, no consciousness can obtain in it.

89 In between the two polarically opposite systems there is a third, again of clearly distinct character, which functions as a mediator between the two. 90 Here all processes are of a strictly rhythmic nature, as is shown by the process of breathing and the pulsation of the blood. 91 This system, too,

provides the foundation for a certain type of psychological process, namely feeling. 92 That feeling is an activity of the soul distinct from both thinking and willing, and that it has its direct counterpart in the rhythmic processes of the body, can be most easily tested through observing oneself when listening to music.

93 As one might expect from its median position, the feeling sphere of the soul is characterised by a degree of consciousness half-way between waking and sleeping. 94 Of our feelings we are not more conscious than of our dreams; we are as little detached from them as from our dream experiences while these last; 95 what remains in our memory of past feelings is usually not more than what we remember of past dreams.

96 This picture of the threefold psycho-physical structure of human will now enable us to understand the evolution of consciousness both in individual life and in the life of humankind. 97 To furnish the foundation of waking consciousness, parts of the body must become divorced from life. 98 This process, however, is one which, if we take the word in its widest sense, we may call, ageing. 99 All organic bodies, and equally that of human, are originally traversed throughout by life. 100 Only gradually certain parts of such an organism become precipitated, as it were, from the general organic structure, and they do so increasingly towards the end of that organism's life-span. 101 In the human body this separation sets in gently during the later stages of embryonic development and brings about the first degree of independence of bones and nerves from the rest of the organism. 102 The retreat of life continues after birth, reaching a certain climax in the nervous system at about the twenty-first year. 103 In the body of a small child there is still comparatively little contrast between living and non-living organs. 104 There is equally little contrast between sleeping and waking condition in its soul. And the nature of the soul at this stage is volition throughout. 105 Never, in fact, does human's soul so intensively will as in the time when it is occupied in bringing the body into an upright position, 106

and never again does it exert its strength with the same unconsciousness of the goal to which it strives. 107 What, then, is the soul's characteristic relationship to the world around at this stage? The following observations will enable us to answer this question.

108 It is well known that small children often angrily strike an object against which they have stumbled. 109 This has been interpreted as 'animism', by which it is meant that the child, by analogy with own experience of the self as a soul-filled body, imagines the things in own surroundings to be similarly ensouled. 110 Anyone who really observes the child's mode of experience-- of which we as adults, indeed, keep something in our will-life-- is led to a quite different interpretation of such a phenomenon. 111 For you realises that the child neither experiences the self as soul-entity distinct from own body, nor faces the content of the world in so detached a manner as to be in need of using own imagination to read into it any soul-entities distinct from one’s own.

112 In this early period of your life the human being still feels the world as part of the self, and the self as part of the world. 113 Consequently, your relation to the objects around you and to your own body is one and the same. 114 To the example of the child beating the external object it has stumbled against, there belongs the complementary picture of the child who beats the self because it has done something which makes the self angry with the self.

115 In sharp contrast to this state of oneness of the child's soul, in regard both to its own body and to the surrounding world, there stands the separatedness of the adult's intellectual consciousness, severed from both body and world. 116 What happens to this part of the soul during its transition from one condition to the other may be aptly described by using a comparison from another sphere of natural phenomena. 117 Later descriptions in this book will show that a comparison such as the one used here is more than a mere external analogy.

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118 Let us think of water in which salt has been dissolved. In this state the salt is one with its solvent; there is no visible distinction between them. The situation changes when part of the salt crystallises. 119 By this process the part of the salt substance concerned loses its connexion with the liquid and contracts into individually outlined and spatially defined pieces of solid matter. It thereby becomes optically distinguishable from its environment.

120 Something similar happens to the soul within the region of the nervous system. What keeps the soul in a state of unconsciousness as long as the body, in childhood, is traversed by life throughout, 121 and what continues to keep it in this condition in the parts which remain alive after the separation of the nerves, is the fact that in these parts - to maintain the analogy - the soul is dissolved in the body. 122 With the growing independence of the nerves, the soul itself gains independence from the body. 123 At the same time it undergoes a process similar to contraction whereby it becomes discernible to itself as an entity distinguished from the surrounding world. 124 In this way the soul is enabled, eventually, to meet the world from outside as a self-conscious onlooker.

125 What we have here described as the emergence of an individual's intellectual consciousness from the original, purely volitional condition of the soul is nothing but a replica of a greater process 126 through which humankind as a whole, or more exactly Western humankind, has gone in the course of its historical development. 127 Human was not always the 'brain-thinker' you are to-day. 128 Directly the separation of the nerve system was completed, and thereby the full clarity of the brain-bound consciousness achieved, human began to concern the self with science in the modern sense.

129 To understand why this science became restricted to one-eyed, colour-blind observation we need only apply to the human sense system, in particular, what we have learn't concerning human's threefold being.

130 Sharply distinguished by their respective modes of functioning though they are, the three bodily systems are each spread out through the whole body and are thus to be found everywhere adjacent to each other. 131 Hence, the corresponding three states of consciousness, the sleeping, dreaming and waking, are also everywhere adjacent and woven into one another. 132 It is the predominance of one or other which imparts a particular quality of soul to one or other region of the body. 133 This is clearly shown within the realm of sense activity, itself the most conscious part of the human being. 134 It is sufficient to compare, say, the senses of sight and smell, and to notice in what different degree we are conscious of the impressions they convey, and how differently the corresponding elements of conception, feeling and willing are blended in each. 135 We never turn away as instinctively from objectionable colour arrangement as from an unpleasant smell. 136 How small a part, on the other hand, do the representations of odours play in our recollection of past experiences, compared with those of sight. The same is valid in descending measure for all other senses.

137 Of all senses, the sense of sight has in greatest measure the qualities of a 'conceptual sense'. 138 The experiences which it brings, and these alone, were suitable as a basis for the new science, and even so a further limitation was necessary. 139 For in spite of the special quality of the sense of sight, it is still not free from certain elements of feeling and will - that is, from elements with the character of dream or sleep. 140 The first plays a part in our perception of colour; the second, in observing the forms and perspective ordering of objects we look at.

141 Here is repeated in a special way the threefold organisation of human, for the seeing of colour depends on an organic process apart from the nerve processes and similar to that which takes place between heart and lungs, 142 whilst the seeing of forms and spatial vision depend upon certain movements of the eyeball-- 143 quick traversing of the outline of

the viewed object with the line of sight, alteration of the angle between the two axes of sight according to distance,-- 144 in which the eye is active as a sort of outer limb of the body, an activity which enters our consciousness as little as does that of our limbs. 145 It now becomes clear that no world-content obtained in such more or less unconscious ways could be made available for the building of a new scientific world-conception. 146 Only as much as human experiences through the sight of a single, colour-blind eye, could be used.

147 If we would understand the role of science in the present phase of human development, we must be ready to apply two entirely different and seemingly contradictory judgments to one and the same historical phenomenon. 148 The fact that something has occurred out of historical necessity-- that is, a necessity springing from the very laws of cosmic evolution-- does not save it from having a character which, in view of its consequences, must needs be called tragic. 149 In this era of advanced intellectualism, little understanding of the existence of true tragedy in human existence has survived. 150 As a result, the word 'tragedy' itself has deteriorated in its meaning and is nowadays used mostly as a synonym for 'sad event', 'calamity' 'serious event', even 'crime' (Oxford Diet.). 151 In its original meaning, however, springing from the dramatic poetry of ancient Greece, the word combines the concept of calamity with that of inevitability; 152 the author of the destructive action was not held to be personally responsible for it, since He was caught up in a nexus of circumstances which He could not change.

153 This is not the place to discuss why tragedy in this sense forms part of human's existence. It suffices to acknowledge that it does and, where it occurs, to observe it with scientific objectivity.

154 Our considerations, starting from certain statements made by some leading scientific thinkers of our time, have helped us not only to confirm the truth inherent in these statements, 155 but to

recognise the facts stated by them as being the outcome of certain laws of evolution and thereby having an historic necessity. 156 This, however, does not mean that human's scientific labours, carried out under the historically given restrictions, great and successful as these labours were and are, have not led to calamitous effects such as we found indicated by Professor Carrel. 157 The sciences of matter have led human into a country that is not yours, and the world which you have created by means of scientific research is not only one in which you are a stranger but one which threatens to-day to deprive you of your own existence. 158 The reason is that this world is essentially a world of active forces, and the true nature of these is something which modern human, restricted to your onlooker-consciousness, is positively unable to conceive.

159 We have taken a first step in diagnosing human's present spiritual condition. A few more steps are required to lead us to the point where we can conceive the therapy you needs.

160 This address and another by the same author are published together under the common title, Wandlungen in den Grundlagen der Naturwissenschaft ('Changes in the foundations of Natural Science'). 161 Heisenberg's name has become known above all by his formulation of the so-called Principle of Indeterminacy.

162 See, in this respect, Faust's dispute with Mephistopheles on the causes responsible for the geological changes of the earth. (Faust II, Act 4)

163 See also Eddington's more elaborate description of this fact in his ‘New Pathways in Science’.

164 The above statement, like others of Eddington's, has been Contested from the side of professional philosophy as logically untenable. Our own further discussion will show that it accords with the facts.

165 Both words, kinematics and kinetics, are derivatives of the Greek word kinein, to move. 166 The term 'kinematic' is used when motion is considered abstractly without reference to force or mass. Kinetics is applied kinematics, or,

as pointed out above, dynamics treated with kinematic concepts.

167 These last statements will find further illustration in the next two chapters.

168 First published in 1917 in his book Von SeelenrÃ¤tseln. Homer's people still think with the diaphragm (phrenes). 169 Similarly, the ancient practice of Yoga, as a means of acquiring knowledge, shows that at the time When it flourished human's conceptual activity was felt to be seated elsewhere than in the head.

170 This must not be confused with the fact that a smell may evoke other memories by way of association.

171 For one who endeavours to observe historical facts in the manner here described, it is no mere play of chance that the father of scientific atomism, John Dalton, was by nature colour blind. 172 In fact, colour blindness was known, for a considerable time during the last century, as 'Daltonism', since it was through the publication of Dalton's self-observations that for the first time general attention was drawn to this phenomenon.

THE ONLOOKER'S PHILOSOPHIC MALADY

Ernst Lehrs

3 In your isolation as world spectator, the modern philosopher was bound to reach two completely opposite views regarding the objective value of human thought. 2 One of these was given expression in Descartes' famous words: Cogito ergo sum ('I think, therefore I am'). 3 Descartes (1596-1650), rightly described as the inaugurator of modern philosophy, thus held the view that only in his own thought-activity does human find a guarantee of his own existence. 4 In coming to this view, Descartes took as his starting-point his experience that human consciousness contains only the thought pictures evoked by sense-perception, and yet knows nothing of the how and why of the things responsible for such impressions. 5 He thus found himself compelled, in the first place, to doubt whether any of these things had any objective existence, at all. 6 Hence, there remained over for him only one indubitable item in the entire

content of the universe – his own thinking; for were he to doubt even this, he could do so only by again making use of it. 7 From the 'I doubt, therefore I am', he was led in this way to the 'I think, therefore I am'.

8 The other conception of human thought reached by the onlooker-consciousness was diametrically opposed to that of Descartes, and entirely cancelled its conceptual significance. 9 It was put forward - not long afterwards - by Robert Hooke (1635-1703), the first scientist to make systematic use of the newly invented microscope by means of which he made the fundamental discovery of the cellular structure of plant tissues. 10 It was, indeed, on the strength of his microscopic studies that he boldly undertook to determine the relationship of human thought to objective reality. 11 He published his views in the introduction to his Micrographia, the great work in which, with the lavish help of carefully executed copper engravings, he made his microscopic observations known to the world.

12 Hooke's line of thought is briefly as follows: In past ages humans subscribed to the naive belief that what they have in their consciousness as thought pictures of the world, actually reproduces the real content of that world. 13 The microscope now demonstrates, however, how much the familiar appearance of the world depends on the structure of our sense apparatus; 14 for it reveals a realm just as real as that already known to us, but hitherto concealed from us because it is not accessible to the natural senses. 15 Accordingly, if the microscope can penetrate through the veil of illusion which normally hides a whole world of potentially visible phenomena, 16 it may be that it can even teach us something about the ideas we have hitherto formed concerning the nature of things. 17 Perhaps it can bring us a step nearer the truth in the sphere of thought, as it so obviously has done in that of observation.

18 Of all the ideas that human reason can form, Hooke considered the simplest and the most fundamental to be the geometrical concepts of point and

straight line. 19 Undoubtedly we are able to think these, but the naÃ¯ve consciousness takes for granted that it also perceives them as objective realities outside itself, so that thoughts and facts correspond to each other. 20 We must now ask, however, if this belief is not due to an optical deception. Let us turn to the microscope and see what point and line in the external world look like through it.

21 For his investigation Hooke chose the point of a needle and a knife-edge, as providing the best representatives among physical objects of point and straight line. 22 In the sketches produced we may see how Hooke made clear to his readers how little these two things, when observed through the microscope, resemble what is seen by the unaided eye. 23 This fact convinced Hooke that the apparent agreement between the world of perception and the world of ideas rests on nothing more solid than an optical limitation (Plate I).

24 Compared with the more refined methods of present-day thought, Hooke's procedure may strike us as somewhat primitive. 25 Actually he did nothing more than has since been done times without number; for the scientist has become more and more willing to allow artificially evoked sense-perceptions to dictate the thoughts he uses in forming a scientific picture of the world.

26 In the present context we are concerned with the historical import of Hooke's procedure. 27 This lies in the fact that, immediately after Descartes had satisfied himself that in thinking human had the one sure guarantee of own existence, Hooke proved in a seemingly indubitable manner that thinking was entirely divorced from reality. 28 It required only another century for philosophy to draw from this the unavoidable consequence. 29 It appeared in the form of Hume's philosophic system, the outcome of which was universal scepticism. 30 As we shall see in due course, Hume's mode of reasoning continues to rule scientific thought even to-day, 31 quite irrespective of the fact that science itself claims to have its philosophical parent in Kant, the very thinker who devoted his life's work to the refutation of Hume.

32 On the basis of his investigations into human consciousness Hume felt obliged to reason thus: My consciousness, as I know it, has no contact with the external world other than that of a mere outside onlooker. 33 What it wins for its own content from the outer world is in the nature of single, mutually unrelated parts. 34 Whatever may unite these parts into an objective whole within the world itself can never enter my consciousness; 35 and any such unifying factor entertained by my thought can be only a self-constructed, hypothetical picture. 36 Hume summed up his view in two axioms which he himself described as the alpha and omega of his whole philosophy. 37 The first runs: 'All our distinct perceptions are distinct existences.' The other: 'The Mind never perceives any real connexions between distinct existences.' (Treatise of Human Nature.)

38 If once we agree that we can know of nothing but unrelated thought pictures, because our consciousness is not in a position to relate these pictures to a unifying reality, 39 then we have no right to ascribe, with Descartes and his school, an objective reality to the self. 40 Even though the self may appear to us as the unifying agent among our thoughts, it must itself be a mental picture among mental pictures; and human can have no knowledge of any permanent reality outside this fluctuating picture-realm. 41 So, with Hume, the onlooker-consciousness came to experience its own utter inability to achieve a knowledge of the objective existence either of a material world be-- behind all external phenomena, or of a spiritual self behind all the details of its own internal content. 42 Accordingly, human consciousness found itself hurled into the abyss of universal scepticism. 43 Hume himself suffered unspeakably under the impact of what he considered inescapable ideas-- rightly described from another side as the 'suicide of human intelligence'-- 44 and his philosophy often seemed to him like a malady, as he himself called it, against whose grip he could see no remedy. 45 The only thing left to him, if he was to

prevent philosophical suicide from ending in physical suicide, was to forget in daily life his own conclusions as far as possible.

46 What Hume experienced as his philosophical malady, however, was the result not of a mental abnormality peculiar to himself, but of that modern form of consciousness which still prevails in general today. 47 This explains why, despite all attempts to disprove Hume's philosophy, scientific thought has not broken away from its alpha and omega in the slightest degree.

48 A proof of this is to be found, for example, in the principle of Indeterminacy which has arisen in modern physics. 49 The conception of Indeterminacy as an unavoidable consequence of the latest phase of physical research is due to Professor W. Heisenberg. 50 Originally this conception forced itself upon Heisenberg as a result of experimental research. In the meantime the same idea has received its purely philosophical foundation. We shall here deal with both lines of approach.

51 After the discovery by Galileo of the parallelogram of forces, it became the object of classical physics-- unexpressed, indeed, until Newton wrote his 'Principia'-- 52 to bring the unchanging laws ruling Nature into the light of human consciousness, and to give them conceptual expression in the language of mathematical formulae. 53 Since, however, science was obliged to restrict itself to what could be observed with a single, colour-blind eye, 54 physics has taken as its main object of research the spatio-temporal relationships, and their changes, between discrete, ideally conceived, point-like particles. 55 Accordingly, the mathematically formulable laws holding sway in Nature came to mean the laws according to which the smallest particles in the material foundation of the world change their position with regard to each other. 56 A science of this kind could logically maintain that, if ever it succeeded in defining both the position and the state of motion, in one single moment, of the totality of particles composing the universe, it would have discovered the law on which universal existence depends. 57

This necessarily rested on the presupposition that it really was the ultimate particles of the physical world which were under observation. 58 In the search for these, guided chiefly by the study of electricity, the physicists tracked down ever smaller and smaller units; and along this path scientific research has arrived at the following peculiar situation.

59 To observe any object in the sense world we need an appropriate medium of observation. 60 For ordinary things, light provides this. In the sense in which light is understood to-day, this is possible because the spatial extension of the single light impulses, their so-called wavelength, is immeasurably smaller than the average magnitude of all microscopically visible objects. 61 This ensures that they can be observed clearly by the human eye. 62 Much smaller objects, however, will require a correspondingly shorter wave-length in the medium of observation. 63 Now shorter wave-lengths than those of visible light have been found in ultra-violet light and in X-rays; and these, accordingly, are now often used for minute physical research.

64 In this way, however, we are led by Nature to a definite boundary; for we now find ourselves in a realm where the dimensions of the observation medium and the observed object are more or less the same. 65 The result, unfortunately, is that when the 'light' meets the object, it changes the latter's condition of movement.

66 On the other hand, if a 'light' is used whose wave-length is too big to have any influence on the object's condition of movement, it precludes any exact determination of the object's location.

67 Thus, having arrived at the very ground of the world-- that is, where the cosmic laws might be expected to reveal themselves directly-- 68 the scientist finds the self in the remarkable situation of only being able to determine accurately either the position of an observed object and not its state of motion, or its state of motion and not its position. 69 The law you seeks, however, requires that both should be known at the same time.

70 Nor is this situation due to the imperfection of the scientific

apparatus employed, but to its very perfection, 71 so that it appears to arise from the nature of the foundation of the world-- in so far, at least, as modern science is bound to conceive it.

72 If it is true that a valid scientific knowledge of Nature is possible only in the sphere open to a single-eyed, colour-blind observation, 73 and if it is true-- as a science of this kind, at any rate, is obliged to believe-- that all processes within the material foundation of the world depend on nothing but the movements of certain elementary particles of extremely small size, 74 then the fact must be faced that the very nature of these processes rules out the discovery of any stable ordering of things in the sense of mathematically formulable laws. 75 The discovery of such laws will then always be the last step but one in scientific investigation; the last will inevitably be the dissolution of such laws into chaos. 76 For a consistent scientific thinking that goes this way, therefore, nothing is left but to recognise chaos as the only real basis of an apparently ordered world, 77 a chaos on whose surface the laws that seem to hold sway are only the illusory picturings of the human mind. 78 This, then, is the principle of Indeterminacy as it has been encountered in the course of practical investigation into the electrical processes within physical matter.

79 In the following way Professor SchrÃ¶dinger, another leading thinker among modern theoretical physicists, explains the philosophical basis for the principle of Indeterminacy, which scientists have established in the meantime: 80 'Every quantitative observation, every observation making use of measurement, is by nature discontinuous... 81 However far we go in the pursuit of accuracy we shall never get anything other than a finite series of discrete results... 82 The raw material of our quantitative cognition of nature will always have this primitive and discontinuous character... 83 It is possible that a physical system might be so simple that this meagre information would suffice to settle its fate; in that case Nature would not be more complicated

than a game of chess. 84 To determine a position of a game of chess thirty-three facts suffice… If Nature is more complicated than a game of chess, a belief to which one tends to incline, then a physical system cannot be determined by a finite number of observations. 85 But in practice a finite number of observations is all that we could make.'

86 Classical physics, the author goes on to show, held that it was possible to gain a real insight into the laws of the universe, 87 because in principle an infinite number of such discrete observations would enable us to fill in the gaps sufficiently to allow us to determine the system of the physical world. 88 Against this assumption modern physics must hold the view that an infinite number of observations cannot in any case be carried out in practice, 89 and that nothing compels us to assume that even this would suffice to furnish us with the means for a complete determination, which alone would allow us to speak of 'law' in Nature. 90 'This is the direction in which modern physics has led us without really intending it.'

91 What we have previously said will make it clear enough that in these words of a modern physicist we meet once more the two fundamentals of Hume's philosophy. 92 It is just as obvious, however, that the very principle thus re-affirmed at the latest stage of modern physical science was already firmly established by Hooke, when he sought to prove to his contemporaries the unreality of human ideas.

93 Let us recall Hooke's motives and results. The human reason discovers that certain law-abiding forms of thought dwell within itself; these are the rules of mathematical thinking. 94 The eye informs the reason that the same kind of law and order is present also in the outer world. 95 The mind can think point and line; the eye reports that the same forms exist in Nature outside. 96 The reason mistrusts the eye, however, and with the help of the microscope 'improves' on it. 97 What hitherto had been taken for a compact, regulated whole now collapses into a heap of unordered

parts; 98 behind the illusion of law a finer observation detects the reality of chaos!

99 Had science in its vehement career from discovery to discovery not forgotten its own beginnings so completely, it would not have needed its latest researches to bring out a principle which it had in fact been following from the outset-- 100 a principle which philosophy had already recognised, if not in quite the same formulation, in the eighteenth century. 101 Indeterminacy, as we have just seen it explained by SchrÃ¶dinger, is nothing but the exact continuation of Humean scepticism. In his book, Science and the Human Temperament (Dublin, 1935).

THE COUNTRY THAT IS NOT OURS

Ernst Lehrs

4 The last two chapters have served to show the impasse into which human perception and thinking have come-- 2 in so far as they have been used for scientific purposes-- by virtue of the relationship to the world in which human's consciousness found itself when it awoke to itself at the beginning of modern times. 3 Now although the onlooker in human, especially in the earliest stage of our period, gave itself up to the conviction that a self-contained picture of the universe could be formed out of the kind of materials available to it, 4 it nevertheless had a dim inkling that this picture, because it lacked all dynamic content, had no bearing on the real nature of the universe. 5 Unable to find this reality within the self, the world-onlooker set about searching in own way for what was missing, and turned to the perceptible world outside human. 6 Here you came, all unexpectedly, upon ... electricity. Scarcely was electricity discovered than it drew human scientific thinking irresistibly into its own realm. 7 Thereby human found the self, with a consciousness completely blind to dynamics, within a sphere of only too real dynamic forces. 8 The following description will show what results this has had for human and own civilisation.

9 First, let us recall how potent a role electricity has come to play in

social life through the great discoveries which began at the end of the eighteenth century. 10 To do this we need only compare the present relationship between production and consumption in the economic sphere with what it was before the power-machine, and especially the electrically driven machine, had been invented. 11 Consider some major public undertaking in former times-- say the construction of a great mediaeval cathedral. Almost all the work was done by human beings, with some help, of course, from domesticated animals. 12 Under these circumstances the entire source of productive power lay in the will-energies of living beings, whose bodies had to be supplied with food, clothing and housing; 13 and to provide these, other productive powers of a similar kind were required near the same place. 14 Accordingly, since each of the power units employed in the work was simultaneously both producer and consumer, a certain natural limit was placed on the accumulation of productive forces in any one locality. 15 This condition of natural balance between production and consumption was profoundly disturbed by the introduction of the steam engine; 16 but even so there were still some limits, though of a quite different kind, to local concentrations of productive power. 17 For steam engines require water and coal at the scene of action, and these take up space and need continual shifting and replenishing. 18 Owing to the very nature of physical matter, it cannot be heaped up where it is required in unlimited quantities.

19 All this changed directly human succeeded in producing energy electro-magnetically by the mere rotation of material masses, 20 and in using the water-power of the earth-- itself ultimately derived from the cosmic energies of the sun-- for driving own dynamos. 21 Not only is the source of energy thus tapped practically inexhaustible, but the machines produce it without consuming on their own account, 22 apart from wear and tear, and so make possible the almost limitless accumulation of power in one place. 23 For electricity is

distinguished from all other power-supplying natural forces, living or otherwise, 24 precisely in this, that it can be concentrated spatially with the aid of a physical carrier whose material bulk is insignificant compared with the energy supplied.

25 Through this property of electricity it has been possible for human to extend the range of own activity in all directions, far and near. 26 So the balance between production and consumption, which in previous ages was more or less adequately maintained by natural conditions, has been entirely destroyed, and a major social-economic problem created.

27 In yet another way, and through quite another of its properties, electricity plays an important part in modern life. 28 Not only does it compete with the human will; it also makes possible automatically intelligent operations quite beyond anything human can do on your own. 29 There are innumerable examples of this in modern electrical technology; we need mention here only the photo-electric cell and the many devices into which it enters.

30 To an ever-increasing, quite uncontrolled degree-- for to the mind of present-day human it is only natural to translate every new discovery into practice as soon and as extensively as possible-- electricity enters decisively into our modern existence. 31 If we take all its activities into account, we see arising amongst humanity a vast realm of labour units, possessed in their own way not only of will but of the sharpest imaginable intelligence. 32 Although they are wholly remote from human's own nature, you more and more subdues your thoughts and actions to theirs, allowing them to take rank as guides and shapers of your civilisation.

33 Turning to the sphere of scientific research, we find electricity playing a role in the development of modern thinking remarkably similar to its part as a labour-force in everyday life. 34 We find it associated with phenomena which, in Professor Heisenberg's words, expose their mutual connexions to exact mathematical thinking more readily than do any other facts of

Nature; 35 and yet the way in which these phenomena have become known has played fast and loose with mathematical thinking to an unparalleled degree. 36 To recognise that in this sphere modern science owes its triumphs to a strange and often paradoxical mixture of outer accident and error in human thought, we need only review the history of the subject without prejudice.

37 The discovery of electricity has so far been accomplished in four clearly distinct stages. The first extends from the time when humans first knew of electrical phenomena to the beginning of the natural scientific age; 38 the second includes the seventeenth and the greater part of the eighteenth centuries; 39 the third begins with Galvani's discovery and closes with the first observations of radiant electricity; and the fourth brings us to our own day. 40 We shall here concern ourselves with a few outstanding features of each phase, enough to characterise the strange path along which human has been led by the discovery of electricity.

41 Until the beginning of modern times, nothing more was known about electricity, or of its sister force, magnetism, than what we find in Pliny's writings. 42 There, without recognising a qualitative distinction between them, he refers to the faculty of rubbed amber and of certain pieces of iron to attract other small pieces of matter. 43 It required the awakening of that overruling interest in material Nature, characteristic of our own age, for the essential difference between electric and magnetic attraction to be recognised. 44 The first to give a proper description of this was Queen Elizabeth's doctor, Gilbert. His discovery was soon followed by the construction of the first electrical machine by the German Guericke-- 45 also known through his invention of the air pump-- which opened the way for the discovery that electricity could be transmitted from one place to another.

46 It was not, however, until the beginning of the eighteenth century that the crop of electrical discoveries began to increase considerably: 47 among these was the recognition of the dual nature

of electricity, by the Frenchman, Dufais, and the chance invention of the Leyden jar-- made simultaneously by the German, von Kleist, and two Dutchmen, Musschenbroek and Cunaeus. 48 The Leyden jar brought electrical effects of quite unexpected intensity within reach. 49 Stimulated by what could be done with electricity in this form, more and more people now busied themselves in experimenting with so fascinating a force of Nature, 50 until in the second third of the century a whole army of observers was at work, whether by way of profession or of hobby, finding out ever new manifestations of its powers.

51 The mood that prevailed in those days among people engaged in electrical research is well reflected in a letter written by the Englishman, Walsh, after he had established the electric nature of the shocks given by certain fishes, 52 to Benjamin Franklin, who shortly before had discovered the natural occurrence of electricity in the atmosphere: 53 'I rejoice in addressing these communications to You. You, who predicted and shewed that electricity wings the formidable bolt of the Atmosphere, will hear with attention that in the deep it speeds a humbler bolt, silent and invisible; 54 You, who analysed the electrical Phial, will hear with pleasure that its laws prevail in animate Phials; 55 You, who by Reason became an electrician, will hear with reverence of an instinctive electrician, gifted in your birth with a wonderful apparatus, and with the skill to use it.' (Phil. Trans. 1773.)

56 Dare one believe that in electricity the soul of Nature had been discovered? 57 This was the question which at that time stirred the hearts of very many in Europe. 58 Doctors had already sought to arouse new vitality in their patients by the use of strong electric shocks; attempts had even been made to bring the dead back to life by such means. 59 In a time like ours, when we are primarily concerned with the practical application of scientific discoveries, 60 we are mostly accustomed to regard such flights of thought from a past age as nothing but the unessential

accompaniment of youthful, immature science, and to smile at them accordingly as historical curiosities. 61 This is a mistake, for we then overlook how within them was hidden an inkling of the truth, however wrongly conceived at the time, 62 and we ignore the role which such apparently fantastic hopes have played in connexion with the entry of electricity into human civilisation. 63 Nor are such hopes confined to the eighteenth century; as we shall see, the same impulse urged Crookes a hundred years later to that decisive discovery which was to usher in the latest phase in the history of science, 64 a phase in which the investigating human spirit has been led to that boundary of the physical-material world where the transition takes place from inert matter into freely working energy.

64 If there was any doubt left as to whether in Nature the same power was at work which, in animal and human, was hidden away within the soul, this doubt seemed finally to have been dispelled through Galvani's discovery 65 that animal limbs could be made to move electrically through being touched by two bits of different metals. 66 No wonder that 'the storm which was loosed in the world of the physicists, the physiologists and the doctors through Galvani's publication can only be compared with the one crossing the political horizon of Europe at the same time. 67 Wherever there happened to be frogs and two pieces of different metals available, everyone sought proof with own eyes that the severed limbs could be marvellously re-enlivened.'

68 Like many of his contemporaries, Galvani was drawn by the fascinating behaviour of the new force of Nature to carry on electrical experiments as a hobby alongside his professional work, anatomical research. 69 For his experiments he used the room where his anatomical specimens were set out. So it happened that his electrical machine stood near some frogs' legs, prepared for dissection. 70 By a further coincidence his assistant, while playing with the machine, released a few sparks 71 just when some of the specimens were in such contact with the

surface beneath them that they were bound to react to the sudden alteration of the electric field round the machine caused by its discharge. At each spark the frogs' legs twitched. 72 What Galvani saw with his own eyes seemed to be no less than the union of two phenomena, one observed by Franklin in the heights of the atmosphere, the other by Walsh in the depths of the sea.

73 Galvani, as he himself describes, proceeded with immense enthusiasm to investigate systematically what accident had thus put into his hands. 74 He wanted first to see whether changes occurring naturally in the electrical condition of the atmosphere would call forth the same reaction in his specimens. 75 For this purpose he fastened one end of an iron wire to a point high up outside his house; 76 the lower end he connected with the nervous substance of a limb from one of his specimens, and to the foot of this he attached a second wire whose other end he submerged in a well. 77 The specimen itself was either enclosed in a glass flask in order to insulate it, or simply left lying on a table near the well. 78 And all this he did whenever a thunderstorm was threatening. As he himself reported: 'All took place as expected. 79 Whenever the lightning flashed, all the muscles simultaneously came into repeated and violent twitchings, so that the movements of the muscles, like the flash of the lightning, always preceded the thunder, 80 and thus, as it were, heralded its coming.' We can have some idea of what went on in Galvani's mind during these experiments 81 if we picture vividly to ourselves the animal limbs twitching about every time the lightning flashed, as if a revitalising force of will had suddenly taken possession of them.

82 In the course of his investigations-- he carried them on for a long time-- 83 Galvani was astonished to observe that some of his specimens, which he had hung on to an iron railing by means of brass hooks, sometimes fell to twitching even when the sky was quite clear and there was no sign of thunder. 84 His natural conclusion was that this must be

due to hitherto unnoticed electrical changes in the atmosphere. 85 Observations maintained for hours every day, however, led to no conclusive result; when twitchings did occur it was only with some of the specimens, and even then there was no discoverable cause. 86 Then it happened one day that Galvani, 'tired out with fruitless watching', took hold of one of the brass hooks by which the specimens were hung, and pressed it more strongly than usual against the iron railing. 87 Immediately a twitching took place. 'I was almost at the point of ascribing the occurrence to atmospheric electricity,'

88 Galvani tells us. All the same he took one of the specimens, a frog, into his laboratory and there subjected it to similar conditions by putting it on an iron plate, and pressing against this with the hook that was stuck through its spinal cord. 89 Immediately the twitching occurred again. He tried with other metals and, for checking purposes, with non-metals as well. 90 With some ingenuity he fixed up an arrangement, rather like that of an electric bell, whereby the limbs in contracting broke contact and in relaxing restored it, and so he managed to keep the frog in continuous rhythmical movement.

91 Whereas Galvani had been rightly convinced by his earlier observations that the movement in the specimens represented a reaction to an electric stimulus from outside, he now changed his mind. 92 In the very moment of his really significant discovery he succumbed to the error that he had to do with an effect of animal electricity located somewhere in the dead creature itself, 93 perhaps in the fashion of what had been observed in the electric fishes. 94 He decided that the metal attachment served merely to set in motion the electricity within the animal.

95 Whilst Galvani persisted in this mistake until his death, Volta realised that the source of the electric force, as in the first of Galvani's observations, must still be sought outside the specimens, and himself rightly attributed it to the contacting metals. 96 Guided by this hypothesis, Volta started systematic research into the Galvanic properties of metals, and

presently succeeded in producing electricity once more from purely mineral substances, namely from two different metals in contact with a conductive liquid.

97 This mode of producing electricity, however, differed from any previously known in allowing for the first time the production of continuous electrical effects. 98 It is this quality of the cells and piles constructed by Volta that laid open the road for electric force to assume that role in human civilisation which we have already described.

99 That Volta himself was aware of this essentially new factor in the Galvanic production of electricity is shown by his own report to the Royal Society: 100 'The chief of my results, and which comprehends nearly all the others, is the construction of an apparatus which resembles in its effects, viz. such as giving shocks to the arms, the Leyden phial, and still better electric batteries weakly charged; 101 . . . but which infinitely surpasses the virtue and power of these same batteries; as it has no need, like them, of being charged beforehand, by means of a foreign electricity; 102 and as it is capable of giving the usual commotion as often as ever it is properly touched.'

103 Whilst Volta's success was based on avoiding Galvani's error, his apparatus nevertheless turned out inadvertently to be a close counterpart of precisely that animal organ which Galvani had in mind when misinterpreting his own discoveries! 104 That Volta himself realised this is clear from the concluding words in his letter: 'This apparatus, as it resembles more the natural organ of the torpedo, or of the electrical eel, than the Leyden Phial or the ordinary electric batteries, I may call an artificial electric organ.' 105 This new method of producing continuous electrical effects had far-reaching results, one of which was the discovery of the magnetic properties of the electric current by the Dane, Oersted-- 106 once again a purely accidental discovery, moving directly counter to the assumptions of the discoverer himself. 107 About to leave the lecture room where he had just been trying to prove the non-existence of such magnetic

properties (an attempt seemingly crowned with success), Oersted happened to glance once more at his demonstration bench. 108 To his astonishment he noticed that one of his magnetic needles was out of alignment; evidently it was attracted by a magnetic field created by the current running through a wire he had just been using, which was still in circuit. 109 Thus what had escaped Oersted throughout his planned researches-- namely, that the magnetic force which accompanies an electric current must be sought in a direction at right angles to the current-- a fortuitous event enabled him to detect.

110 These repeated strokes of chance and frequently mistaken interpretations of the phenomenon thus detected show that people were exploring the electrical realm as it were in the dark; 111 it was a realm foreign to their ordinary ideas and they had not developed the forms of thought necessary for understanding it.-- And this, as our further survey will show, is still true, even to-day.

112 In our historical survey we come next to the researches of Faraday and Maxwell. 113 Faraday was convinced that if electrical processes are accompanied by magnetic forces, as Oersted had shown, the reverse must also be true-- magnetism must be accompanied by electricity. 114 He was led to this correct conviction by his belief in the qualitative unity of all the forces of Nature-- a reflexion, as his biography shows, of his strongly monotheistic, Old Testament faith. 115 Precisely this view, however-- which since Faraday natural science has quite consciously adopted as a leading principle-- will reveal itself to us as a fundamental error.

116 It seems paradoxical to assert that the more consistently human thought has followed this error, the greater have been the results of the scientific investigation of electricity. 117 Precisely this paradox, however, is characteristic of the realm of Nature to which electricity belongs; 118 and anyone earnestly seeking to overcome the illusions of our age will have to face the fact that the immediate effectiveness of an idea in practice is no proof of its ultimate truth.

MATTER

119 Another eloquent example of the strange destiny of human thought in connexion with electricity is to be found in the work of Clark Maxwell, who, starting from Faraday's discoveries, gave the theory of electricity its mathematical basis. 120 Along his purely theoretical line of thought he was led to the recognition of the existence of a form of electrical activity hitherto undreamt of-- electro-magnetic vibrations. 121 Stimulated by Maxwell's mathematical conclusions, Hertz and Marconi were soon afterwards able to demonstrate those phenomena which have led on the one hand to the electro-magnetic theory of light, and on the other to the practical achievements of wireless communication.

122 Once again, there is the paradoxical fact that this outcome of Maxwell's labours contradicts the very foundation on which he had built his theoretical edifice. 123 For his starting-point had been to form a picture of the electro-magnetic field of force to which he could apply certain well-known formulae of mechanics. 124 This he did by comparing the behaviour of the electrical force to the currents of an elastic fluid-- that is, of a material substance. 125 It is true that both he and his successors rightly emphasised that such a picture was not in any way meant as an explanation of electricity, but merely as an auxiliary concept in the form of a purely external analogy. 126 Nevertheless, it was in the guise of a material fluid that he thought of this force, and that he could submit it to mathematical calculation. 127 Yet the fact is that from this starting-point the strict logic of mathematics led him to the discovery that electricity is capable of behaviour which makes it appear qualitatively similar to ... light!

128 Whilst practical people were turning the work of Faraday and Maxwell to account by exploiting the mechanical working of electricity in power-production, and its similarity to light in the wireless communication of thought, 129 a new field of research, with entirely new practical possibilities, was suddenly opened up in the last

third of the nineteenth century through the discovery of how electricity behaves in rarefied air. 130 This brings us to the discovery of cathode rays and the phenomena accompanying them, from which the latest stage in the history of electricity originated. 131 And here once more, as in the history of Galvani's discoveries, we encounter certain undercurrents of longing and expectation in the human soul which seemed to find an answer through this sudden, great advance in the knowledge of electricity-- 132 an advance which has again led to practical applications of the utmost significance for human society, though not at all in the way first hoped for.

133 Interest in the phenomena arising when electricity passes through gases with reduced pressure had simultaneously taken hold of several investigators in the seventies of the nineteenth century. 134 But the decisive step in this sphere of research was taken by the English physicist, William Crookes. 135 He was led on by a line of thought which seems entirely irrelevant; 136 yet it was this which first directed his interest to the peculiar phenomena accompanying cathode rays; and they proved to be the starting-point of the long train of inquiry which has now culminated in the release of atomic energy.

137 In the midst of his many interests and activities, Crookes was filled from his youth with a longing to find by empirical means the bridge leading from the world of physical effects to that of superphysical causes. 138 He himself tells how this longing was awakened in him by the loss of a much-beloved brother. 139 Before the dead body he came to the question, which thereafter was never to leave him, whether there was a land where the human individuality continues after it has laid aside its bodily sheath, and how that land was to be found. 140 Seeing that scientific research was the instrument which modern human had forged to penetrate through the veil of external phenomena to the causes producing them, it was natural for Crookes to turn to it in seeking the way from the one world into the other.

MATTER

141 It was after meeting with a man able to produce effects within the corporeal world by means of forces quite different from those familiar to science, that Crookes decided to devote himself to this scientific quest. 142 Thus he first came into touch with that sphere of phenomena which is known as spiritualism, or perhaps more suitably, spiritism. 143 Crookes now found himself before a special order of happenings which seemed to testify to a world other than that open to our senses; 144 physical matter here showed itself capable of movement in defiance of gravity, manifestations of light and sound appeared without a physical source to produce them. 145 Through becoming familiar with such things at seances arranged by his mediumistic acquaintance, he began to hope that he had found the way by which scientific research could overstep the limits of the physical world. 146 Accordingly, he threw himself eagerly into the systematic investigation of his new experiences, and so became the father of modern scientific spiritism.

147 Crookes had hoped that the scientists of his day would be positively interested in his researches. 148 But his first paper in this field, 'On Phenomena called Spiritual', was at once and almost unanimously rejected by his colleagues, and as long as he concerned himself with such matters he suffered through their opposition. 149 It passed his understanding as a scientist why anything should be regarded in advance as outside the scope of scientific research. 150 After several years of fruitless struggle he broke off his investigations into spiritism, deeply disillusioned at his failure to interest official science in it. 151 His own partiality for it continued, however (he served as President of the Society for Psychical Research from 1896-9), and he missed no opportunity of confessing himself a pioneer in the search for the boundary-land between the worlds of matter and spirit. 152 Through all his varied scientific work the longing persisted to know more of this land.

153 Just as Crookes had once sought to investigate spiritism

scientifically, so in his subsequent scientific inquiries he was always something of a spiritist. 154 He admitted, indeed, that he felt specially attracted by the strange light effects arising when electricity passes through rarefied gases, because they reminded him of certain luminous phenomena he had observed during his spiritistic investigations. 155 Besides this, there was the fact that light here showed itself susceptible to the magnetic force in a way otherwise characteristic only of certain material substances. 156 Accordingly, everything combined to suggest to Crookes that here, if anywhere, he was at the boundary between the physical and the superphysical worlds. 157 No wonder that he threw himself into the study of these phenomena with enthusiasm.

158 He soon succeeded in evoking striking effects-- light and heat, and also mechanical-- along the path of electricity passing invisibly through the tube later named after him. 159 Thus he proved for the first time visibly, so to say, the double nature-- material and supermaterial-- of electricity. 160 What Crookes himself thought about these discoveries in the realm of the cathode rays we may judge from the title, 'Radiant Matter', or 'The Fourth State of Matter', which he gave to his first publication about them. 161 And so he was only being consistent when, in his lectures before the Royal Institution in London, and the British Association in Sheffield in 1879, after showing to an amazed scientific audience the newly discovered properties of electricity, 162 he came to the climax of his exposition by saying: 'We have seen that in some of its properties Radiant Matter is as material as this table, whilst in other properties it almost assumes the character of Radiant Energy. 163 We have actually touched here the borderland where Matter and Force seem to merge into one another, the shadowy realm between Known and Unknown, which for me has always had peculiar temptations.' 164 And in boldly prophetic words, which time has partly justified, he added, 'I venture to think that the greatest scientific problems of the future will find their solution in this

Borderland, and even beyond; here, it seems to me, lie Ultimate Realities, subtle, far-reaching, wonderful.'

165 No one can read these words of Crookes without hearing again, as an undertone, the question which had forced itself on him at the bedside of his dead brother, long before. 166 All that is left of the human being whom death has taken is a heap of substances, deserted by the force which had used them as the instrument of its own activity. 167 Whither vanishes this force when it leaves the body, and is there any possibility of its revealing itself even without occupying such a body?

168 Stirred by this question, the young Crookes set out to find a world of forces which differ from the usual mechanical ones exercised by matter on matter, 169 in that they are autonomous, superior to matter in its inert conglomeration, yet capable of using matter, just as the soul makes use of the body so long as it dwells within it. 170 His aim was to secure proof that such forces exist, or, at any rate, to penetrate into the realm where the transition from matter to pure, matter-free force takes place. 171 And once again, as in Galvani's day, electricity fascinated the eyes of a man who was seeking for the land of the soul. What spiritism denied, electricity seemed to grant.

172 The aversion to spiritism which Crookes met with in contemporary science was, from the standpoint of such a science, largely justified. 173 Science, in the form in which Crookes himself conceived it, took for granted that the relationship of human consciousness to the world was that of external onlooking. 174 Accordingly, if the scientist remained within the limits thus prescribed for consciousness, it was only consistent to refuse to make anything beyond these limits an object of scientific research.

175 On the other hand, it says much for the courage and open mindedness of Crookes that he refused to be held back from what was for him the only possible way of extending the boundaries of science beyond the given physical world. 176 Moreover, it was only natural that in his search for a world of a higher order than the

physical he should, as a man of his time, first turn his attention to spiritistic occurrences, 177 for spiritism, as it had come over to Europe from America in the middle of the nineteenth century, was nothing but an attempt by the onlooker-consciousness to learn something in its own way about the super-sensible world. 178 The spiritist expects the spirit to reveal itself in outwardly perceptible phenomena as if it were part of the physical world. 179 Towards the end of his life Crookes confessed that if he were able to begin again he would prefer to study telepathic phenomena-- 180 the direct transference of thought from one person to another-- rather than the purely mechanical, or so-called telekinetic, expressions of psychic forces. 181 But although his interest was thus turning towards a more interior field of psychic investigation, 182 he remained true to his times in still assuming that knowledge about the world, whatever it might be, could be won only by placing oneself as a mere onlooker outside the object of research.

183 The stream of new discoveries which followed Crookes's work justified his conviction that in cathode ray phenomena we have to do with a frontier region of physical Nature. 184 Still, the land that lies on the other side of this frontier is not the one Crookes had been looking for throughout his life. 185 For, instead of finding the way into the land whither human's soul disappears at death, Crookes had inadvertently crossed the border into another land-- a land which the twentieth-century scientist is impelled to call 'the country that is not ours'.

186 The realm thrown open to science by Crookes's observations, which human knowledge now entered as if taking it by storm, was that of the radioactive processes of the mineral stratum of the earth. 187 Many new and surprising properties of electricity were discovered there-- yet the riddle of electricity itself, instead of coming nearer, withdrew into ever deeper obscurity.

188 The very first step into this newly discovered territory made the riddle still more bewildering. 189 As we have said, Maxwell's

use of a material analogy as a means of formulating mathematically the properties of electro-magnetic fields of force had led to results which brought electricity into close conjunction with light. 190 In his own way Crookes focused, to begin with, his attention entirely on the light-like character of electric effects in a vacuum. 191 It was precisely these observations, however, as continued by Lenard and others, which presently made it necessary to see in electricity nothing else than a special manifestation of inert mass.

192 The developments leading up to this stage are recent and familiar enough to be briefly summarised. The first step was once more an accident, 193 when RÃ¶ntgen (or rather one of his assistants) noticed that a bunch of keys, laid down by chance on top of an unopened box of photographic plates near a cathode tube, had produced an inexplicable shadow-image of itself on one of the plates. 194 The cathode tube was apparently giving off some hitherto unknown type of radiation, capable of penetrating opaque substances. 195 RÃ¶ntgen was an experimentalist, not a theorist; his pupils used to say privately that in publishing this discovery of X-rays he attempted a theoretical explanation for the first and only time in his life-- and got it wrong!

196 However, this accidental discovery had far-reaching consequences. It drew attention to the fluorescence of minerals placed in the cathode tube; 197 this inspired Becquerel to inquire whether naturally fluorescent substances gave off anything like X-rays, and eventually-- yet again by accident-- he came upon certain uranium compounds. 198 These were found to give off a radiation similar to X-rays, and to give it off naturally and all the time. 199 Soon afterwards the Curies succeeded in isolating the element, radium, an element which was found to be undergoing a continuous natural disintegration. 200 The way was now clear for that long series of experiments on atomic disintegration which led finally to the splitting of the nucleus and the construction of the atomic bomb.

201 A typical modern paradox emerges from these results. By

restricting his cognitive powers to a field of experience in which the concept of force as an objective reality was unthinkable, 202 human has been led on a line of practical investigation the pursuit of which was bound to land him amongst the force-activities of the cosmos. 203 For what distinguishes electric and sub-electric activities from all other forces of physical Nature so far known to science, is that for their operation they have no need of the resistance offered by space-bound material bodies; 204 they represent a world of pure dynamics into which spatial limitations do not enter.

205 Equally paradoxical is the situation of theoretical thinking in face of that realm of natural being which practical research has lately entered. 206 We have seen that this thinking, by virtue of the consciousness on which it is founded, is impelled always to clothe its ideas in spatial form. 207 Wherever anything in the pure spatial adjacency of physical things remains inexplicable, resort is had to hypothetical pictures whose content consists once more of nothing but spatially extended and spatially adjacent items. 208 In this way matter came to be seen as consisting of molecules, molecules of atoms, and atoms of electrons, protons, neutrons, and so forth.

209 In so far as scientific thought has held to purely spatial conceptions, it has been obliged to concentrate on ever smaller and smaller spatial sizes, 210 so that the spatially conceived atom-picture has finally to reckon with dimensions wherein the old concept of space loses validity. 211 When once thinking had started in this direction, it was electricity which once more gave it the strongest impulse to go even further along the same lines.

212 Where we have arrived along this path is brought out in a passage in Eddington's ‘The Nature of the Physical World’. 213 There, after describing the modern picture of electrons dancing round the atomic nucleus, he says: 'This spectacle is so fascinating that we have perhaps forgotten that there was a time when we wanted to be told what an electron is. This question was never answered. 214 No familiar conceptions can be woven round the electron; it

belongs to the waiting list.' 215 The only thing we can say about the electron, if we are not to deceive ourselves, Eddington concludes, is: 'Something unknown is doing we don't know what.'

216 Let us add a further detail from this picture of the atom, as given in Eddington's Philosophy of Physical Science. 217 Referring to the so-called positron, the positive particle regarded as the polar opposite of the negative electron, he remarks: 'A positron is a hole from which an electron has been removed; 218 it is a bung-hole which would be evened up with its surroundings if an electron were inserted. ... You will see that the physicist allows himself even greater liberty than the sculptor. 219 The sculptor removes material to obtain the form he desires. The physicist goes further and adds material if necessary-- an operation which he describes as removing negative material. He fills up a bung-hole, saying he is removing a positron.' 220 Eddington thus shows to what paradoxical ideas the scientist is driven, when with his accustomed forms of thought he ventures into regions where the conditions necessary for such forms no longer exist; 221 and he concludes his remarks with the following caution: 'Once again I would remind you that objective truth is not the point at issue.'

222 By this reminder Eddington shows how far science has reconciled itself to the philosophic scepticism at which human's thinking had arrived in the days of Hume. 223 In so far as the above remark was intended to be a consolation for the bewildered student, it is poor comfort in the light of the actions which science has let loose with the help of those unknown entities. 224 For it is just this resignation of human thought which renders it unable to cope with the flood of phenomena springing from the sub-material realm of Nature, and has allowed scientific research to outrun scientific understanding.

GOETHEANISM -
WHENCE AND WHITHER?

THE ADVENTURE OF REASON
Ernst Lehrs

MATTER

5 In 1790, a year before Galvani's monograph, Concerning the Forces of Electricity, appeared, Goethe published his Metamorphosis of Plants, 2 which represents the first step towards the practical overcoming of the limitations of the onlooker-consciousness in science. 3 Goethe's paper was not destined to raise such a storm as soon followed Galvani's publication. And yet the fruit of Goethe's endeavours is not less significant than Galvani's discovery, for the progress of humankind. 4 For in Goethe's achievement lay the seed of that form of knowing which human requires, if in the age of the electrification of civilisation you are to remain master of your existence.

5 Among the essays in which Goethe in later years gave out some of the results of his scientific observation in axiomatic form, is one called 'Intuitive Judgment' ('Anschauende Urteilskraft'), 6 in which he maintains that he has achieved in practice what Kant had declared to be for ever beyond the scope of the human mind. 7 Goethe refers to a passage in the Critique of Judgment, where Kant defines the limits of human cognitional powers as he had observed them in his study of the peculiar nature of the human reason. 8 We must first go briefly into Kant's own exposition of the matter.

9 Kant distinguishes between two possible forms of reason, the intellectus archetypus and the intellectus ectypus. 10 By the first he means a reason 'which being, not like ours, discursive, but intuitive, proceeds from the synthetic universal (the intuition of the whole as such) to the particular, that is, from the whole to the parts'. 11 According to Kant, such a reason lies outside human possibilities. 12 In contrast to it, the intellectus ectypus peculiar to human is restricted to taking in through the senses the single details of the world as such; 13 with these it can certainly construct pictures of their totalities, but these pictures never have more than a hypothetical character and can claim no reality for themselves. 14 Above all, it is not given to such a thinking to think 'wholes' in such a way that

through an act of thought alone the single items contained in them can be conceived as parts springing from them by necessity. 15 To illustrate this, we may say that, according to Kant, we can certainly comprehend the parts of an organism, say of a plant, and out of its components make a picture of the plant as a whole; 16 but we are not in a position to think that 'whole' of the plant which conditions the existence of its organism and brings forth its parts by necessity.

17 Kant expresses this in the following way: 'For external objects as phenomena an adequate ground related to purposes cannot be met with; 18 this, although it lies in Nature, must be sought only in the super-sensible substrata of Nature, from all possible insight into which we are cut off. 19 Our understanding has then this peculiarity as concerns the judgment, that in cognitive understanding the particular is not determined by the universal and cannot therefore be derived from it.'

20 The attempt to prove whether or not another form of reason than this (the intellectus archetypus) is possible-- even though declared to be beyond human-- Kant regarded as superfluous, 21 because the fact was enough for him 'that we are led to the Idea of it-- which contains no contradiction-- 22 in contrast to our discursive understanding, which has need of images (intellectus ectypus), and to the contingency of its constitution'.

23 Kant here brings forward two reasons why it is permissible to conceive of the existence of an extra-human, archetypal reason. 24 On the one hand he admits that the existence of our own reason in its present condition is of a contingent order, and thus does not exclude the possible existence of a reason differently constituted. 25 On the other hand, he allows that we can think of a form of reason which in every respect is the opposite of our own, without meeting any logical inconsistency.

26 From these definitions emerges a conception of the properties of human's cognitional powers which agrees exactly with those on which, as we have seen, Hume built up his whole philosophy. 27

Both allow to the reason a knowledge-material consisting only of pictures-- 28 that is, of pictures evoked in consciousness through sense-perception, and received by it from the outer world in the form of disconnected units, whilst denying it all powers, as Hume expressed it, ever 'to perceive any real connections between distinct existences'.

29 This agreement between Kant and Hume must at first sight surprise us, when we recall that, as already mentioned, Kant worked out his philosophy precisely to protect the cognising being of human from the consequences of Hume's thought. 30 For, as he himself said, it was his becoming acquainted with Hume's Treatise that 'roused him out of his dogmatic slumber' and obliged him to reflect on the foundations of human knowing. 31 We shall understand this apparent paradox, however, if we take it as a symptom of humanity's close imprisonment in recent centuries within the limits of its onlooker-consciousness.

32 In his struggle against Hume, Kant was not concerned to challenge his opponent's definition of human's reasoning power. 33 His sole object was to show that, if one accepted this definition, one must not go as far as Hume in the application of this power. 34 All that Kant could aspire to do was to protect the ethical from attack by the intellectual part of human, and to do this by proving that the former belongs to a world into which the latter has no access. 35 For with the will human belongs to a world of purposeful doing, whereas the reason, as our quotations have shown, is incapable even in observing external Nature, of comprehending the wholes within Nature which determine natural ends. 36 Still less can it do this in regard to human, a being who in his actions is integrated into higher purposes.

37 Kant's deed is significant in that it correctly drew attention to that polar division in human nature which, after all, was already established in Kant's own time. 38 Kant demonstrated also that to win insight into the ethical nature of human with the aid of the isolated intellect alone implied a trespass beyond permissible limits. 39 In

order to give the doing part of the human being its necessary anchorage, however, Kant assigned it to a moral world-order entirely external to human, to which it could be properly related only through obedient submission.

40 In this way Kant became the philosopher of that division between knowledge and faith which to this day is upheld in both the ecclesiastical and scientific spheres of our civilisation.

41 Nevertheless, he did not succeed in safeguarding humanity from the consequences of Hume's philosophy; 42 for human cannot live indefinitely in the belief that with the two parts of own being you are bound up with two mutually unrelated worlds. 43 The time when this was feasible is already over, as may be seen from the fact that ever greater masses of people wish to determine their behaviour according to their own ideas, 44 and as they see no alternative in the civilisation around them but to form ideas by means of the discursive reason which inevitably leads to agnosticism, they determine their actions accordingly. 45 Meanwhile, the ethical life as viewed by Kant accordingly shrinks ever further into a powerless, hole-and-corner existence.

46 It is Goethe's merit to have first shown that there is a way out of this impasse. He had no need to argue theoretically with Kant as to the justification of denying human any power of understanding apart from the discursive, 47 and of leaving the faculty of intuitive knowledge to a divinity somewhere outside the world of human. 48 For Goethe was his own witness that Kant was mistaken in regarding human's present condition as his lasting nature. 49 Let us hear how he expresses himself on this fact at the beginning of his essay written as an answer to Kant's statement:

50 'It is true, the author here seems to be pointing to an intellect not human but divine. 51 And yet, if in the moral sphere we are supposed to lift ourselves up to a higher region through faith in God, Virtue and Immortality, so drawing nearer to the Primal Being, why should it not be likewise in the intellectual? 52 By contemplation

(Anschauen) of an ever-creative nature, may we not make ourselves worthy to be spiritual sharers in her productions? 53 I at first, led by an inner urge that would not rest, had quite unconsciously been seeking for the realm of Type and Archetype, and my attempt had been rewarded: 54 I had been able to build up a description, in conformity with Nature Herself. 55 Now therefore nothing more could hinder me from braving what the Old Human of the King's Hill2 himself calls the Adventure of Reason.'

56 Goethe started from the conviction that our senses as well as our intellect are gifts of Nature, 57 and that, if at any given moment they prove incapable through their collaboration of solving a riddle of Nature, we must ask Her to help us to develop this collaboration adequately. 58 Thus there was no question for him of any restriction of sense-perception in order to bring the latter in line with the existing power of the intellect, 59 but rather to learn to make an ever fuller use of the senses and to bring our intellect into line with what they tell. 60 'The senses do not deceive, but the judgment deceives', is one of his basic utterances concerning their respective roles in our quest for knowledge and understanding. 61 As to the senses themselves, he was sure that 'the human being is adequately equipped for all true earthly requirements if he trusts his senses, and so develops them as to make them worthy of trust'.

62 There is no contradiction in the statement that we have to trust our senses, and that we have to develop them to make them trustworthy. 63 For, 'Nature speaks upwards to the known senses of human, downwards to unknown senses of human'. 64 Goethe's path was aimed at wakening faculties, both perceptual and conceptual, which lay dormant in himself. 65 His experience showed him that 'every process in Nature, rightly observed, wakens in us a new organ of cognition'. 66 Right observation, in this respect, consisted in a form of contemplating Nature which he called a 're-creating (creating in the wake) of an ever-creative Nature' (Nachschaffen einer immer schaffenden Natur).

MATTER

67 We should do Goethe an injustice if we measured the value of his scientific work by the amount of factual knowledge he contributed to one or other sphere of research. 68 Although Goethe did bring many new things to light, as has been duly recognised in the scientific fields concerned, it cannot be gainsaid that other scientists in his own day, working along the usual lines, far exceeded his total of discoveries. 69 Nor can it be denied that, as critics have pointed out, he occasionally went astray in reporting his observations. 70 These things, however, do not determine the value or otherwise of his scientific labours. 71 His work draws its significance not so much from the 'what', to use a Goethean expression, as from the 'how' of his observations, that is, from his way of investigating Nature. 72 Having once developed this method in the field of plant observation, Goethe was able, with its aid, to establish a new view of animal nature, to lay the basis for a new meteorology, 73 and, by creating his theory of light and colour, to provide a model for a research in the field of physics, free from onlooker-restrictions.

74 In the scientific work of Goethe his botanical studies have a special place. 75 As a living organism, the plant is involved in an endless process of becoming. It shares this characteristic, of course, with the higher creatures of Nature, and yet between it and them there is an essential difference. 76 Whereas in animal and human a considerable part of the life-processes conceal themselves within the organism, 77 in order to provide a basis for inner soul processes, the plant brings its inner life into direct and total outer manifestation. 78 Hence the plant, better than anything, could become Goethe's first teacher in his exercise of re-creating Nature.

79 It is for the same reason that we shall here use the plant for introducing Goethe's method. 80 The following exposition, however, does not aim at rendering in detail Goethe's own botanical researches, expounded by him in two extensive essays, Morphology and The Metamorphosis of Plants, as well as in a series of smaller writings.

MATTER

81 There are several excellent translations of the chief paper, the Metamorphosis, from which the English-speaking reader can derive sufficient insight into Goethe's way of expressing his ideas; a pleasure as well as a profit which he should not deny himself.

82 Our own way of procedure will have to be such that Goethe's method, and its fruitfulness for the general advance of science, come as clearly as possible into view. Botanical details will be referred to only as far as seems necessary for this purpose.

83 The data for observation, from which in Goethe's own fashion we shall start, have been selected as best for our purpose, quite independently of the data used by Goethe himself. 84 Our choice was determined by the material available when these pages were being written. The reader is free to supplement our studies by his own observation of other plants.

85 Plates II and III show two series of leaves which are so arranged as to represent definite stages in the growth-process of the plant concerned. 86 In each sequence shown the leaves have been taken from a single plant, in which each leaf-form was repeated, perhaps several times, before it passed over into the next stage. 87 The leaves on Plate II come from a Sidalcea (of the mallow family), those on Plate III from a Delphinium. 88 We will describe the forms in sequence, so that we may grasp as clearly as possible the transition from one to another as presented to the eye.

89 Starting with the right-hand leaf at the bottom of Plate II, we let our eye and mind be impressed by its characteristic form, seeking to take hold of the pattern after which it is shaped. 90 Its edge bears numerous incisions of varying depths which, however, do not disturb the roundness of the leaf as a whole. 91 If we re-create in our imagination the 'becoming' of such a leaf, that is, its gradual growth in all directions, we receive an impression of these incisions as 'negative' forms, 92 because, at the points where they occur, the multiplication of the cells resulting from the general growth has been retarded. We observe that this holding back follows a certain order. 93 We now proceed to the

next leaf on the same plate and observe that, whilst the initial plan is faithfully maintained, the ratio between the positive and negative forms has changed. 94 A number of incisions, hardly yet indicated in the first leaf, have become quite conspicuous. The leaf begins to look as if it were breaking up into a number of subdivisions.

95 In the next leaf we find this process still further advanced. The large incisions have almost reached the centre, while a number of smaller ones at the periphery have also grown deeper into the leaf. 96 The basic plan of the total leaf is still maintained, but the negative forms have so far got the upper hand that the original roundness is no longer obvious.

97 The last leaf shows the process in its extreme degree. As we glance back and along the whole series of development, we recognise that the form of the last leaf is already indicated in that of the first. 98 It appears as if the form has gradually come to the fore through certain forces which have increasingly prevented the leaf from filling in the whole of its ground-plan with matter. 99 In the last leaf the common plan is still visible in the distribution of the veins, but the fleshy part of the leaf has become restricted to narrow strips along these veins.

100 The metamorphosis of the delphinium leaf (Plate III) is of a different character. Here the plant begins with a highly elaborate form of the leaf, while in the end nothing remains but the barest indication of it. 101 The impression received from this series of leaves is that of a gradual withdrawal of the magnificent form, revealed in its fullness only in the first leaf.

102 A more intense impression of what these metamorphoses actually mean is achieved by altering our mode of contemplation in the following way. 103 After repeated and careful observation of the different forms on either of the plates, we build up inwardly, as a memory picture, the shape of the first leaf, 104 and then transform this mental image successively into the images of the ensuing forms until we reach the final stage. 105 The same process can also be tried retrogressively, and so repeated forward and backward.

106 This is how Goethe studied the doing of the plant, and it is by this method that he discovered the spiritual principle of all plant life, and succeeded also in throwing a first light on the inner life-principle of animals.

107 We chose the transformation of leaf forms into one another as the starting-point of our observations, because the principle of metamorphosis appears here in a most conspicuous manner. 108 This principle, however, is not confined to this part of the plant's organism. 109 In fact, all the different organs which the plant produces within its life cycle-- foliage, calyx, corolla, organs of fertilisation, fruit and seed-- are metamorphoses of one and the same organ.

110 Human has long learn't to make use of this law of metamorphosis in the plant for what is called doubling the flower of a certain species. 111 Such a flower crowds many additional petals within its original circle, and these petals are nothing but metamorphosed stamens; this, for instance, is the difference between the wild and the cultivated rose. 112 The multitude of petals in the latter is obtained by the transformation of a number of the former's innumerable stamens. (Note the intermediate stages between the two, often found inside the flower of such plants.)

113 This falling back from the stage of an organ of fertilisation to that of a petal shows that the plant is capable of regressive metamorphosis, 114 and we may conclude from this that in the normal sequence the different organs are transformed from one another by way of progressive metamorphosis. 115 It is evident that the regressive type occurs only as an abnormality, or as a result of artificial cultivation. 116 Plants once brought into this condition frequently show a general state of unrest, so that other organs also are inclined to fall back to a lower level. 117 Thus we may come across a rose, an outer petal of which appears in the form of a leaf of the calyx (sepal), or one of the sepals is found to have grown into an ordinary rose leaf.

118 We now extend our mental exercise to the plant's whole

organism. By a similar mental effort as applied to the leaf-formations we strive to build up a complete plant. 119 We start with the seed, from which we first imagine the cotyledons unfolding, letting this be followed by the gradual development of the entire green part of the plant, its stem and leaves, until the final leaves change into the sepals of the calyx. 120 These again we turn into the petals of the flower, until via pistil and stamens the fruit and seed are formed.

121 By pursuing in this way the living doing of the plant from stage to stage we become aware of a significant rhythm in its total life cycle. 122 This, when first discovered by Goethe, gave him the key to an understanding of Nature's general procedure in building living organisms, and in maintaining life in them.

123 The plant clearly divides into three major parts: firstly, the one that extends from the cotyledons to the calyx, the green part of the plant, that is, where the life principle is most active; 124 secondly, the one comprising the flower itself with the organs of fertilisation, where the vitality of the plant gives way to other principles; and lastly, the fruit and seed, which are destined to be discharged from the mother organism. 125 Each of these three contains two kinds of organs: first, organs with the tendency to grow into width-leaf, flower and fruit; 126 second, organs which are outwardly smaller and simpler, but have the function of preparing the decisive leaps in the plant's development: these are the calyx, the stamens, etc., and the seed.

127 In this succession, Goethe recognised a certain rhythm of expansion and contraction, and he found that the plant passes through it three times during any one cycle of its life. 128 In the foliage the plant expands, in the calyx it contracts; it expands again in the flower and contracts in the pistil and stamens; finally, it expands in the fruit and contracts in the seed.

129 The deeper meaning of this threefold rhythm will become clear when we consider it against the background of what we observed in the metamorphosis of the leaf. 130 Take the mallow leaf; its metamorphosis shows a step-

wise progression from coarser to finer forms, whereby the characteristic plan of the leaf comes more and more into view, so that in the topmost leaf it reaches a certain stage of perfection. 131 Now we observe that in the calyx this stage is not improved on, but that the plant recurs to a much simpler formation.

132 Whilst in the case of the mallow the withdrawal from the stage of the leaf into that of the calyx occurs with a sudden leap, we observe that the delphinium performs this process by degrees. 133 Whilst the mallow reaches the highly elaborate form of the leaf only in the final stage, the delphinium leaps forth at the outset, 134 as it were, with the fully accomplished leaf, and then protracts its withdrawal into the calyx over a number of steps, so that this process can be watched with our very eyes. 135 In this type of metamorphosis the last leaf beneath the calyx shows a form that differs little from that of a calyx itself, with its simple sepals. Only in its general geometrical arrangement does it still remind us of the original pattern.

136 In a case like this, the stem-leaves, to use Goethe's expression, 'softly steal into the calyx stage'. 137 In the topmost leaf the plant has already achieved something which, along the other line of metamorphosis, is tackled only after the leaf plan itself has been gradually executed. 138 In this case the calyx stage, we may say, is attained at one leap.

139 Whatever type of metamorphosis is followed by a plant-- and there are others as well, so that we may even speak of metamorphoses between different types of metamorphosis!-- 140 they all obey the same basic rule, namely, that before proceeding to the next higher stage of the cycle, the plant sacrifices something already achieved in a preceding one. 141 Behind the inconspicuous sheath of the calyx we see the plant preparing itself for a new creation of an entirely different order. 142 As successor to the leaf, the flower appears to us time and again as a miracle.

143 Nothing in the lower realm of the plant predicts the form, colour,

scent and all the other properties of the new organ produced at this stage. 144 The completed leaf, preceding the plant's withdrawal into the calyx, represents a triumph of structure over matter. 145 Now, in the flower, matter is overcome to a still higher degree. It is as if the material substance here becomes transparent, so that what is immaterial in the plant may shine through its outer surface.

146 In this 'climbing up the spiritual ladder' Goethe learned to recognise one of Nature's basic principles. 147 He termed it Steigerung (heightening). Thus he saw the plant develop through Metamorphosis and Heightening towards its consummation. 148 Implicit in the second of these two principles, however, there is yet another natural principle for which Goethe did not coin a specific term, 149 although he shows through other utterances that he was well aware of it, and of its universal significance for all life. We propose to call it here the principle of Renunciation.

150 In the life of the plant this principle shows itself most conspicuously where the green leaf is heightened into the flower. 151 While progressing from leaf to flower the plant undergoes a decisive ebb in its vitality. Compared with the leaf, the flower is a dying organ. 152 This dying, however, is of a kind we may aptly call a 'dying into being'. 153 Life in its mere vegetative form is here seen withdrawing in order that a higher manifestation of the spirit may take place. 154 The same principle can be seen at work in the insect kingdom, when the caterpillar's tremendous vitality passes over into the short-lived beauty of the butterfly. 155 In the human being it is responsible for that metamorphosis of organic processes which occurs on the path from the metabolic to the nervous system, and which we came to recognise as the precondition for the appearance of consciousness within the organism.

156 What powerful forces must be at work in the plant organism at this point of transition from its green to its coloured parts! 157 They enforce a complete halt upon the juices that rise up right into the calyx, so that these bring nothing

of their life-bearing activity into the formation of the flower, but undergo a complete transmutation, not gradually, but with a sudden leap.

158 After achieving its masterpiece in the flower, the plant once more goes through a process of withdrawal, this time into the tiny organs of fertilisation. 159 We shall return later to this essential stage in the life cycle of the plant, and shall then clear up the misinterpretation put upon it ever since scientific biology began. 160 After fertilisation, the fruit begins to swell; once more the plant produces an organ with a more or less conspicuous spatial extension. 161 This is followed by a final and extreme contraction in the forming of the seed inside the fruit. 162 In the seed the plant gives up all outer appearance to such a degree that nothing seems to remain but a small, insignificant speck of organised matter. 163 Yet this tiny, inconspicuous thing bears in it the power of bringing forth a whole new plant.

164 In these three successive rhythms of expansion and contraction the plant reveals to us the basic rule of its existence. 165 During each expansion, the active principle of the plant presses forth into visible appearance; 166 during each contraction it withdraws from outer embodiment into what we may describe as a more or less pure state of being. 167 We thus find the spiritual principle of the plant engaged in a kind of breathing rhythm, now appearing, now disappearing, now assuming power over matter, now withdrawing from it again.

168 In the fully developed plant this rhythm repeats itself three times in succession and at ever higher levels, so that the plant, in climbing from stage to stage, each time goes through a process of withdrawal before appearing at the next. 169 The greater the creative power required at a certain stage, the more nearly complete must be the withdrawal from outer appearance. 170 This is why the most extreme withdrawal of the plant into the state of being takes place in the seed, when the plant prepares itself for its transition from one generation to another. 171 Even earlier, the flower stands towards the leaves as something

like a new generation springing from the small organ of the calyx, as does the fruit to the flower when it arises from the tiny organs of reproduction. 172 In the end, however, nothing appears outwardly so unlike the actual plant as the little seed which, at the expense of all appearance, has the power to renew the whole cycle.

173 Through studying the plant in this way Goethe grew aware also of the significance of the nodes and eyes which the plant develops as points where its vital energy is specially concentrated; 174 not only the seed, but the eye also, is capable of producing a new, complete plant. 175 In each of these eyes, formed in the axils of the leaves, the power of the plant is present in its entirety, very much as in each single seed.

176 In other ways, too, the plant shows its capacity to act as a whole at various places of its organism. Otherwise, no plant could be propagated by cuttings; 177 in any little twig cut from a parent plant, all the manifold forces operative in the gathering, transmuting, forming of matter, that are necessary for the production of root, leaf, flower, fruit, etc, are potentially present, ready to leap into action provided we give it suitable outer conditions. 178 Other plants, such as gloxinia and begonia, are known to have the power of bringing forth a new, complete plant from each of their leaves. 179 From a small cut applied to a vein in a leaf, which is then embedded in earth, a root will soon be seen springing downward, and a stalk with leaves rising upward.

180 A particular observation made by Goethe in this respect is of interest for methodological reasons. 181 In the introduction to his treatise Metamorphosis of Plants, when referring to the regressive metamorphosis of stamens into petals as an example of an irregular metamorphosis, 182 he remarks that 'experiences of this kind of metamorphosis will enable us to disclose what is hidden from us in the regular way of development, and to see clearly and visibly what we should otherwise only be able to infer'. 183 In this remark Goethe expresses a truth that is valid in many spheres of life, both human

and natural. 184 It is frequently a pathological aberration in an organic entity that allows us to see in physical appearance things that do not come outwardly to the fore in the more balanced condition of normal development, although they are equally part of the regular organic process.

185 An enlightening experience of this kind came to Goethe's aid when one day he happened to see a 'proliferated' rose (durchgewachsene Rose), that is, a rose from whose centre a whole new plant had sprung. 186 Instead of the contracted seed-pod, with the attached, equally contracted, organs of fertilisation, there appeared a continuation of the stalk, half red and half green, bearing in succession a number of small reddish petals with traces of anthers. 187 Thorns could be seen appearing further up, petals half-turned into leaves, and even a number of fresh nodes from which little imperfect flowers were budding. 188 The whole phenomenon, in all its irregularity, was one more proof for Goethe that the plant in its totality is potentially present at each point of its organism.

189 Goethe's observation of the single plant in statu agendi had trained him to recognise things of quite different outer appearance as identical in their inner nature. 190 Leaf, sepal, petal, etc., much as they differ outwardly, yet showed themselves to him as manifestations of one and the same spiritual archetype. 191 His idea of Metamorphosis enabled him to reduce what in outer appearance seems incompatibly different to its common formative principle. 192 His next step was to observe the different appearances of one and the same species in different regions of the earth, 193 and thus to watch the capacity of the species to respond in a completely flexible way to the various climatic conditions, yet without concealing its inner identity in the varying outer forms. 194 His travels in Switzerland and Italy gave him opportunity for such observations, and in the Alpine regions especially he was delighted at the variations in the species which he already knew so well from his home in Weimar. 195

He saw their proportions, the distances between the single parts, the degree of lignification, the intensity of colour, etc., varying with the varied conditions, yet never concealing the identity of the species.

196 Having once advanced in his investigations from metamorphosis in the parts of the single plant to metamorphosis among different representatives of single plant species, 197 Goethe had to take only one further, entirely decisive, step in order to recognise how every member of the plant kingdom is the manifestation of a single formative principle common to them all. 198 He was thus faced with the momentous task of preparing his spirit to think an idea from which the plant world in its entire variety could be derived.

199 Goethe did not take such a step easily, for it was one of his scientific principles never to think out an idea prematurely. 200 He was well aware that he who aspires to recognise and to express in idea the spirit which reveals itself through the phenomena of the sense-world must develop the art of waiting-- of waiting, however, in a way intensely active, 201 whereby one looks again and yet again, until what one looks at begins to speak and the day at last dawns when, through tireless 're-creation of an ever-creating Nature', one has grown ripe to express her secrets openly. Goethe was a master in this art of active waiting.

202 It was in the very year that Galvani, through his chance discovery, opened the way to the overwhelming invasion of humankind by the purely physical forces of Nature, that Goethe came clearly to see that he had achieved the goal of his labours. 203 We can form some picture of the decisive act in the drama of his seeking and finding from letters written during the years 1785-7.

204 In the spring of 1785 he writes to a friend in a way that shows him fully aware of his new method of studying Nature, which he recognised was a reading of Her phenomena: 205 'I can't tell you how the Book of Nature is becoming readable to me. My long practice in spelling has helped me; it now suddenly works, and my

quiet joy is inexpressible.' 206 Again in the summer of the following year: 'It is a growing aware of the Form with which again and again Nature plays, and, in playing, brings forth manifold life.'

207 Then Goethe went on his famous journey to Italy which was to bear such significant fruit for his inner life, both in art and in science. 208 At Michaelmas, 1786, he reports from his visit to the botanical garden in Padua that 'the thought becomes more and more living that it may be possible out of one form to develop all plant forms'. 209 At this moment Goethe felt so near to the basic conception of the plant for which he was seeking, that he already christened it with a special name. 210 The term he coined for it is Urpflanze, literally rendered archetypal plant, or ur-plant, as we propose quite simply to call it.

211 It was the rich tropical and sub-tropical vegetation in the botanical gardens in Palermo that helped Goethe to his decisive observations. 212 The peculiar nature of the warmer regions of the earth enables the spirit to reveal itself more intensively than is possible in the temperate zone. 213 Thus in tropical vegetation many things come before the eye which otherwise remain undisclosed, and then can be detected only through an effort of active thought. 214 From this point of view, tropical vegetation is 'abnormal' in the same sense as was the proliferated rose which confirmed for Goethe's physical perception that inner law of plant-growth which had already become clear to his mind.

215 During his sojourn in Palermo in the spring of 1787 Goethe writes in his notebook: 'There must be one (ur-plant): how otherwise could we recognise this or that formation to be a plant unless they were all formed after one pattern?' 216 Soon after this, he writes in a letter to the poet Herder, one of his friends in Weimar: 'Further, I must confide to you that I am quite close to the secret of plant creation, and that it is the simplest thing imaginable. 217 The ur-plant will be the strangest creature in the world, for which Nature Herself should envy me. 218 With this model and the key to it one will be

able to invent plants ad infinitum; they would be consistent; 219 that is to say, though non-existing, they would be capable of existing, being no shades or semblances of the painter or poet, but possessing truth and necessity. The same law will be capable of extension to all living things.'

220 To become more familiar with the conception of the ur-plant, let us bring the life-cycle of the plant before our inner eye once again. 221 There, all the different organs of the plant-leaf, blossom, fruit, etc, appear as the metamorphic revelations of the one, identical active principle, 222 a principle which gradually manifests itself to us by way of successive heightening from the cotyledons to the perfected glory of the flower. 223 Amongst all the forms which thus appear in turn, that of the leaf has a special place; for the leaf is that organ of the plant in which the ground-plan of all plant existence comes most immediately to expression. 224 Not only do all the different leaf forms arise, through endless changing, out of each other, but the leaf, in accordance with the same principle, also changes itself into all the other organs which the plant produces in the course of its growth.

225 It is by precisely the same principle that the ur-plant reveals itself in the plant kingdom as a whole. 226 Just as in the single plant organism the different parts are a graduated revelation of the ur-plant, so are the single kinds and species within the total plant world. 227 As we let our glance range over all its ranks and stages-- from the single-celled, almost formless alga to the rose and beyond to the tree--, we are following, step by step, the revelation of the ur-plant. 228 Barely hinting at itself in the lowest vegetable species, it comes in the next higher stages into ever clearer view, finally streaming forth in full glory in the magnificence of the manifold blossoming plants. 229 Then, as its highest creation, it brings forth the tree, which, itself a veritable miniature earth, becomes the basis for innumerable single plant growths.

230 It has struck biologists of Goethe's own and later times that contrary to their method he did not

build up his study of the plant by starting with its lowest form, and so the reproach has been levelled against him of having unduly neglected the latter. 231 Because of this, the views he had come to were regarded as scientifically unfounded. Goethe's note-books prove that there is no justification for such a reproach. 232 He was in actual fact deeply interested in the lower plants, but he realised that they could not contribute anything fundamental to the spiritual image of the plant as such which he was seeking to attain. 233 To understand the plant he found himself obliged to pay special attention to examples in which it came to its most perfect expression. For what was hidden in the alga was made manifest in the rose. 234 To demand of Goethe that in accordance with ordinary science he should have explained Nature 'from below upwards' is to misunderstand the methodological basis of all his investigations.

235 Seen with Goethe's eyes, the plant kingdom as a whole appears to be a single mighty plant. 236 In it the ur-plant, while pressing into appearance, is seen to observe the very rule which we have found governing its action in the single plant-- that of repeated expansion and contraction. 237 Taking the tree in the sense already indicated, as the state of highest expansion along the ur-plant's way of entering into spatial manifestation, we note that tree-formation occurs successively at four different levels-- 238 as fern-tree (also the extinct tree-form of the horsetail) among the cryptogams, as coniferous tree among the gymnosperms, as palm-tree among the monocotyledons, 239 and lastly in the form of the manifold species of the leaf-trees at the highest level of the plant kingdom, the dicotyledons. 240 All these levels have come successively into existence, as geological research has shown; 241 the ur-plant achieved these various tree-formations successively, thus giving up again its state of expansion each time after having reached it at a particular level.

242 From the concept of the ur-plant Goethe soon learned to develop another concept which was to express the spiritual principle working in a particular

plant species, 243 just as the ur-plant was the spiritual principle covering the plant kingdom as a whole. 244 He called it the type. In the manifold types which are thus seen active in the plant world we meet offsprings, as it were, of the mother, the 'ur-plant', which in them assumes differentiated modes of action.

245 The present part of our discussion may be concluded by the introduction of a concept which Goethe formed for the organ of cognition attained through contemplating Nature in the state of becoming, as the plant had taught him to do.

246 Let us look back once again on the way in which we first tried to build up the picture of leaf metamorphosis. 247 There we made use, first of all, of exact sense-perceptions to which we applied the power of memory in its function as their keeper. 248 We then endeavoured to transform within our mind the single memory pictures (leaf forms) into one another. By doing so we applied to them the activity of mobile fantasy. 249 In this way we actually endowed, on the one hand, objective memory, which by nature is static, with the dynamic properties of fantasy, and, on the other hand, mobile fantasy, which by nature is subjective, with the objective character of memory. 250 Now, for the new organ of cognition arising from the union of these two polar faculties of the soul, Goethe coined the significant expression, exact sensorial fantasy. 251 In terms of our knowledge of human's psycho-physical make-up, acquired earlier, we can say that, just as the nervous system forms the basis for memory, and the blood the basis for fantasy, so the 'exact sensorial fantasy' is based on a newly created collaboration of the two.

252 Our observations have reached a point where we may consider that stage in the life cycle of the single plant where, by means of the process of pollination, the seed acquires the capacity to produce out of itself a new example of the species. 253 Our discussion of this will bring home the fundamental difference in idea that arises when, instead of judging a process from the standpoint of the mere

onlooker, we try to comprehend it through re-creating it inwardly.

254 Biological science of our day takes it for granted that the process uniting pollen with seed in the plant is an act of fertilisation analogous to that which occurs among the higher organisms of Nature. 255 Now it is not to be gainsaid that to external observation this comparison seems obvious, and that it is therefore only natural to speak of the pollen as the male, and of the ovule as the female, element, 256 and of their union as entirely parallel to that between the sexes in the higher kingdoms of Nature. 257 Goethe confesses that at first he himself 'had credulously put up with the ruling dogma of sexuality'. 258 He was first made aware of the invalidity of this analogy by Professor Schelver who, as Superintendent of the Jena Botanical Institute, was working under Goethe's direction and had trained himself in Goethe's method of observing plants. 259 This man had come to see that if one held strictly to the Goethean practice of using nothing for the explanation of the plant but what one could read from the plant itself, one must not ascribe to it any sexual process. 260 He was convinced that for a Goethean kind of biology it must be possible to find, even for the process of pollination, an idea derived from nothing but the two principles of plant life: growth and formation. 261 Goethe immediately recognised the Tightness of this thought, and set about the task of relating the pollination process to the picture of the plant which his investigations had already yielded. 262 His way of reporting the result shows how fully conscious he was of its revolutionary nature. Nor was he in any doubt as to the kind of reception it would be given by official biology.

263 In observing the growth of the plant, Goethe had perceived that this proceeds simultaneously according to two different principles. 264 On the one hand the plant grows in an axial direction and thereby produces its main and side stems. To this growth principle Goethe gave the name 'vertical tendency'. 265 Were the plant to follow this principle only, its lateral shoots would all stand vertically one above the other. 266

But observation shows that the different plant species obey very different laws in this respect, as may be seen if one links up all the leaf buds along any plant stem; they form a line which winds spiral fashion around it. 267 Each plant family is distinguishable by its own characteristic spiral, which can be represented either geometrically by a diagram, or arithmetically by a fraction. 268 If, for example, the leaves are so arranged in a plant that every fifth leaf recurs on the same side of the stem, while the spiral connecting the five successive leaf-buds winds twice round the stem, this is expressed in botany by the fraction 2/5. 269 To distinguish this principle of plant growth from the vertical tendency, Goethe used the term 'spiral tendency'.

270 To help towards a clear understanding of both tendencies, Goethe describes an exercise which is characteristic of his way of schooling himself in what he called exact sensorial fantasy. 271 He first looks out for a phenomenon in which the 'secret' of the spiral tendency is made 'open'. This he finds in such a plant as the convolvulus; 272 in this kind of plant the vertical tendency is lacking, and the spiral principle comes obviously into outer view. 273 Accordingly, the convolvulus requires an external support, around which it can wind itself. 274 Goethe now suggests that after looking at a convolvulus as it grows upwards around its support, one should first make this clearly present to one's inner eye, 275 and then again picture the plant's growth without the vertical support, allowing instead the upward-growing plant inwardly to produce a vertical support for itself. 276 By way of inward re-creation (which the reader should not fail to carry out yourself) Goethe attained a clear experience of how, in all those plants which in growing upwards produce their leaves spiral-wise around the stem, the vertical and spiral tendencies work together.

277 In following the two growth-principles, Goethe saw that the vertical comes to a halt in the blossom; 278 the straight line here shrinks together, so to say, into a point, surviving only in the ovary and pistil as continuations of the

plant's stalk. 279 The spiral tendency, on the other hand, is to be found in the circle of the stamens arranged around these; 280 the process which in the leaves strove outwards in spiral succession around a straight line is now telescoped on to a single plane. 281 In other words, the vertical-spiral growth of the plant here separates into its two components. 282 And when a pollen grain lands on a pistil and joins with the ovule prepared in the ovary, the two components are united again. Out of the now complete seed a new and complete plant can arise.

283 Goethe understood that he would be taught a correct conception of this process only by the plant itself. 284 Accordingly, he asked himself where else in the growing plant something like separation and reunion could be seen. 285 This he found in the branching and reuniting of the veins in the leaves, known as anastomosis.

286 In the dividing of the two growth-principles in the plant through the formation of carpel and pistil, on the one hand, and the pollen-bearing stamens on the other, 287 and in their reunion through the coming together of the pollen with the seed, Goethe recognised a metamorphosis of the process of anastomosis at a higher level. His vision of it caused him to term it 'spiritual anastomosis'.

288 Goethe held a lofty and comprehensive view of the significance of the male and female principles as spiritual opposites in the cosmos. 289 Among the various manifestations of this polarity in earthly nature he found one, but one only, in the duality of the sexes as characteristic of human and animal. 290 Nothing compelled him, therefore, to ascribe it in the same form to the plant. This enabled him to discover how the plant bore the same polarity in plant fashion.

291 In the neighbourhood of Weimar, Goethe often watched a vine slinging its foliaged stem about the trunk and branches of an elm tree. 292 In this impressive sight Nature offered him a picture of 'the female and male, the one that needs and the one that gives, side by side in the vertical and

spiral directions'. 293 Thus his artist's eye clearly detected in the upward striving of the plant a decisively masculine principle, and in its spiral winding an equally definite feminine principle. 294 Since in the normal plant both principles are inwardly connected, 'we can represent vegetation as a whole as being in a secret androgynous union from the root up. 295 From this union, through the changes of growth, both systems break away into open polarity and so stand in decisive opposition to each other, only to unite again in a higher sense.'

296 Thus Goethe found himself led to ideas regarding the male and female principles in the plant, which were the exact opposite of those one obtains 297 if, in trying to explain the process of pollination, one does not keep to the plant itself but imports an analogy from another kingdom of Nature. 298 For in continuance of the vertical principle of the plant, the pistil and carpel represent the male aspect in the process of spiritual anastomosis, and the mobile, wind-- or insect-borne pollen, in continuing the spiral principle, represents the female part.

299 If the process of pollination is what the plant tells us it is, then the question arises as to the reason for the occurrence of such a process in the life cycle of the fully developed plant. 300 Goethe himself has not expressed himself explicitly on this subject. But his term 'spiritual anastomosis' shows that he had some definite idea about it. 301 Let us picture in our mind what happens physically in the plant as a result of pollination and then try to read from this picture, as from a hieroglyph, what act of the spiritual principle in the plant comes to expression through it.

302 Without pollination there is no ripening of the seed. 303 Ripening means for the seed its acquisition of the power to bring forth a new and independent plant organism through which the species continues its existence within Nature. 304 In the life cycle of the plant this event takes place after the organism has reached its highest degree of physical perfection. 305 When we now read these facts in the light of the

knowledge that they are deeds of the activity of the type, we may describe them as follows:

306 Stage by stage the type expends itself in ever more elaborate forms of appearance, until in the blossom a triumph of form over matter is reached. 307 A mere continuation of this path could lead to nothing but a loss of all connexion between the plant's superphysical and physical component parts. 308 Thus, to guarantee for the species its continuation in a new generation, the formative power of the type must find a way of linking itself anew to some part of the plant's materiality. 309 This is achieved by the plant's abandoning the union between its two polar growth-principles and re-establishing it again, 310 which in the majority of cases takes place even in such a way that the bearers of the two principles originate from two different organisms.

311 By picturing the process in this way we are brought face to face with a rule of Nature which, once we have recognised it, proves to hold sway at all levels of organic nature. 312 In general terms it may be expressed as follows: In order that spiritual continuity may be maintained within the coming and going multitude of Nature's creations, the physical stream must suffer discontinuity at certain intervals. 313 In the case of the plant this discontinuity is achieved by the breaking asunder of the male and female growth-principles. 314 When they have reunited, the type begins to abandon either the entire old plant or at least part of it, according to whether the species is an annual or a perennial one, in order to concentrate on the tiny seed, setting, as it were, its living seal on it.

315 This is as far as we can go in describing this mysterious process, at least at the present stage of our considerations.

316 Our pursuit of Goethe's way of observing the life of the plant has brought us to a point where it becomes possible to rectify a widespread error concerning his position as an evolutionary theorist. 317 Goethe has been honourably mentioned as a predecessor of Darwin. 318 The truth is, that the idea of evolution

emerging from Goethe's mode of regarding Nature is the exact opposite of the one held by Darwin and-- in whatever modified form-- by his followers. 319 A brief consideration of the Darwinian concepts of inheritance and adaptation will show this.

320 Goethe's approach to his conception of the type is clear evidence that he did not undervalue the factor of adaptation as a formative element in Nature; 321 we have seen that he became acquainted with it in studying the same plant species under different climatic conditions. 322 In his view, however, adaptation appears not as the passive effect of a blindly working, external cause, but as the response of the spiritual type to the conditions meeting it from outside.

323 The same applies to the concept of inheritance. Through inheritance Goethe saw single, accessory characteristics of a species being carried over from one generation to the next; 324 but never could the reappearance of the basic features of the species itself be explained in this way.

325 He was sufficiently initiated into Nature's methods to know that She was not in need of a continuity of the stream of physical substance, 326 in the sense of the theory of inheritance, to guarantee a continuance of the features of the species through successive generations, 327 but that it was Her craft to achieve such continuance by means of physical discontinuity.

328 Goethe was not temperamentally given to reflecting deliberately about his own cognitional processes. 329 Moreover, the excess of reflexion going on around him in the intellectual life of his younger days inclined him to guard himself with a certain anxiety against philosophical cogitations. 330 His words to a friend - 'Dear friend, I have done it well, and never reflected about thinking'-- bring this home to us. 331 If in his later years Goethe could become to some degree epistemologically conscious of his spiritual achievements, 332 as, for instance, his essay on Intuitive Judgment shows, he owed this to his friendship with Schiller, who

became for him a kind of soul mirror, in which he could see the reflexion of his own processes of consciousness. 333 Indeed, at their first personal encounter, significant as it was for their whole later relationship, Schiller--though all unconsciously--performed a decisive service of this kind for him. 334 Goethe himself speaks of the occasion in his essay Happy Encounter (Gliickliches Ereignis), written twelve years after Schiller's death. 335 The occasion was, outwardly regarded, fortuitous: both men were leaving a lecture on natural science at the University of Jena, Schiller having been present as Professor of History in the University, and Goethe as its patron and as a Weimar Minister of State. 336 They met at the door of the lecture hall and went out into the street together. 337 Schiller, who had been wanting to come into closer contact with Goethe for a long time, used the opportunity to begin a conversation. 338 He opened with a comment on the lecture they had just heard, saying that such a piecemeal way of handling Nature could not bring the layman any real satisfaction. 339 Goethe, to whom this remark was heartily welcome, replied that such a style of scientific observation 'was uncanny even for the initiated, 340 and that there must certainly be another way altogether, which did not treat of Nature as divided and in pieces, but presented Her as working and alive, striving out of the whole into the parts'.

341 Schiller's interest was at once aroused by this remark, although as a thorough Kantian he could not conceal his doubts whether the kind of thing indicated by Goethe was within human capacity. 342 Goethe began to explain himself further, and so the discussion proceeded, until the speakers arrived at Schiller's house. 343 Quite absorbed in his description of plant metamorphosis, Goethe went in with Schiller and climbed the stairs to the latter's study. 344 Once there, he seized pen and paper from Schiller's writing desk, and to bring his conception of the ur-plant vividly before his companion's eyes he made 'a symbolic plant appear with many a characteristic stroke of the pen'.

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345 Although Schiller had listened up to this point 'with great interest and definite understanding', he shook his head as Goethe finished, and said-- Kantian that he was at that time: 'That is no experience, that is an idea.' 346 These words were very disappointing to Goethe. At once his old antipathy towards Schiller rose up, an antipathy caused by much in Schiller's public utterances which he had found distasteful.

347 Once again he felt that Schiller and he were 'spiritual antipodes, removed from each other by more than an earth diameter'. 348 However, Goethe restrained his rising annoyance, and answered Schiller in a tranquil but determined manner: 'I am glad to have ideas without knowing it, and to see them with my very eyes.'

349 Although at this meeting Goethe and Schiller came to no real agreement, the personal relationship formed through it did not break off; both had become aware of the value of each to the other. 350 For Goethe his first meeting with Schiller had the significant result of showing him that 'thinking about thought' could be fruitful. 351 For Schiller this significance consisted in his having met in Goethe a human intellect which, simply by its existing properties, invalidated Kant's philosophy. 352 For him Goethe's mind became an object of empirical study on which he based the beginnings of a new philosophy free from onlooker-restrictions.

353 An essay, written by Goethe about the same time as the one just quoted, shows how he came to think at a later date about the raising of human perception into the realm of ideas. 354 In this essay, entitled Discovery of an Excellent Predecessor, Goethe comments on certain views of the botanist, K. F. Wolff, regarding the relationships between the different plant organs, which seemed to be similar to his own, and at which Wolff had arrived in his own way.

355 Wolff had risen up as an opponent of the so-called preformation theory, still widespread at that time, according to which the entire plant with all its different parts is already present in embryonic physical form in the

seed, and simply grows out into space through physical enlargement. 356 Such a mode of thought seemed inadmissible to Wolff, for it made use of an hypothesis 'resting on an extra-sensible conception, 357 which was held to be thinkable, although it could never be demonstrated from the sense world. 358 Wolff laid it down as a fundamental principle of all research that 'nothing may be assumed, admitted or asserted that has not been actually seen and cannot be made similarly visible to others'. 359 Thus in Wolff we meet with a phenomenologist who in his way tried to oppose certain trends of contemporary biological thinking. 360 As such, Wolff had made certain observations which caused him to ascribe to the plant features quite similar to those which Goethe had grasped under the conception of progressive and regressive metamorphosis. 361 In this way Wolff had grown convinced that all plant organs are transformed leaves. 362 True to his own principle, he had then turned to the microscope for his eyes to confirm what his mind had already recognised. 363 The microscope gave him the confirmation he expected by showing that all the different organs of the plant develop out of identical embryonic beginnings. 364 In his absolute reliance on physical observation, however, he tried to go further than this and to detect in this way the reason why the plant does not always bring forth the same organ. 365 He saw that the vegetative strength in the plant diminishes in proportion as its organism enters upon its later stages. 366 He therefore attributed the differentiated evolution of plant organs from identical beginnings to an ever weaker process of development in them.

367 Despite his joy in Wolff as someone who in his own fashion had arrived at certain truths which he himself had also discovered, 368 and despite his agreement with Wolff's phenomenalistic principle, Goethe could in no way accept his explanation of why metamorphosis took place in plants. 369 He said: 'In plant metamorphosis Wolff saw how the same organ continuously draws together, makes itself smaller; he did not see that this contraction alternates with an

expansion. 370 He saw that the organ diminishes in volume, but not that at the same time it ennobles itself, and so, against reason, he attributed decline to the path towards perfection.' 371 What was it, then, which had prevented Wolff from seeing things aright? 372 'However admirable may be Wolff's method, through which he has achieved so much, the excellent person never thought that there may be a difference between seeing and seeing, 373 that the eyes of the spirit have to work in perpetual living connection with those of the body, for one otherwise risks seeing and yet seeing past a thing (zu sehen und doch vorbeizusehen).'

374 Wolff's case was to Goethe a symptom of the danger which he saw arising for science from the rapidly increasing use of the microscope-- and similarly the telescope--, if thinking was not developed correspondingly but left at the mercy of these instruments. 375 His concern over the state of affairs speaks from his utterance: 'Microscopes and telescopes, in actual fact, confuse human's innate clarity of mind.'

376 When we follow Goethe in this way he comes before us in characteristic contrast to Robert Hooke. 377 We remember Hooke's microscopic 'proof of the unrelatedness of human thought to outer reality (Chapter III). 377 There can be no doubt how Goethe, if the occasion had arisen, would have commented on Hooke's procedure. 378 He would have pointed out that there would be no such thing as a knife with its line-like edge unless human were able to think the concept 'line', nor a needle with its point-like end unless he were able to think the concept 'point'. 379 In fact, knife and needle are products of a human action which is guided by these two concepts respectively. 380 As such they are embodiments, though more or less imperfect ones, of these concepts. Here too, therefore, just as Goethe had discovered it through his way of observing the plant, we see Ideas with our very eyes. 381 What distinguishes objects of this kind from organic entities, such as the plant, is the different relationship between Object and Idea. 382 Whereas in the case of an

organism the Idea actively indwells the object, its relationship to a human-made thing-- and similarly to Nature's mineral entities-- is a purely external one. 383 Hooke, so Goethe would have argued, allowed the microscope to confuse his common sense. 384 He would have seen in him an example confirming his verdict that you who fails to let the eye of the spirit work in union with the eye of the body 'risks seeing yet seeing past the thing'.

385 'Thus not through an extraordinary spiritual gift, not through momentary inspiration, unexpected and unique, but through consistent work did I eventually achieve such satisfactory results.' 386 These words of Goethe - they occur in his essay, History of my Botanical Studies, which he wrote in later life as an account of his labours in this field of science-- 387 show how anxious he was that it should be rightly understood that the faculty of reading in the Book of Nature, as he knew it, was the result of a systematic training of his mind. 388 It is important for our further studies to make clear to ourselves at this point the nature of the change which human must bring to pass within the self in order to brave Kant's 'adventure of reason'. 389 Goethe's concept for the newly acquired faculty of cognition, exact sensorial fantasy, can give us the lead.

390 We remember that, to form this faculty, two existing functions of the soul, as such polarically opposite, had to be welded together-- memory based on exact sense-perception and the freely working fantasy; 391 one connected with the nervous system of the body, the other with the blood. 392 We also know from earlier considerations (Chapter II) that in the little child there is not yet any such polarisation, in body or soul, as there is in human's later life. 393 Thus we see that training on Goethe's lines aims at nothing less than restoring within oneself a condition which is natural in early childhood.

EXCEPT WE BECOME …
Ernst Lehrs

6 In this chapter we shall concern ourselves with a number of

personalities from the more or less recent past of the cultural life of Britain, each of whom was a spiritual kinsman of Goethe, 2 and so a living illustration of the fact that the true source of knowledge in human must be sought, and can be found, outside the limits of own modern adult consciousness. 3 Whilst none of them was a match for Goethe as regards universality and scientific lucidity, they are all characteristic of an immediacy of approach to certain essential truths, which in the sense we mean is not found in Goethe. 4 It enabled them to express one or the other of these truths in a form that makes them suitable as sign-posts on our own path of exploration. 5 We shall find repeated opportunity in the later pages of this book to remember just what these men saw and thought.

6 The first is Thomas Reid (1710-96), the Scottish philosopher and advocate of common sense as the root of philosophy. 7 After having served for some years as a minister in the Church of Scotland, Reid became professor of Philosophy at the University of Aberdeen, whence he was called to Glasgow as the successor of Adam Smith. 8 Through his birth in Strachan, Kincardine, he belonged to the same part of Scotland from which Kant's ancestors had come. 9 Two brief remarks of Goethe show that he knew of the Scotsman's philosophy, and that he appreciated his influence on contemporary philosophers.

10 Reid, like his contemporary Kant, felt his philosophical conscience stirred by Hume's Treatise of Human Nature, and, like Kant, set himself the task of opposing it. 11 Unlike Kant, however, whose philosophic system was designed to arrest human's reason before the abyss into which Hume threatened to cast it, Reid contrives to detect the bridge that leads safely across this abyss. 12 Even though it was not granted to him actually to set foot on this bridge (this, in his time, only Goethe managed to do), he was able to describe it in a manner especially helpful for our own purpose.

13 The first of the three books in which Reid set out the results of his labours appeared in 1764 under the title, ‘*Inquiry into the Human*

Mind on the Principles of Common Sense'. 14 The other two, Essays on the '*Intellectual Powers of Human*' and Essays on the '*Active Powers of Human*', appeared twenty years later. 15 In these books Reid had in view a more all-embracing purpose than in his first work. 16 The achievement of this purpose, however, required a greater spiritual power than was granted to him. 17 Comparing his later with his earlier work, Reid's biographer, A. Campbell Fraser, says: 'Reid's Essays form, as it were, the inner court of the temple of which the Aberdonian Inquiry is the vestibule. 18 But the vestibule is a more finished work of constructive skill than the inner court, for the aged architect appears at last as if embarrassed by accumulated material. 19 The Essays, greater in bulk, perhaps less deserve a place among modern philosophical classics than the Inquiry, 20 notwithstanding its narrower scope, confined as it is to human's perception of the extended world, as an object lesson on the method of appeal to common sense.'

21 Whilst the ideas of Kant, by which he tried in his way to oppose Hume's philosophy, have become within a short space of time the common possession of people's minds, it was the fate of Reid's ideas to find favour among only a restricted circle of friends. 22 Moreover, they suffered decisive misunderstanding and distortion through the efforts of well-meaning disciples. 23 This was because Kant's work was a late fruit of an epoch of human development which had lasted for centuries and in his time began to draw to its close, while Reid's work represents a seed of a new epoch yet to come. 24 Here lies the reason also for his failure to develop his philosophy beyond the achievements contained in his first work. 25 It is on the latter, therefore, that we shall chiefly draw for presenting Reid's thoughts.

26 The convincing nature of Hume's argumentation, together with the absurdity of the conclusions to which it led, aroused in Reid a suspicion that the premises on which Hume's thoughts were built, 27 and which

he, in company with all his predecessors, had assumed quite uncritically, contained some fundamental error. 28 For both as a Christian, a philosopher, and a man in possession of common sense, Reid had no doubt as to the absurdity and destructiveness of the conclusions to which Hume's reasoning had led him.

29 For my own satisfaction, I entered into a serious examination of the principles upon which this sceptical system is built; 30 and was not a little surprised to find that it leans with its whole weight upon a hypothesis, which is ancient indeed, and hath been very generally received by philosophers, but of which I could find no solid proof. 31 The hypothesis I mean is, That nothing is perceived but what is in the mind which perceives it: 32 That we do not really perceive the things that are external, but only certain images and pictures of them imprinted upon the mind, which are called impressions and ideas.

33 'If this be true, supposing certain impressions and ideas to exist presently in my mind, I cannot, from their existence, infer the existence of anything else; 34 my impressions and ideas are the only existences of which I can have any knowledge or conception; and they are such fleeting and transitory beings, that they can have no existence at all, any longer than I am conscious of them. 35 So that, upon this hypothesis, the whole universe about me, bodies and spirits, sun, moon, stars, and earth, friends and relations, all things without exception, which I imagined to have a permanent existence whether I thought of them or not vanish at once: 36 'And, like the baseless fabric of this vision ... Leave not a rack behind.

37 'I thought it unreasonable, upon the authority of philosophers, to admit a hypothesis which, in my opinion, overturns all philosophy, all religion and virtue, and all common sense: 38 and finding, that all the systems which I was acquainted with, were built upon this hypothesis, I resolved to enquire into this subject anew, without regard to any hypothesis.' 39 The following passage from the first chapter of the Inquiry reveals

Reid as a personality who was not dazzled to the same extent as were his contemporaries by the brilliance of the onlooker-consciousness: 40 'If it [the mind] is indeed what the Treatise of Human Nature makes it, I find I have been only in an enchanted castle, imposed upon by spectres and apparitions. 41 I blush inwardly to think how 1 have been deluded; I am ashamed of my frame, and can hardly forbear expostulating with my destiny: 42 Is this thy pastime, O Nature, to put such tricks upon a silly creature, and then to take off the mask, and show him how he hath been befooled? 43 If this is the philosophy of human nature, my soul enter thou not into her secrets. 44 It is surely the forbidden tree of knowledge; I no sooner taste it, than I perceive myself naked, and stript of all things-- yea even of my very self. 45 I see myself, and the whole frame of Nature, shrink into fleeting ideas, which, like Epicurus's atoms, dance about in emptiness.

46 'But what if these profound disquisitions into the first principles of human nature, do naturally and necessarily plunge a person into this abyss of scepticism? 47 May we not reasonably judge from what hath happened? 48 DesCartes no sooner began to dig in this mine, than scepticism was ready to break in upon him. He did what he could to shut it out. 49 Malebranche and Locke, who dug deeper, found the difficulty of keeping out this enemy still to increase; but they laboured honestly in the design. 50 Then Berkeley, who carried on the work, despairing of securing all, bethought himself of an expedient: 51 By giving up the material world, which he thought might be spared without loss, and even with advantage, he hoped by an impregnable partition to secure the world of spirits. 52 But, alas! the Treatise of Human Nature wantonly sapped the foundation of this partition and drowned all in one universal deluge.'

53 What Reid so pertinently describes here as the 'enchanted castle' is nothing else than the human head, which knows of no occurrence beyond its boundaries, 54 because it has forgotten that it is only the end-product of a living

existence outside of, and beyond, itself. 55 We see here that Reid is gifted with the faculty of entering this castle without forfeiting his memory of the world outside; and so even from within its walls, he could recognise its true nature. 56 To a high degree this helped him to keep free of those deceptions to which the majority of his contemporaries fell victim, and to which so many persons are still subject to-day.

57 It is in this way that Reid could make it one of the cardinal principles of his observations to test all that the head thinks by relating it to the rest of human nature and to allow nothing to stand, which does not survive this test. 58 In this respect the argument he sets over against the Cartesian, 'cogito ergo sum' is characteristic: ' "I am thinking," says he, "therefore I am": 59 and is it not as good reasoning to say, I am sleeping, therefore I am? If a body moves, it must exist, no doubt; but if it is at rest, it must exist likewise.'

60 The following summarises the position to which Reid is led when he includes the whole human being in his philosophical inquiries.

61 Reid admits that, when the consciousness that has become aware of itself surveys that which lies within its own horizon, it finds nothing else there but transient pictures. 62 These pictures in themselves bring to the mind no experience of a lasting existence outside itself. 63 There is no firm evidence of the existence of either an outer material world to which these pictures can be related, or of an inner spiritual entity which is responsible for them. 64 To be able to speak of an existence in either realm is impossible for a philosophy which confines its attention solely to the mere picture-content of the waking consciousness.

65 But human is not only a percipient being; you are also a being of will, and as such you comes into a relationship with the world which can be a source of rich experience. 66 If one observes this relationship, one is bound to notice that it is based on the self-evident assumption that one possesses a lasting individuality, whose actions deal with a lasting

material world. 67 Any other way of behaviour would contradict the common sense of human; where we meet with it we are faced with a lunatic.

68 Thus philosophy and common sense seem to stand in irreconcilable opposition to each other. But this opposition is only apparent. 69 It exists so long as philosophy thinks it is able to come to valid conclusions without listening to the voice of common sense, believing itself to be too exalted to need to do so. 70 Philosophy, then, does not realise 'that it has no other root but the principles of Common Sense; it grows out of them, and draws its nourishment from them: severed from this root, its honours wither, its sap is dried up, it dies and rots.' 71 At the moment when the philosophical consciousness ceases to regard itself as the sole foundation of its existence 72 and recognises that it can say nothing about itself without considering the source from which it has evolved, it attains the possibility of seeing the content of its experience in a new light. 73 For it is no longer satisfied with considering this content in the completed form in which it presents itself. 74 Rather does it feel impelled to investigate the process which gives rise to this content as an end-product (the 'impressions' and 'ideas' of Hume and his predecessors).

75 Reid has faith in the fact-- for his common sense assures him of it-- that a lasting substantiality lies behind the world of the senses, even if for human consciousness it exists only so long as impressions of it are received via the bodily senses. 76 Similarly, he has faith in the fact that his consciousness, although existing but intermittently, has as its bearer a lasting self. 77 Instead of allowing this intuitively given knowledge to be shaken by a mere staring at fugitive pictures, behind which the real existence of self and world is hidden, 78 he seeks instead in both directions for the origin of the pictures and will not rest until he has found the lasting causes of their transient appearances.

79 In one direction Reid finds himself led to the outer boundary of the body, where sense perception has its origin. 80 This

prompts him to investigate the perceptions of the five known senses: smelling, tasting, hearing, touching and seeing, which he discusses in this order. 81 In the other direction he finds himself led-- and here we meet with a special attribute of Reid's whole philosophical outlook-- to the realm of human speech. 82 For speech depends upon an inner, intelligent human activity, which, once learn't, becomes a lasting part of human's being, quite outside the realm of his philosophising consciousness, and yet forming an indispensable instrument for this consciousness.

83 The simplest human reasoning, prompted only by common sense, and the subtlest philosophical thought, both need language for their expression. 84 Through your ability to speak, human lifts the self above an instinctive animal existence, and yet develops this ability at an infantile stage, 85 when, in so far as concerns the level of own consciousness and own relationship to the world, you hardly rises above the level of the animal. 86 It requires a highly developed intelligence to probe the intricacies of language, yet complicated tongues were spoken in human history long before human awoke to own individual intelligence. 87 Just as each person learns to think through speaking, so did humanity as a whole. 88 Thus speech can become a means for acquiring insight into the original form of human intelligence. 89 For in speech the common sense of human, working unconsciously within you, meets the fully awakened philosophical consciousness.

90 The way in which the two paths of observation have here been set out must not give rise to the expectation that they are discussed by Reid in a similarly systematic form. 91 For this, Reid lacked the sufficient detachment from his own thoughts. 92 As he presents his observations in the Inquiry they seem to be nothing but a systematic description of the five senses, broken into continually by linguistic considerations of the kind indicated above. 93 So, for example, many of his more important statements about language are found in his chapter on 'Hearing'.

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94 Our task will be to summarise Reid's work, taking from his description, so often full of profound observations, only what is essential to illustrate his decisive discoveries. 95 This requires that (keeping to Mr. Eraser's picture) we consider separately the two pillars supporting the roof of the temple's forecourt: speech and sense-impressions. We will start with speech.

96 Reid notes as a fundamental characteristic of human language that it includes two distinct elements: 97 first, the purely acoustic element, represented by the sheer succession of sounds, and secondly the variety of meanings represented by various groups of sounds, meanings which seem to have nothing to do with the sounds as such. 98 This state of language, where the sound-value of the word and its value as a sign to denote a thing signified by it, have little or nothing to do with one another, is certainly not the primeval one. 99 In the contemporary state of language, which Reid calls artificial language, we must see a development from a former condition, which Reid calls natural language. 100 So long as this latter condition obtained, human expressed in the sound itself what you felt impelled to communicate to your fellows. 101 In those days sound was not merely an abstract sign, but a gesture, which moreover was accompanied and supported by the gestures of the limbs.

102 Even to-day human, at the beginning of your life, still finds yourself in that relationship to language which was natural to all humans in former times. 103 The little child acquires the ability to speak through the imitation of sounds, becoming aware of them long before it understands the meaning accorded to the various groups of sounds in the artificial state of contemporary adult speech. 104 That the child's attention should be directed solely to the sound, and not to the abstract meaning of the individual words, is indeed the prerequisite of learning to speak. 105 If, says Reid, the child were to understand immediately the conceptual content of the words it hears, it would never learn to speak at all.

106 When the adult of to-day uses language in its artificial state, words are only signs for things signified by them. 107 As you speaks, your attention is directed exclusively towards this side of language; the pure sound of the words you uses remains outside the scope of your awareness. 108 The little child, on the other hand, has no understanding of the meaning of words and therefore lives completely in the experience of pure sound. 109 In the light of this, Reid comes to the conclusion, so important for what follows, that with the emergence of a certain form of consciousness, in this case that of the intellectual content of words, 110 another form submerges, a form in which the experience of the pure sound of words prevails. 111 The adult, while in one respect ahead of the child, yet in another is inferior, for the effect of this change is a definite impoverishment in soul-experience. 112 Reid puts this as follows: 'It is by natural signs chiefly that we give force and energy to language; and the less language has of them, it is the less expressive and persuasive. 113 Artificial signs signify, but they do not express; they speak to the understanding, as algebraic characters may do, but the passions and the affections and the will hear them not: 114 these continue dormant and inactive, till we speak to them in the language of Nature, to which they are all attention and obedience.'

115 We have followed Reid so far in his study of language, because it is along this way that he came to form the concepts that were to serve him as a key for his all-important findings in the realm of sense-experience. 116 These are the concepts which bear on the connexion between the sign and the thing signified; the distinction between the artificial and the natural state of language; and the disappearance of certain primeval human capacities for experience, 117 of which Reid says that they are brought by the child into the world, but fade as his intellectual capacities develop.

118 As soon as one begins to study Reid's observations in the realm of sense-experience, one meets with a certain difficulty, noticeable earlier but not so strikingly. 119

The source of it is that Reid was obliged to relate the results of his observations only to the five senses known in his day, whereas in fact his observations embrace a far greater field of human sense-perception. 120 Thus a certain disharmony creeps into his descriptions and makes his statements less convincing, especially for someone who does not penetrate to its real cause.

121 However this may be, it need not concern us here; what matter to us are Reid's actual observations. 122 For these led him to the important distinction between two factors in our act of acquiring knowledge of the outer world, each of which holds an entirely different place in ordinary consciousness. 123 Reid distinguishes them as 'sensation' and 'perception'. It is through the latter that we become aware of the object as such. 124 But we are mistaken if we regard the content of this perception as identical with the sum total of the sensations which are caused in our consciousness by the particular object. 125 For these sensations are qualitatively something quite different, and, although without them no perception of the object is possible, they do not by themselves convey a knowledge of the thing perceived. 126 Only, because our attention is so predominantly engaged by the object under perception, we pay no heed to the content of our sensation.

127 To take an example, the impressions of roundness, angularity, smoothness, roughness, colour, etc., of a table contain, all told, nothing that could assure us of the existence of the object 'table' as the real content of an external world. 128 How, then, do we receive the conviction of the latter's existence? Reid's answer is, by entering into an immediate intuitive relationship with it. 129 It is true that to establish this relationship we need the stimuli coming from the impressions which our mind receives through the various senses. Yet this must not induce us to confuse the two.

130 When Nature speaks to human through your senses, something occurs exactly analogous to the process when human communicates with human

through the spoken word. 131 In both cases the perception, that is, the result of the process of perception, is something quite other than the sum of sensations underlying it. 132 Per-ceiving by means of the senses is none other than a re-ceiving of Nature's language; and this language, just like human language, bears two entirely different elements within it. 133 According as one or the other element prevails in human's intercourse with Nature, this intercourse will be either 'natural' or 'artificial'-- to use the terms by which Reid distinguished the two stages of human speech.

134 Just as every human being must once have listened only to the pure sound of the spoken word on a wholly sentient level in order to acquire the faculty of speaking, 135 so also, in order to learn Nature's language, the soul must once have been totally surrendered to the pure impressions of the senses. 136 And just as with time the spoken word becomes a symbol for that which is signified by it, the consciousness turning to the latter and neglecting the actual sound-content of the word, 137 so also in its intercourse with Nature the soul, with its growing interest in the thing signified, turns its attention more and more away from the actual experiences of the senses.

138 From this it follows that a philosophy which seeks to do justice to human's whole being must not be satisfied with examining the given content of human consciousness, but must strive to observe the actual process to which this content owes its emergence. 139 In practice this means that a philosopher who understands own task aright must strive to reawaken in the self a mode of experience which is naturally given to human in own early childhood. 140 Reid expresses this in the Inquiry in the following way: 'When one is learning a language, one attends to the sounds, but when one is master of it, one attends only to the sense of what one would express. 141 If this is the case, we must become as little children again, if we will be philosophers: we must overcome habits which have been gathering strength ever since we began to think; 142 habits, the

usefulness of which atones for the difficulty it creates for the philosopher in discovering the first principles of the human mind.'

143 'We must become as little children again, if we will be philosophers!' 144 The phrase appears here almost in passing, and Reid never came back to it again. And yet in it is contained the Open Sesame which gives access to the hidden spirit-treasures of the world. 145 In this unawareness of Reid's of the importance of what he thus had found we must see the reason for his incapacity to develop his philosophy beyond its first beginnings. 146 This handicap arose from the fact that in all his thinking he was guided by a picture of the being of human which-- as a child of his time, dominated by the contemporary religious outlook-- he could never realise distinctly. 147 Yet without a clear conception of this picture no justice can be done to Reid's concept of common sense. 148 Our next task, therefore, must be to evoke this picture as clearly as we can

149 The following passage in Reid's Inquiry provides a key for the understanding of his difficulty in conceiving an adequate picture of human's being. 150 In this passage Reid maintains that all art is based on human's experience of the natural language of things, 151 and that in every human being there lives an inborn artist who is more or less crippled by human's growing accustomed to the state of artificial language in your intercourse with the world.

152 In continuation of the passage quoted earlier Reid says: 'It were easy to show, that the fine arts of the musician, the painter, the actor, and the orator, so far as they are expressive; 153 although the knowledge of them requires in us a delicate taste, a nice judgment, and much study and practice; 154 yet they are nothing else but the language of Nature, which we brought into the world with us, but have unlearned by disuse and so find the greatest difficulty in recovering it.

155 'Abolish the use of articulate sounds and writing among humankind for a century, and every human would be a painter,

an actor, and an orator. 156 We mean not to affirm that such an expedient is practicable; or if it were, that the advantage would counterbalance the loss; 157 but that, as humans are led by Nature and necessity to converse together they will use every means in their power to make themselves understood; 158 and where they cannot do this by artificial signs, they will do it as far as possible by natural ones: and you that understands perfectly the use of natural signs, must be the best judge in all expressive arts.'

159 When Reid says that there are certain characteristics-- and these just of the kind whose development truly ennobles human life-- which the soul brings with it into the world, 160 a picture of human is evoked in us in which the super-sensible part of your being appears as an entity whose existence reaches further back than the moment of birth and even the first beginnings of the body. 161 Now such a conception of human is in no way foreign to humanity, in more ancient times it was universally prevalent, and it still lives on to-day, if merely traditionally, in the eastern part of the world. 162 It is only in the West that from a certain period it ceased to be held. This was the result of a change which entered into human memory in historical times, 163 just as the re-dawning of the old knowledge of human's pre-existence, of which Reid is a symptom, is a result of another corresponding alteration in the memory-powers of human in modern times.

164 For people of old it was characteristic that alongside the impressions they received in earthly life through the senses (which in any case were far less intense than they are to-day), 165 they remembered experiences of a purely super-sensible kind, which gave them assurance that before the soul was knit together with a physical body it had existed in a cosmic state purely spiritual in nature. 166 The moment in history when this kind of memory disappeared is that of the transition from the philosophy of Plato to that of Aristotle. 167 Whereas Plato was convinced by clear knowledge that the soul possesses characteristics implanted in it

before conception, 168 Aristotle recognised a bodiless state of the soul only in the life after death. For him the beginning of the soul's existence was identical with that of the body.

169 The picture of human, taught for the first time by Aristotle, still required about twice four hundred years-- from the fourth pre-Christian to the fourth post-Christian century-- 170 before it became so far the common possession of people that the Church Father Augustine (354-430) could base his teaching on it-- a teaching which moulded human's outlook on the self for the coming centuries right up to our own time.

171 The following passage from Augustine's Confessions shows clearly how he was compelled to think about the nature of the little child: 172 'This age, whereof I have no remembrance, which I take on others' words, and guess from other infants that I have passed, true though the guess be, I am yet loath to count in this life of mine which I live in this world. 173 For no less than that which I lived in my mother's womb, is it hid from me in the shadows of forgetfulness. 174 But if I was shapen in iniquity and in sin my mother did conceive me, where, I beseech thee, O my God, where, Lord, or when, was I thy servant guiltless? 175 But lo! That period I pass by; and what have I to do with that of which I can recall no vestige?'

176 On the grounds of such experience, Augustine was unable to picture human's being in any other way than by seeing you, from the first moment of your life, as subject to the condition of the human race which resulted from the Fall. 177 Thus he exclaims in his Confessions: 'Before Thee, O God, no-one is free from sin, not even the child which has lived but a single day on the earth.' 178 In so far as there was any question of the soul's arising from this fallen state, it was deemed unable to attain this by any effort of its own, but to depend on the gifts of grace which the Church was able to dispense through the Sacraments.

179 Compare with this the present-day scientific conception of human nature, as it dominates the thought of specialist and layman alike. 180 Here human appears, both in body

and soul, as a sum of inherited characteristics, of characteristics, that is to say, which have been passed on by way of sexual propagation and gradually emerge into full manifestation as the individual grows up. 181 Apart from this inherited predestination the soul is held to present itself, in Locke's classical phrase, as a tabula-rasa upon which are stamped all manner of external impressions.

182 The similarity between this modern picture of human and the earlier theological one is striking. 183 In both cases the central assumption is that human development from child to adult consists in the unfolding of certain inherited characteristics which are capable of further specific modification under influences proceeding from outside. 184 The only difference between the two pictures is that in the modern one the concepts of heredity and adaptation have been formed without special application to the ethical characteristics of the soul.

185 It is clear that from both Augustine's and the modern scientific viewpoint there is no sense in requiring-- as Reid did-- those who seek the truth about themselves and the world to recover a condition which had been theirs as children. 186 Nor from this point of view is there any justification to call on a Common Sense, innate in human, to sit in judgment on the philosophical efforts of the adult reason.

187 That even in the days of Augustine the original conception of human nature had not disappeared entirely, is shown by the appearance of Augustine's opponent Pelagius, called the 'arch-heretic'. 188 To consider him at this point in our discussion will prove helpful for our understanding of Reid's historic position in the modern age.

189 What interests us here in Pelagius's doctrine (leaving aside all questions concerning the meaning of the Sacraments, etc.), is the picture of human which must have lived in him for him to teach as he did.

190 Leaving his Irish-Scottish homeland and arriving about the year 400 in Rome, where on account of the unusual purity of his being he soon came to be held

in the highest esteem, 191 Pelagius found himself obliged to come out publicly against Augustine, for he felt that Augustine's teachings denied all free will to human. 192 In the purely passive surrender of human to the will of God, as Augustine taught it, he could not but see danger for the future development of Christian humanity. 193 How radically he diverged from Augustine in his view of human we may see from such of his leading thoughts as follow: 'Each human begins own life in the same condition as Adam.' 194 'All good or evil for which in life we are deserving of praise or blame is done by ourselves and is not born with us.' 195 'Before the personal will of human comes into action there is nothing in you but what God has placed there.' 196 'It is therefore left to the free will of human whether you falls into sin, as also whether through following Christ you raises yourself out of it again.' 197 Pelagius could think in this way because he came from a part of Europe where the older form of human memory, already at that time almost extinct in the South, was in some degree still active. 198 For him it was therefore a matter of direct experience that the development of human from childhood onwards was connected with a diminution of certain original capacities of the soul. 199 Yet he was so far a child of his age as to be no longer capable of seeing whence these capacities originated.

200 To provide the necessary corrective to Augustine's doctrine of inheritance, Pelagius would have had to be able to see in the first years of life both a beginning of the earthly and a termination of the pre-earthly existence of the soul. 201 The imperfections of his picture of human, however, led him to underestimate, even to deny, the significance of heredity and so of original sin in human life. 202 For an age which no longer had any direct experience of the soul's pre-natal life, the doctrines of Augustine were undoubtedly more appropriate than those of Pelagius; Augustine was in fact the more modern of the two.

203 And now, if we move forward a dozen centuries and compare

Thomas Reid and Immanuel Kant from this same point of view, we find the same conception of human again triumphant. 204 But there is an essential difference: Kant carried all before him because he based himself on an age-old view of human nature, 205 whereas Reid, uncomprehended up to our own day, pointed to a picture of human only just then dawning on the horizon of the future. 206 Just as through Pelagius there sounded something like a last call to European humanity not to forget the cosmic nature of the soul, so through Reid the memory of this nature announced its first faint renewal. 207 It is common to both that their voices lacked the clarity to make themselves heard among the other voices of their times; 208 and with both the reason was the same: neither could perceive in fullness-- the one no longer, the other not yet-- the picture of human which ensouled their ideas.

209 The certainty of Reid's philosophical instinct, if such an expression be allowed, and at the same time his tragic limitations, due to an inability fully to understand the origin of this instinct, 210 come out clearly in the battle he waged against the 'idea' as his immediate predecessors understood it. 211 We know that Plato introduced this word into the philosophical language of humankind. 212 In Greek Î¹Î´ÎÎ± (from Î¹Î´Îµá¿‘Î½, to see) means something of which one knows that it exists, because one sees it. 213 It was therefore possible to use the word 'to see' as Plato did, because in his day it covered both sensible and super-sensible perception. 214 For Plato, knowing consisted in the soul's raising itself to perceiving the objective, world-forming IDEAS, and this action comprised at the same time a recollection of what the soul had seen while it lived, as an Idea among Ideas, before its appearance on earth.

215 As long as Plato's philosophy continued to shape their thought, people went on speaking more or less traditionally of Ideas as real super-sensible beings. 216 When, however, the Aristotelian mode of thinking superseded the Platonic, the term 'Idea' ceased to be used in its original sense; 217 so much so that, when Locke and other

modern philosophers resorted to it in order to describe the content of the mind, they did so in complete obliviousness of its first significance.

218 It is thus that in modern philosophy, and finally in ordinary modern usage, 'idea' came to be a word with many meanings. 219 Sometimes it signifies a sense-impression, sometimes a mental representation, sometimes the thought, concept or essential nature of a thing. 220 The only thing common to these various meanings is an underlying implication that an idea is a purely subjective item in human consciousness, without any assured correspondence to anything outside.

221 It was against this view of the idea that Reid took the field, going so far as to label the philosophy holding it the 'ideal system'. 222 He failed to see, however, that in attacking the abstract use of the term he was actually in a position to restore to it its original, genuine meaning. 223 If, instead of simply throwing the word overboard, he had been able to make use of it in its real meaning, he would have expressed himself with far greater exactitude and consistency. 224 He was prevented from doing this by his apparent ignorance of the earlier Greek philosophers, Plato included. 225 All he seems to have known of their teachings came from inferior, second-hand reports of a later and already decadent period.

226 There are two historic personalities, both in England, who witness to the fact that the emergence of Reid's philosophy on the stage of history was by no means an accidental event 227 but that it represents a symptom of a general reappearance of the long-forgotten picture of human, in which birth no more than death sets up an absolute limit to human existence. 228 They are Thomas Traherne (1638-74) and William Wordsworth (1770-1850).

229 Wordsworth's work and character are so well known that there is no need to speak of them here in detail. 230 For our purpose we shall pay special attention only to his '*Ode on Intimations of Immortality from Recollections of Early Childhood*', 231 where he shows himself in possession of a

memory (at any rate at the time when he wrote the poem) of the pre-natal origin of the soul, and of a capacity for experiencing, at certain moments, the frontier which the soul crosses at birth.

232 If, despite the widespread familiarity of the Ode, we here quote certain passages from it, we do so because, like many similar things, it has fallen a victim to the intellectualism of our time in being regarded merely as a piece of poetic fantasy. 233 We shall take the poet's words as literally as he himself uttered them. We read:

'Our birth is but a sleep and a forgetting:
The Soul that rises with us, our life's Star,
Hath had elsewhere its setting,
And cometh from afar:
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God who is our home:
Heaven lies about us in our infancy!

234 Shades of the prison house begin to close
Upon the growing Boy.
But he beholds the light, and whence it flows,
He sees it in his joy;
The Youth, who daily farther from the east
Must travel, still is Nature's Priest,
And by the vision splendid
Is on his way attended."

235 And later:

'Hence in a season of calm weather
Though inland far we be,
Our Souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the Children sport upon the shore,
And hear the mighty waters rolling evermore."

236 The fact that Wordsworth in his later years gave no further indication of such experiences need not prevent us from taking quite literally what he says here. 237 The truth is that an original faculty faded away with increasing age, somewhat as happened with Reid when he could no longer continue his philosophical work

along its original lines. 238 Wordsworth's Ode is the testament of the childhood forces still persisting but already declining within him; 239 it is significant that he set it down in about the same year of life (his thirty-sixth) as that in which Traherne died and in which Goethe, seeking renewal of his being, took flight to Italy.

240 Of Traherne, too, we shall say here only as much as our present consideration and the further aims of this book require. 241 We cannot concern ourselves with the remarkable events which led, half a century ago, to the discovery and identification of his long-lost writings by Bertram Dobell. 242 Nor can we deal with the details of the eventful life and remarkable spiritual development of this contemporary of the Civil War. 243 These matters are dealt with in Dobell's introduction to his edition of Traherne's poems, as also by Gladys I. Wade in her work, Thomas Traherne. 244 Our gratitude for the labours of these two writers by which they have provided humankind with the knowledge of the character and the work of this unique personality cannot hinder us, 245 however, from stating that both were prevented by the premises of their own view of the world from rightly estimating that side of Traherne which is important for us in this book, and with which we shall specially concern ourselves in the following pages.

246 Later in this chapter we shall discuss Dobell's philosophical misinterpretation of Traherne, to which he fell victim because he maintained his accustomed spectator standpoint in regard to his object of study. 247 Miss Wade has, indeed, been able to pay the right tribute to Traherne, the mystic, whose inner (and also outer) biography she was able to detect by taking seriously Traherne's indications concerning his mystical development. 248 Her mind, however, was too rigidly focused on this side of Traherne's life-- his self-training by an iron inner discipline and his toilsome ascent from the experience of Nothingness to a state of Beatific Vision. 249 This fact, combined with her disinclination to overcome the Augustinian picture of human in herself, prevented her

from taking Traherne equally seriously 250 where he speaks as one who is endowed with a never interrupted memory of his primeval cosmic consciousness-- 251 notwithstanding the fact that Traherne himself has pointed to this side of his nature as the most significant for his fellow-men.

252 Of the two works of Traherne which Dobell rescued from oblivion, on both of which we shall draw for our exposition, one contains his poems, the other his prose writings. The title of the latter is Centuries of Meditations. 253 The title page of one of the two manuscripts containing the collection of the poetical writings introduces these as Poems of Felicity, Containing Divine Reflections on the Native Objects of an Infant-Eye. 254 As regards the title '*Centuries of Meditations*' we are ignorant of the meaning Traherne may have attached to it, and what he meant by calling the four parts of the book, 'First', 'Second', etc., Century. 255 The book itself represents a manual of devotion for meditative study by the reader.

256 Let our first quotation be one from the opening paragraph of the third 'Century' in which Traherne introduces himself as the bearer of certain uncommon powers of memory and, arising from these powers, a particular mission as a teacher:

257 'Those pure and virgin apprehensions I had from the womb, and that divine light wherewith I was born are the best unto this day, wherein I can see the Universe. 258 By the gift of God they attended me into the world, and by His special favour I remember them till now. 259 Verily they seem the greatest gifts His wisdom could bestow, for without them all other gifts had been dead and vain. 260 They are unattainable by books, and therefore I will teach them by experience.' 261 The picture thus remaining with him of his nature of soul in his earliest years on earth he describes as follows:

262 'Certainly Adam in Paradise had not more sweet and curious apprehensions of the world, than I when I was a child. 263 All appeared new, and strange at first, inexpressibly rare and delightful

and beautiful. 264 I was a little stranger, which at my entrance into the world was saluted and surrounded with innumerable joys. 265 My knowledge was Divine. I knew by intuition those things which since my Apostacy, I collected again by the highest reason. 266 I was entertained like an Angel with the works of God in their splendour and glory, I saw all in the peace of Eden; 267 Heaven and Earth did sing my Creator's praises, and could not make more melody to Adam, than to me. All Time was Eternity, and a perpetual Sabbath. 268 Is it not strange, that an infant should be the heir of the whole world, and see those mysteries which the books of the learned never unfold?'

269 In a different form the same experience comes to expression in the opening lines of Traherne's poem, Wonder:

'How like an Angel came I down!
How bright are all things here I
When first among his Works I did appear
O how their GLORY did me crown!
The World resembled his ETERNITIE,
In which my Soul did Walk;
And evry Thing that I did see
Did with me talk.'

270 The picture of human thus sketched by Traherne is as close to Reid's as it is remote from Augustine's. 271 This remoteness comes plainly to expression in the way Traherne and Augustine regard the summons of Christ to His disciples to become as little children, 272 a summons to which Reid was led, as we have seen, on purely philosophical grounds. 273 Let us first of all recall the words of Christ as recorded by Matthew in his 18th and 19th chapters: 'And Jesus called a little child unto him, and set him in the midst of them, 274 and said: Verily I say unto you, except ye be converted, and become as little children, ye shall not enter into the kingdom of Heaven. 275 Whosoever therefore shall humble the self as this little child, the same is the greatest in the kingdom of Heaven.' (xviii, 2-4.) 276 'Suffer the little children and forbid them not to come unto me: for of such is the kingdom of Heaven.' (xix, 14.)

277 Augustine refers to these words when he concludes that examination of his childhood memories which he undertook in order to prove the depravity of the soul from its first day on earth. 278 He says: 'In the littleness of children didst Thou, our king, give us a symbol of humility when Thou didst say: Of such is the kingdom of Heaven.'

279 If we glance back from what Augustine says here to the original passages in the Gospel just quoted, we see what a remarkable alteration he makes. 280 Of the first passage only the last sentence is taken, and this in Augustine's mind is fused into one with the second passage. 281 Thereby the admonition of Christ through one's own effort to become as one once was as a child disappears completely. 282 The whole passage thus takes on a meaning corresponding to that passive attitude to the divine will inculcated by Augustine and opposed by Pelagius, 283 and it is in this sense that the words of Christ have sunk into the consciousness of Western Christianity and are usually taken to-day.

284 We may see how differently this injunction of Christ lived in Traherne's consciousness from the following passage out of his Centuries:

285 'Our Saviour's meaning, when He said, ye must be born again and become a little child that will enter into the Kingdom of Heaven, is deeper far than is generally believed. 286 It is not only in a careless reliance upon Divine Providence, that we are to become little children, or in the feebleness and shortness of our anger and simplicity of our passions, but in the peace and purity of all our soul. 287 Which purity also is a deeper thing than is commonly apprehended.'

288 With Traherne also the passage in question has been fused together with another utterance of Christ, from John's account of Christ's conversation with Nicodemus:

289 'Verily, verily I say unto you, except a human be born again, you cannot see the Kingdom of God.' (John iii, 3.)

290 What conception of the infant condition of human must have

existed in a soul for it to unite these two passages from the Gospels in this way? 291 Whereas for Augustine it is because of its small stature and helplessness that the child becomes a symbol for the spiritual smallness and helplessness of human as such, compared with the overwhelming power of the divine King, 292 for Traherne it is the child's nearness to God which is most present to him, and which must be regained by the person who strives for inner perfection.

293 Traherne could bear in himself such a picture of human's infancy because, as he himself emphasises, he was in possession of an unbroken memory of the experiences which the soul enjoys before it awakens to earthly sense-perception. 294 The following passage from the poem, My Spirit, gives a detailed picture of the early state in which the soul has experiences and perceptions quite different from those of its later life. 295 We may recall Reid's indication of how the child receives the natural language of things.

296 'An Object, if it were before
Mine Ey, was by Dame Nature's Law
Within my Soul: Her Store
Was all at once within me; all her Treasures
Were my immediat and internal Pleasures;
Substantial Joys, which did inform my Mind.

297 '... I could not tell
Whether the Things did there
Themselvs appear,
Which in my Spirit truly seem'd to dwell:
Or whether my conforming Mind
Were not ev'n all that therein shin'd.'

298 Further detail is added to this picture by the description, given in the poem The Praeparative, of the soul's non-experience of the body at that early stage. 299 The description is unmistakably one of an experience during the time between conception and birth.

300 'My Body being dead, my Limbs unknown;
Before I skill'd to prize
Those living Stars, mine Eys;

MATTER

Before or Tongue or Cheeks I call'd mine own,
Before I knew these Hands were mine,
Or that my Sinews did my Members join;
When neither Nostril, Foot, nor Ear,
As yet could be discerned or did appear;
I was within
A House I knew not; newly cloath'd with Skin.

301 Then was my Soul my only All to me,
A living endless Ey,
Scarce bounded with the Sky,
Whose Power, and Act, and Essence was to see;
I was an inward Sphere of Light,
Or an interminable Orb of Sight,
Exceeding that which makes the Days,
A vital Sun that shed abroad its Rays:
All Life, all Sense,
A naked, simple, pure Intelligence."

302 In the stanza following upon this, Traherne makes a statement which is of particular importance in the context of our present discussion. 303 After some additional description of the absence of all bodily needs he says: 'Without disturbance then I did receive The true Ideas of all Things' 304 The manuscript of this poem shows a small alteration in Traherne's hand in the second of these two lines. 305 Where we now read 'true Ideas', there originally stood 'fair Ideas'. 'Fair' described Traherne's experience as he immediately remembered it; 306 the later alteration to 'true' shows how well aware he was that his contemporaries might miss what he meant by 'Idea', 307 through taking it in the sense that had already become customary in his time, namely, as a mere product of human's own mental activity.

308 This precaution, however, has not saved Traherne from being misinterpreted in our own day in precisely the way he feared--indeed, by no less a person than his own discoverer, Dobell. 309 It is the symptomatic character of this misinterpretation which prompts us to deal with it here.

310 In his attempt to classify the philosophical mode of thought

behind Traherne's writings, Dobell, to his own amazement, comes to the conclusion that Traherne had anticipated Bishop Berkeley (1684-1753). 311 They seemed to him so alike that he does not hesitate to call Traherne a 'Berkeleyan before Berkeley was born'. 312 In proof of this he refers to the poems, The Praeparative and My Spirit, and drawing special attention to its two concluding lines. 313 Regarding this he says: 'I am much mistaken if the theory of non-existence of independent matter, which is the essence of Berkeley's system, is not to be found in this poem. 314 The thought that the whole exterior universe is not really a thing apart from and independent of human's consciousness of it, but something which exists only as it is perceived, is undeniably found in My Spirit:

315 The reader who has followed our exposition in the earlier parts of this chapter can be in no doubt that, to find a philosophy similar to Traherne's, he must look for it in Reid and not in Berkeley. 316 Reid himself rightly placed Berkeley amongst the representatives of the 'ideal system' of thought. 317 For Berkeley's philosophy represents an effort of the onlooker-consciousness, unable as it was to arrive at certainty regarding the objective existence of a material world outside itself, to secure recognition for an objective Self behind the flux of mental phenomena. 318 Berkeley hoped to do this by supposing that the world, including God, consists of nothing but 'idea'-creating minds, operating like the human mind as human perceives it. 319 His world picture, based (as is well known) entirely on optical experiences, is the perfect example of a philosophy contrived by the one-eyed, colourblind world-spectator.

320 We shall understand what in Traherne's descriptions reminded Dobell of Berkeley, if we take into account the connexion of the soul with the body at the time when, 321 according to Traherne, it still enjoys the untroubled perception of the true, the light-filled, Ideas of things.

322 In this condition the soul has only a dim and undifferentiated awareness of its connexion with a spatially limited body-- 'I was

within a house I knew not, newly clothed with skin'-- 323 and it certainly knows nothing at all of the body as an instrument, through which the will can be exercised in an earthly-spatial way-- 'My body being dead, my limbs unknown'. 324 Instead of this, the soul experiences itself simply as a super-sensible sense-organ and as such united with the far spaces of the universe-- 325 'Before I skilled to prize those living stars, mine eyes. … Then was my soul my only All to me, a living endless eye, scarce bounded with the sky'. 326 At the time when the soul has experiences of the kind described by Traherne, it is in a condition in which, as yet, no active contact has been established between itself and the physical matter of the body and thereby with gravity. 327 Hence there is truth in the picture which Traherne thus sketches from actual memory. The same cannot be said of Berkeley's world-picture. 328 The fact that both resemble each other in certain features need not surprise us, seeing that Berkeley's picture is, in its own way, a pure 'eye-picture' of the world. As such, however, it is an illusion-- 329 for it is intended for a state of human for which it is not suited, namely for adult human going upright on the earth, directing your deeds within its material realm, and in this way fashioning your own destiny.

330 Indeed, compared with Berkeley's eye-picture of the world, that of Reid is in every respect a 'limb-picture'. 331 For where he seeks for the origin of our naÃ¯ve assurance that a real material world exists, there he reverts-- 332 guided by his common sense-- to the experiences available to the soul through the fact that the limbs of the body meet with the resistant matter of the world. 333 And whenever he turns to the various senses in his search, it is always the will-activity of the soul within the sense he is investigating-- and so the limb-nature within it-- to which he first turns his attention. 334 Because, unlike Berkeley, he takes into account the experiences undergone by the soul when it leaves behind its primal condition, 335 Reid does not fall into illusion, but discovers a fundamental truth concerning the nature of the

world-picture experienced by human in your adult age. 336 This, in turn, enables him to discover the nature of human's world picture in early childhood and to recognise the importance of recovering it in later life as a foundation for a true philosophy.

337 Assuredly, the philosopher who discovered that we must become as little children again if we would be philosophers, is the one to whom we may relate Traherne, but not Berkeley. 338 And if we wish to speak of Traherne, as Dobell tried to do, we speak correctly only if we call him a 'Reidean before Reid was born'.

339 A little more than a hundred years after Thomas Traherne taught his fellow-people 'from experience' that there is an original condition of human's soul, 340 before it is yet able to prize 'those living stars, mine eyes', in which it is endowed with the faculty to see 'the true (fair) Ideas of all things', 341 Goethe was led to the realisation that he had achieved the possibility of 'seeing Ideas with the very eyes'. 342 Although he was himself not aware of it, the conception of the Idea was at this moment restored through him to its true and original Platonic significance.

343 The present chapter has shown us how this conception of the Idea is bound up with the view that is held of the relationship between human nature in early childhood and human nature in later life. 344 We have seen that, when Plato introduced the term Idea as an expression for spiritual entities having a real and independent existence, people were still in possession of some recollection of their own pre-earthly existence. 345 We then found Traherne saying from his recollections that in the original form of human's consciousness your soul is endowed with the faculty of seeing 'true' Ideas, 346 and we found Reid on similar grounds fighting the significance which the term 'idea' had assumed under his predecessors. 347 By their side we see Goethe as one in whom the faculty of seeing Ideas appears for the first time in adult human as a result of a systematic training of observation and thought. 348 If our view of the interdependence of the Platonic conception of the Idea

with the picture human has of the self is seen rightly, then Goethe must have been the bearer of such a picture. 349 Our expectation is shown to be right by the following two passages from Goethe's autobiography, Truth and Fiction.

350 In that part of his life story where Goethe concludes the report of the first period of his childhood, he writes:

'Who is able to speak worthily of the fullness of childhood? 351 We cannot behold the little creatures which flit about before us otherwise than with delight, nay, with admiration; 352 for they generally promise more than they perform and it seems that Nature, among the other roguish tricks that She plays us, here also especially designs to make sport of us. 353 The first organs She bestows upon children coming into the world, are adapted to the nearest immediate condition of the creature, which, unassuming and artless, makes use of them in the readiest way for its present purposes. 354 The child, considered in and for itself, with its equals, and in relations suited to its powers, seems so intelligent and rational, and at the same time so easy, cheerful and clever, that one can hardly wish it further cultivation. 355 If children grew up according to early indications, we should have nothing but geniuses.'

356 We find further evidence in Goethe's account of an event in his seventh year, which shows how deeply his soul was filled at that time with the knowledge of its kinship with the realm from which Nature Herself receives its existence. 357 This knowledge led him to approach the 'great God of Nature' through an act of ritual conceived by himself. 358 The boy took a four-sectioned music stand and arranged on it all kinds of natural specimens, minerals and the like, until the whole formed a kind of pyramidal altar. 359 On the top of this pyramid he placed some fumigating candles, the burning of which was to represent the 'upward yearning of the soul for its God'. 360 In order to give Nature Herself an active part in the ritual, he contrived to kindle the candles by focusing upon them through a magnifying-glass the light of the rising sun. 361 Before this symbol of the unity of the soul with the

divine in Nature the boy then paid his devotions. 'Unity of the soul with the divine in Nature'-- 362 this was what lived vividly as a conviction in the seven-year-old boy, impelling him to act as 'Nature's priest' (Wordsworth). 363 The same impulse, in a metamorphosed form, impelled the adult to go out in quest of an understanding of Nature which, as Traherne put it, was to bring back through highest reason what once had been one's own by way of primeval intuition.

ALWAYS STAND BY FORM

Ernst Lehrs

7 Immediacy of approach to certain essentials of Nature as a result of their religious or artistic experience of the sense-world, is the characteristic of two more representatives of British cultural life. 2 They are Luke Howard (1772-1864) and John Ruskin (1819-1900), both true readers in the book of Nature. 3 Like those discussed in the previous chapter they can be of especial help to us in our attempt to establish an up-to-date method of apprehending Nature's phenomena through reading them.

4 At the same time we shall find ourselves led into another sphere of Goethe's scientific work. For we cannot properly discuss Howard without recognising the importance of his findings for Goethe's meteorological studies 5 or without referring to the personal connexion between the two men arising out of their common interest and similar approach to Nature. 6 We shall thus come as a matter of course to speak of Goethe's thoughts about meteorology, and this again will give opportunity to introduce a leading concept of Goethean science in addition to those brought forward already.

7 Of Ruskin only so much will appear in the present chapter as is necessary to show him as an exemplary reader in the book of Nature. He will then be a more or less permanent companion in our investigations.

8 The following words of Ruskin from The Queen of the Air reveal him at once as a true reader in the book of Nature:

9 'Over the entire surface of the earth and its waters, as influenced by the power of the air under solar light, there is developed a series of changing forms, in clouds, plants and animals, all of which have reference in their action, or nature, to the human intelligence that perceives them.'

10 Here Ruskin in an entirely Goethean way points to form in Nature as the element in Her that speaks to human intelligence-- 11 meaning by form, as other utterances of his show, all those qualities through which the natural object under observation reveals itself to our senses as a whole.

12 By virtue of his pictorial-dynamic way of regarding Nature, Ruskin was quite clear that the scientists' one-sided seeking after external forces and the mathematically calculable interplay between them can never lead to a comprehension of life in Nature. 13 For in such a search human loses sight of the real signature of life: form as a dynamic element. 14 Accordingly, in his Ethics of the Dust, Ruskin does not answer the question: 'What is Life?' with a scientific explanation, but with the laconic injunction: 'Always stand by Form against Force.' 15 This he later enlarges pictorially in the words: 'Discern the moulding hand of the potter commanding the clay from the merely beating foot as it turns the wheel.'

16 In thus opposing form and force to each other, Ruskin is actually referring to two kinds of forces. 17 There exist those forces which resemble the potter's foot in producing mere numerically regulated movements (so that this part of the potter's activity can be replaced by a power machine), 18 and others, which like the potter's hand, strive for a certain end and so in the process create definite forms. 19 Ruskin goes a step further still in The Queen of the Air, where he speaks of selective order as a mark of the spirit:

20 'It does not merely crystallise indefinite masses, but it gives to limited portions of matter the power of gathering, selectively, other elements proper to them, and binding these elements into their own peculiar and adopted form. ...

21 'For the mere force of junction is not spirit, but the power that

catches out of chaos, charcoal, water, lime and whatnot, and fastens them into given form, is properly called "spirit"; 22 and we shall not diminish, but strengthen our cognition of this creative energy by recognising its presence in lower states of matter than our own.'

23 When Ruskin wrote this passage, he could count on a certain measure of agreement from his contemporaries that the essence of human is spirit, though certainly without any very exact notion being implied. 24 This persuaded him to fight on behalf of the spirit, lest its activity on the lower levels of Nature should not be duly acknowledged. 25 To-day, when the purely physical conception of Nature has laid hold of the entire human, Ruskin might have given his thought the following turn: 26 '... and we shall certainly attain to no real insight into this creative force (of the spirit) at the level of human, unless we win the capacity to recognise its activity in lower states of matter.'

27 What Ruskin is really pointing towards is the very thing for which Goethe formed the concept 'type'. 28 And just as Ruskin, like Goethe, recognised the signature of the spirit in the material processes which work towards a goal, so he counted as another such signature what Goethe called Steigerung, though certainly without forming such a universally valid idea of it:

29 'The Spirit in the plant-- that is to say, its power of gathering dead matter out of the wreck round it, and shaping it into its own chosen shape-- is of course strongest in the moment of flowering, for it then not only gathers, but forms, with the greatest energy.' 30 It is characteristic of Ruskin's conception of the relationship between human's mind and Nature that he added: 31 'And where this life is in it at full power, its form becomes invested with aspects that are chiefly delightful to our own senses.'

32 Obviously, a mind capable of looking at Nature in this way could not accept such a picture of evolution as was put forward by Ruskin's contemporary, Darwin. 33 So we find Ruskin, in The Queen of the Air, opposing the Darwinistic conception of the

preservation of the species as the driving factor in the life of Nature: 34 'With respect to plants as animals, we are wrong in speaking as if the object of life were only the bequeathing of itself. 35 The flower is the end and proper object of the seeds, not the seed of the flower. 36 The reason for the seed is that flowers may be, not the reason of flowers that seeds may be. 37 The flower itself is the creature which the spirit makes; only, in connection with its perfectedness, is placed the giving birth to its successor.'

38 For Ruskin the true meaning of life in all its stages lay not in the maintenance of physical continuity from generation to generation, but in the ever-renewed, ever more enhanced revelation of the spirit.

39 He was never for a moment in doubt regarding the inevitable effect of such an evolutionary theory as Darwin's on the general social attitude of humanity. 40 Humans would be led, he realised, to see themselves as the accidental products of an animal nature based on the struggle for existence and the preservation of the species. 41 Enough has been said to stamp Ruskin as a reader in the book of Nature, capable of deciphering the signature of the spirit in the phenomena of the sense-world.

42 Outwardly different from Ruskin's and yet spiritually comparable, is the contribution made by his older contemporary, Luke Howard, to the foundation of a science of Nature based on intuition. 43 Whereas Ruskin throws out a multitude of aphoristic utterances about many different aspects of Nature, which will provide us with further starting-points for our own observation and thought, 44 Howard is concerned with a single sphere of phenomena, that of cloud formation. On the other hand, his contribution consists of a definite discovery which he himself methodically and consciously achieved, 45 and it is the content of this discovery, together with the method of research leading to it, which will supply us ever and again with a model for our own procedure. 46 At the same time, as we have indicated, he will help us to become familiar with another side of Goethe, and to widen our

knowledge of the basic scientific concepts formed by him.

47 Anyone interested to-day in weather phenomena is acquainted with the terms used in cloud classification-- Cirrus, Cumulus, Stratus, and Nimbus. 48 These have come so far into general use that it is not easy to realise that, until Howard's paper, On the Modification of Clouds, appeared in 1803, no names for classifying clouds were available. 49 Superficially, it may seem that Howard had done nothing more than science has so often done in grouping and classifying and naming the contents of Nature. 50 In fact, however, he did something essentially different.

In the introduction to his essay, Howard describes the motives which led him to devote himself to a study of meteorological phenomena:

51 'It is the frequent observation of the countenance of the sky, and of its connexion with the present and ensuing phenomena, that constitutes the ancient and popular meteorology. 52 The want of this branch of knowledge renders the prediction of the philosopher-- who in attending his instruments may be said to examine the pulse of the atmosphere,-- less generally successful than those of the weather-wise mariners and husbandmen.'

53 When he thus speaks of studying 'the countenance of the sky', Howard is not using a mere form of speech; he is exactly describing his own procedure, as he shows when he proceeds to justify it as a means to scientific knowledge. 54 The clouds with their ever-moving, ever-changing forms are not, he says, to be regarded as the mere 'sport of the winds', 55 nor is their existence 'the mere result of the condensation of vapour in the masses of the atmosphere which they occupy'. 56 What comes to view in them is identical, in its own realm, with what the changing expression of the human face reveals of 'a person's state of mind or body'. 57 It would hardly be possible to represent oneself more clearly as a genuine reader in the book of Nature than by such words. 58 What is it but Ruskin's 'Stand by Form against Force' that

Howard is here saying in his own way?

59 Before entering into a further description of Howard's system, we must make clear why we disregard the fact that modern meteorology has developed the scale of cloud-formation far beyond Howard, and why we shall keep to his own fourfold scale.

60 It is characteristic of Goethe that, on becoming acquainted with Howard's work, he at once gave a warning against subdividing his scale without limit. 61 Goethe foresaw that the attempt to insert too many transitory forms between Howard's chief types would result only in obscuring that view of the essentials which Howard's original classification had opened up. 62 Obviously, for a science based on mere onlooking there is no objection to breaking up an established system into ever more subdivisions in order to keep it in line with an increasingly detailed outer observation. 63 This, indeed, modern meteorology has done with Howard's system, with the result that, to-day, the total scale is made up of ten different stages of cloud-formation.

64 Valuable as this tenfold scale may be for certain practical purposes, it must be ignored by one who realises that through Howard's fourfold scale Nature Herself speaks to human's intuitive judgment. 65 Let us, therefore, turn to Howard's discovery, undisturbed by the extension to which modern meteorology has subjected it.

66 Luke Howard, a chemist by profession, knew well how to value the results of scientific knowledge above traditional folk-knowledge. 67 He saw the superiority of scientifically acquired knowledge in the fact that it was universally communicable, whereas folk-wisdom is bound up with the personality of its bearer, his individual observations and his memory of them. 68 Nevertheless, the increasing mathematising of science, including his own branch of it, gave him great concern, for he could not regard it as helpful in the true progress of human's understanding of Nature. 69 Accordingly, he sought for a method of observation in which the practice of 'the weatherwise mariner and husbandman' could be

raised to the level of scientific procedure. 70 To this end he studied the changing phenomena of the sky for many years, until he was able so to read its play of features that it disclosed to him the archetypal forms of cloud-formation underlying all change. 71 To these he gave the now well-known names (in Latin, so that they might be internationally = comprehensible):

Cirrus: Parallel, flexuous or divergent fibres extensible in any and all directions.

72 Cumulus: Convex or conical heaps, increasing upwards from a horizontal base.

Stratus: A widely extended, continuous, horizontal sheet, increasing from below.

Nimbus: The rain cloud.

73 Let us, on the background of Howard's brief definitions, try to form a more exact picture of the atmospheric dynamics at work in each of the stages he describes.

74 Among the three formations of cirrus, cumulus and stratus, the cumulus has a special place as representing in the most actual sense what is meant by the term 'cloud'. 75 The reason is that both cirrus and stratus have characteristics which in one or the other direction tend away from the pure realm of atmospheric cloud-formation. 76 In the stratus, the atmospheric vapour is gathered into a horizontal, relatively arched layer around the earth, and so anticipates the actual water covering below which extends spherically around the earth's centre. 77 Thus the stratus arranges itself in a direction which is already conditioned by the earth's field of gravity. 78 In the language of physics, the stratus forms an equipotential surface in the gravitational field permeating the earth's atmosphere.

79 As the exact opposite of this we have the cirrus. If in the stratus the form ceases to consist of distinct particulars, because the entire cloud-mass runs together into a single layer, 80 in the cirrus the form begins to vanish before our eyes, because it dissolves into the surrounding atmospheric space. 81 In the cirrus there is present a tendency to expand; in the stratus to contract. 82 Between the two, the cumulus, even viewed simply as a form-type, represents an exact

mean. 83 In how densely mounded a shape does the majestically towering cumulus appear before us, and yet how buoyantly it hovers aloft in the heights! 84 If one ever comes into the midst of a cumulus cloud in the mountains, one sees how its myriads of single particles are in ceaseless movement. 85 And yet the whole remains stationary, on windless days preserving its form unchanged for hours. 86 More recent meteorological research has established that in many cumulus forms the entire mass is in constant rotation, although seen from outside, it appears as a stable, unvarying shape. 87 Nowhere in Nature may the supremacy of form over matter be so vividly observed as in the cumulus cloud. 88 And the forms of the cumuli themselves tell us in manifold metamorphoses of a state of equilibrium between expansive and contractive tendencies within the atmosphere.

89 Our description of the three cloud-types of cirrus, cumulus and stratus, makes it clear that we have to do with a self-contained symmetrical system of forms, 90 within which the two outer, dynamically regarded, represent the extreme tendencies of expansion and contraction, whilst in the middle forms these are held more or less in balance. 91 By adding Howard's nimbus formation to this system, we destroy its symmetry. 92 Actually, in the nimbus we have cloud in such a condition that it ceases to be an atmospheric phenomenon in any real sense of the word; 93 for it now breaks up into single drops of water, each of which, under the pull of gravity, makes its own independent way to the earth. 94 The symmetry is restored as soon as we realise that the nimbus, as a frontier stage below the stratus, has a counterpart in a corresponding frontier stage above the cirrus. 95 To provide insight into this upper frontier stage, of which neither Howard nor Goethe was at that time in a position to develop a clear enough conception to deal with it scientifically, is one of the aims of this book.

96 In order to understand what prompted Goethe to accept, as he did, Howard's classification and terminology at first glance, and what persuaded him to make

himself its eloquent herald, 97 we must note from what point Goethe's labours for a natural understanding of Nature had originated.

98 In his History of my Botanical Studies Goethe mentions, besides Shakespeare and Spinoza, Linnaeus as one who had most influenced his own development. 99 Concerning Linnaeus, however, this is to be understood in a negative sense. For when Goethe, himself searching for a way of bringing the confusing multiplicity of plant phenomena into a comprehensive system, met with the Linnaean system, 100 he was, despite his admiration for the thoroughness and ingenuity of Linnaeus's work, repelled by his method. 101 Thus by way of reaction, his thought was brought into its own creative movement: 102 'As I sought to take in his acute, ingenious analysis, his apt, appropriate, though often arbitrary laws, a cleft was set up in my inner nature: 103 what he sought to hold forcibly apart could not but strive for union according to the inmost need of my own being.'

104 Linnaeus's system agonised Goethe because it demanded from him 'to memorise a ready-made terminology, to hold in readiness a certain number of nouns and adjectives, 105 so as to be able, whenever any form was in question, to employ them in apt and skillful selection, and so to give it its characteristic designation and appropriate position.' 106 Such a procedure appeared to Goethe as a kind of mosaic, in which one ready-made piece is set next to another in order to produce out of a thousand details the semblance of a picture; and this was 'in a certain way repugnant' to him. 107 What Goethe awoke to when he met Linnaeus's attempt at systematising the plant kingdom was the old problem of whether the study of Nature should proceed from the parts to the whole or from the whole to the parts. 108 Seeing, therefore, how it became a question for Goethe, at the very beginning of his scientific studies, whether a natural classification of Nature's phenomena could be achieved, 109 we can understand why he was so overjoyed when,

towards the end of his life, in a field of observation which had meanwhile caught much of his interest, 110 he met with a classification which showed, down to the single names employed, that it had been read off from reality.

111 The following is a comprehensive description of Goethe's meteorological views, which he gave a few years before his death in one of his conversations with his secretary, Eckermann:

112 'I compare the earth and her hygrosphere to a great living being perpetually inhaling and exhaling. 113 If she inhales, she draws the hygrosphere to her, so that, coming near her surface, it is condensed to clouds and rain. 114 This state I call water-affirmative (WasserBejahung). Should it continue for an indefinite period, the earth would be drowned. 115 This the earth does not allow, but exhales again, and sends the watery vapours upwards, when they are dissipated through the whole space of the higher atmosphere. 116 These become so rarefied that not only does the sun penetrate them with its brilliancy, but the eternal darkness of infinite space is seen through them as a fresh blue. 117 This state of the atmosphere I call water-negative (WasserVerneinung). For just as, under the contrary influence, not only does water come profusely from above, but also the moisture of the earth cannot be dried and dissipated-- 118 so, on the contrary, in this state not only does no moisture come from above, but the damp of the earth itself flies upwards; 119 so that, if this should continue for an indefinite period, the earth, even if the sun did not shine, would be in danger of drying up.'

120 Goethe's notes of the results of his meteorological observations show how in them, too, he followed his principle of keeping strictly to the phenomenon. 121 His first concern is to bring the recorded measurements of weather phenomena into their proper order of significance. 122 To this end he compares measurements of atmospheric temperature and local density with barometric measurements. 123 He finds that the first two, being of a more local and accidental nature, have the

value of 'derived' phenomena, 124 whereas the variations in the atmosphere revealed by the barometer are the same over wide areas and therefore point to fundamental changes in the general conditions of the earth. 125 Measurements made regularly over long periods of time finally lead him to recognise in the barometric variations of atmospheric pressure the basic meteorological phenomenon.

126 In all this we find Goethe carefully guarding himself against 'explaining' these atmospheric changes by assuming some kind of purely mechanical cause, such as the accumulation of air-masses over a certain area or the like. 127 Just as little would he permit himself lightly to assume influences of an extra-terrestrial nature, such as those of the moon. 128 Not that he would have had anything against such things, if they had rested on genuine observation. 129 But his own observations, as far as he was able to carry them, told him simply that the atmosphere presses with greater or lesser intensity on the earth in more or less regular rhythms. 130 He was not abandoning the phenomenal sphere, however, when he said that these changes are results of the activity of earthly gravity, 131 or when he concluded from this that barometric variations were caused by variations in the intensity of the field of terrestrial gravity, whereby the earth sometimes drew the atmosphere to it with a stronger, and sometimes with a weaker, pull.

132 He was again not departing from the realm of the phenomenal when he looked round for other indications in Nature of such an alternation of drawing in and letting forth of air, and found them in the respiratory processes of animated beings. 133 To regard the earth as a merely physical structure was impossible for Goethe, for he could have done this only by leaving out of account the life visibly bound up with it. 134 Accordingly, barometric measurements became for him the sign of a breathing process carried out by the earth.

135 Alongside the alternating phases of contraction and expansion within the atmosphere,

Goethe placed the fact that atmospheric density decreases with height. 136 Observation of differences in cloud formation at different levels, of the boundary of snow formation, etc., led him to speak of different 'atmospheres', or of atmospheric circles or spheres, which when undisturbed are arranged concentrically round the earth. 137 Here also he saw, in space, phases of contraction alternating with phases of expansion.

138 At this point in our discussion it is necessary to introduce another leading concept of Goethean nature-observation, 139 which was for him-- as it will be for us-- of particular significance for carrying over the Goethean method of research from the organic into the inorganic realm of Nature. This is the concept of the ur-phenomenon (UrphÃ¤nomen). 140 In this latter realm, Nature no longer brings forth related phenomena in the ordering proper to them; 141 hence we are obliged to acquire the capacity of penetrating to this ordering by means of our own realistically trained observation and thought.

142 From among the various utterances of Goethe regarding his general conception of the ur-phenomenon, we here select a passage from that part of the historical section of his Theory of Colour 143 where he discusses the method of investigation introduced into science by Bacon. He says:

In the range of phenomena all had equal value in Bacon's eyes. 144 For although he himself always points out that one should collect the particulars only to select from them and to arrange them, in order finally to attain to Universals, yet too much privilege is granted to the single facts; 145 and before it becomes possible to attain to simplification and conclusion by means of induction-- the very way he recommends,-- life vanishes and forces get exhausted. 146 He who cannot realise that one instance is often worth a thousand, bearing all within itself; 147 he who proves unable to comprehend and esteem what we called ur-phenomena, will never be in a position to advance anything, either to his own or to others' joy and profit.'

148 What Goethe says here calls for the following comparison. We can say that Nature seen through Bacon's eyes appears as if painted on a two-dimensional surface, so that all its facts are seen alongside each other at exactly the same distance from the observer. 149 Goethe, on the other hand, ascribed to the human spirit the power of seeing the phenomenal world in all its three-dimensional multiplicity; 150 that is, of seeing it in perspective and distinguishing between foreground and background. 151 Things in the foreground he called ur-phenomena. Here the idea creatively determining the relevant field of facts comes to its purest expression. 152 The sole task of the investigator of Nature, he considered, was to seek for the ur-phenomena and to bring all other phenomena into relation with them; 153 and in the fulfilllment of this task he saw the means of fully satisfying the human mind's need to theorise. He expressed this in the words, 'Every fact is itself already theory'. 154 In Goethe's meteorological studies we have a lucid example of how he sought and found the relevant ur-phenomenon. It is the breathing-process of the earth as shown by the variations of barometric pressure.

155 Once again we find Thomas Reid, along his line of intuitively guided observation, coming quite close to Goethe where he deals with the question of the apprehension of natural law by the human mind. 156 He, too, was an opponent of the method of 'explaining' phenomena by means of abstract theories spun out of sheer thinking, and more than once in his writings he inveighs against it in his downright, humorous way. 157 His conviction that human thinking ought to remain within the realm of directly experienced observation is shown in the following words: 158 'In the solution of natural phenomena, all the length that the human faculties can carry us is only this, that from particular phenomena, we may, by induction, trace out general phenomena, of which all the particular ones are necessary consequences.' 159 As an example of this he takes gravity, leading the reader from one phenomenon to

the next without ever abandoning them, and concluding the journey by saying: 160 'The most general phenomena we can reach are what we call laws-of-Nature. So that the laws-of-Nature are nothing else but the most general facts relating to the operations of Nature, which include a great many particular facts under them.'

161 It was while on his way with the Grand Duke of Weimar to visit a newly erected meteorological observatory that Goethe, in the course of informing his companion of his own meteorological ideas, first heard of Howard's writings about the formation of clouds. 162 The Duke had read a report of them in a German scientific periodical, and it seemed to him that Howard's cloud system corresponded with what he now heard of Goethe's thoughts about the force relationships working in the different atmospheric levels. 163 He had made no mistake. Goethe, who immediately obtained Howard's essay, recognised at first glance in Howard's cloud scale the law of atmospheric changes which he himself had discovered. 164 He found here, what he had always missed in the customary practice of merely tabulating the results of scientific measurements. 165 And so he took hold of the Howard system with delight, for it 'provided him with a thread which had hitherto been lacking'.

166 Moreover, in the names which Howard had chosen for designating the basic cloud forms, Goethe saw the dynamic element in each of them coming to immediate expression in human speech. 167 He therefore always spoke of Howard's system as a 'welcome terminology'.

168 All this inspired Goethe to celebrate Howard's personality and his work in a number of verses in which he gave a description of these dynamic elements and a paraphrase of the names, moulding them together into an artistic unity. 169 In a few accompanying verses he honoured Howard as the first to 'distinguish and suitably name' the clouds.

170 The reason why Goethe laid so much stress on Howard's terminology was because he was very much aware of the power of names to help or hinder people in their quest for knowledge. 171 He

himself usually waited a long time before deciding on a name for a natural phenomenon or a connexion between phenomena which he had discovered. 172 The Idea which his spiritual eye had observed had first to appear so clearly before him that he could clothe it in a thought-form proper to it. 173 Seeing in the act of name-- giving an essential function of human (we are reminded of what in this respect the biblical story of creation says of Adam), Goethe called human 'the first conversation which Nature conducts with God'.

174 It is characteristic of Goethe that he did not content himself with knowing the truth which someone had brought forward in a field of knowledge in which he himself was interested, 175 but that he felt his acquaintance with this truth to be complete only when he also knew something about the personality of the man himself. 176 So he introduces his account of his endeavours to know more about Howard, the man, with the following words: 177 'Increasingly convinced that everything occurring through human should be regarded in an ethical sense, and that moral value is to be estimated only from a person's way of life, 178 I asked a friend in London to find out if possible something about Howard's life, if only the simplest facts.' 179 Goethe was uncertain whether the Englishman was still alive, so his delight and surprise were considerable when from Howard himself he received an answer in the form of a short autobiographical sketch, 180 which fully confirmed his expectations regarding Howard's ethical personality.

181 Howard's account of himself is known to us, as Goethe included a translation of it in the collection of his own meteorological studies. 182 Howard in a modest yet dignified way describes his Christian faith, his guide through all his relationships, whether to other people or to Nature. 183 A man comes before us who, untroubled by the prevailing philosophy of his day, was able to advance to the knowledge of an objective truth in Nature, because he had the ability to carry religious

experience even into his observation of the sense-world.

DYNAMICS VERSUS KINETICS

Ernst Lehrs

8 At the present time the human mind is in danger of confusing the realm of dynamic events, into which modern atomic research has penetrated, with the world of the spirit; 2 that is, the world whence Nature is endowed with intelligent design, and of which human thinking is an expression in terms of consciousness. 3 If a view of Nature as a manifestation of spirit, such as Goethe and kindred minds conceived it, is to be of any significance in our time, 4 it must include a conception of matter which shows as one of its attributes its capacity to serve Form-- in the sense in which Ruskin spoke of it in opposition to mere Force-- as a means of manifestation. 5 The present part of this book of matter, comprising Chapters 8 to11, will be devoted to working out such a conception of matter. 6 An example will thereby be given of how Goethe's method of acquiring understanding of natural phenomena through reading the phenomena themselves may be carried beyond his own field of observation. 7 There are, however, certain theoretical obstacles, erected by the onlooker-consciousness, which require to be removed before we can actually set foot on the new path. The present chapter will in particular serve this purpose.

8 Science, since Galileo, has been rooted in the conviction that the logic of mathematics is a means of expressing the behaviour of natural events. 9 The material for the mathematical treatment of sense data is obtained through measurement. The actual thing, therefore, in which the scientific observer is interested in each case, is the position of some kind of pointer. 10 In fact, physical science is essentially, as Professor Eddington put it, a 'pointer-reading science'. 11 Looking at this fact in our way we can say that all pointer instruments which human has constructed ever since the beginning of science, have as their model human, restricted to colourless, non-stereoscopic observation. 12 For all that is left

to him in this condition is to focus points in space and register changes of their positions. Indeed, the perfect scientific observer is himself the arch-pointer-instrument.

13 The birth of the method of pointer-reading is marked by Galileo's construction of the first thermometer (actually, a thermoscope). 14 The conviction of the applicability of mathematical concepts to the description of natural events is grounded in his discovery of the so-called Parallelogram of Forces. 15 It is with these two innovations that we shall concern ourselves in this chapter.

16 Let it be said at once that our investigations will lead to the unveiling of certain illusions which the spectator-consciousness has woven round these two gifts of Galileo. 17 This does not mean that their significance as fundamentals of science will be questioned. Nor will the practical uses to which they have been put with so much success be criticised in any way. But there are certain deceptive ideas which became connected with them, 18 and the result is that to-day, when human is in need of finding new epistemological ground under own feet, you are entangled in a network of conceptual illusions which prevent you from using your reason with the required freedom.

19 A special word is necessary at this point regarding the term illusion, as it is used here and elsewhere. 20 In respect of this, it will be well to remember what was pointed out earlier in connexion with the term 'tragedy' (Chapter-2). 21 In speaking of 'illusion', we neither intend to cast any blame on some person or another who took part in weaving the illusion, nor to suggest that the emergence of it should be thought of as an avoidable calamity. 22 Rather should illusion be thought of as something which human has been allowed to weave because only by your own active overcoming of it can you fulfilll your destiny as the bearer of truth in freedom. 23 Illusion, in the sense used here, belongs to those things in human's existence which are truly to be called tragic. 24 It loses this quality, and assumes a quite different one, only when human,

once the time has come for overcoming an illusion, insists on clinging to it.

25 As our further studies will show, the criticism to be applied here does not only leave the validity of measurement and the mathematical treatment of the data thus obtained fully intact, 26 but by giving them their appropriate place in a wider conception of Nature it opens the way to an ever more firmly grounded and, at the same time, enhanced application of both.

27 Our primary knowledge of the existence of something we call 'warmth' or 'heat' is due to a particular sense of warmth which modern research has recognised as a clearly definable sense. 28 Naturally, seen from the spectator-standpoint, the experiences of this sense appear to be of purely subjective value and therefore useless for obtaining an objective insight into the nature of warmth and its effects in the physical world. 29 In order to learn about these, resort is had to certain instruments which, through the change of the spatial position of a point, allow the onlooker-observer to register changes in the thermal condition of a physical object. An instrument of this kind is the thermometer. 30 In the following way an indubitable proof seems to be given of the correctness of the view concerning the subjectivity of the impressions obtained through the sense of warmth, and of the objectivity of thermometrical measurement. 31 A description of it is frequently given in physical textbooks as an introduction to the chapter on Heat.

32 To begin with, the well-known fact is cited that if one plunges one's hands first into two different bowls, one filled with hot water and the other with cold, and then plunges them together into a bowl of tepid water, 33 this will feel cold to the hand coming from the hot water and warm to the hand coming from the cold. 34 Next, it is pointed out that two thermometers which are put through the same procedure will register an equal degree of temperature for the tepid water. 35 In this way the student is given a lasting impression of the superiority of the 'objective'

recording of the instrument over the 'subjective' character of the experiences mediated by own sense of warmth.

36 Let us now test this procedure by carrying out the same experiment with the help of thermometrical instruments in their original form, that is, the form in which Galileo first applied them. 37 By doing so we proceed in a truly Goethean manner, because we divest the experiment of all accessories which prevent the phenomenon from appearing in its primary form.

38 To turn a modern thermometer into a thermoscope we need only remove the figures from its scale. 39 If we make the experiment with two such thermoscopes we at once become aware of something which usually escapes us, our attention being fixed on the figures recorded by the two instruments. 40 For we now notice that the two instruments, when transferred from the hot and cold water into the tepid water, behave quite differently. In one the column will fall, in the other it will rise.

41 It is important to note that by this treatment of the two instruments we have not changed the way in which they usually indicate temperature. 42 For thermometrical measurement is in actual fact never anything else than a recording of the movement of the indicator from one level to another. 43 We choose merely to take a certain temperature level-- that of melting ice or something else-- as a fixed point of reference and mark it once for all on the instrument. 44 Because we find this mark clearly distinguished on our thermometers, and the scales numbered accordingly, we fail to notice what lies ideally behind this use of the same zero for every new operation we undertake.

45 What the zero signifies becomes clear directly we start to work with thermometers not marked with scales. 46 For in order to be used in this form as real thermometers, they must be exposed on each occasion first of all to some zero level of temperature, say, that of melting ice. 47 If we then take them into the region of temperature we want to measure, we shall discern the difference of levels through the corresponding movement of the column. 48 The

final position of the column tells us nothing in itself. It is always the change from one level to another that the thermometer registers--precisely as does the sense of warmth in our hands in the experiment just described.

49 Hence we see that in the ordinary operation with the thermometers, and when we use our hands in the prescribed manner, we are dealing with the zero level in two quite different ways. 50 While in the two instruments the zero level is the same, in accordance with the whole idea of thermometric measurement, we make a special arrangement so as to expose our hands to two different levels. 51 So we need not be surprised if these two ways yield different results. If, after placing two thermometers without scales in hot and cold water, we were to assign to each its own zero in accordance with the respective height of its column, 52 and then graduate them from this reference point, they would necessarily record different levels when exposed to the tepid water, in just the same way as the hands do. 53 Our two hands, moreover, will receive the same sense-impression from the tepid water, if we keep them in it long enough.

54 Seen in this light, the original experiment, designed to show the subjective character of the impressions gained through the sense of warmth, reveals itself as a piece of self-deception by the onlooker-consciousness. 55 The truth of the matter is that, in so far as there is any subjective element in the experience and measurement of heat, it does not lie on the side of our sense of warmth, but in our judgment of the significance of thermometrical readings. 56 In fact, our test of the alleged proof of the absolute superiority of pointer-readings over the impressions gained by our senses gives us proof of the correctness of Goethe's statement, quoted earlier, 57 that the senses do not deceive, but the judgment deceives.

58 Let it be repeated here that what we have found in this way does not lead to any depreciation of the method of pointer-reading. For the direct findings of the senses cannot be compared quantitatively. 59 The point is that the idea of the

absolute superiority of physical measurement as a means of scientific knowledge, in all circumstances, must be abandoned as false.

60 We now turn to Galileo's discovery known as the theorem of the Parallelogram of Forces. The illusion which has been woven round this theorem expresses itself in the way it is described as being connected ideally with another theorem, 61 outwardly similar in character, known as the theorem of the Parallelogram of Movements (or Velocities), by stating that the former follows logically from the latter. 62 This statement is to be found in every textbook on physics at the outset of the chapter on dynamics (kinetics), 63 where it serves to establish the right to treat the dynamic occurrences in Nature in a purely kinematic fashion, true to the requirements of the onlooker-consciousness. 64 The following description will show that, directly we free ourselves from the onlooker-limitations of our consciousness in the way shown by Goethe-- and, in respect of the present problem, in particular also by Reid-- 65 the ideal relationship between the two theorems is seen to be precisely the opposite to the one expressed in the above statement. 66 The reason why we take pains to show this at the present point of our discussion is that only through replacing the fallacious conception by the correct one, do we open the way for forming a concrete concept of Force and thereby for establishing a truly dynamic conception of Nature.

67 Let us begin by describing briefly the content of the two theorems in question. In Fig. 1, a diagrammatical representation is given of the parallelogram of movements.

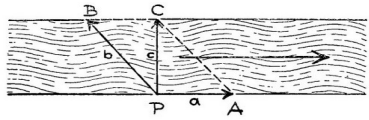

FIG. 1

68 It sets out to show that when a point moves with a certain velocity in the direction indicated by the arrow **a**, so that in a certain time it passes from **P** to **A**, 69 and when it simultaneously moves with a second velocity in the direction indicated by **b**, through which alone it would pass to **B** in the same time, its actual movement is indicated by **c**, the diagonal in the

parallelogram formed by **a** and **b**. 70 An example of the way in which this theorem is practically applied is the well-known case of a rower who sets out from **P** in order to cross at right angles a river indicated by the parallel lines. 71 He has to overcome the velocity **a** of the water of the river flowing to the right by steering obliquely left towards **B** in order to arrive finally at **C**.

72 It is essential to observe that the content of this theorem does not need the confirmation of any outer experience for its discovery, or to establish its truth. 73 Even though the recognition of the fact which it expresses may have first come to people through practical observation, yet the content of this theorem can be discovered and proved by purely logical means. 74 In this respect it resembles any purely geometrical statement such as, that the sum of the angles of a triangle is two right angles (180Â°). 75 Even though this too may have first been learn't through outer observation, yet it remains true that for the discovery of the fact expressed by it-- valid for all plane triangles-- no outer experience is needed. 76 In both cases we find ourselves in the domain of pure geometric conceptions (length and direction of straight lines, movement of a point along these), whose reciprocal relationships are ordered by the laws of pure geometric logic. 77 So in the theorem of the Parallelogram of Velocities we have a strictly geometrical theorem, whose content is in the narrowest sense kinematic. In fact, it is the basic theorem of kinematics.

78 We now turn to the second theorem which speaks of an outwardly similar relationship between forces. 79 As is well known, this states that two forces of different magnitude and direction, when they apply at the same point, act together in the manner of a single force 80 whose magnitude and direction may be represented by the diagonal of a parallelogram whose sides express in extent and direction the first two forces.

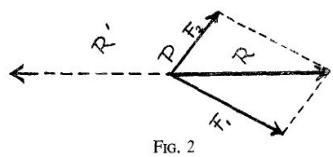

FIG. 2

81 Thus in Fig. 2, **R** exercises upon **P** the same effect as F1 and F2 together.

82 Expressed in another way, a force of this magnitude working in the reverse direction (R') will establish an equilibrium with the other two forces. 83 In technical practice, as is well known, this theorem is used for countless calculations, in both statics and dynamics, 84 and indeed more frequently not in the form given here but in the converse manner, when a single known force is resolved into two component forces. Distribution of a pressure along frameworks, of air pressure along moving surfaces, etc.

85 It will now be our task to examine the logical link which is believed to connect one theorem with the other. 86 This link is found in the well-known definition of physical force as a product of 'mass' and 'acceleration'-- in algebraic symbols F=ma. 87 We will discuss the implications of this definition in more detail later on. Let us first see how it is used as a foundation for the above assertion.

88 The conception of 'force' as the product of 'mass' and 'acceleration' is based on the fact-- easily experienced by anyone who cycles along a level road-- 89 that it is not velocity itself which requires the exertion of force, but the change of velocity-- that is, acceleration or retardation ('negative acceleration' in the sense of mathematical physics); 90 also that in the case of equal accelerations, the force depends upon the mass of the accelerated object. 91 The more massive the object, the greater will be the force necessary for accelerating it. 92 This mass, in turn, reveals itself in the resistance a particular object offers to any change of its state of motion. 93 Where different accelerations and the same mass are considered, the factor **m** in the above formula remains constant, and force and acceleration are directly proportional to each other. 94 Thus in the acceleration is discovered a measure for the magnitude of the force which thereby acts.

95 Now it is logically evident that the theorem of the parallelogram of velocities is equally valid for movements with constant or

variable velocities. 96 Even though it is somewhat more difficult to perceive mentally the movement of a point in two different directions with two differently accelerated motions, 97 and to form an inner conception of the resulting movement, we are nevertheless still within a domain which may be fully embraced by thought. 98 Thus accelerated movements and movements under constant velocity can be resolved and combined according to the law of the parallelogram of movements, a law which is fully attainable by means of logical thought.

99 With the help of the definition of force as the product of mass and acceleration it seems possible, indeed, to derive the parallelogram of forces from that of accelerations in a purely logical manner. 100 For it is necessary only to extend all sides of an a parallelogram by means of the same factor **m** in order to turn it into an **F** parallelogram. 101 A single geometrical figure on paper can represent both cases, since only the scale needs to be altered in order that the same geometrical length should represent at one time the magnitude **a** and on another occasion **ma**. 102 It is in this way that present-day scientific thought keeps itself convinced that the parallelogram of forces follows with logical evidence from the parallelogram of accelerations, and that the discovery of the former is therefore due to a purely mental process.

103 Since the parallelogram of forces is the prototype of each further mathematical representation of physical force-relationships in Nature, 104 the conceptual link thus forged between it and the basic theorem of kinematics has led to the conviction that the fact that natural events can be expressed in terms of mathematics could be, and actually has been, discovered through pure logical reasoning, 105 and thus by the brain-bound, day-waking consciousness 'of the world-spectator. 106 Justification thereby seemed to be given for the building of a valid scientific world-picture, purely kinematic in character.

107 The line of consideration we shall now have to enter upon for

carrying out our own examination of what is believed to be the link between the two theorems 108 may seem to the scientifically trained reader to be of an all too elementary kind compared with the complexities of thought in which he is used to engage in order to settle a scientific problem. 109 It is therefore necessary to state here that anyone who wishes to help to overcome the tangle of modern theoretical science must not be shy in applying thoughts and observations of seemingly so simple a nature as those used both here and on other occasions. 110 Some readiness, in fact, is required to play where necessary the part of the child in Hans Andersen's fairy-story of The Emperor's New Clothes, 111 where all the people are loud in praise of the magnificent robes of the Emperor, who is actually passing through the streets with no clothes on at all, and a single child's voice exclaims the truth that 'the Emperor has nothing on'. 112 There will repeatedly be occasion to adopt the role of this child in the course of our own studies.

113 In the scientific definition of force given above force appears as the result of a multiplication of two other magnitudes. 114 Now as is well known, it is essential for the operation of multiplication that of the two factors forming the product at least one should exhibit the properties of a pure number. 115 For two pure numbers may be multiplied together-- e.g. 2 and 4-- and a number of concrete things can be multiplied by a pure number-- e. g. 3 apples and the number 4-- 116 but no sense can be attached to the multiplication of 3 apples by 4 apples, let alone by 4 pears! 117 The result of multiplication is therefore always either itself a pure number, when both factors have this property; 118 or when one of the two factors is of the nature of a concrete object, the result is of the same quality as the latter. 119 An apple will always remain an apple after multiplication, and what distinguishes the final product (apples) from the original factor (apples) is only a pure number.

120 If we take seriously what this simple consideration tells us of the nature of multiplication, 121 and if

we do not allow ourselves to deviate from it for whatever purpose we make use of this algebraic operation, then the various concepts we connect with the basic measurements in physics undergo a considerable change of meaning.

122 Let us test, in this respect, the well-known formula which, in the conceptual language of physics, connects 'distance' (s), 'time' (t), and 'velocity' (c). It is written c = s / t, or s = ct.

123 In this formula, **s** has most definitely the meaning of **a** 'thing', for it represents measured spatial distance. 124 Of the two factors on the other side of the second equation, one must needs have the same quality as **s**: this is **c**. Thus for the other factor, **t**, there remains the property of a pure number. 125 We are, therefore, under an illusion if we assume the factor **c** to represent anything of what velocity implies in outer cosmic reality. 126 The truth is that **c** represents a spatial distance just as **s** does, with the difference only that it is a certain unit-distance. 127 Just as little does real time enter into this formula-- nor does it into any other formula of mathematical physics. 128 'Time', in physics, is always a pure number without any cosmic quality. Indeed, how could it be otherwise for a purely kinematic world-observation?

129 We now submit the formula **F=ma** to the same scrutiny. If we attach to the factor **a** on the right side of the equation a definite quality, namely an observable acceleration, the other factor in the product is permitted to have only the properties of a pure number; 130 **F**, therefore, can be only of the same nature as **a** and must itself be an acceleration. 131 Were it otherwise, then the equation F=ma could certainly not serve as a logical link between the Velocity and Force parallelograms.

132 Our present investigation has done no more than grant us an insight into the process of thought whereby the consciousness limited to a purely kinematic experience has deprived the concept of force of any real content. 133 Let us look at the equation F=ma as a means of splitting of the magnitude **F** into two components **m** and **a**. 134 The equation then tells us that **F** is reduced to the nature of pure

acceleration, for that which resides in the force as a factor not observable by kinematic vision has been split away from it as the factor **m**. 135 For this factor, however, as we have seen, nothing remains over but the property of a pure number. 136 Let us note here that the first thinker to concern himself with a comprehensive world-picture in which the non-existence of a real concept of force is taken in earnest-namely, Albert Einstein-- 137 was also the first to consider mass as a form of energy and even to predict correctly, as was proved later, the amount of energy represented by the unit of mass, 138 thereby encouraging decisively the new branch of experimental research which has led to the freeing of the so-called atomic energy. 139 Is it then possible that pure numbers can effect what took place above and within Nagasaki, Hiroshima, etc.? 140 Here we are standing once again before one of the paradoxes of modern science which we have found to play so considerable a part in its development.

141 To find an interpretation of the formula F=ma, which is free from illusion, we must turn our attention first of all to the concepts 'force' and 'mass' themselves. 142 The fact that people have these two words in their languages shows that the concepts expressed by them must be based on some experience that has been human's long before he was capable of any scientific reflexion. 143 Let us ask what kind of experience this is and by what part of his being he gathers it.

144 The answer is, as simple self-observation will show, that we know of the existence of force through the fact that we ourselves must exert it in order to move our own body. 145 Thus it is the resistance of our body against any alteration of its state of motion, as a result of its being composed of inert matter, which gives us the experience of force both as a possession of our own and as a property of the outer world. 146 All other references to force, in places where it cannot be immediately experienced, arise by way of analogy based on the similarity of the content of our observation to that which springs from the exertion of force in our own bodies.

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147 As we see, in this experience of force that of mass is at once implied. Still, we can strengthen the latter by experimenting with some outer physical object. 148 Take a fairly heavy object in your hand, stretch out your arm lightly and move it slowly up and down, watching intently the sensation this operation rouses in you. 149 Evidently the experience of mass outside ourselves, as with that of our own body, comes to us through the experience of the force which we ourselves must exert in order to overcome some resisting force occasioned by the mass. 150 Already this simple observation-- as such made by means of the sense of movement and therefore outside the frontiers of the onlooker-consciousness-- tells us that mass is nothing but a particular manifestation of force.

151 Seen in the light of this experience, the equation F=ma requires to be interpreted in a manner quite different from that to which scientific logic has submitted it. 152 For if we have to ascribe to **F** and **m** the same quality, then the rule of multiplication allows us to ascribe to a nothing but the character of a pure number. 153 This implies that there is no such thing as acceleration as a self-contained entity, merely attached to mass in an external way.

154 What we designate as acceleration, and measure as such, is nothing else than a numerical factor comparing two different conditions of force within the physical-material world. 155 Only when we give the three factors in our equation this meaning, does it express some concrete outer reality. 156 At the same time it forbids the use of this equation for a logical derivation of the parallelogram of forces from that of pure velocities.

157 The same method which has enabled us to restore its true meaning to the formula connecting mass and force will serve to find the true source of human's knowledge of the parallelogram of forces. Accordingly, our procedure will be as follows.

158 We shall engage two other persons, together with whom we shall try to discover by means of our respective experiences of force the law under which three forces

applying at a common point may hold themselves in equilibrium. 159 Our first step will consist in grasping each other by the hand and in applying various efforts of our wills to draw one another in different directions, 160 seeing to it that we do this in such a way that the three joined hands remain undisturbed at the same place. 161 By this means we can get as far as to establish that, when two persons maintain a steady direction and strength of pull, the third must alter own applied force with every change in own direction in order to hold the two others in equilibrium. 162 You will find that in some instances you must increase your pull and in other instances decrease it.

163 This, however, is all that can be learn't in this way. No possibility arises at this stage of our investigation of establishing any exact quantitative comparison. 164 For the forces which we have brought forth (and this is valid for forces in general, no matter of what kind they are) represent pure intensities, outwardly neither visible nor directly measurable. 165 We can certainly tell whether we are intensifying or diminishing the application of our will, but a numerical comparison between different exertions of will is not possible.

166 In order to make such a comparison, a further step is necessary. We must convey our effort to some pointer-instrument-- 167 for instance, a spiral spring which will respond to an exerted pressure or pull by a change in its spatial extension. (Principle of the spring balance.) 168 In this way, by making use of a certain property of matter-- elasticity-- the purely intensive magnitudes of the forces which we exert become extensively visible and can be presented geometrically. 169 We shall therefore continue our investigation with the aid of three spring balances, which we hook together at one end while exposing them to the three pulls at the other.

170 To mark the results of our repeated pulls of varying intensities and directions, we draw on the floor on which we stand three chalk lines outward from the point underneath the common point of the three instruments, 171 each in the direction taken up by

one of the three persons. Along these lines we mark the extensions corresponding to those of the springs of the instruments.

172 By way of this procedure we shall arrive at a sequence of figures such as is shown in Fig. 3. This is all we can discover empirically regarding the mutual relationships of three forces engaging at a point. 173 Let us now heed the fact that nothing in this group of figures reveals that in each one of these trios of lines there resides a definite and identical geometrical order; 174 nor do they convey anything that would turn our thoughts to the parallelogram of velocities with the effect of leading us to expect, by way of analogy, a similar order in these figures. 175 And this result, we note, is quite independent of our particular way of procedure, whether we use, right from the start, a measuring instrument, or whether we proceed as described above.

176 Having in this way removed the fallacious idea that the parallelogram of forces can, and therefore ever has been, conceived by way of logical derivation from the parallelogram of velocities, 177 we must then ask ourselves what it was, if not any act of logical reason, that led Galileo to discover it.

178 History relates that on making the discovery he exclaimed: 'La Natura Ã¨ scritta in lingua matematica!' ('Nature is recorded in the language of mathematics.') 179 These words reveal his surprise when he realised the implication of his discovery. Still, intuitively he must have known that using geometrical lengths to symbolise the measured magnitudes of forces would yield some valid result. 180 Whence came this intuition, as well as the other which led him to recognise from the figures thus obtained that in a parallelogram made up of any two of the three lines, the remaining line came in as its diagonal? 181 And, quite apart from the particular event of the discovery, how can we account for the very fact that Nature-- at least on a certain level of Her existence-- exhibits rules of action expressible in terms of logical principles immanent in the human mind?

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182 To find the answer to these questions we must revert to certain facts connected with human's psycho-physical make-up of which the considerations of Chapter -2 have already made us aware.

183 Let us, therefore, transpose ourselves once more into the condition of the child who is still entirely volition, and thus experiences the self as one with the world. 184 Let us consider, from the point of view of this condition, the process of lifting the body into the vertical position and the acquisition of the faculty of maintaining it in this position; 185 and let us ask what the soul, though with no consciousness of itself, experiences in all this. It is the child's will which wrestles in this act with the dynamic structure of external space, 186 and what the child’s will experiences is accompanied by corresponding perceptions through the sense of movement and other related bodily senses. 187 In this way the parallelogram of forces becomes an inner experience of our organism at the beginning of our earthly life. 188 What we thus carry in the body's will-region in the form of experienced geometry-- this, together with the freeing and crystallising of part of our will-substance into our conceptual capacity, 189 is transformed into our faculty of forming geometrical concepts, and among them the concept of the parallelogram of movements.

190 Looked at in this way, the true relationship between the two parallelogram-theorems is seen to be the very opposite of the one held with conviction by scientific thinking up to now. 191 Instead of the parallelogram of forces following from the parallelogram of movements, and the entire science of dynamics from that of kinematics, 192 our very faculty of thinking in kinematic concepts is the evolutionary product of our previously acquired intuitive experience of the dynamic order of the world.

193 If this is the truth concerning the origin of our knowledge of force and its behaviour on the one hand, and our capacity to conceive mathematical concepts in a purely ideal way on the other, 194 what is it then that causes human to dwell in such illusion as regards the

relationship between the two? 195 From our account it follows that no illusion of this kind could arise if we were able to remember throughout life our experiences in early childhood. 196 Now we know from our considerations in Chapter -6 that in former times human had such a memory. In those times, therefore, human was under no illusion as to the reality of force in the world. 197 In the working of outer forces human saw a manifestation of spiritual beings, just as in the self human experienced force as a manifestation of own spiritual being. 198 We have seen also that this form of memory had to fade away to enable human to find the self as a self-conscious personality between birth and death. 199 As such a personality, Galileo was able to think the parallelogram of forces, but he was unable to comprehend the origin of his faculty of mathematical thinking, 200 or of his intuitive knowledge of the mathematical behaviour of Nature in that realm of Hers where She sets physical forces into action.

201 Deep below in Galileo's soul there lived, as it does in every human being, the intuitive knowledge, acquired in early childhood, that part of Nature's order is recordable in the conceptual language of mathematics. 202 In order that this intuition should rise sufficiently far into his conscious mind to guide him, as it did, in his observations, 203 the veil of oblivion which otherwise separates our waking consciousness from the experiences of earliest childhood must have been momentarily lightened. 204 Unaware of all this, Galileo was duly surprised when in the onlooker-part of his being the truth of his intuition was confirmed in a way accessible to it, namely through outer experiment. 205 Yet with the veil immediately darkening again the onlooker soon became subject to the illusion that for his recognition of mathematics as a means of describing Nature he was in need of nothing but what was accessible to him on the near side of the veil.

206 Thus it became human's fate in the first phase of science, which

fills the period from Galileo and his contemporaries up to the present time, 207 that the very faculty which human needed for creating this science prevented him from recognising its true foundations. 208 Restricted as he was to the building of a purely kinematic world-picture, he had to persuade himself that the order of interdependence of the two parallelogram-theorems was the opposite of the one which it really is.

209 The result of the considerations of this chapter is of twofold significance for our further studies. 210 On the one hand, we have seen that there is a way out of the impasse into which modern scientific theory has got itself as a result of the lack of a justifiable concept of force, 211 and that this way is the one shown by Reid and travelled by Goethe. 'We must become as little children again, if we will be philosophers', is as true for science as it is for philosophy. 212 On the other hand, our investigation of the event which led Galileo to the discovery that Nature is recorded in the language of mathematics, has shown us that this discovery would not have been possible unless Galileo had in a sense become, albeit unconsciously, a little child again. 213 Thus the event that gave science its first foundations is an occurrence in human of precisely the same character as the one which we have learn't to regard as necessary for building science's new foundations. 214 The only difference is that we are trying to turn into a deliberate and consciously handled method something which once in the past happened to a human without one noticing it.

215 Need we wonder that we are challenged to do so in our day, when humankind is several centuries older than it was in the time of Galileo?

216 For the sake of our later studies it is essential that the reader does not content the self with merely following the above description mentally, but that you carries out the experiment yourself.

PRO LEVITATE

Ernst Lehrs

(I) ALERTNESS contra INERTNESS

MATTER

9 In the preceding chapter we gained a new insight into the relationship between mass and force. 2 We have come to see that our concept of force is grounded on empirical observation in no less a degree than is usually assumed for our concept of number, or size, or position, 3 provided we do not confine ourselves to non-stereoscopic, colourless vision for the forming of our scientific world-picture, but allow other senses to contribute to it. 4 As to the concept mass, our discussion of the formula F=ma showed that force and mass, as they occur in it, are of identical nature, both having the quality of force. 5 The factors *F* and *m* signify force in a different relationship to space (represented by the factor **a**). This latter fact now requires some further elucidation.

6 In a science based on the Goethean method of contemplating the world of the senses, concepts such as 'mass in rest' and 'mass in motion' lack any scientific meaning (though for another reason than in the theory of Relativity). 7 For in a science of this kind the universe-- in the sense propounded lately by Professor Whitehead and others-- appears as one integrated whole, whose parts must never be considered as independent entities unrelated to the whole. 8 Seen thus, there is no mass in the universe of which one could say with truth that it is ever in a state of rest. 9 Nor is there any condition of movement which could be rightly characterised by the attributes 'uniform' and 'straight line' in the sense of Newton's first law. 10 This does not mean that such conditions never occur in our field of observation. But as such they have significance only in relation to our immediate surroundings as a system of reference. 11 Even within such limits these conditions are not of a kind that would allow us to consider them as the basis of a scientific world-picture. 12 For as such they occur naturally only as ultimate, never as primeval conditions. 13 All masses are originally in a state of curvilinear movement whose rates change continuously. 14 To picture a mass as being in a state of rest, or of uniform motion in a straight line,

as the result of no force acting on it, 15 and to picture it undergoing a change in the rate and direction of its motion as the result of some outer force working on it, is a sheer abstraction. 16 In so far as mass appears in our field of observation as being in relative rest or motion of the kind described, this is always the effect of some secondary dynamic cause. 17 If we wish to think with the course of the universe and not against it, we must not start our considerations with the state of (relative) rest or uniform motion in a straight line 18 and derive our definition of force from the assumption that there is a primary 'force-free' state which is altered under the action of some force, 19 but we must arrange our definitions in such a way that they end up with this state. 20 Thus Newton's first law, for instance, would have to be restated somewhat as follows: No physical body is ever in a state of rest or uniform motion in a straight line, unless its natural condition is interfered with bythe particular action of some force.

21 Seen dynamically, and from the aspect of the universe as an interrelated whole, all aggregations of mass are the manifestation of certain dynamic conditions within the universe, 22 and what appears to us as a change of the state of motion of such a mass is nothing but a change in the dynamic relationship between this particular aggregation and the rest of the world. 23 Let us now see what causes of such a change occur within the field of our observation.

24 In modern textbooks the nature of the cause of physical movement is usually defined as follows: 'Any change in the state of movement of a portion of matter is the result of the action on it of another portion of matter.' 25 This represents a truth if it is taken to describe a certain kind of causation. 26 In the axiomatic form in which it is given it is a fallacy. 27 The kind of causation it describes is, indeed, the only one which has been taken into consideration by the scientific mind of human. 28 We are wont to call it 'mechanical' causation. Obviously, human's onlooker-consciousness is unable to

conceive of any other kind of causation. 29 For this consciousness is by its very nature confined to the contemplation of spatially apparent entities which for this reason can be considered only as existing spatially side by side. 30 For the one-eyed, colour-blind spectator, therefore, any change in the state of movement of a spatially confined entity could be attributed only to the action of another such entity outside itself. 31 Such a world-outlook was bound to be a mechanistic one.

32 We cannot rest content with this state of affairs if we are sincerely searching for an understanding of how spirit moves, forms, and transforms matter. 33 We must learn to admit non-mechanical causes of physical effects, where such causes actually present themselves to our observation. 34 In this respect our own body is again a particularly instructive object of study. For here mechanical and non-mechanical causation can be seen working side by side in closest conjunction. 35 Let us therefore ask what happens when we move, say, one of our limbs or a part of it.

36 The movement of any part of our body is always effected in some way by the movement of the corresponding part of the skeleton. 37 This in turn is set in motion by certain lengthenings and contractions of the appropriate part of the muscular system. 38 Now the way in which the muscles cause the bones to move falls clearly under the category of mechanical causation. 39 Certain portions of matter are caused to move by the movement of adjacent portions of matter. 40 The picture changes when we look for the cause to which the muscles owe their movements. 41 For the motion of the muscles is not the effect of any cause external to them, but is effected by the purely spiritual energy of our volition working directly into the physical substance of the muscles. 42 What scientific measuring instruments have been able to register in the form of physical, chemical, electrical, etc., changes of the muscular substance is itself an effect of this interaction. 43 To mark the fact that this type of causation is clearly distinguished from the type called mechanical, it

will be well to give it a name of its own. If we look for a suitable term, the word 'magical' suggests itself. 44 The fact that this word has gathered all sorts of doubtful associations must not hinder us from adopting it into the terminology of a science which aspires to understand the working of the super-sensible in the world of the senses. 45 The falling into disrepute of this word is characteristic of the onlooker-age. 46 The way in which we suggest it should be used is in accord with its true and original meaning, the syllable 'mag' signifying power or might (Sanskrit maha, Greek megas, Latin magnus, English might, much, also master). 47 Henceforth we shall distinguish between 'mechanical' and 'magical' causation, the latter being a characteristic of the majority of happenings in the human, animal and plant organisms.

48 Our next step in building up a truly dynamic picture of matter must be to try to obtain a direct experience of the condition of matter when it is under the sway of magical causation.

49 Let us first remember what is the outstanding attribute with which matter responds to mechanical causation. This is known to be inertia. 50 By this term we designate the tendency of physical matter to resist any outwardly impressed change of its existing state of movement. This property is closely linked up with another one, weight. 51 The coincidence of the two has of late become a puzzle to science, and it was Albert Einstein who tried to solve it by establishing his General Theory of Relativity. 52 The need to seek such solutions falls away in a science which extends scientific understanding to conditions of matter in which weight and inertia are no longer dominant characteristics. 53 What becomes of inertia when matter is subject to magical causation can be brought to our immediate experience in the following way. 54 The reader, even if you are already familiar with this experiment, is again asked to carry it out for yourself.

55 Take a position close to a smooth wall, so that one arm and hand, which are left hanging down

alongside the body, are pressed over their entire length between body and wall. 56 Try now to move the arm upward, pressing it against the wall as if you wanted to shift the latter. 57 Apply all possible effort to this attempt, and maintain the effort for about one minute. 58 Then step away quickly from the wall by more than the length of the arm, while keeping the arm hanging down by the side of the body in a state of complete relaxation. 59 Provided all conditions are properly fulfillled, the arm will be found rising by itself in accordance with the aim of the earlier effort, until it reaches the horizontal. 60 If the arm is then lowered again and left to itself, it will at once rise again, though not quite so high as before. 61 This can be repeated several times until the last vestige of the automatic movement has faded away.

62 Having thus ascertained by direct experience that there is a state of matter in which inertia is, to say the least, greatly diminished, 63 we find ourselves in need of giving this state-- which is present throughout Nature wherever material changes are brought into existence magically-- a name of its own, as we did with the two types of causation. 64 A word suggests itself which, apart from expressing adequately the peculiar self-mobility which we have just brought to our experience, goes well alongside the word 'inert' by forming a kind of rhyme with it. 65 This is the term 'alert'. With its help we shall henceforth distinguish between matter in the inert and alert conditions. 66 We shall call the latter state 'alertness', and in order to have on the other side a word as similar as possible in outer form to alertness, we suggest replacing the usual term inertia by 'inertness'. 67 Thus we shall speak of matter as showing the attribute of 'inertness', when it is subject to mechanical causation, of 'alertness', when it is subject to magical causation.

68 Anyone who watches attentively the sensation produced by the rising arm in the above experiment will be duly impressed by the experience of the alertness prevailing in the arm as a result of the will's magical intervention.

69 In our endeavour to find a modern way of overcoming the

conception of matter developed and held by science in the age of the onlooker-consciousness, we shall be helped by noticing how this conception first arose historically. 70 Of momentous significance in this respect is the discovery of the gaseous state of matter by the Flemish physician and experimenter, Joh. Baptist van Helmont (1577-1644). 71 The fact that the existence of this state of ponderable matter was quite unknown up to such a relatively recent date has been completely forgotten to-day. 72 Moreover, it is so remote from current notions that anyone who now calls attention to van Helmont's discovery is quite likely to be met with incredulity. 73 As a result, there is no account of the event that puts it in its true setting. 74 In what follows pains are taken to present the facts in the form in which one comes to know them through van Helmont's own account, given in his *Ortus Medicinae*.

75 For reasons which need not be described here, van Helmont studied with particular interest the various modifications in which carbon is capable of occurring in Nature-- among them carbon's combustion product, carbon dioxide. 76 It was his observations of carbon dioxide which made him aware of a condition of matter whose properties caused him the greatest surprise. 77 For he found it to be, at the same time, 'much finer than vapour and much denser than air'. 78 It appeared to him as a complete 'paradox', because it seemed to unite in itself two contradictory qualities, one appertaining to the realm of 'uncreated things', the other to the realm of 'created things'. 79 Unable to rank it with either 'vapour' or 'air'-- we shall see presently what these terms meant in van Helmont's terminology--, 80 he found himself in need of a special word to distinguish this new state from the other known states, both below and above it. 81 Since he could not expect any existing language to possess a suitable word, he felt he must create one. 82 He therefore took, and changed slightly, a word signifying a particular cosmic condition which seemed to be imaged in the new condition he had just discovered.

MATTER

83 The word was CHAOS. By shortening it a little, he derived from it the new word GAS. 84 His own words explaining his choice are: 'Halitum ilium GAS vocavi non longe a Chaos veterum secretum.'-- 'I have called this mist Gas, owing to its resemblance to the Chaos of the ancients.' 85 Van Helmont's account brings us face to face with a number of riddles. Certainly, there is nothing strange to us in his describing carbon dioxide gas as being 'finer than vapour and denser than air'; but why did he call this a 'paradox'? 86 What prevented him from ranking it side by side with air? As to air itself, why should he describe it as belonging to the realm of the 'uncreated things'? 87 What reason was there for giving 'vapour' the rank of a particular condition of matter? 88 And last but not least, what was the ancient conception of Chaos which led van Helmont to choose this name as an archetype for the new word he needed?

89 To appreciate van Helmont's astonishment and his further procedure, we must first call to mind the meaning which, in accordance with the prevailing tradition, he attached to the term Air. 90 For van Helmont, Air was one of the four 'Elements', EARTH, WATER, AIR, and FIRE. Of these, the first two were held to constitute the realm of the 'created things', the other two that of the 'uncreated things'. 91 A brief study of the old doctrine of the Four Elements is necessary at this point in order to understand the meaning of these concepts.

92 The first systematic teaching about the four elementary constituents of Nature, as they were experienced by human of old, was given by Empedocles in the fifth century B.C. It was elaborated by Aristotle. 93 In this form it was handed down and served to guide natural observation through more than a thousand years up to the time of van Helmont. 94 From our earlier descriptions of the changes in human's consciousness it is clear that the four terms, 'earth', 'water', 'air', 'fire', must have meant something different in former times. 95 So 'water' did not signify merely the physical substance which modern chemistry defines

by the formula H2O; nor was 'air' the mixture of gases characteristic of the earth's atmosphere. 96 Human in those days, on account of own particular relationship with Nature, was impressed in the first place by the various dynamic conditions, four in number, which one found prevailing both in own natural surroundings and in own organism. 97 With own elementary concepts one tried to express, therefore, the four basic conditions which one thus experienced. One saw physical substances as being carried up and down between these conditions.

98 At first sight some relationship seems to exist between the concept 'element' in this older sense and the modern view of the different states of material aggregation, solid, liquid, aeriform. 99 There is, however, nothing in this modern view that would correspond to the element Fire. 100 For heat in the sense of physical science is an immaterial energy which creates certain conditions in the three material states, 101 but from these three to heat there is no transition corresponding to the transitions between themselves. 100 Heat, therefore, does not rank as a fourth condition by the side of the solid, liquid and aeriform states, in the way that Fire ranks in the older conception by the side of Earth, Water and Air.

101 If we were to use the old terms for designating the three states of aggregation plus heat, as we know them to-day, we should say that there is a border-line dividing Fire from the three lower elements. 102 Such a border-line existed in the older conception of the elements as well. Only its position was seen to be elsewhere-- between Earth and Water on the one hand, Air and Fire on the other. 103 This was expressed by saying that the elements below this line constituted the realm of the 'created things', those above it that of the 'uncreated things'. 104 Another way of expressing this was by characterising Earth and Water with the quality Cold; Air and Fire with the quality Warm. The two pairs of elements were thus seen as polar opposites of one another.

105 The terms 'cold' and 'warm' must also be understood to have expressed certain qualitative

experiences in which there was no distinction as yet between what is purely physical and what is purely spiritual. 106 Expressions such as 'a cold heart', 'a warm heart', to 'show someone the cold shoulder', etc., still witness to this way of experiencing the two polar qualities, cold and warm. 107 Quite generally we can say that, wherever human experienced some process of contraction, whether physical or non-physical, you designated it by the term 'cold', and where you experienced expansion, you called it 'warm'. 108 In this sense you felt contractedness to be the predominant characteristic of Earth and Water, expansiveness that of Air and Fire.

109 With the help of these qualitative concepts we are now in a position to determine more clearly still the difference between the older and the modern conceptions: 110 in particular the difference between the aeriform condition of matter, as we conceive of it to-day, and the element Air. 111 Contractedness manifests as material density, or the specific weight of a particular substance. We know that this characteristic of matter diminishes gradually with its transition from the solid to the liquid and aeriform states. 112 We know also that this last state is characterised by a high degree of expansiveness, which is also the outstanding property of heat. 113 Thus there is reason to describe also from the modern point of view the solid and liquid states as essentially 'cold', and the aeriform state as 'warm'. 114 But aeriform matter still has density and weight, and this means that matter in this state combines the two opposing qualities. 115 Contrary to this, Air, as the second highest element in the old sense, is characterised by the pure quality, warm. 116 Thus, when human of old spoke of 'air', they had in mind something entirely free from material density and weight.

117 By comparing in this way the older and newer conceptions of 'air', we come to realise that ancient human must have had a conception of gravity essentially different from ours. 118 If we take gravity in the modern scientist's sense, as a 'descriptive law of behaviour', then this behaviour is

designated in the older doctrine by the quality 'cold'. 119 If, however, we look within the system of modern science for a law of behaviour that would correspond to the quality 'warm', we do so in vain. 120 Polarity concepts are certainly not foreign to the scientific mind, as the physics of electricity and magnetism show. Yet there is no opposite pole to gravity, as there is negative opposite to positive electricity, etc. 121 In the older conception, however, the gravitational behaviour 'cold' was seen to be counteracted by an autonomous anti-gravitational behaviour 'warm'. 122 Experience still supported the conviction that as a polar opposite to the world subject to gravity, there was another world subject to levity.

123 We refrain at this point from discussing how far a science which aspires to a spiritual understanding of Nature, including material processes, needs a revival-- in modern form-- of the old conception of levity. 124 In our present context it suffices to realise that we understand human's earlier view of Nature, and with it the one still held by van Helmont, only by admitting levity equally with gravity into his world-picture. 125 For the four elements, in particular, this meant that the two upper ones were regarded as representing Levity, the two lower ones Gravity. 126 In close connexion with this polar conception of the two pairs of elements, there stands their differentiation into one realm of created, another of uncreated, things. 127 To understand what these terms imply, we must turn to the ancient concept, Chaos, borrowed by van Helmont.

128 To-day we take the word Chaos to mean a condition of mere absence of order, mostly resulting from a destruction of existing forms, whether by nature or by the action of human. 129 In its original sense the word meant the exact opposite. When in ancient times people spoke of Chaos, they meant the womb of all being, the exalted realm of uncreated things, 130 where indeed forms such as are evident to the eye in the created world are not to be found, but in place of them are the archetypes of all visible forms, as though

nurtured in a spiritual seed-condition. 131 It is the state which in the biblical narration of the creation of the world is described as 'without form and void'. 132 From this Chaos all the four elements are born, one by one, with the two upper ones retaining Chaos's essential characteristic in that they are 'without form' and tend to be omnipresent, 133 whilst the two lower ones constitute a realm in which things appear in more or less clearly outlined space-bound forms. This is what the terms 'uncreated' and 'created' imply.

134 How strictly these two realms were distinguished can be seen by the occurrence of the concept 'vapour'. 135 When with the increasing interest in the realm of created things-- characteristic of the spectator-consciousness which, in view of our earlier description of it, we recognise as being itself a 'created thing'-- 136 the need arose for progressive differentiation within this realm, the simple division of it into 'earth' and 'water' was no longer felt to be satisfactory. 137 After all, above the liquid state of matter there was another state, less dense than water and yet presenting itself through more or less clearly distinguishable space-bound objects, 138 such as the mists arising from and spreading over ponds and meadows, and the clouds hovering in the sky. 139 For this state of matter the term 'vapour' had become customary, and it was used by van Helmont in this sense. 140 By its very properties, Vapour belonged to the realm of the created things, whereas Air did not. 141 It was the intermediary position of the newly discovered state of matter between Vapour and Air, that is, between the created and the uncreated world, which caused van Helmont to call it a paradox; 142 and it was its strange resemblance, despite its ponderable nature, to Chaos, which prompted him to name it-Gas.

143 Since it could not have been the gaseous state of matter in the form discovered by van Helmont, what particular condition of Nature was it to which the ancients pointed when using the term Air? 144 Let us see how the scriptures

of past human cultures speak of air.

In all older languages, the words used to designate the element bound up with breathing, 145 or the act of breathing, served at the same time to express the relationship of human to the Divine, or even the Divine itself. 146 One need think only of the words Brahma and Atma of the ancient Indians, the Pneuma of the Greeks, the Spiritus of the Romans. 147 The Hebrews expressed the same idea when they said that Jehovah had breathed the breath of life into human and that human in this way became a living soul. 148 What lies behind all these words is the feeling familiar to human in those times, that breathing was not only a means of keeping the body alive, but that a spiritual essence streamed in with the breath. 149 So long as this condition prevailed, people could expect that by changing their manner of breathing they had a means of bringing the soul into stronger relationship with spiritual Powers, as is attempted in Eastern Yoga.

150 Remembering the picture of human's spiritual-physical evolution which we have gained from earlier chapters, we are not astonished to find how different this early experience of the breathing process was from our own. 151 Yet, together with the recognition of this difference there arises another question. Even if we admit that human of old was so organised that the experience of own breathing process was an overwhelmingly spiritual one, 152 it was, after all, the gaseous substance of the earth's atmosphere which one inhaled, and exhaled again in a transformed condition. 153 What then was it that prevented humans-- apparently right up to the time of van Helmont-- from gaining the slightest inkling of the materiality of this substance? 154 To find an answer to this question, let us resort once more to our method of observing things genetically, combined with the principle of not considering parts without considering the whole to which they organically belong.

155 In modern science the earth is regarded as a mineral body

whereon the manifold forms of Nature appear as mere additions, arising more or less by chance; 156 one can very well imagine them absent without this having any essential influence on the earth's status in the universe. 157 The truth is quite different. For the earth, with everything that exists on it, forms a single whole, just as each separate organism is in its own way a whole. 158 This shows that we have no right to imagine the earth without humans, and to suppose that its cosmic conditions of being would then remain unaltered-- any more than we can imagine a human being deprived of some essential-organ and remaining human. 159 Humankind, and all the other kingdoms of Nature, are bound up organically with the earth from the start of its existence. 160 Moreover, just as the highest plants, seen with Goethe's eyes, are the spiritual originators of the whole realm of plants-- the creative Idea determining their evolution-- 161 so we see human, the highest product of earth evolution, standing behind this evolution as its Idea from the first, and determining its course. 162 The evolutionary changes which we observe in the earth and in human are in fact a single process, working through a variety of manifested forms.

163 From this conception of the parallel evolution of earth and human light falls also on the historic event represented by van Helmont's discovery. 164 Besides being a symptom of a revolution in human's way of experiencing the atmosphere, it speaks to us of some corresponding change in the spiritual-physical condition of the atmosphere itself. 165 It was then that people not only came to think differently about air, but inhaled and exhaled an air that actually was different. 166 To find out what kind of change this was, let us turn once more to human's own organism and see what it has to say concerning the condition under which matter is capable of being influenced by mechanical and magical causation respectively, in the sense already described. 167 What is it in the nature of the bones that makes them accessible to mechanical causation only, and what is it in the muscles that

allows our will to rouse them magically? 168 Bones and muscles stand in a definite genetic relationship to each other, the bones being, in relation to the muscles, a late product of organic development. 169 This holds good equally for everything which in the body of living nature takes the form of mineralised deposits or coverings. 170 Every kind of organism consists in its early stages entirely of living substance; in the course of time a part of the organism separates off" and passes over into a more or less mineralised condition. 171 Seen in this light, the distinction between bones and muscles is that the bones have evolved out of a condition in which the muscles persist, though to a gradually waning degree, throughout the life-time of the body. 172 The substance of the muscles, remaining more or less 'young', stands at the opposite pole from the 'aged' substance of the bones. 173 Hence it depends on the 'age' of a piece of matter whether it responds to magical or mechanical causation.

174 Let us state here at once, that this temporal distinction has an essential bearing on our understanding of evolutionary processes in general. 175 For if mineral matter is a late product of evolution-- and nothing in Nature indicates the contrary-- then to explain the origins of the world (as scientific theories have always done) 176 with the aid of events similar in character to those which now occur in the mineral realm, means explaining them against Nature's own evidence. 177 To find pictures of past conditions of the earth in present-day Nature, we must look in the regions where matter, because it is still 'youthful', is played through by the magical working of purposefully active spiritual forces. 178 Thus, instead of seeing in them the chance results of blind volcanic and similar forces, we must recognise in the formation and layout of land and sea an outcome of events more closely resembling those which occur during the embryonic development of a living organism. 179 What, then, does van Helmont's discovery of the gaseous state of matter tell us, if

we regard it in the light of our newly acquired insight into the trend of evolution both within and without human? 180 When, in the course of its growing older, humankind had reached the stage which is expressed by the emergence of the spectator-consciousness-consciousness, 181 that is, based on a nervous system which has grown more or less independent of the life forces of the organism-- 182 the outer elements had, in their way, arrived at such a state that human began to inhale an air whose spiritual-physical constitution corresponded exactly to that of own nervous system: 183 on either side, Spirit and Matter, in accordance with the necessities of cosmic evolution had lost their primeval union.

184 Our extension of the concept of evolution to the very elements of Nature, whether these are of material or non-material kind, and our recognition of this evolution as leading in general from a more alert to a more inert condition, 185 at once open the possibility of including in our scientific world-picture certain facts which have hitherto resisted any inclusion. 186 We mean those manifold events of 'miraculous' nature, of which the scriptures and the oral traditions of old are full. What is modern man to make of them?

187 The doubts which have arisen concerning events of this kind have their roots on the one hand in the apparent absence of such occurrences in our day, 188 on the other in the fact that the laws-of-Nature derived by science from the present condition of the world seem to rule them out.

189 In the light of the concept of the world's 'ageing' which we have tried to develop here, not only do the relevant reports become plausible, but it also becomes understandable why, if such events have taken place in the past, they fail to do so in our own time. 190 To illustrate this, let us take a few instances which are symptomatic of the higher degree of youthfulness which was characteristic in former times in particular of the element of Fire.

191 The role which Fire was capable of playing in human's life at a time when even this element, in itself the most youthful of all, was more susceptible to magic

interference than of late, is shown by the manifold fire-rites of old. 192 In those days, when no easy means of fire-lighting were available, it was usual for the needs of daily life to keen a fire burning all the time and to kindle other fires from it. 193 Only in cases of necessity was a new fire lit, and then the only way was by the tedious rubbing together of two pieces of dry wood.

194 Then both the maintenance of fires, and the deliberate kindling of a new fire, played quite a special role in the ceremonial ordering of human society. 195 Historically, much the best known is the Roman usage in the Temple of Vesta. On the one hand, the unintentional extinction of the fire was regarded as a national calamity and as the gravest possible transgression on the part of the consecrated priestess charged with maintaining the fire. 196 On the other hand, it was thought essential for this 'everlasting' fire to be newly kindled once a year. This took place with a special ritual at the beginning of the Roman year (1st March).

197 The conception behind such a ritual of fire-kindling will become clear if we compare with it certain other fire-rites which were practised in the northern parts of Europe, especially in the British Isles, until far on in the Christian era. 198 For example, if sickness broke out among the cattle, a widespread practice was to extinguish all the hearth-fires in the district and then to kindle with certain rites a new fire, from which all the local people lit their own fires once more. 199 Heavy penalties were prescribed for anyone who failed to extinguish own fire-- a failure usually indicated by the non-manifestation of the expected healing influence. 200 In Anglo-Saxon speaking countries, fires of this kind were known as 'needfires'.

The spiritual significance of these fires cannot be expressed better than by the meaning of the very term 'needfire'. 201 This word does not derive, as was formerly believed, from the word 'need', meaning a 'fire kindled in a state of need', but, as recent etymological research has shown, from a root which appears in the

German word nieten-- to clinch or rivet. 202 'Needfire' therefore means nothing less than a fire which was kindled for 'clinching' anew the bond between earthly life and the primal spiritual order at times when for one reason or another there was a call for this. 203 This explanation of the 'needfire' throws light also on the Roman custom of re-kindling annually the sacred fire in the Temple of Vesta. 204 For the Romans this was a means of reaffirming year by year the connexion of the nation with its spiritual leadership; 205 accordingly, they chose the time when the sun in its yearly course restores-- 're-clinches'-- the union of the world-spirit with earthly Nature, 206 for the rebirth of the fire which throughout the rest of the year was carefully guarded against extinction. 207 Just as people saw in this fire-kindling a way of bringing humanity into active relation with spiritual powers, so on the other hand were these powers held to use the fire element in outer Nature for the purpose of making themselves actively known to humankind. 208 Hence we find in the records of all ancient peoples a unanimous recognition of lightning and thunder on the one hand, and volcanic phenomena on the other, as means to which the Deity resorts for intervening in human destiny. 209 A well-known example is the account in the Bible of the meeting of Moses with God on Mount Sinai. 210 As occurrence in the early history of the Hebrews it gives evidence that even in historical times the fire element of the earth was sufficiently 'young' to serve the higher spiritual powers as an instrument for the direct expression of their will.

(II) LEVITY contra GRAVITY

211 We said earlier in this chapter that a science which aspires to a spiritual understanding of the physical happenings in Nature must give up the idea that inertness and weight are absolute properties of matter. 212 We were able at once to tackle the question of inertness by bringing to our immediate observation matter in the state of diminished inertness, or, as we proposed to say, of

alertness. 213 We are now in a position to go into the other question, that of weight or gravity. Just as we found inertness to have its counterpart in alertness, both being existing conditions of matter, 214 so we shall now find in addition to the force of gravity another force which is the exact opposite of it, and to which therefore we can give no better name than 'levity'.

215 Already, indeed, the picture of Nature which we gained from following Goethe's studies both of the plant and of meteorological happenings has brought us face to face with certain aspects of levity. 216 For when Goethe speaks of systole and diastole, as the plant first taught him to see them and as later he found them forming the basic factors of weather-formation, he is really speaking of the ancient concepts, 'cold' and 'warm'. 217 Goethe's way of observing Nature is, in fact, a first step beyond the limits of a science which kept itself ignorant of levity as a cosmic counterpart to terrestrial gravity. 218 To recognise the historical significance of this step, let us turn our glance to the moment when the human mind became aware that to lay a proper foundation for the science it was about to build, it had to exclude any idea of levity as something with a real existence. 219 Many a conception which is taken for granted by modern human, and is therefore assumed to have been always obvious, was in fact established quite deliberately at a definite historical moment. 220 We have seen how this applies to our knowledge of the gaseous state of matter; it applies also to the idea of the uniqueness of gravity. 221 About half a century after van Helmont's discovery a treatise called Contra Levitatem was published in Florence by the Accademia del Cimento. 222 It declares that a science firmly based on observation has no right to speak of Levity as something claiming equal rank with, and opposite to, Gravity.

223 This attitude was in accord with the state into which human consciousness had entered at that time. 224 For a consciousness which is itself of the quality 'cold', because it is based on the contracting forces of the body, is

naturally not in a position to take into consideration its very opposite. 225 Therefore, to speak of a force of levity as one felt able to speak of gravity was indeed without meaning.

226 Just as there was historical necessity in this banishing of levity from science at the beginning of the age of the spectator-consciousness, 227 so was there historical necessity in a renewed awareness of it arising when the time came for human to overcome the limitations of own spectator-relationship to the world. 228 We find this in Goethe's impulse to search for the action of polarities in Nature. As we shall see later, it comes to its clearest expression in Goethe's optical conceptions.

229 Another witness to this fact is Ruskin, through a remark which bears in more than one sense on our present subject. It occurs in his essay, The Storm-Cloud of the Ninteenth Century. 230 In its context it is meant to warn the reader against treating science, which Ruskin praises as a fact-finding instrument, as an interpreter of natural facts. 231 Ruskin takes Newton's conception of gravity as the all-moving cause of the universe, and turns against it in the following words:

232 'Take the very top and centre of scientific interpretation by the greatest of its masters: Newton explained to you-- or at least was once supposed to explain, why an apple fell; 233 but he never thought of explaining the exact correlative but infinitely more difficult question, how the apple got up there.'

234 This remark shows Ruskin once again as a true reader in Nature's book. 235 Looking with childlike openness and intensity of participation into the world of the senses, he allows Nature's phenomena to impress themselves upon his mind without giving any preconceived preference to one kind or another. 236 This enables him not to be led by the phenomenon of falling bodies to overlook the polarically opposite phenomenon of the upward movement of physical matter in the living plant. 237 Ruskin's remark points directly to the new world-conception which must be striven for to-day-- the conception

in which death is recognised as a secondary form of existence preceded by life; 238 in which levity is given its rightful place as a force polar to gravity; and in which, because life is bound up with levity as death is with gravity, levity is recognised as being of more ancient rank than gravity.

239 In proceeding now to a study of levity we shall not start, as might be expected, with plants or other living forms. 240 We are not yet equipped to understand the part played by levity in bringing about the processes of life; we shall come to this later. 241 For our present purpose we shall look at certain macrotelluric events-- events in which large areas of the earth are engaged-- taking our examples from meteorology on the one hand and from seismic (volcanic) processes on the other.

242 In pursuing this course we follow a method which belongs to the fundamentals of a Goetheanistic science. A few words about this method may not be out of place.

243 When we strive to read the book of Nature as a script of the spirit we find ourselves drawn repeatedly towards two realms of natural phenomena. 244 They are widely different in character, but studied together they render legible much that refuses to be deciphered in either realm alone. 245 These realms are, on the one hand, the inner being of human, and, on the other, the phenomena of macrotelluric and cosmic character. 246 The fruitfulness of linking together these two will become clear if we reflect on the following. The field of the inner life of human allows us, as nothing else does, to penetrate it with our own intuitive experience. 247 For we ourselves are always in some sense the cause of the events that take place there. 248 In order to make observations in this region, however, we need to bring about a certain awakening in a part of our being which-- so long as we rely on the purely natural forces of our body-- remains sunk in more or less profound unconsciousness.

249 If this realm of events is more intimately related than any other to our intuitive experience, it has also the characteristic of remaining closed to any research by external means. 250 Much of what lies

beyond the scope of external observation, however, reveals itself all the more clearly in the realms where Nature is active on the widest scale. 251 Certainly, we must school ourselves to read aright the phenomena which come to light in those realms. 252 And once more we must look to the way of introspection, previously mentioned, for aid in investing our gaze with the necessary intuitive force. 253 If we succeed in this, then the heavens will become for us a text wherein secrets of human nature, hidden from mere introspection, can be read; 254 while at the same time the introspective way enables us to experience things which we cannot uncover simply by observing the outer universe. 255 Apart from these methodological considerations, there is a further reason for our choice. Among the instances mentioned earlier in this chapter as symptoms of a greater 'youthfulness' prevailing in Nature, 256 and particularly in the element Fire, at a comparatively recent date, were the manifestations of the Divine-Spiritual World to human reported in the Bible as the event on Mount Sinai. 257 There, thunder and lightning from above and volcanic action from below form the setting for the intercourse of Jehovah with Moses. 258 To-day the function of these types of phenomena, though metamorphosed by the altered conditions of the earth, is not essentially different. 259 Here, more than in any other sphere of Her activities, Nature manifests that side of Her which we are seeking to penetrate with understanding.

260 Let us start with an observation known to the present writer from a visit to the Solfatara, a volcanic region near Naples. 261 The Solfatara itself is a trough surrounded by hilly mounds; its smooth, saucepan-like bottom, covered with whitish pumice-sand, is pitted with craters containing violently boiling and fuming mud -- the so-called fango, famous for its healing properties. 262 All around sulphurous fumes issue from crevices in the rocks, and in one special place the Solfatara reveals its subterranean activity by the emergence of fine, many-coloured sand, which oozes up like

boiling liquid from the depths below. 263 The whole region gives the impression of being in a state of labile balance. How true this is becomes apparent if one drops pieces of burning paper here and there on the ground: immediately a cloud of smoke and steam rises. 264 The effect is even more intense if a burning torch is moved about over one of the boiling fango holes. Then the deep answers instantly with an extraordinary intensification of the boiling process. 265 The hot mud seems to be thrown into violent turmoil, emitting thick clouds of steam, which soon entirely envelop the spectator near the edge.

266 The scientific mind is at first inclined to see in this phenomenon the mechanical effect of reduced air-pressure, due to the higher temperatures above the surface of the boiling mud, though doubts are raised by the unusual intensity of the reaction. 267 The feeling that the physical explanation is inadequate is strengthened when the vapours have thinned out and one is surprised to see that every crack and cranny in the Solfatara, right up to the top of the trough, shows signs of increased activity. 268 Certainly, this cannot be accounted for by a cause-and-effect nexus of the kind found in the realm of mechanical causation, where an effect is propagated from point to point and the total effect is the sum of a number of partial effects. 269 It looks rather as if the impulse applied in one spot had called for a major impulse which was now acting on the Solfatara as a whole.

270 As observers who are trying to understand natural phenomena by recognising their significance as letters in Nature's script, we must look now for other phenomena which can be joined with this one to form the relevant 'word' we have set out to decipher.

271 All scientific theories concerning the causes of seismic occurrences, both volcanic and tectonic, have been conceived as if the spatial motion of mineral matter were the only happening that had to be accounted for. 272 No wonder that none of these theories has proved really satisfactory even to mechanistically orientated thinking. 273 Actually there are

phenomena of a quite different kind connected with the earth's seismic activities, and these need to be taken into equal account. 274 There is, for instance, the fact that animals often show a premonition of volcanic or tectonic disturbances. They become restive and hide, or, if domestic, seek the protection of human. 275 Apparently, they react in this way to changes in Nature which precede the mechanical events by which human registers the seismic occurrence.

276 Another such phenomenon is the so-called earthquake-sky, which the present writer has had several occasions to witness. 277 It consists of a peculiar, almost terrifying, intense discoloration of the sky, and, to those acquainted with it, is a sure sign of an imminent or actual earthquake somewhere in the corresponding region of the earth. 278 This phenomenon teaches us that the change in the earth's condition which results in a violent movement of her crust, involves a region of her organism far greater than the subterranean layers where the cause of the purely mechanical events is usually believed to reside. 279 That human is not excluded from experiencing directly the super-spatial nature of seismic disturbances is shown by an event in Goethe's life, 280 reported by his secretary Eckermann, who himself learn't the story from an old man who had been Goethe's valet at the time.

281 This is what the old man, whom Eckermann met by accident one day near Weimar, told him: 'Once Goethe rang in the middle of the night and when I entered his room I found he had rolled his iron bed to the window and was lying there, gazing at the heavens. 282 "Have you seen nothing in the sky?" asked he, and when I answered "No", he begged me to run across to the sentry and inquire of the man on duty if he had seen nothing. 283 He had not noticed anything and when I returned I found the master still in the same position, gazing at the sky. 284 "Listen," he said, "this is an important moment; there is now an earthquake or one is just going to take place." Then he made me sit down on the bed and showed me by what signs he knew this.' 285

MATTER

When asked about the weather conditions, the old man said: 'It was very cloudy, very still and sultry.' 286 To believe implicitly in Goethe was for him a matter of course, 'for things always happened as he said they would'. 287 When next day Goethe related his observations at Court, the women tittered: 'Goethe dreams' ('Goethe schwÃ¤rmt'), but the Duke and the other men present believed him. 288 A few weeks later the news reached Weimar that on that night (5th April, 1783) part of Messina had been destroyed by an earthquake.

289 There is no record by Goethe himself of the nature of the phenomenon perceived by him during that night, except for a brief remark in a letter to Mme de Stein, written the following day, 290 in which he claims to have seen a 'northern light in the south-east' the extraordinary character of which made him fear that an earthquake had taken place somewhere. 291 The valet's report makes us inclined to think that there had been no outwardly perceptible phenomenon at all, 292 but that what Goethe believed he was seeing with his bodily eyes was the projection of a purely super-sensible, but not for that reason any less objective, experience.

293 In a picture of the seismic activities of the earth which is to comprise phenomena of this kind, the volcanic or tectonic effects cannot be attributed to purely local causes. 294 For why, then, should the whole meteorological sphere be involved, and why should living beings react in the way described? 295 Clearly, we must look for the origin of the total disturbance not in the interior of the earth but in the expanse of surrounding space. 296 Indeed, the very phenomenon of the Solfatara, if seen in this light, can reveal to us that at least the volcanic movements of the earth's crust are not caused by pressure from within, but by suction from without-- that is, by an exceptional action of levity.

297 We recall the fact that the whole Solfatara phenomenon had its origin in a flame being swayed over one of the fango holes. 298 Although it remains true that the suction arising from the

diminished air pressure over the hole cannot account for the intense increase of ebullition in the hole itself, 299 not to speak of the participation of the entire region in this increase, there is the fact that the whole event starts with a suctional effect. 300 As we shall see in the next chapter, any local production of heat interferes with the gravity conditions at that spot by shifting the balance to the side of levity. 301 That the response in a place like the Solfatara is what we have seen it to be, is the result of an extraordinary liability of the equilibrium between gravity and levity, a characteristic appertaining to the earth's volcanism in general.

302 For the people living near the Solfatara it is indeed common knowledge that there are times when this liability is so great that the slightest local disturbance of the kind we have described can provoke destructive eruptions of great masses of subterranean mud.-- At such times access to the Solfatara is prohibited. 303 We shall understand such an eruption rightly if we picture it as the counter-pole of an avalanche. 304 The latter may be brought about by a fragment of matter on a snow-covered mountain, perhaps a little stone, breaking loose and in its descent bringing ever-accumulating masses of snow down with it. 305 The levity-process polar to this demonstration of gravity is the production of a mightily growing 'negative avalanche' by comparatively weak local suction, caused by a small flame.

306 Earlier in this chapter we said that if we want to understand how spirit moves, forms and transforms matter, we must recognise the existence of non-mechanical (magical) causes of physical effects. 307 We have now found that the appearance of such effects in Nature is due to the operations of a particular force, levity, polar to gravity. 308 Observation of a number of natural happenings has helped us to become familiar in a preliminary way with the character of this force. 309 Although these happenings were all physical in appearance, they showed certain definitely non-physical features, particularly through their peculiar relationship to three-dimensional space. More characteristics of this

kind will appear in the following pages.

310 In this way it will become increasingly clear that in levity we have to do with something which, despite its manifesting characteristics of a 'force' not unlike gravity and thereby resembling the latter, differs essentially from anything purely physical. 311 It is only by its interactions with gravity that levity brings about events in the physical world-events, however, which are themselves partly of a physical, partly of a super-physical kind. 312 Seeing things in this aspect, we are naturally prompted to ask what causes there are in the world which make gravity and levity interact at all. 313 This question will find its answer in due course. First, we must make ourselves more fully acquainted with the various appearances of the gravity-levity interplay in Nature.

THE FOURTH STATE OF MATTER

Ernst Lehrs

10 When William Crookes chose as one of the titles of his paper on the newly discovered properties of electricity, '*The Fourth State of Matter*', it was to express his belief that he had found a state of matter, additional to the three known ones, 2 which represented 'the borderland where matter and force seem to merge into one another, the shadowy realm between known and unknown' for which his soul had been longing ever since the death of his beloved brother. 3 All that has followed from his discovery, down to the transformation of matter itself into freely working energy, shows that he was right in thinking he had reached some borderland of Nature. 4 But the character of the forces which are thus liberated makes it equally clear that this is not the borderland he was looking for. 5 Nature-- by which we mean physical Nature-- has in fact two borders, one touching the realm of the intramaterial energies which are liberated by disrupting the

structure of atomic nuclei, 6 the other leading over into creative Chaos, the fountain-head of all that appears in Nature as intelligent design. 7 It was Crookes's fate to open the road which has brought human to Nature's lower border and even across it, although he himself was in search of Her upper border. 8 What he was denied, we are in a position to achieve to-day, provided we do not expect to succeed by methods similar to those of atomic physics, and do not look for similar results.

9 To show that there is a fourth state of matter, rightly so called, which represents in actual fact the upper border of Nature, and to point the way that leads to it and across it, is the purpose of this chapter.

10 From our previous comparison of the older conception of the four elementary conditions of Nature with that now held of the three states of ponderable matter, we may expect that the fourth state will have something in common with heat. 11 Heat is indeed the energy which transforms matter by carrying it from the solid to the liquid and gaseous states. 12 Not so obvious is the fact that heat, apart from being an agent working at matter in this way, is the very essence underlying all material existence, out of which matter in its three ponderable states comes into being and into which it is capable of returning again. 13 Such a conception of matter was naturally absent from the age of the Contra-Levitatem orientation of the human mind. To create this conception, a new Pro-Levitate orientation is required.

14 Apart from producing liquefaction and vaporisation, heat has also the property of acting on physical matter so that its volume increases. Both facts are linked together by science through the thermodynamic conception of heat. 15 As this conception firmly blocks the road to the recognition of the role of heat as the fourth state of matter, our first task will be to determine our own standpoint with regard to it. 16 Further obstacles on our way are the so-called Laws of Conservation, which state that no matter and no energy-- which for present-day science have become

one and the same thing-- can ever disappear into 'nothing' or come into being out of 'nothing'. 17 This idea, also, will therefore require our early attention.

18 In the light of our previous studies we shall not find it difficult to test the reality-value of the thermodynamic conception of heat. 19 As we know of mass through a definite sense-perception, so we know of heat. In the latter case we rely on the sense of warmth. 20 In Chapter-8 we took the opportunity to test the objectivity of the information received through this sense. 21 Still, one-eyed, colour-blind observation is naturally unable to take account of these sense-messages. 22 To this kind of observation nothing is accessible, we know, except spatial displacements of single point-like entities. 23 Hence we find Bacon and Hooke already attributing the sensation of warmth to minute fast-moving particles of matter impinging on the skin. 24 Some time later we find Locke taking up the same picture. We see from this how little the mechanical theory of heat owes to empirical facts. 25 For even in Locke's time the connexion between heat and mechanical action, as recognised to-day, was completely unknown.

26 With this idea firmly rooted in his mind, modern human had no difficulty in using it to explain both thermal expansion and the effect of heat on the different states of matter, and so, finally, these states themselves. 27 Thermal expansion was thus attributed to an increase in the average distance between the assumed minute particles, caused by an increase in their rate of movement; 28 the liquid state was held to differ from the solid, and similarly the gaseous from the liquid, by the inter-spaces between the particles becoming relatively so great that the gravitational pull between them became too weak to hold them together.

29 Tested from a view-point outside the onlooker-consciousness, this whole picture of the interaction between matter and heat appears to run counter to the cosmic order of things in a way typical of other spectator-theories. 30 Ancient human, if confronted with this picture, would have said

that it means explaining the element Fire by the quality Cold. 31 For each of those minute particles, in its solidity and state of spatial separation from the others, represents an effigy of the earth and thereby the element Earth itself. 32 They would be unable to understand why phenomena of the 'warm' element Fire should be explained by its very opposite. 33 Moreover, Fire forms part of the ever 'youthful' realm of the world, whereas anything which exists as a spatially discernible entity, capable of being moved about mechanically, must have grown cosmically 'old'.

34 That Ruskin was as much on the alert in regard to this theory as he was in regard to Newton's theory of gravitation, is shown by the following utterance from his The Queen of the Air. 35 Obviously stirred by Tyndall's newly published treatise, Heat as a Mode of Motion, Ruskin felt the need to critise the endeavour of contemporary science 'to simplify the various forms of energy more and more into modes of one force, 36 or finally into mere motion, communicable in various states, but not destructible', by declaring that he would himself 'like better in order of thought to consider motion as a mode of heat than heat as a mode of motion'.

37 These words of Ruskin touch also on the law of conservation of energy, of which we said that it also called for a preliminary examination. What we now have to find out is the factual basis on which this law rests.

38 The conception of the law of conservation of energy arose from the discovery of the constant numerical relation between heat and mechanical work, known as the mechanical equivalent of heat. 39 This discovery was made at about the same time by Joule in England and J. R. Mayer in Germany, although by entirely different routes. 40 Joule, a brewer, was a man of practical bent. Trained by Dalton, the founder of the atomic theory, in experimental research, 41 he continued Rumford's and Davy's researches which they had undertaken to prove that heat is not, as it was for a time believed to be, a ponderable substance, but an imponderable

agent. 42 As a starting-point he took the heating effect of electric currents. 43 The fact that these could be generated by turning a machine, that is, by the expenditure of mechanical energy, gave him the idea of determining the amount of work done by the machine and then comparing this with the amount of heat generated by the current. 44 A number of ingenious experiments enabled him to determine with increasing exactitude the numerical relation between work and heat, as well as to establish the absolute constancy of the relation.

45 This he regarded as proof of the mechanical theory of heat, which he had taken from Rumford and Davy. 46 What simpler explanation could there be for the constant numerical relation between work and heat than the conception that transformation of one form of energy into another was simply a transmission of motion from one object to another? 47 From the quantitative equality of expended and generated energy was it not natural to argue the qualitative similarity of the two forms of energy, which only externally seemed different? 48 It was by quite a different path that the Heilbronn doctor, Mayer, arrived at his results. 49 To escape from the narrowness of his South German home town, he went, while still a youth, as doctor to a Dutch ship sailing to Java. 50 When in the tropics he treated a number of sailors by blood-letting, he observed that the venous blood was much nearer in colour to the paler arterial blood than was usual at home. 51 This change in the colour he attributed to the diminished intensity of bodily combustion, due, he believed, to the higher temperature of the tropics.

52 Scarcely had this thought passed through his mind than it induced another-- that of a universal interrelationship between all possible forms of energy. 53 This last idea so took possession of him that during the return voyage, as he himself related, he could scarcely think of anything but how to prove the correctness of his idea and what the consequences would be for the general view of Nature. 54 From the moment of his return he devoted his life to practical

research into the connexion between the various manifestations of energy. 55 It was in this way that he was led to the determination of the so-called mechanical equivalent of heat, shortly before the same discovery was made in a quite different manner by Joule.

56 If one considers how slender a connexion there was between Mayer's observation on the sailors in Java and the idea of the quantitative equilibrium of all physical nature-forces, 57 and if one contrasts this with the fanaticism he showed during the rest of his life in proving against all obstacles the correctness of his idea, 58 one must feel that the origin of the thought in Mayer's mind lay elsewhere than in mere physical observations and logical deductions. 59 Confirmation of this may be found in what Mayer himself declared to be his view concerning the actual grounds for the existence of a constant numerical association between the various manifestations of natural energy.

60 So far as science allowed Mayer any credit for his work, this was based on the opinion that through his discovery he had provided the final vindication of the mechanical theory of heat. 61 This judgment, however, was only piling one wrong upon another. 62 Mayer's destiny was truly tragic. When he began to publicise his conviction of the numerical equilibrium between spent and created energy, he met with so much scepticism, even derision, that from sheer despair his mind at times became clouded. 63 When at last toward the end of his life he received the recognition his discovery deserved-- not before being dragged through a painful priority dispute which Joule forced upon him and lost,-- 64 the scientists had begun to use his idea for bolstering up a hypothesis directly counter to the idea which had led him to his discovery, and for the sake of which he had accepted so much suffering.

65 Mayer's spiritual kin are not to be found among the heat-theorists of his time, such as Helmholtz and others, but among thinkers of the stamp of Goethe, Howard and Ruskin. 66 His basic idea of the inner connexion between all forms

of energy in Nature corresponds entirely with Goethe's idea of metamorphosis. 67 Just as Goethe saw in the ur-plant the Idea common to all plant-forms or, in the various plant-organs, the metamorphosis of one and the same ur-organ, 68 so was Mayer convinced of the existence of an ur-force which expressed itself in varying guises in the separate energy-forms of Nature. 69 In the picture of the physical universe which hovered before him, the transformation of one form of energy into another-- such as mechanical energy into electrical, this into chemical and so on-- 70 was somewhat similar to Goethe's picture of the organic life of the earth, in which the metamorphosis of one living form into another constantly occurred. 71 'There is in Nature', said Mayer, 'a specific dimension of immaterial constitution which preserves its value in all changes taking place among the objects observed, whereas its form of appearance alters in the most manifold ways.' 72 For the physicist, accustomed to a purely quantitative observation of Nature, it is difficult to comprehend that Mayer could have arrived at the thought of a constant quantitative relation between the various manifestations of natural energy, 73 without deriving from it the conviction of their qualitative identity-- i.e., without concluding from the existence of the mechanical heat--equivalent that heat is itself nothing else than a certain form of spatial movement. 74 Mayer actually had a picture directly contrary to the mechanistic conception. For him, the arising of heat represented a disappearance of mechanical energy.

75 If this, then, was Mayer's belief, what was it that convinced him of the existence of a numerical balance between appearing and vanishing energy, even before he had any experimental proof?

76 Later in this book there will be occasion to introduce a concept of number in tune with our qualitative world-outlook. 77 What led Mayer to look upon number as an expression of existing spiritual associations in Nature will then become clear. 78 Let this much be said here, that number in the universe has quite different

functions from that of serving merely as an expression for a total of calculable items, or as a means of comparing spatial distances. 79 It is in the nature of the onlooker-consciousness that it is unable to interpret numerical equality between natural phenomena save as indicating the presence of an equal number of calculable objects or of spatial movements of equal magnitude. 80 It was therefore consistent for such a consciousness to regard the discovery by Mayer of the mechanical heat-equivalent as a confirmation of the existing mechanical conception of heat.

81 For Mayer such an interpretation was not necessary. His conviction of the existence of an ur-force, manifesting through metamorphosis in all natural forces, led him to expect a constant numerical relation amongst these, 82 without requiring him to deny the objective existence of qualitative differences, as these displayed themselves in the field of phenomena. 83 He was spiritually akin to Goethe, also, in that he guarded himself strictly against substituting for the contents of our perception conveyed by Nature purely hypothetical entities which, while fashioned after the world of the senses, are, in principle, imperceptible. 84 Mayer sought after a truly empirically founded concept of force, and his method was that of reading from all the various manifestations of force which were open to sense observation. 85 One such manifestation, capable of empirical determination, was the balance between appearing and disappearing energy.

86 Science treated Mayer in the same way as it treated Howard. It took from him what it wanted for its purpose without concerning itself with the epistemological principle which had led him to his discovery. 87 Thus it was that Mayer's discovery led to most important consequences for the development of modern technical devices, whereas it was the fate of his guiding idea to be first derided, then misunderstood and finally forgotten. 88 The consequence was that the knowledge of the numerical equilibrium between created and expended energy in

the economy of Nature has widened more and more the abyss separating spirit and matter in human life, 89 instead of leading, as indeed it might have done, to a bridging of the abyss. 90 The thought, therefore, regarding the appearing and disappearing of measurable cosmic substance, to which we are led when following Goethe's method of observing Nature, 91 stands in no sort of contradiction to what Mayer himself conceived as the relation of the various forms of energy to one another, and the maintenance of the numerical balance between them.

92 Having thus determined our standpoint with regard to the thermodynamic theory of heat and the law of conservation, we may proceed to the study, first of the phenomenon of thermal expansion, 93 and then of the effect of heat on the various states of physical matter, by applying to them, unimpeded by any preconceived mechanistic idea, what we have learn't through our previous studies. 94 We must start by developing a proper picture of the dynamic condition of matter in the solid state. 95 In a solid body the material substance is centred on an inner point, the so-called centre of gravity-- a characteristic which such a body shares with the earth as a whole. 96 Likewise, two such bodies exert on one another the same influence that the earth exerts on each of them: they try to assume the shortest possible distance from each other.

97 Since the days of Faraday science has been accustomed to ascribe these phenomena to the existence of certain fields of force, connected with each body and working on one another through the intermediary space. 98 It is to this concept of the field of force that we must now give special attention. For the field-concept, in the form introduced by Faraday into scientific thinking, 99 is one of the few scientific concepts which have been obtained by being 'read' from the corresponding phenomena themselves, and which therefore retain their validity in a science which is based on the method of reading.

100 According to the field-concept, terrestrial manifestations of gravity are due to the earth's being the

bearer of a gravitational field centred within the globe, and extending thence in all directions through space, across and beyond the earth's body. 101 Every point in space, both inside and outside the earth, is characterised by a definite intensity of this field, the so-called gravitational potential. 102 This is subject to variations due to the presence of other physical masses, which carry their own fields of gravity. 103 What happens between such masses and that of the earth, as well as mutually between such masses themselves, is brought about by the particular conditions in space resulting from the interpenetration of the various fields.

104 It is essential to realise that all fields dealt with by physical science, the gravitational, electric, magnetic-- however much they differ otherwise-- have this one characteristic in common, 105 that they have a centre where the field is at its highest intensity, diminishing as the distance from the centre increases. 106 Motion in such a field naturally takes place from regions of lower to those of higher intensity-- in other words, it follows the rising potential of the field. 107 This accounts for the tendency of physical masses to arrive at the shortest possible distance between them.

108 It was natural for the modern mind to picture a dynamic condition of the kind just described, 109 that is, one in which the centre and source, as it were, is a point round which the dynamic condition spreads with steadily diminishing strength as the distance from the point grows. 110 For such is the condition of human's head-bound consciousness. The locus from which modern human watches the world is a point within the field of this consciousness, and the intensity with which the world acts on it diminishes with increasing spatial distance from this point. 111 This is the reason why levity was banished from scientific inquiry, and why, when the field-concept was created by the genius of Faraday, it did not occur to anyone that with it the way was opened to comprehend field-types other than the centric one characteristic of gravity and kindred forces. 112 To make use of the field-concept in

this other way is one of the tasks we have to undertake if we are to overcome the impasse in which present-day scientific cognition finds itself.

113 To develop a picture of the type of field represented by levity, let us recall certain results from the observations of the last chapter.

114 There the volcanic phenomenon, when taken in its wider implications, made us realise that the upward movement of physical masses, in itself part of the total phenomenon, is due to a dynamic cause which we had to describe, in contrast to centripetally working pressure, as peripherally working suction. 115 Of this concept of suction we must now observe that we may apply it with justification only if we realise that suction can be caused in two different ways. 116 In the sense in which we are wont to use the term, suction is the result of a difference of pressure in adjacent parts of space, the action taking place in the direction of the minor pressure. 117 Apart from this, however, suction can occur also as a result of the outward-bound increase of the strength of a levity-field.

118 It is in this sense that we may speak of the seismic movements of the earth as being caused by suction acting from without. 119 In the same sense we may say that the upward movement of the saps in the plant (to which Ruskin pointed as being responsible for the apple appearing at the top of the tree) 120 and with it the entire growth-phenomenon in the plant world, is due to peripheral suction.

121 Considerations of this kind lead one to a picture in which the earth is seen to be surrounded and penetrated by a field of force which is in every respect the polar opposite of the earth's gravitational field. 122 As the latter has its greatest intensity at its centre, which is identical with the centre of the earth's globe, so has the levitational field its greatest intensity at its circumference which is somewhere in the width of the universe. 123 Later considerations will enable us to locate its position more precisely.

124 As the gravity-field decreases in strength with increasing distance from the centre of the

field, that is, in the outward direction, so does the levity-field decrease in strength with increasing distance from its periphery, or in the inward direction. 125 In both fields the direction of movement is from regions of lower to those of higher intensity. This is why things 'fall' under the influence of gravity and 'rise' under the influence of levity.

126 How does thermal expansion read as a letter in Nature's script when seen in the light of the two contrasting field-concepts?

127 Let us, for simplicity's sake, imagine a spherically shaped metallic body, say, a ball of copper, which we expose to the influence of heat. 128 As we have seen, it is the centrically orientated gravity-field which gives the ball its permanency of shape. 129 Consequently, the dynamic orientation of the material constituting its body is directed towards the interior of the body itself.

130 Now, the moment we bring heat to bear on the body we find its surface moving in the outward direction. 131 The whole mass is clearly under the influence of some suction which is directed on to the body from outside. 132 Just as the plants grow in the anti-gravitational direction as a result of the suctional effect of levity (other factors which account for its growing into a particular shape, etc., being left out of consideration), so our copper ball grows in volume by being sucked away from its centre of gravity. 132 It is the action of heat which has changed the ratio between gravity and levity at this spot in such a way as to allow levity to produce this effect.

133 What we have thus found to be the true nature of the event perceived as a body's growth in volume under the influence of heat has a definite effect on our conception of spatially extended matter as such. 134 For a physical body is always in some thermal state which may be regarded as higher than another, and it may therefore be regarded as being at all times thermally expanded to some extent. 135 Hence, it is all the time under the sway of both gravitational pressure and anti-gravitational suction. 136 In fact, we may say ideally that, if there

were no field working inwards from the cosmic periphery, the entire material content of the earthly realm would be reduced by gravitation to a spaceless point; 137 just as under the sole influence of the peripheral field of levity it would dissipate into the universe.

138 To ordinary scientific thinking this may sound paradoxical, but in reality it is not. 139 Observation of the nature of solid matter has led atomistic thought to regard a physical body as a heap of molecules so far apart that by far the greater part of the volume occupied by the body is just 'empty' space. 140 In the scientific picture of molecules constituting a physical body, of atoms constituting the molecules, of electrons, protons, etc., constituting the atoms, all separated by spaces far exceeding the size of the elementary particles themselves, 141 we find reflected, in a form comprehensible to the onlooker-consciousness, the fact that matter, even in the solid state, is kept in spatial extension by a field of force relating it to the cosmic periphery.

142 With this picture of solid matter as being held in spatial extension by its subjection to gravity and levity alike, we proceed to a study of the liquid and gaseous states of matter, while taking into account the role of heat in bringing these states about.

143 Following out our method of seeking to gain knowledge of a phenomenon by regarding it as part of a greater whole, let us ask what sort of change a portion of physical substance undergoes in its relation to the earth as a whole 144 when, for instance, through the influence of heat, it passes from a solid to a liquid state. 145 Here we must keep in mind that it is part of the nature of a liquid to have no form of its own. The only natural boundary of a liquid substance is its upper surface. 146 Since this surface always lies parallel with the surface of the earth it forms part of a sphere, the centre point of which is identical with that of the gravitational centre of the earth. 147 The passage of a portion of matter from solid to liquid thus signifies that it ceases to possess a centre of gravity of its own and is now merely obedient to the

general gravity-field of the earth. 148 We can thus speak of a transition of matter from the individual to the planetary condition. This is what heat brings about when a solid body melts.

149 A large part of the heat used in melting is known to be absorbed by the substance during the process of melting. 150 This is indicated by the thermometer remaining at the temperature of the melting-point once this has been reached, until the whole of the melting substance has liquefied. 151 Physics here speaks of 'free' heat becoming 'latent'. From the Goethean point of view we see heat passing through a metamorphosis. 152 Whereas, previously, heat was perceptible to our sense of warmth, it now manifests as a gravity-denying property of matter.

153 In order to obtain an idea of the liquid state of matter corresponding to reality, we must take into account yet another of its characteristics. 154 When the heat becomes latent, it goes even further in contradicting gravity than by robbing matter of its own point of gravity and relating it to the earth's centre of gravity. 155 This effect is shown in the well-known urge of all liquids to evaporate. Hence we must say that even where matter in a liquid state preserves its own surface, this does not by any means represent an absolute boundary. 156 Above the surface there proceeds a continuous transition of substance into the next higher condition through evaporation. We see here the activity of heat going beyond the mere denial of gravity to a positive affirmation of levity.

157 With the help of this conception of the integration of the liquid state within the polarity of gravity and levity, we are now able to draw a picture of the earth which, once obtained, answers many a question left unanswered by current scientific notions, 158 among them the question why the earth's volcanic activity is confined to maritime regions.

159 Regarding the distribution of land and water on the earth's surface, we may say that to an observer in cosmic space the earth would not look at all like a solid body. 160 Rather would it appear as a gigantic 'drop' of water, its

surface interspersed with solid formations, the continents and other land masses. 161 Moreover, the evidence assembled ever since Professor A. Wegener's first researches suggests that the continents are clod-like formations which 'float' on an underlying viscous substance and are able to move (very slowly) in both the vertical and horizontal directions. 162 The oceanic waters are in fact separated from the viscous substratum by no more than a thin layer of solid earth, a mere skin in comparison with the size of the planet. 163 Further, this 'drop' of liquid which represents the earth is in constant communication with its environment through the perpetual evaporation from the ocean, as well as from every other body of water.

164 This picture of the earth shows it lying under the two-fold influence of the compressive force of gravity and the sucking force of levity. 165 Wherever land meets sea, there levity tends to prevail over gravity. 166 It is in maritime regions, accordingly, that the inner strata of the earth succumb most readily to those sudden changes in the gravity-levity tension wherein we have recognised the origin of seismic occurrences.

167 Turning to the gaseous condition, we realise that although even here matter retains traces of a connexion with terrestrial gravity, levity is now the dominant factor. 168 There are three characteristics of the gaseous condition which bring this out. One is the extreme readiness of gases to expand when heated; 169 we see here how much easier than with solid substances it is for heat to overcome the influence of gravity.

170 The second characteristic is the property of gases, peculiar to them, of expanding spontaneously, even when not heated. 171 Here we find gaseous matter displaying a dynamic behaviour which at lower stages occurs only under the stimulus of heat. 172 The third characteristic is shown by the fact that all gases, unlike solids or liquids, respond with the same increase of volume to a given rise of temperature, however diverse their other qualities may be. 173 Once gases are mixed, therefore, they cannot be separated merely by raising or lowering the

temperature. Here we find the unifying effect of the cosmic periphery prevailing over the differentiating effect of terrestrial gravity.

174 At this point we may recall Goethe's reply to the botanist, Wolff, who had ascribed the metamorphosis of plant-organs from root to blossom to a gradual stunting or atrophy of their vegetative force, 175 whereas it was clear to Goethe that simultaneously with a physical retrogression, there is a spiritual progress in the development of the plant. 176 The fact that all Wolff's efforts to see clearly did not save him from 'seeing past the thing' seemed to Goethe an inevitable result of Wolff's failure to associate with the eyes of the body those of the spirit.

177 Exactly the same thing holds good for the sequence of physical states of matter which we are considering here. 178 Observation of this sequence with the bodily eyes alone will show nothing but a reduction of the specific gravity of the material concerned. 179 He who is at pains to observe also with the eye of the spirit, however, is aware of a positive increase of lightness going hand in hand with a decrease of heaviness. 180 Regarded thus, the three ponderable conditions form what Goethe would have called a 'spiritual ladder'. 181 As 'rungs' of such a ladder they clearly point to a fourth rung-- that is, a fourth state in which levity so far prevails over gravity that the substance no longer has any weight at all. 182 This picture of the fourfold transformation of matter calls for an inquiry into the transition between the third and fourth states, corresponding to the well-known transitions between the three ponderable states.

183 Our observations have led us to a concept of heat essentially different from that held by modern science. Science looks on heat simply as a condition of ponderable matter. 184 We, on the contrary, are led to recognise in heat a fourth condition into which matter may pass on leaving the three ponderable conditions, and out of which it may emerge on the way to ponderability. 185 Before showing that such transitions are actually known in Nature, it may

be well to discuss here an objection which the customary way of thinking might plausibly advance against our whole method. 186 It could be said that to assume a continuation of the sequence of the three ponderable conditions in the manner suggested is justified only if, 187 as solids can be turned into liquids and these into gases, so gases could be transformed into a fourth condition and, conversely, be produced from the latter.

188 In reply it can be said that the fact of our not being able at present to change gases artificially into pure heat does not justify the conclusion that this is in principle impossible. 189 We know from previous considerations that the earth has reached an evolutionary stage at which all elements, including fire, have in certain degree grown 'old'. 190 This applies in quite a special degree to the manipulations to which human, led by your death-bound consciousness, has learn't to submit matter in your laboratories. 191 To decide what is possible or not possible in Nature, therefore, can by no means be left to the judgment of laboratory research. 192 As is shown by the following instance, taken from the realm of vegetable life, a case of the creation of matter 'out of nothing' is already known to biology-- 193 though biology, bound in its concepts to the Law of Conservation, shows some natural reluctance to recognise the true significance of the phenomenon.

194 The plant which performs this strange feat is the Tillandsia usneoides, indigenous to tropical America, and generally known as 'Spanish Moss'. 195 Its peculiarity is that it grows and flourishes without taking from its support any material whatsoever for the building up of its substance. Its natural habitat is the dry bark of virgin forest trees. 196 Since civilisation invaded its home it has acquired the habit of growing even on telegraph wires, which has given it the popular name of 'telegraph tresses'. 197 Chemical analysis of this plant shows the presence of an average of 17 per cent iron, 36 per cent silicic acid and 1Â·65 per cent phosphoric acid. 198 This applies to samples taken from districts where the

rainwater-- the only source from which the plant could extract these substances in physical form-- contains at most 1Â·65 per cent iron, 0Â·01 per cent silicic acid and no phosphoric acid at all.

199 The Tillandsia phenomenon is to a certain extent reminiscent of another well-known plant activity. This is the process of assimilation of carbon from the carbon dioxide of the air. 200 If we leave aside the change in the chemical combination which the carbon undergoes, there remains the picture of the plant drawing this matter to itself from its environment and at the same time subjecting it to a spatial condensation. 201 A similar but even more far-reaching process is exhibited by the Tillandsia as regards the three substances referred to above. 202 From the conditions given, it follows that the plant cannot possibly get these substances elsewhere than out of the surrounding atmosphere, and that in drawing upon them it submits them to a high degree of condensation. 203 A special role, however, is played by the phosphorus, which shows that the assimilative power of the plant is sufficient to transform phosphorus from a physically not traceable state into one of spatially bounded materiality. 204 Following Goethe in his coining of the concept of 'spiritual anastomosis' for the pollinating process of plants, we can here speak of 'spiritual assimilation'.

205 In this respect Tillandsia provides an instance 'worth a thousand, bearing all within itself. 206 For what Nature here unmistakably demonstrates serves as an eye-opener to a universal fact of the plant kingdom and of Nature in general. The problem of the so-called trace-elements may serve as an illustration of this.

207 Modern agricultural chemistry has found of a number of chemical elements that their presence in the soil in scarcely traceable amounts is necessary in order to enable the plant to unfold healthily its latent characteristics. 208 All sorts of deficiencies in cultivated plants have led to a recognition that the soil is impoverished of certain elements by intensive modern cultivation, and that it is to the lack of these elements that the

deficiencies are due. 209 Much work has meanwhile been done in classifying the various deficiencies and in devising ways of giving the soil chemical substitutes for what is lacking.

210 A large part of the work here involved could be saved were it only to be acknowledged that the soil owes the natural occurrence of the proper elements to a process which the plants themselves bring about in the soil, 211 if men refrain from hindering them by cleverly thought-out methods of cultivation which fail to reckon with the nature of a living organism.

212 Let us be clear what it is that occurs when a plant exhibits any of the observed abnormalities. Expressed in a Goethean manner, these are the consequence of an insufficient direction of the organic processes in the plant body by the spiritual plant-type underlying it. 213 That which Ruskin called the 'spirit' of the plant, and to which he drew attention in his aphorism 'Stand by Form against Force'-- by 'form' all the peculiar qualities of the plant are to be understood,-- is unable to express itself in full measure. 214 Now we know that, in order to unfold its activities on the physical plane, spirit requires 'young' matter-- that is, matter which is either in, or has just emerged from, a purely dynamic state. 215 Normally a definite spiritual type co-ordinates the dynamic functions present in the super-physical sphere of Nature in the manner required to give the plant-organism its appropriate form. 216 As, through the action of the type, these functions are brought down from the sphere of levity into that of gravity, 217 they condense to the corresponding material elements and thus reach the soil in material form via the physical organism of the plant.

218 The pattern as usually seen is now reversed; the presence of the various elements in the soil no longer appears as the origin of one or another function in the building up of the plant-body, but quite the reverse. 219 The functions appear now as the cause, and the soil-elements as the effect. 220 We may thus recognise the value of the latter as symptoms from which we can read the existence of a healthy connexion between the plant and

the corresponding form-creating functions working on it from its surroundings.

221 With this reversal of the relationship between cause and effect it is not, however, intended to represent the commonly accepted order of things as entirely incorrect. 222 In the realm of life, cause and effect are not so one-sidedly fixed as in the realm of mechanical forces. 223 We may therefore admit that a reverse effect of the soil-elements upon the plant does take place. 224 This is plainly demonstrable in the case of phosphorus which, however, by reason of its appearance in the soil in proportions hardly to be called a mere 'trace', represents a borderline case. 225 What may apply within limits to phosphorus is wholly valid for the trace-elements-- namely, that they are playing their essential role while they are themselves about to assume ponderable form. 226 It thus becomes clear how mistaken it is to attempt to cure deficiencies in plants by adding to the soil chemical substitutes for the trace-elements. 227 In the condition in which this material is offered to the plant, it is truly 'old' material. In order to be able to use it functionally, the plant has first to convert it into the 'young' condition. 228 This indeed happens whilst the material is rising in the plant combined with the juices drawn by the plant from the soil under the influence of levity-force. 229 Only when this has occurred are the chemical elements able to serve the plant functionally. Thus, by trying to give help to the plant in this way, we injure it at the same time. 230 For by forcing it to perform the operation described, its general life-forces are diminished. A seeming success brought about in this manner, therefore, will not last long. 231 There is, nevertheless, a way of helping the plant by adding to the soil certain material substances, provided these are first brought into a purely dynamic condition. 232 That this can be done is a fact long since known, even if not recognised in its true significance. So far then, as serves the purpose of this book, we shall deal with it here.

233 The method in question is associated with the school of

medicine known as Homoeopathy, founded by the German doctor, Hahnemann. 234 The word 'homoeopathy' means 'healing through like'; the basic principle is to treat disease symptoms with highly diluted substances which produce similar symptoms if ingested in normal quantity. 235 Experience has in fact shown that the physiological effect of a substance taken from external Nature is reversed when the substance is highly diluted.

236 The method of diluting, or 'potentising', is as follows: A given volume of the material to be diluted is dissolved in nine times its volume of distilled water. The degree of dilution thus arrived at is 1:10, usually symbolised as Ix. 237 A tenth part of this solution is again mixed with nine times its bulk of water. The degree of dilution is now 1:100, or 2x. This process is continued as far as is found necessary for a given purpose. 238 Insoluble substances can be dealt with in the same manner by first grinding them together with corresponding quantities of a neutral powder, generally sugar of milk. 239 After a certain number of stages the powder can be dissolved in water; the solution may then be diluted further in the manner described. 240 Here we have to do with transfer of the quality of a substance, itself insoluble, to the dissolving medium, and then with the further treatment of the latter as if it were the original bearer of the quality concerned. 241 This fact alone shows that potentisation leads into a realm of material effects at variance with the ordinary scientific conception of matter. 242 Moreover, we can carry the dilutions as far as we please without destroying the capacity of the substance to produce physiological reactions. 243 On the contrary, as soon as its original capacity is reduced to a minimum by dilution, further dilution gives it the power to cause actually stronger reactions, of a different and usually opposite kind. 244 This second capacity rises through stages to a variable maximum as dilution proceeds.

245 A simple calculation shows-- if we accept the ordinary scientific view as to the size of a molecule-- that not a single molecule of the

original substance will remain in the solution after a certain degree of dilution has been reached. 246 Yet the biological and other reactions continue long after this, and are even enhanced. 247 What this potentising process shows is that, by repeated expansions in space, a substance can be carried beyond the ponderable conditions of matter into the realm of pure functional effect. 248 The potentising of physical substances thus gains a significance far wider than that of its medical use. 249 There opens up, for example, the possibility of stimulating deficient functions in the plant by giving it the corresponding elements in homoeopathic doses. 250 By this means the plant is brought into direct connexion with the relevant spiritual energy, and then left to carry out for itself the necessary process of materialisation, instead of being forced by mere chemical additions to the soil first to potentise the substance itself.

251 The same principle holds good for human and beast. They also need 'young material' for their nourishment, 252 so that the type active in them-- which in animals is the group-soul of the species and in human is the single individual-- can express its true form and character. 253 We saw earlier that the will requires 'young' material in order to penetrate into the material layers of the muscles, as happens when the limbs are set in motion. 254 In this respect, the difference between ensouled creatures and plants is that, what is harmful to plants is natural for humans and animals: 255 when taking nourishment the latter are able to bring about quickly and purposefully a transformation of matter into the purely dynamic state. 256 Their metabolic system is designed to enable them to take alien material from outer Nature and to transform it through the forces of the various digestive enzymes; in the course of this process the material passes through a condition of complete 'chaos'.

257 Having in this way established the existence of certain processes of materialisation and dematerialisation in single organisms within the earth's vegetable and other kingdoms, 258

we shall now turn to the earth as a whole to find out where-- organic being that she herself is-- she manipulates corresponding processes on a macrotelluric scale.

259 In an age following van Helmont's discovery of the gaseous state of matter and the statement of the Contra Levitatem maxim, 260 humans were bound to think that the circulation of atmospheric moisture was limited to the three stages of liquid, vaporous (peculiar to the clouds, etc.) and the invisible aeriform condition. 261 Yet the role played by clouds in the myths of early peoples shows that they were once given a quite different status, between the 'created' and 'uncreated' worlds. 262 Our observations lead to a corresponding conception, but along the path of knowledge, guided by sense-perception, as befits our own age.

263 In discussing Howard's discovery of the stages of cloud-formation we found something lacking, 264 for it was clear that the three stages of cloud proper-- stratus, cumulus and cirrus-- have a symmetry which is disturbed by the addition of a fourth stage, represented by the nimbus. 265 This showed that there was need for a fifth stage, at the top of the series, to establish a balanced polarity. We can now clear up this question of a fifth stage, as follows.

266 In the three actual cloud-forms, gravity and levity are more or less in equilibrium, but in the nimbus gravity predominates, and the atmospheric vapour condenses accordingly into separate liquid bodies, the drops of rain. 267 The polar opposite of this process must therefore be one in which cloud-vapour, under the dominating influence of levity, passes up through a transitional condition into a state of pure heat.

268 Such a conception by no means contradicts the findings of external research. For meteorology has come to know of a heat-mantle surrounding the earth's atmosphere for which various hypothetical explanations have been advanced. 269 Naturally, none of them envisages the possibility of atmospheric substance changing into the heat-condition and back again. 270 But if we learn to look

on the chain of cloud-forms as a 'spiritual ladder', then we must expect the chain to conclude with a stage of pure heat, lying above the cirrus-sphere.

271 The line of consideration pursued in the last part of this chapter has led us from certain observations in the plant kingdom, 272 concerning the coming into being of ponderable matter from 'nothing', to a corresponding picture of the earth's meteorological sphere. 273 When discussing the plant in this respect we found as an instance 'worth a thousand, bearing all within itself the case of Tillandsia and more particularly the surprising appearance of phosphorus in it. 274 Now, in the meteorological realm it is once more phosphorus which gives us an instance of this kind. 275 For there is the well-known fact of the presence of phosphorus in conspicuous quantities in snow without a source being traceable in the atmosphere whence this substance can have originated in ponderable condition. 276 The phosphorus appearing in snow, therefore, brings before our very eyes the fact that the heights of the atmosphere are a realm of procreation of matter. 277 In our next chapter we shall learn what it is in phosphorus that makes it play this particular role in both fields of Nature. What interests us in the present context is the fact itself.

278 The knowledge we have now gained concerning the disappearance and appearance of physical water in the heights of the atmosphere will enable us to shake off one of the most characteristic errors to which the onlooker-consciousness has succumbed in its estimation of Nature. 279 This is the interpretation of thunderstorms, and particularly of lightning, which has held sway since the days of Benjamin Franklin. 280 Before developing our own picture of a thunderstorm let us recognise that science has found it necessary to reverse the explanation so long in Vogue. 281 Whereas it was formerly taken for granted-- and the assumption was supposed to rest upon experimental proof-- that the condensing of atmospheric vapour which accompanied lightning was the consequence of a release of electrical tension by the lightning,

282 the view now held is that the electrical tension responsible for the occurrence of lightning is itself the effect of a sudden condensing process of atmospheric moisture.

283 The reason for this uncertainty is that the physical conditions in the sphere where lightning occurs, according to other experiences of electric phenomena, actually exclude the formation of such high tensions as are necessary for the occurrence of discharges on the scale of lightning. 284 If we look at this fact without scientific bias we are once again reminded of the Hans Andersen child. 285 We cannot help wondering how this child would behave in a physics class if the teacher, after vainly trying to produce a lightning-flash in miniature with the help of an electrical machine, 286 explained that the moisture prevalent in the air was responsible for the failure of the experiment, and that he would have to postpone it to a day when the air was drier. 287 It would scarcely escape the Hans Andersen child that the conditions announced by the teacher as unfavourable to the production of an electric spark by the machine, prevail in a much higher degree exactly where lightning, as a supposed electric spark, actually does occur.

288 To conclude from the presence of electric tensions in the earth's atmosphere as an accompaniment of lightning, in the way first observed by Franklin, 289 that lightning itself is an electrical process, is to be under the same kind of illusion that led people to attribute electrical characteristics to the human soul because its activity in the body was found to be accompanied by electrical processes in the latter. 290 The identification of lightning with the electric spark is a case of a confusion between the upper and lower boundaries of Nature, characteristic of the onlooker-consciousness. 291 As such, it has stood in the way of a real understanding both of non-electrical natural phenomena and of electricity itself.

291 What we observe in lightning is really an instantaneous execution of a process which runs its course continually in the atmosphere, quietly and unnoticed. 292 It is the process by which

water reverts from the imponderable to the ponderable condition, after having been converted to the former through levity set in action by the sun-- as usually happens in a high degree just before a thunderstorm. 293 We form a true picture of the course of a storm if we say that Nature enables us to witness a sublime display of the sudden bringing to birth of matter in earthbound form. 294 What falls to the ground as rain (or hail) is substantially identical with what was perceptible to the eye, a moment before, as a majestic light-phenomenon. 295 The accompanying electrical occurrence is the appropriate counter-event at Nature's lower boundary. 296 Since the two form part of a larger whole they necessarily occur together; but the electrical occurrence must not be identified with the event in the heavens. 297 The reason for their conjunction will become clear later, when we shall show how electrical polarity arises from the polarity between gravity and levity.

298 If one learns to view a thunderstorm in this way, its spiritual connexion with the earth's volcanic processes becomes manifest; there is in fact a polar relationship between them. 299 For just as in volcanic activity heavy matter is suddenly and swiftly driven heavenwards under the influence of levity, so in a storm does light matter stream earthwards under the influence of gravity.

300 It is this combination of kinship and polar opposition which led people of old to regard both lightning in the heights and seismic disturbances in the depths as signs of direct intervention by higher powers in the affairs of humans. 301 A trace of this old feeling lingers in the Greek word Î¸ÎµÎ¹Î¿Î½ (theion), divine, which was used to denote both lightning and sulphur. Influenced by the same conception, 302 the Romans regarded as holy a spot where lightning had struck the earth; they even fenced it off to protect it from human contact. 303 Note in this respect also the biblical report of the event on Mount Sinai, mentioned before, telling of an

interplay of volcanic and meteorological phenomena as a sign of the direct intervention of the Godhead.

MATTER
AS PART OF NATURE'S ALPHABET
Ernst Lehrs

11 In the preceding chapter we drew attention to the fact that any spatially extended mass is under the sway of both gravity and levity. 2 We then saw that with the transition of matter from the solid via the liquid to the gaseous state, not only does the specific gravity of the substance decrease, but at the same time an increase takes place of what we might call 'specific levity'. 3 In the gaseous state, therefore, we find gravity-bound matter becoming so far levity-bound that it assumes the property of actively expanding in space.

4 Having once adopted the Goethean way of thinking-in-polarities, we may feel sure that there is somewhere in Nature a phenomenon which represents the polar opposite of the levity-gravity relationship peculiar to the gaseous state. 5 In this latter state we find ponderable matter so far brought under the sway of levity that its behaviour is of a kind which van Helmont, when he first observed it, could not help describing as 'paradoxical'. 6 Where, we must now ask, do we find imponderable essence so much under the sway of gravity that it shows the correspondingly paradoxical features? 7 In other words, where does Nature show levity concentrated in a limited part of space-- that is, in a condition characteristic of ponderable matter? 8 Such concentrations of levity do indeed exist in varied forms. One is the 'warmth-body' represented by the blood-heat of the higher animals and human. 9 There is, however, an occurrence of this kind also on the purely mineral level of Nature, and it is this which has particular significance for our present study of matter. We meet it in all physical substances which have the peculiarity of being combustible.

10 Our next task is to study certain fundamentals in regard to the

different ways in which levity and gravity are found to be intertwined in combustible substances, 11 manifesting through the difference of their relation to the process of combustion-- that is, the process by which levity is restored to its original condition. 12 It is the aim of the present chapter to show that by doing justice to the imponderable aspect of combustion, the way is opened to a view of the 'elements', as scientific chemistry understands them, which will be in line with our dynamic conception of matter. 13 There is nothing surprising in the fact that a new conception of the chemical element can arise from a re-study of the process of combustion, 14 if we remember that it was the picture of combustion, characteristic of the spectator-consciousness, which determined the conception of the chemical element as it prevails in modern science. 15 Let us see how this conception came to pass historically in order to find where we stand to-day.

16 With the establishment of the knowledge of a state of physical matter which, as the definition ran, 'neither results from a combination of other physical substances nor is resolvable into such', the conviction arose that human's searching mind had reached 'rock-bottom'. 17 This conviction, however, was shaken when, with the discovery of radium, an element became known whose property it is to disintegrate into two other elements, helium and lead. 18 Although this did not force science to abandon the element-concept altogether, it became necessary to find a new definition for it.

19 This definition was established by Professor W. Ostwald at the beginning of the present century, when he stated that the chemical element represents a condition of physical matter in which 'any chemical change results in an increase of weight'. 20 In this way, the chemical concept of the element achieved a meaning which had actually been implicit in it from its first conception. 21 For its very formation had been the outcome of the Contra-Levitatem maxim. The following glance over the history of chemistry will show this.

22 The birth of chemistry as a science, in the modern sense, is closely connected with a revolutionary change in the conception of what can be called the chemical arch-process-combustion, or, to use a more scientific term, oxidation. 23 This change arose out of the Contra-Levitatem maxim and the new conception of heat which this maxim required. 24 In the old doctrine of the four Elements, Heat had been conceived as a manifestation of the element of Fire, and so, together with Air, as belonging to the realm of the 'uncreated things'. 25 Hence the release of heat from created substance was always felt to be a sacred act, as is shown by the fire rites of old.

26 Modern human's conception of the same process is revealed in the answer one invariably receives from both layman and scientist when they are asked what they understand by combustion. 27 It is described as a process through which oxygen combines with the combustible substance. 28 And yet this side of combustion, first observed by J. Priestley (1771), is neither the one for the sake of which human produces combustion in the service of own everyday life, nor is it at all observed by ordinary sense-perception. 29 Nevertheless, to describe the obvious fact, that combustion is liberation of heat from the combustible substance, will hardly occur to anyone to-day. 30 This shows to what extent even the scientifically untrained consciousness in our time turns instinctively to the tangible or weighable side of Nature, so that some effort is required to confess simply to what the eye and the other senses perceive.

31 During the first hundred years after the establishment of the Contra-Levitatem maxim, human's situation was in a certain sense the opposite of this. 32 Then, people were struggling hard to get away from the old concept which saw in combustion nothing but the liberation of a super-terrestrial element from earthly fetters. 33 This struggle found expression in a theory of heat which at that time greatly occupied scientific thinking. It is the so-called

phlogiston-theory first proposed by the chemist Stahl (1660-1734).

34 This theory reveals the great uncertainty into which human's thinking about the world of the senses had arrived at that time. 35 Clinging to ideas inherited from antiquity, human's consciousness was already so far restricted to the forming of pure matter-bound concepts that one was tempted to conceive heat as a material element. 36 To this heat-substance the name 'phlogiston' was given. 37 At the same time, under the Contra-Levitatem maxim, it was impossible to conceive of substance except as ponderable substance. 38 This led to the conviction that whenever heat appears as a result of some treatment of matter-- combustion or friction,-- the material substance subject to this treatment must lose weight.

39 The experiments of Lavoisier (1743-94), which he undertook following Priestley's discovery of the role of oxygen in combustion, put an end to this theory. These experiments are rightly regarded as the actual beginning of modern chemistry. 40 In Lavoisier we find an observer of Nature who was predominantly interested in what the scales could tell about changes in substances. It was from this aspect that he investigated the process of oxidation. 41 What had already been observed by a few others, though without being taken seriously by them, he found confirmed-- that, contrary to the phlogiston-- theory, matter does not lose weight through oxidation but gains weight. 42 Further experiments proved beyond doubt that in all chemical reactions the total weight of the components remained constant. 43 However much the substance resulting from the chemical reaction of others might differ from these, its weight always proved to be the same as their total weight. 44 What else could be concluded from the apparent unchangeability of weight throughout all the chemical happenings in Nature than that the ponderable world-content was of eternal duration? 45 We see here how much modern chemistry and its concept of the chemical element has been ruled right from the start by the one-sided gravity

concept of the onlooker-consciousness.

46 Together with the overcoming of the fallacy that heat is a ponderable substance (full certainty was indeed established only some time later through the investigations of Davy and Rumford into heat generated by friction)-- 47 human thinking was led into a one-sided conception of combustion which was merely the opposite of the one held earlier. 48 Whereas formerly human's mind was pre-eminently occupied by the liberation of the imponderable element through combustion, it now turned entirely to what goes on in the ponderable realm.

49 As we have seen, one outcome of this one-sided view of combustion was the modern concept of the chemical element. 50 To-day our task is to overcome this concept by taking a step corresponding to the one that led to it, that is, by a study of combustibility which does justice to both sides of the process involved.

51 As objects of our observation we choose three chemical elements all of which have the property of combustibility: Sulphur, Phosphorus, and Carbon. 52 As will become clear, our choice of these three is determined by the fact that together they represent an instance 'worth a thousand, bearing all within itself.

53 We begin by comparing Sulphur and Phosphorus. In their elementary state they have in common the fact that any chemical change is bound up with an increase in their weight. 54 In this state both are combustible. Apart from this similarity, there is a great difference between them, as the way of storing them illustrates. 55 For while elementary sulphur needs only an ordinary container, phosphorus has to be kept under cover of water in order to prevent the atmospheric oxygen from touching it. 56 The reason is that the combustible state is natural for sulphur, but not for phosphorus, the latter's natural state being the oxidized one. 57 This different relationship of sulphur and phosphorus to the oxidizable (reduced) and the oxidized state manifests itself in all their chemical reactions.

58 To object here that the different reactions of the two substances are due only to the difference of their respective temperatures of ignition, 59 and that above these temperatures the difference will more or less disappear-- all combustible substances at a sufficiently high temperature becoming more or less similar to phosphorus,-- would not meet the argument. 60 For what matters here is just how the particular substance behaves at that level of temperature on which the earth unfolds her normal planetary activity. 61 To ignore this would be to violate one of the principles we have adopted from Goethe, which is never to derive fundamental concepts of Nature from observations obtained under artificial conditions.

62 Sulphur and phosphorus are thus seen to represent two polarically opposite tendencies with regard to the levity-gravity coherence which breaks up when combustion occurs. 63 In the case of sulphur, the ponderable and imponderable entities appear to cling together; in the case of phosphorus, they seem to be anxious to part. 64 These two different tendencies-- which are characteristic of many other substances and represent a basic factor in the chemical happenings of the earth-- are in their own way a pair of opposites. 65 Since each of them represents in itself a relationship between two poles of a polarity-gravity and levity-- so in their mutual relationship they represent a 'polarity of polarities'. 66 In Fig. 4 an attempt has been made to represent this fact by a symbolic diagram.

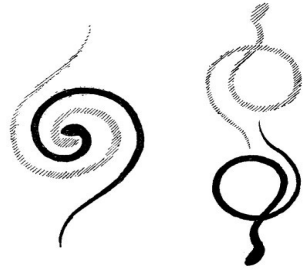


FIG. 4.

In this figure the shaded part represents the imponderable, the black part the ponderable entity. 67 In the left-hand symbol both are shown in a relationship corresponding to the one characteristic of sulphur; in the right-hand figure the relationship is characteristic of phosphorus.

68 Here we have an instance of a kind of polarity which belongs to

the fundamentals of Nature as much as does the levity-gravity polarity itself. 69 Wherever two poles of a polarity meet, they have the possibility of being connected in two ways which in themselves are again polarically opposite. 70 Our further studies will bring up various other instances of this kind, and will show us that part of the epistemological trouble in which science finds itself to-day results from the fact that the scientific mind has been unable to distinguish between the two kinds of polarity-- 71 that is, as we shall say henceforth, between polarities of the first order (primary polarities) and polarities of the second order (secondary polarities).

72 In actual fact, the distinction between the two orders of polarity has been implicit in the descriptions given in this book right from the start. 73 Remember, in this respect, how the picture of the threefold psycho-physical structure of human, which has proved a master-key for unlocking the most varied scientific problems, was first built up. 74 There, 'body' and 'soul' represented a polarity which is obviously one of the first order. By our observation of the human organism, in relation both to the different functions of the soul and to the different main organic systems, 75 we further recognised the fact that the ways in which body and soul are interrelated are polarically opposite in the region of the brain and nerves and in the region of the metabolic processes, 76 which again results in two polarically opposite activities of the soul, mental on the one hand, and volitional on the other. 77 In what we called the pole-of-consciousness and the pole-of-life we therefore have a clear polarity of the second order, and so in everything that is connected with these two, as our further discussions will show.

78 Remembering that our first occasion to concern ourselves overtly with the concept of polarity was in connexion with the four elements, 79 we may now ask whether the old doctrine did not embrace some conception of secondary polarity as well as of primary polarity, 80 and if so, whether this might not prove as

helpful in clarifying our own conceptions as was the primary polarity, cold-warm. That this is indeed so, the following description will show.

81 Beside the two qualities cold and warm the doctrine of the four elements pointed to two further qualities forming in themselves a pair of opposites, namely, dry and moist. 82 Just as the four elements were seen as grouping themselves in two pairs, Fire-Air on the one hand, Water-Earth on the other, the first being characterised by the quality warm, the second by cold, 83 so were they seen to form two opposing groups, Fire-Earth and Air-Water, of which one was characterised by the quality dry, the other by the quality moist. 84 Fig. 5 shows how the four elements in their totality were seen to arise out of the various combinations of the four qualities.

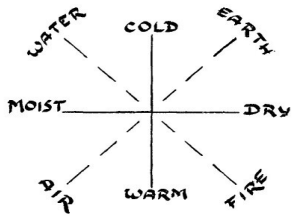


FIG. 5.

85 In this diagram the element Earth appears as a combination of the qualities Dry and Cold; Water of Cold and Moist; Air of Moist and Warm; Fire of Warm and Dry. 86 As a result, Earth and Fire, besides representing opposite poles, are also neighbours in the diagram. 87 Here we encounter a picture characteristic of all earlier ways of looking at the world: 88 the members of a system of phenomena, when ranked in due order of succession, were seen to turn back on themselves circle-wise-- or, more precisely, spiral-wise.

89 In what way do the qualities dry and moist form a polarity of the second order, 90 and how do they represent the chemical polarity characteristic of sulphur and phosphorus as well as all the other secondary polarities dealt with in this book? 91 To understand this we must submit the couple dry-moist to the same scrutiny as we applied to cold and warm in our earlier discussion of the four elements.

92 It lies in the nature of things that we instinctively associate these qualities with the solid and liquid states of matter respectively. 93 This certainly agrees with the

diagram given above, where the elements Earth and Water are distinguished precisely by their connexion with these two characteristics. 94 Yet, in addition to this, the qualities dry and moist are found to be characteristic also of Fire and Air respectively, though with the difference that they are linked not with the quality cold, as in the case of the lower elements, but with the quality warm. 95 So we see that the concepts Dry and Moist, as they lived in the old picturing of them, mean a good deal more than we understand by them to-day.

96 That these two respective attributes do not belong exclusively to the solid and the liquid states of matter can be seen at once by observing the different reactions of certain liquids to a solid surface which they touch. 97 One need only recall the difference between water and quicksilver. If water runs over a surface it leaves a trail; quicksilver does not. Water clings to the side of a vessel; again, quicksilver does not. 98 A well-known consequence of this difference is that in a narrow tube the surface of the liquid-- the so-called meniscus-- stands higher at the circumference than at the centre in the case of water; with quicksilver it is just the reverse. 99 In the sense of the two qualities, dry and moist, water is a 'moist' liquid; quicksilver a 'dry' one. 100 On the other hand, the quality of moistness in a solid substance appears in the adhesive power of glue. 101 Let us now see how, in accordance with the scheme given in Fig. 5, the four qualities in their respective combinations constitute the four elements. 102 From the description we shall give here it will be realised how little such ancient schemes were based on abstract thoughts, and how much they were read from the facts of the world. 103 Moreover, a comparison with our description of the four stages of matter, given in the previous chapter, would show how far the conceptual content of the old doctrine covers the corresponding facts 104 when they are read by the eye of the modern reader in Nature, notwithstanding the changes Nature has undergone in the meantime.

105 The element Fire reveals its attributes of warm and dry in a

behaviour which combines a tendency to dynamic expansion with a disinclination to enter into lasting combination with the other elements. 106 Correspondingly, the behaviour of the element Earth unites a tendency to contraction with an inclination to fall out of conjunction with the other elements. 107 Thus the attribute, dry, belongs equally to pure flame and sheer dust, though for opposite reasons. 108 Distinct from both these elements are the middle elements Water and Air; with them the attribute, moist, comes to expression in their tendency both to inter-penetrate mutually and to absorb their neighbours-- 109 the liquid element absorbing solid matter and the aeriform element taking up heat. 110 What distinguishes them is that water has a 'cold' nature, from which it gains its density; while air has a 'warm' nature, to which it owes its tendency to expand.

111 In the most general sense, the quality 'moist' applies wherever two different entities are drawn into some kind of intimate relationship with one another; 'dry' applies where no such relationship prevails. 112 Seen thus, they reveal themselves as a true polarity of the second order, for they describe the relationship between two entities which already exists, and, in the case of the four elements, are themselves a polarity. 113 As such, they characterise precisely those polar relationships of the second order on which the threefold structure of human, we found, is based. 114 For from the physical, as much as from the super-physical aspect the nerve-system represents the 'dry' part, and the metabolic system the 'moist' part of human's being. 115 The same is true of the relationship between the soul and the surrounding world at both poles. Here we have the antithesis between the 'dry' onlooker-relationship of the intellect to the world, 116 conceived as a mere picture whose essence remains outside the boundaries of the soul, and the 'moist' intermingling of the will-force with the actual forces of the world.

117 It needs no further explanation to realise that sulphur and phosphorus, by the way in which levity and gravity are interlinked

in each of them, are representatives of these very qualities 'moist' and 'dry'. 118 As such they are universally active bearers of these qualities in every realm of Nature's varied activities, as their physical presence in such cases confirms. 119 Consequently, sulphur is found in the protein-substances of the human body wherever they are bearers of metabolic processes, while the presence of phosphorus is characteristic of the nerves and bones. 120 Although its full significance will become clear to us only later, the fact may here be mentioned that the composition of the bone-material in the different parts of human's skeleton, as scientific analysis has shown, 121 is such that the content of phosphate of calcium in proportion to carbonate of calcium is higher in all those parts which are spherically shaped, such as the upper parts of the skull and the upper ends of the limb-bones.

122 In particular the plant reveals clearly the functional significance of phosphorus as the bearer of the quality 'dry'. 123 For its healthy growth the plant needs the quality 'dry' in two places: at the root, where it unites with the element earth, and in the flower, where it opens itself to the fire element. 124 Root and flower as distinct from the middle parts of the plant are both 'dry' formations. In a still higher degree this applies to the seed, which must separate itself from the mother plant to produce a separate new organism. 125 All these are functions in the plant which, as was mentioned in the last chapter, require phosphorus for their healthy performance. 126 Our examination of phosphorus and sulphur from the functional point of view throws light also on their effect on the alternating conditions of waking and sleeping, necessary for the life of the higher organisms. 127 This rhythmic change, which affects especially the nervous system, is an alternation between the qualities dry and moist. 128 Disturbance of this alternation in one direction or the other makes it difficult for the organism to react in full wakefulness or normal sleep. 129 It follows that treatment with phosphorus or sulphur in suitable preparations, according to

the nature of the disturbance, can be beneficial.

130 If we study the functional properties of such substances we see that they can teach us a rational understanding of therapeutic practices, which otherwise must remain mere results of trial and error. 131 The same applies to phosphorus and sulphur treatment in cases where in the functionally 'dry' bone system or in the functionally 'moist' metabolic system of the organism the wrong quality predominates. 132 If the bones remain too 'moist' there is a tendency to rickets; against this, certain fish-oils are a well-known remedy on account of their highly phosphoric nature. 133 Conversely, the application of sulphur can help where weakness of the metabolic forces produces rheumatic or gouty sediments in parts of the body whose function is to serve by their mobility the activities of the will. 134 In this case the abnormal predominance of the quality 'dry' can be counteracted by the medical application of sulphur.

135 Having observed the action of sulphur and phosphorus in the laboratory and in living organisms, we will now turn to phenomena of a macrotelluric nature which reveal the participation of sulphur and phosphorus. 136 There, sulphur points unmistakably to the earth's volcanism. It is a fact that, wherever mineral sulphur occurs in the earth, there we find a spot of former or present volcanic activity. 137 Similarly, there is no such spot on the earth without sulphur being present in one form or another. Hence the name Solfatara for the fumarole described in Chapter-9.

138 Once again it is the Solfatara which offers us a phenomenon, this time in connexion with the special role sulphur plays in its activities, which, regarded with the eye of the spirit, assumes the significance of an instance 'worth a thousand'.

139 In spite of the very high temperature of the sulphurous fumes emitted from various crevices on the edge of the Solfatara, it is possible, thanks to the complete dryness of the fumes, to crawl a little way into the interior of these crevices. 140 Not far away from the opening of the crevice, where the hot fumes touch

the cooler rock surface, one is met by a very beautiful spectacle--namely, the continual forming, out of nothing as it seems, of glittering yellow sulphur crystals, suspended in delicate chains from the ceiling. 141 In this transformation of sulphurous substance from a higher material state, nearer to levity, to that of the solid crystal, we may behold an image of the generation of matter. 142 For every physical substance and, therefore, every chemical element, exists originally as a pure function in the dynamic processes of the universe. 143 Wherever, as a result of the action of gravity, such a function congeals materially, there we meet it in the form of a physical-material substance. 144 In the same sense, sulphur and phosphorus, in their real being, are pure functions, and where they occur as physical substances, there we meet these functions in their congealed state.

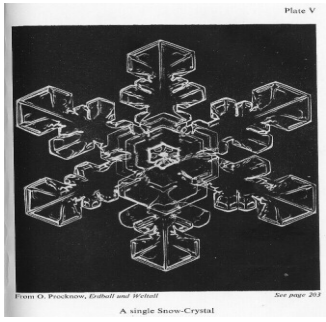
145 One of the characteristics of the volcanic regions of the earth is the healing effect of substances found there. 146 Fango-mud, for instance, which was mentioned in the last chapter, is a much-used remedy against rheumatism. This is typical of functional sulphur. 147 We may truly characterise the earth's volcanism as being qualitatively sulphurous. 148 It is the sulphur-function coming to expression through a higher degree of 'moistness' in the relationship between gravity and levity which distinguishes volcanic regions from the rest of the otherwise 'dry' earth's crust.

149 To develop a corresponding picture of the function of phosphorus, we must try to find the macrotelluric sphere where this function operates similarly to that of sulphur in volcanism. 150 From what has been said in the last chapter it will be evident that we must look to the atmosphere, as the site of snow-formation. It is this process which we must now examine more closely.

151 In the atmosphere, to begin with, we find water in a state of vapour, in which the influence of the terrestrial gravity-field is comparatively weak. Floating in this state, the vapour condenses and crystallisation proceeds. 152 Obeying the pull of gravity, more and more crystals unite in their descent and gradually form flakes

of varying sizes. The nearer they come to earth, the closer they fall, until at last on the ground they form an unbroken, more or less spherical, cover.

153 Imagine a snow-covered field glistening in the sun on a clear, quiet winter's day. As far as we can see, there is no sign of life, no movement. 154 Here water, which is normally fluid and, in its liquid state, serves the ever-changing life-processes, covers the earth in the form of millions of separate crystals shaped with mathematical exactitude, each of which breaks and reflects in a million rays the light from the sun (Plate V).

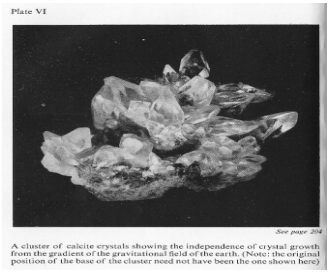


A single Snow-Crystal

155 A contrast, indeed, between this quiet emergence of forms from levity into gravity, and the form-denying volcanism surging up out of gravity into levity, as shown by the ever-restless activity of the Solfatara. 156 As we found volcanism to be a macrotelluric manifestation of functional sulphur, we find in the process of snow-formation a corresponding manifestation of functional phosphorus.

157 In the formation of snow, Nature shows us in statu agendi a process which we otherwise meet in the earth only in its finished results, crystallisation. 158 We may, therefore, rightly look upon snow-formation as an ur-phenomenon in this sphere of Nature's activities. 159 As such it allows us to learn something concerning the origin in general of the crystalline realm of the earth; 160 and, vice versa, our insight into the 'becoming' of this realm will enable us to see more clearly the universal function of which phosphorus is the main representative among the physical substances of the earth. 161 It has puzzled many an observer that crystals occur in the earth with directions of their main axes entirely independent of the direction of the earthly pull of gravity. 162 Plate VI shows the photograph of a cluster of Calcite

crystals as an example of this phenomenon.



163 It tells us that gravity can have no effect on the formation of the crystal itself. This riddle is solved by the phenomenon of snow-formation provided we allow it to speak to us as an ur-phenomenon. 164 For it then tells us that matter must be in a state of transition from lightness into heaviness if it is to appear in crystalline form. 165 The crystals in the earth, therefore, must have originated at a time when the relation between levity and gravity on the earth was different from what it is, in this sphere, to-day.

166 The same language is spoken by the property of transparency which is so predominant among crystals. One of the fundamental characteristics of heavy solid matter is to resist light-- in other words, to be opaque. 167 Exposed to heat, however, physical substance loses this feature to the extent that at the border of its ponderability all matter becomes pervious to light. 168 Now, in the transparent crystal matter retains this kinship to light even in its solid state.

169 A similar message comes from the, often so mysterious, colouring of the crystals. Here again Nature offers us an instance which, 'worth a thousand', reveals a secret that would otherwise remain veiled. 170 We refer to the pink crystals of tourmaline, whose colour comes from a small admixture of lithium. This element, which belongs to the group of the alkaline metals, does not form coloured salts (a property only shown by the heavier metals). 171 If exposed to a flame, however, it endows it with a definite colour which is the same as that of the lithium-coloured tourmaline. 172 Read as a letter in Nature's script, this fact tells us that precious stones with their flame-like colours are characterised by having kept something of the nature that was theirs before they coalesced into ponderable existence. In fact, they are 'frozen flames'.

173 It is this fact, known from ancient intuitive experience, which prompted human of old to attribute particular spiritual significance to the various precious stones of the earth and to use them correspondingly in own rituals.

174 Crystallisation, seen thus in its cosmic aspect, shows a dynamic orientation which is polarically opposite to that of the earth's seismic activities. 175 Just as in the latter we observe levity taking hold of ponderable matter and moving it in a direction opposite to the pull of gravity, so in crystallisation we see imponderable matter passing over from levity into gravity. 176 And just as we found in volcanism and related processes a field of activity of 'functional sulphur', so we found in snow-formation and related processes a field of activity of 'functional phosphorus'. 177 Both fields are characterised by an interaction between gravity and levity, this interaction being of opposite nature in each of them.

178 Here, again, sulphur and phosphorus appear as bearers of a polarity of the second order which springs from the two polarically opposite ways of interaction between the poles of the polarity of the first order: levity-gravity.

179 As in human there is a third system, mediating between the two polar systems of your organism, 180 so between sulphur and phosphorus there is a third element which in all its characteristics holds a middle place between them and is the bearer of a corresponding function. This element is carbon.

181 To see this we need only take into consideration carbon's relationship to oxidation and reduction respectively. 182 As it is natural for sulphur to be in the reduced state, and for phosphorus to be in the oxidized state, so it is in the nature of carbon to be related to both states and therefore to oscillate between them. 183 By its readiness to change over from the oxidized to the reduced state, it can serve the plant in the assimilation of light, while by its readiness to make the reverse change it serves human and animal in the breathing process. 184 We breathe in oxygen from the air; the oxygen circulates through the blood-stream and passes out again

in conjunction with carbon, as carbon dioxide, when we exhale. 185 In the process whereby the plants reduce the carbon dioxide exhaled by human and animal, while the latter again absorb with their food the carbon produced in the form of organic matter by the plant, we see carbon moving to and fro between the oxidized and the reduced conditions.

186 Within the plant itself, too, carbon acts as functionary of the alternation between oxidation and reduction. 187 During the first half of the year, when vegetation is unfolding, there is a great reduction process of oxidized carbon, 188 while in the second half of the year, when the withering process prevails, a great deal of the previously reduced carbon passes into the oxidized condition. 189 As this is connected with exhaling and inhaling of oxygen through carbon, carbon can be regarded as having the function of the lung-organ of the earth. 190 Logically enough, we find carbon playing the same role in the middle part of the threefold human organism.

191 Another indication of the midway position of carbon is its ability to combine as readily with hydrogen as with oxygen, and, in these polar combinations, even to combine with itself. 192 In this latter form it provides the basis of the innumerable organic substances in Nature, and serves as the 'building stones' of the body-substances of living organisms. 193 Among these, the carbohydrates produced by the plants show clearly the double function of carbon in the way it alternates between the states of starch and sugar.

194 When the plant absorbs through its leaves carbonic acid from the air and condenses it into the multiple grains of starch with their peculiar structure characteristic for each plant species, 195 we have a biological event which corresponds to the formation of snow in the meteorological realm. Here we see carbon at work in a manner functionally akin to that of phosphorus. 196 Sugar, on the other hand, has its place in the saps of the plants which rise through the stems and carry up

with them the mineral substances of the earth. Here we find carbon acting in a way akin to the function of sulphur.

197 This twofold nature of carbon makes itself noticeable down to the very mineral sphere of the earth. 198 There we find it in the fact that carbon occurs both in the form of the diamond, the hardest of all mineral substances, and also in the form of the softest, graphite. 199 Here also, in the diamond's brilliant transparency, and in the dense blackness of graphite, carbon reveals its twofold relation to light. 200 In Fig. 6 an attempt has been made to represent diagrammatically the function of Carbon in a way corresponding to the previous representation of the functions of Sulphur and Phosphorus.

FIG. 6.

201 By adding carbon to our observations on the polarity of sulphur and phosphorus we have been led to a triad of functions each of which expresses a specific interplay of levity and gravity. 202 That we encounter three such functions is not accidental or arbitrary. 203 Rather is it based on the fact that the interaction of forces emanating from a polarity of the first order, produces a polarity of the second order, whose poles establish between them a sphere of balance.

204 Through our study of levity and gravity in the matter-processes of the earth, a perspective thus opens up into a structural principle of Nature which is actually not new to us. 205 We encountered it at the very beginning of this book when we discussed the threefold psycho-physical order of human's being.

206 In the days of an older intuitive nature-wisdom human knew of a basic triad of functions as well as knew of the four elementary qualities. 207 We hear a last echo of this in the Middle Ages, when people striving for a deeper understanding of Nature spoke of the trinity of Salt, Mercury and Sulphur. 208 What the true alchemists, as these seekers of

knowledge called themselves, meant by this was precisely the same as the conception we have here reached through our own way of studying matter 209 'Salt' standing for 'functional phosphorus', 'Mercury' for 'functional carbon'. Only the alchemist's way was a different one.

210 This is not the place to enter into a full examination of the meaning and value of alchemy in its original legitimate sense-- which must not be confused with activities that later on paraded under the same name. 211 Only this we will say-- that genuine alchemy owes its origin to an impulse which, at a time when the onlooker-consciousness first arose, led to the foundation of a school for the development of an intuitive relationship of the soul with the world of the senses. 212 This was to enable human to resist the effects of the division which evolution was about to set up in your soul-life-- 213 the division which was to give you, on the one hand, an abstract experience of your own self, divorced from the outer world, and on the other a mere onlooker's experience of that outer world. 214 As a result of these endeavours, concepts were formed which in their literal meaning seemed to apply merely to outwardly perceptible substances, 215 while in truth they stood for the spiritual functions represented by those substances, both within and outside the human organism.

216 Thus the alchemist who used these concepts thought of them first as referring to own soul, and to the inner organic processes corresponding to the various activities of own soul. 217 When speaking of Salt they meant the regulated formative activity of their thinking, based on the salt-forming process in their nervous system. 218 When they spoke of Mercury they meant the quickly changing emotional life of the soul and the corresponding activities of the rhythmic processes of the body. 219 Lastly, Sulphur meant the will activities of your soul and the corresponding metabolic processes of the body. 220 Only through studying these functions within the self, and through re-establishing the harmony between

them which had been theirs in the beginning, and from which, you felt, 221 human had deviated in the course of time, did the alchemist hope to come to an understanding of their counterparts in the external cosmos. 222 Older alchemical writings, therefore, can be understood only if prescriptions which seem to signify certain chemical manipulations are read as instructions for certain exercises of the soul, or as advices for the redirection of corresponding processes in the body. 223 For instance, if an alchemist gave directions for a certain treatment of Sulphur, Mercury and Salt, with the assertion that by carrying out these directions properly, one would obtain Aurum (gold), 224 the alchemist really spoke of a method to direct the thinking, feeling and willing activities of the soul in such a way as to gain true Wisdom.

225 As in the case of the concepts constituting the doctrine of the four elements, we have represented here the basic alchemical concepts not only because of their historical significance, 226 but because, as ingredients of a still functional conception of Nature, they assume new significance in a science which seeks to develop, though from different starting-points, a similar conception. 227 As will be seen in our further studies, these concepts prove a welcome enrichment of the language in which we must try to express our readings in Nature.

228 Roger Bacon in the thirteenth, and Berthold Schwartz in the fourteenth century, are reputed to have carried out experiments by mixing physical salt-- in the form of the chemically labile saltpetre-- with physical sulphur 229 and-- after some initial attempts with various metals-- with charcoal, and then exposing the mixture to the heat of physical fire. 230 The outcome of this purely materialistic interpretation of the three alchemical concepts was not the acquisition of wisdom, or, as Schwartz certainly had hoped, of gold, but of ... gunpowder!

SPACE AND COUNTER-SPACE
Ernst Lehrs

12 With the introduction, in Chapter-10, of the peripheral type of force-field which appertains to levity as the usual central one does to gravity, we are compelled to revise our conception of space. 2 For in a space of a kind we are accustomed to conceive, that is, the three-dimensional, Euclidean space, the existence of such a field with its characteristic of increasing in strength in the outward direction is a paradox, contrary to mathematical logic.

3 This task, which in view of our further observations of the actions of the levity-gravity polarity in Nature we must now tackle, is, however, by no means insoluble. 4 For in modern mathematics thought-forms are already present which make it possible to develop a space-concept adequate to levity. 5 As referred to in Chapter-1, it was Rudolf Steiner who first pointed to the significance in this respect of the branch of modern mathematics known as Projective Geometry. 6 He showed that Projective Geometry, if rightly used, carries over the mind from the customary abstract to a new concrete treatment of mathematical concepts. 7 The following example will serve to explain, to start with, what we mean by saying that mathematics has hitherto been used abstractly.

8 One of the reasons why the world-picture developed by Einstein in his *Theory of Relativity* deserves to be acknowledged as a step forward in comparison with the picture drawn by classical physics, 9 lies in the fact that the old conception of three-dimensional space as a kind of 'cosmic container', extending in all directions into infinity and filled, as it were, with the content of the physical universe, 10 is replaced by a conception in which the structure of space results from the laws interrelating this content. 11 Our further discussion will show that this indeed is the way along which, to-day, mathematical thought must move in order to cope with universal reality.

12 However, for reasons discussed earlier, Einstein was forced to conceive all events in the universe after the model of gravity as

observable on the earth. 13 In this way he arrived at a space-structure which possesses neither the three-dimensionality nor the rectilinear character of so-called Euclidean space-- 14 a space-picture which, though mathematically consistent, is incomprehensible by the human mind. 15 For nothing exists in our mind that could enable us to experience as a reality a space-time continuum of three dimensions which is curved within a further dimension.

16 This outcome of Einstein's endeavours results from the fact that he tried by means of gravity-bound thought to comprehend universal happenings of which the true causes are non-gravitational. 17 A thinking that has learn't to acknowledge the existence of levity must indeed pursue precisely the opposite direction. 18 Instead of freezing time down into spatial dimension, in order to make it fit into a world ruled by nothing but gravity, we must develop a conception of space sufficiently fluid to let true time have its place therein. 19 We shall see how such a procedure will lead us to a space-concept thoroughly conceivable by human common sense, provided we are prepared to overcome the onlooker-standpoint in mathematics also.

20 Einstein owed the possibility of establishing his space-picture to a certain achievement of mathematical thinking in modern times. 21 As we have seen, one of the peculiarities of the onlooker-consciousness consists in its being devoid of all connexion with reality. 22 The process of thinking thereby gained a degree of freedom which did not exist in former ages. 23 In consequence, mathematicians were enabled in the course of the nineteenth century to conceive the most varied space-systems which were all mathematically consistent and yet lacked all relation to external existence. 24 A considerable number of space-systems have thus become established among which there is the system that served Einstein to derive his space-time concept. 25 Some of them have been more or less fully worked out, while in certain instances all that has been done is to show that they are mathematically conceivable. 26

Among these there is one which in all its characteristics is polarically opposite to the Euclidean system, and which is destined for this reason to become the space-system of levity. 27 It is symptomatic of the remoteness from reality of mathematical thinking in the onlooker-age that precisely this system has so far received no special attention.

28 For the purpose of this book it is not necessary to expound in detail why modern mathematical thinking has been led to look for thought-forms other than those of classical geometry. 29 It is enough to remark that for quite a long time there had been an awareness of the fact that the consistency of Euclid's definitions and proofs fails as soon as one has no longer to do with finite geometrical entities, 30 but with figures which extend into infinity, as for instance when the properties of parallel straight lines come into question. For the concept of infinity was foreign to classical geometrical thinking. 31 Problems of the kind which had defeated Euclidean thinking became soluble directly human thinking was able to handle the concept of infinity.

32 We shall now indicate some of the lines of geometrical thought which follow from this.

33 Let us consider a straight line extending without limits in either direction. Projective geometry is able to state that a point moving along this line in one direction will eventually return from the other. 34 To see this, we imagine two straight lines *a* and *b* intersecting at *P*. One of these lines is fixed (a); the other (b) rotates uniformly about *C*.

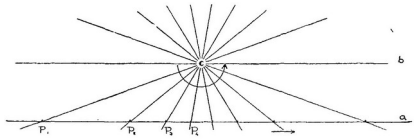


FIG. 7.

35 Fig. 7 indicates the rotation of *b* by showing it in a number of positions with the respective positions of its point of intersection with a (P1, P2. . .). 36 We observe this point moving along *a*, as a result of the rotation of *b*, until, when both lines are parallel, it reaches infinity. 37 As a result of the continued rotation of *b*, however, *P* does not remain in infinity, but returns along *a* from the other side. 38 We find here two

forms of movement linked together-- the rotational movement of a line (b) on a point (C), and the progressive movement of a point (P) along a line (a). 39 The first movement is continuous, and observable throughout within finite space. Therefore the second movement must be continuous as well, even though it partly escapes our observation. 40 Hence, when *P* disappears into infinity on one side of our own point of observation, it is at the same time in infinity on the other side. In order words, an unlimited straight line has only one point at infinity.

41 It is clear that, in order to become familiar with this aspect of geometry, one must grow together in inward activity with the happening which is contained in the above description. 42 What we therefore intend by giving such a description is to provide an opportunity for a particular mental exercise, just as when we introduced Goethe's botany by describing a number of successive leaf-formations. Here, as much as there, it is the act of 're-creating' that matters.

43 The following exercise will help us towards further clarity concerning the nature of geometrical infinity.

44 We imagine ourselves in the centre of a sphere which we allow to expand uniformly on all sides. 45 Whilst the inner wall of this sphere withdraws from us into ever greater distances, it grows flatter and flatter until, on reaching infinite distance, it turns into a plane. 46 We thus find ourselves surrounded everywhere by a surface which, in the strict mathematical sense, is a plane, and is yet one and the same surface on all sides. 47 This leads us to the conception of the plane at infinity as a self-contained entity although it expands infinitely in all directions.

48 This property of a plane at infinity, however, is really a property of any plane. To realise this, we must widen our conception of infinity by freeing it from a certain one-sidedness still connected with it. 49 This we do by transferring ourselves into the infinite plane and envisaging, not the plane from the point, but the point from the plane. 50 This

operation, however, implies something which is not obvious to a mind accustomed to the ordinary ways of mathematical reasoning. It therefore requires special explanation.

51 In the sense of Euclidean geometry, a plane is the sum-total of innumerable single points. 52 To take up a position in a plane, therefore, means to imagine oneself at one point of the plane, with the latter extending around in all directions to infinity. 53 Hence the journey from any point in space to a plane is along a straight line from one point to another. 54 In the case of the plane being at infinity, it would be a journey along a radius of the infinitely large sphere from its centre to a point at its circumference.

55 In projective geometry the operation is of a different character. Just as we arrived at the infinitely large sphere by letting a finite sphere grow, so must we consider any finite sphere as having grown from a sphere with infinitely small extension; that is, from a point. 56 To travel from the point to the infinitely distant plane in the sense of projective geometry, therefore, means that we have first to identify ourselves with the point and 'become' the plane by a process of uniform expansion in all directions.

57 As a result of this we do not arrive at one point in the plane, with the latter extending round us on all sides, but we are present in the plane as a whole everywhere. 58 No point in it can be characterised as having any distance, whether finite or infinite, from us. Nor is there any sense in speaking of the plane itself as being at infinity. 59 For any plane will allow us to identify ourselves with it in this way. And any such plane can be given the character of a plane at infinity by relating it to a point infinitely far away from it (i.e. from us).

60 Having thus dropped the one-sided conception of infinity, we must look for another characterisation of the relationship between a point and a plane which are infinitely distant from one another. 61 This requires, first of all, a proper characterisation of Point and Plane in themselves.

62 Conceived dynamically, as projective geometry requires,

Point and Plane represent a pair of opposites, the Point standing for utmost contraction, the Plane for utmost expansion. 63 As such, they form a polarity of the first order. Both together constitute Space. Which sort of space this is, depends on the relationship in which they are envisaged. 64 By positing the point as the unit from which to start, and deriving our conception of the plane from the point, we constitute Euclidean space. 65 By starting in the manner described above, with the plane as the unit, and conceiving the point from it, we constitute polar-Euclidean space.

66 The realisation of the reversibility of the relationship between Point and Plane leads to a conception of Space still free from any specific character. 67 By G. Adams this space has been appositely called archetypal space, or ur-space. 68 Both Euclidean and polar-Euclidean space are particular manifestations of it, their mutual relationship being one of metamorphosis in the Goethean sense.

69 Through conceiving Euclidean and polar-Euclidean space in this manner it becomes clear that they are nothing else than the geometrical expression of the relationship between gravity and levity. 70 For gravity, through its field spreading outward from an inner centre, establishes a point-to-point relation between all things under its sway; 71 whereas levity draws all things within its domain into common plane-relations by establishing field-conditions wherein action takes place from the periphery towards the centre. 72 What distinguishes in both cases the plane at infinity from all other planes may be best described by calling it the all-embracing plane; correspondingly the point at infinity may be best described as the all-relating point.

73 In outer Nature the all-embracing plane is as much the 'centre' of the earth's field of levity as the all-relating point is the centre of Her field of gravity. 74 All actions of dynamic entities, such as that of the ur-plant and its subordinate types, start from this plane. 75 Seeds, eye-formations, etc., are nothing but individual all-relating points in respect of this plane. All that springs from such

points does so because of the point's relation to the all-embracing plane. 76 This may suffice to show how realistic are the mathematical concepts which we have here tried to build up.

77 When we set out earlier in this book in Chapter-8 to discover the source of Galileo's intuition, by which he had been enabled to find the theorem of the parallelogram of forces, 78 we were led to certain experiences through which all humans go in early childhood by erecting their body and learning to walk. 79 We were thereby led to realise that human's general capacity for thinking mathematically is the outcome of early experiences of this kind. 80 It is evident that geometrical concepts arising in human's mind in this way must be those of Euclidean geometry. For they are acquired by the will's struggle with gravity. 81 The dynamic law discovered in this way by Galileo was therefore bound to apply to the behaviour of mechanical forces-- that is, of forces acting from points outward.

82 In a similar way we can now seek to find the source of our capacity to form polar-Euclidean concepts. 83 As we were formerly led to experiences of human's early life on earth, so we are now led to your embryonic and even pre-embryonic existence. 84 Before human's super-sensible part enters into a physical body there is no means of conveying to it experiences other than those of levity, and this condition prevails right through embryonic development. 85 For while the body floats in the mother's foetal fluid it is virtually exempt from the influence of the earth's field of gravity.

86 History has given us a source of information from these early periods of human's existence in Traherne's recollections of the time when his soul was still in the state of cosmic consciousness. 87 Among his descriptions we may therefore expect to find a picture of levity-space which will confirm through immediate experience what we have arrived at along the lines of realistic mathematical reasoning. 88 Among poems quoted earlier, his *The Praeparative* and *My Spirit* do indeed convey this picture in the

clearest possible way. The following are relevant passages from these two poems.

89 In the first we read:

'Then was my Soul my only All to me,
A living endless Ey,
Scarce bounded with the Sky
Whose Power, and Act, and Essence was to see:
I was an inward Sphere of Light,
Or an interminable Orb of Sight,
Exceeding that which makes the Days . . .'

90 In the second poem the same experience is expressed in richer detail. There he says of his own soul that it -

... being Simple, like the Deity,
In its own Centre is a Sphere,
Not limited but everywhere.

It acts not from a Centre to
Its Object, as remote;
But present is, where it doth go
To view the Being it doth note
...

91 A strange extended Orb of Joy
Proceeding from within,
Which did on ev'ry side display
Its force; and being nigh of Kin
To God, did ev'ry way
Dilate its Self ev'n instantaneously,
Yet an Indivisible Centre stay,
In it surrounding all Eternity.
'Twas not a Sphere;
Yet did appear One infinite:
'Twas somewhat everywhere.'

92 Observe the distinct description of how the relation between circumference and centre is inverted by the former becoming itself an 'indivisible centre'. 93 In a space of this kind there is no Here and There, as in Euclidean space, for the consciousness is always and immediately at one with the whole space. 94 Motion is thus quite different from what it is in Euclidean space. Traherne himself italicised the word 'instantaneous', so important did he find this fact. 95 The quality of instantaneousness-- equal from the physical point of view to a velocity of the value âˆ-- 96 will occupy us more closely as a characteristic of the realm of levity

when we come to discuss the apparent velocity of light in connexion with our optical studies. 97 By thus realising the source in human of the polar-Euclidean thought-forms, we see the discovery of projective geometry in a new light. 98 For it now assumes the significance of yet another historical symptom of the modern re-awakening of human's capacity to remember own prenatal existence.

99 We know from our previous studies that the concept of polarity is not exhausted by conceiving the world as being constituted by polarities of one order only. 100 Besides primary polarities, there are secondary ones, the outcome of interaction between the primary poles. 101 Having conceived of Point and Plane as a geometrical polarity of the first order, we have therefore to ask what formative elements there are in geometry which represent the corresponding polarity of the second order. 102 The following considerations will show that these are the radius, which arises from the point becoming related to the plane, 103 and the spherically bent surface (for which we have no other name than that again of the sphere), arising from the plane becoming related to the point.

104 In Euclidean geometry the sphere is defined as 'the locus of all points which are equidistant from a given point'. 105 To define the sphere in this way is in accord with our post-natal, gravity-bound consciousness. 106 For in this state our mind can do no more than envisage the surface of the sphere point by point from its centre and recognise the equal distance of all these points from the centre. 107 Seen thus, the sphere arises as the sum-total of the end-points of all the straight lines of equal length which emerge from the centre-point in all directions. 108 Fig. 8 indicates this schematically. Here the radius, a straight line, is clearly the determining factor.

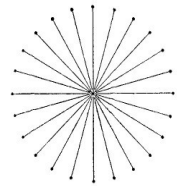


FIG. 8.

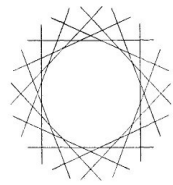


FIG. 9.

109 We now move to the other pole of the primary polarity, that is to the plane, and let the sphere arise by imagining the plane

approaching an infinitely distant point evenly from all sides. 110 We view the process realistically only by imagining ourselves in the plane, so that we surround the point from all sides, with the distance between us and the point diminishing gradually. 111 Since we remain all the time on the surface, we have no reason to conceive any change in its original position; that is, we continue to think of it as an all-embracing plane with regard to the chosen point.

112 The only way of representing the sphere diagrammatically, as a unit bearing in itself the character of the plane whence it sprang, is as shown in Fig. 9 above, 113 where a number of planes, functioning as tangential planes, are so related that together they form a surface which possesses everywhere the same distance from the all-relating point.

114 Since Point and Plane represent in the realm of geometrical concepts what in outer Nature we find in the form of the gravity-levity polarity, 115 we may expect to meet Radius and Sphere as actual formative elements in Nature, wherever gravity and levity interact in one way or another. 116 A few observations may suffice to give the necessary evidence. Further confirmation will be furnished by the ensuing chapters.

117 The Radius-Sphere antithesis appears most obviously in the human body, the radial element being represented by the limbs, the spherical by the skull. 118 The limbs thus become the hieroglyph of a dynamic directed from the Point to the Plane, and the skull of the opposite. 119 This indeed is in accord with the distribution in the organism of the sulphur-salt polarity, as we learn't from our physiological and psychological studies. 120 Inner processes and outer form thus reveal the same distribution of poles.

121 In the plant the same polarity appears in stalk and leaf. Obviously the stalk represents the radial pole. 122 The connexion between leaf and sphere is not so clear: in order to recognise it we must appreciate that the single plant is not a self-contained entity to the same degree as is the human being. 123 The equivalent of the

single human is the entire vegetable covering of the earth. In human there is an individual centre round which the bones of your skull are curved; in the plant world the equivalent is the centre of the earth. 124 It is in relation to this that we must conceive of the single leaves as parts of a greater sphere.

125 In the plant, just as in human, the morphological polarity coincides with the biological. 126 There is, on the one hand, the process of assimilation (photosynthesis), so characteristic of the leaf. 127 Through this process matter passes over from the aeriform condition into that of numerous separate, characteristically structured solid bodies-- the starch grains. 128 Besides this kind of assimilation we have learn't to recognise a higher form which we called 'spiritual assimilation'. 129 Here, a transition of substance from the domain of levity to that of gravity takes place even more strikingly than in ordinary (physical) assimilation (Chapter -10).

130 The corresponding process in the linear stalk is one which we may call 'sublimation'-- again with its extension into 'spiritual sublimation'. 131 Through this process matter is carried in the upward direction towards ever less ponderable conditions, and finally into the formless state of pure 'chaos'. 132 By this means the seed is prepared (as we have seen) with the help of the fire-bearing pollen, so that after it has fallen to the ground, it may serve as an all-relating point to which the plant's Type can direct its activity from the universal circumference.

133 In order to find the corresponding morphological polarity in the animal kingdom, we must realise that the animal, by having the main axis of its body in the horizontal direction, has a relationship to the gravity-levity fields of the earth different from those of both human and plant. 134 As a result, the single animal body shows the sphere-radius polarity much less sharply. 135 If we compare the different groups of the animal kingdom, however, we find that the animals, too, bear this polarity as a formative element. 136 The birds represent the spherical (dry, saline) pole; the

ruminants the linear (moist, sulphurous) pole. The carnivorous quadrupeds form the intermediary (mercurial) group. 137 As ur-phenomenal types we may name among the birds the eagle, clothed in its dry, silicic plumage, hovering with far-spread wings in the heights of the atmosphere, united with the expanses of space through its far-reaching sight; 138 among the ruminants, the cow, lying heavily on the ground of the earth, given over entirely to the immensely elaborated sulphurous process of its own digestion. 139 Between them comes the lion-- the most characteristic animal for the preponderance of heart-and-lung activities in the body, with all the attributes resulting from that.

140 Within the scope of this book it can only be intimated briefly, but should not be left unmentioned for the sake of those interested in a further pursuit of these lines of thought, 141 that the morphological mean between radius and sphere (corresponding to Mercurius in the alchemical triad) is represented by a geometrical figure known as the 'lemniscate', a particular modification of the so-called Cassinian curves.

RADIANT MATTER

Ernst Lehrs

13 When human in the state of world-onlooker undertook to form a dynamic picture of the nature of matter, it was inevitable that of all the qualities which belong to its existence you should be able to envisage only those pertaining to gravity and electricity. 2 Because human consciousness, at this stage of its evolution, was closely bound up with the force of gravity inherent in the human body, you was unable to form any conception of levity as a force opposite to gravity. 3 Yet, Nature is built bipolarically, and polarity-concepts are therefore indispensable for developing a true understanding of Her actions. 4 This accounts for the fact that the unipolar concept of gravity had eventually to be supplemented by some kind of bipolar concept.

5 Now, the only sphere of Nature-phenomena with a bipolar character accessible to the

onlooker-consciousness 'was that of electricity. 6 It was thus that human in this state of consciousness was compelled to picture the foundation of the physical universe as being made up of gravity and electricity, 7 as we meet them in the modern picture of the atom, with its heavy electro-positive nucleus and the virtually weightless electro-negative electrons moving round it.

8 Once scientific observation and thought are freed from the limitations of the onlooker-consciousness, both gravity and electricity appear in a new perspective, though the change is different for each of them. 9 Gravity, while it becomes one pole of a polarity, with levity as the opposite pole, still retains its character as a fundamental force of the physical universe, the gravity-levity polarity being one of the first order. Not so electricity. 10 For, as the following discussion will show, the electrical polarity is one of the second order; moreover, instead of constituting matter as is usually believed, electricity turns out to be in reality a product of matter.

11 We follow Goethe's line when, in order to answer the question, 'What is electricity?' we first ask, 'How does electricity arise?' 12 Instead of starting with phenomena produced by electricity when it is already in action, and deriving from them a hypothetical picture, we begin by observing the processes to which electricity owes its appearance. 13 Since there is significance in the historical order in which facts of Nature have come to human's knowledge in the past, 14 we choose as our starting-point, among the various modes of generating electricity, the one through which the existence of an electric force first became known. 15 This is the rousing of the electric state in a body by rubbing it with another body of different material composition. Originally, amber was rubbed with wool or fur.

16 By picturing this process in our mind we become aware of a certain kinship of electricity with fire, since for ages the only known way of kindling fire was through friction. 17 We notice that in both

cases human had to resort to the will-power invested in own limbs for setting in motion two pieces of matter, 18 so that, by overcoming their resistance to this motion, you released from them a certain force which you could utilise as a supplement to your own will. 19 The similarity of the two processes may be taken as a sign that heat and electricity are related to each other in a certain way, the one being in some sense a metamorphosis of the other. 20 Our first task, therefore, will be to try to understand how it is that friction causes heat to appear in manifest form.

21 There is no friction unless the surfaces of the rubbed bodies have a structure that is in some way interfered with by the rubbing, while at the same time they offer a certain resistance to the disturbance. 22 This resistance is due to a characteristic of matter, commonly called cohesion. 23 Now we know that the inner coherence of a physical body is due to its point-relationship, that is to the gravitational force bound up with it. 24 Indeed, cohesion increases as we pass from the gaseous, through the liquid, to the solid state of matter.

25 Whilst a body's cohesion is due to gravity, its spatial extendedness is, as we have seen, due to levity. 26 If we reduce the volume of a piece of physical matter by means of pressure, we therefore release levity-forces previously bound up in it, and these, as always happens in such cases, appear in the form of free heat. 27 Figuratively speaking, we may say that by applying pressure to matter, latent levity is pressed out of it, somewhat like water out of a wet sponge.

28 The generation of free heat by friction rests on quite similar grounds. Obviously, friction always requires a certain pressure. 29 This alone, however, would not account for the amount of heat easily produced by friction. To the pressure there is in this case added a certain measure of encroachment upon the unity of the material substance. 30 In the case of friction between two solid bodies, this may go so far that particles of matter are completely detached from the cohesive whole. 31 The result is an increase in the number of single

mass-centres on the earth, as against the all-embracing cosmic periphery. 32 This diminishes the hold of levity on the total amount of physical matter present on the earth. 33 Again, the levity thus becoming free appears as external heat. (In the reverse case when, for instance through melting, a number of single physical bodies become one, free heat becomes latent.)

34 Both the diminishing of spatial extension and the breaking up of a whole into parts entail an increase in the quality 'dry'. 35 This applies not only in the sense that the parts which have become independent units are 'dry' in relation to each other-- formerly coherent matter being turned into dust-- 36 but also in the other sense, and one valid in both cases, that levity and gravity are losing part of their previous inter-connexion. 37 If this twofold process of 'becoming dry' reaches a certain intensity, the substances concerned, provided they are inflammable, begin to burn, with the result that dry heat escapes and dry ash is formed. 38 We note that in each case we are dealing with a change in the relationship between the poles of a polarity of the first order.

39 We will now apply this picture of the process of friction to the instance when, as a result of this action, electricity appears.

40 Originally the evoking of the electric condition was ascribed solely to the nature of amber, the only substance known to possess this property. 41 To-day we know that not the amber alone, but its coming together with another substance of different nature, in this instance an animal substance of the nature of hair or silk, is required. 42 Whatever substances we use for friction, they must always be different in nature, so as to allow both kinds of electricity to appear at once. 43 Which of the two kinds imposes its presence the more strongly upon the observer depends on purely extraneous conditions which have nothing to do with the process itself.

44 Obviously, if we wish to understand the qualitative difference between the two kinds of electricity, we must investigate the qualitative difference in the material substances, which give rise to electricity when they are

rubbed together. 45 We shall again follow the historical line by examining the two substances which first taught human the polar nature of electricity. 46 They are glass and resin, after which, as we mentioned, the two electricities were even named in the beginning. 47 Our functional conception of matter, developed earlier (Chapter-11), allows us to recognise in these two substances representatives of the Salt-Sulphur polarity. 48 Indeed, glass as a mineral substance, which actually owes its specific character to the presence of silicon in it, clearly stands on the phosphoric-crystalline side, while resin, being itself a sort of 'gum', on the sulphurous-volcanic side. 49 In fact, sulphur itself was soon found to be a particularly suitable substance for producing 'resin'-electricity.

50 Now the usual way of producing one kind of electricity is by rubbing resin (or sulphur, or ebonite) with wool or fur, and the other by rubbing glass with leather. 51 At first sight, it does not seem as if the two counter-substances represent the required alchemic counter-poles to resin and glass. For both hair and leather are animal products and therefore seem to be of like nature. 52 Closer inspection, however, shows that they do obey the rule. For hair, like all horny substances, is a dead product of external secretion by the animal organism. 53 An ur-phenomenal example of it, showing its kinship to glass-like substances, is the transparent cornea of the eye, close to the crystal-lens. 54 Leather, on the other hand, is a product of the hypodermic part of the body and, as such, belongs to those parts of the organism which are filled with blood, and, therefore, permeated with life. 55 Note as a characteristic of leather that it requires a special treatment, tanning, to make it as immune from decay as hair is by nature. 56 Hair and leather, therefore, represent in themselves a salt-sulphur polarity, and thus fulfill the corresponding function when brought together with resin or glass respectively.

57 What is true for the particular substances which originally led human to discover the dual nature of electricity, holds good equally

for any pair of substances capable of assuming the electric state when rubbed against each other. 58 If we examine from this point of view the series of such substances, as usually given in the textbooks on electricity, 59 we shall always find a substance of extreme salt-character at the one end, and one of extreme sulphur-character at the other, the substances as a whole forming a gradual transition from one extreme to the other. 60 Which kind of electricity appears on each, when submitted to friction, depends on whether the counter-substance stands on its right or left, in the series. 61 It is the particular relation between the two which makes them behave in one way or the other.

62 There are cases which seem to elude this law, and investigation has shown that other characteristics of the rubbed bodies, such as surface quality, can have a modifying influence. 63 For lack of a guiding idea they are treated in the textbooks as 'irregularities'. Observation led by a true polarity concept shows that in these cases also the rule is not violated. 64 In this respect, interesting information can be gained from the observations of J. W. Ritter (1776-1810), an ingenious Naturphilosoph from the circle round Goethe, 65 but to whom, also, physical science is indebted for his discovery of the ultra-violet part of the spectrum and of galvanic polarisation. 66 Among his writings there is a treatise on electricity, giving many generally unknown instances of frictional electricity which are in good accord with our picture and well worth investigating. 67 According to Ritter, even two crystalline substances of different hardness, such as Calcite and quartz, become electric when rubbed together, the softer playing the part of 'resin' and the harder that of 'glass'.

68 These few facts connected with the generation of frictional electricity are enough to allow us to form a picture of the nature of the polarity represented by the two kinds of electricity.

69 We remember that in the case of the generation of heat through friction, as a result of an encroachment upon the cohesion of the material body involved, 70

the relationship between levity and gravity in it changes from 'moist' to 'dry' and that the effect of this is the appearance of 'fire' and 'dust' as poles of a primary polarity. 71 This process, however, is altered when the bodies subjected to friction are opposed to each other in the sense of a salt-sulphur polarity. 72 The effect then is that the liberated levity, under the influence of the peculiar tension between the two bodies, remains bound in the realm of substance and becomes itself split up polarically.

73 Clearly, then, in the case of electrical polarity we encounter a certain form of gravity-bound levity, and this in a twofold way. 74 Owing to the contrasting nature of the two bodies involved in the process, the coupling of gravity and levity is a polar one on both sides. 75 The electrical polarity thus turns out to be itself of the nature of a secondary polarity.

76 Two more recently discovered means of evoking the electric condition in a piece of matter confirm this picture. They are the so-called piezo-electricity and pyro-electricity. 77 Both signify the occurrence of the electrical polarity at the two ends of an asymmetrically built (hemimorphous) crystal, as the result of changing the crystal's spatial condition. 78 In piezo-electricity the change consists in a diminution of the crystal's volume through pressure; in pyro-electricity, in an increase of the crystal volume by raising its temperature. 79 The asymmetry of the crystal, due to a one-sided working of the forces of crystallisation, plays the same role here as does the alchemic opposition between the two bodies used for the production of frictional electricity.

80 It is typical of the scientist of the past that he was dependent on phenomena brought about by a highly developed experimental technique for becoming aware of certain properties of the electrical force, 81 whereas for the realistic observer these properties are revealed at once by the most primitive electric phenomena. 82 We remember Eddington's description of the positron as 'negative material', and his subsequent remarks, which show

the paradoxical nature of this concept if applied to the hypothetical interior of the atom (Chapter-4). 83 The quite primitive phenomenon of electrical repulsion and attraction shows us the same thing in a manner of which it is not difficult to form a conception.

84 Modern physics itself, with the help of Faraday's field-concept, describes these phenomena as caused by pressure-- resulting from the meeting in space of two similar electrical fields-- and suction-- resulting from the meeting of two dissimilar fields. 85 In the first case the space between the two electrically charged bodies assumes a degree of density, as if it were filled with some elastic material. 86 In the second instance the density of the space where the two fields intermingle is lower than that of its surroundings. 87 Here, clearly, we have a state of negative density which acts on the electrically charged bodies just as a lowering of pressure acts on a gas: 88 in both cases movement occurs in the direction leading from the higher to the lower density. 89 Electricity thus shows itself capable of producing both gravity and levity effects, thereby once more confirming our picture of it.

90 Our next task will be to examine the galvanic form of generating electricity, in order to gain further light on our picture of the electrical polarity.

91 Galvanism, as it became established through Volta's work, rests on certain properties of the metallic substances of the earth. 92 Compared with the substances which may be used for producing electricity through friction, the metals hold a mid-position. 93 They are all essentially mercurial substances.-- In quicksilver, which for this reason was given the name 'mercury' by the alchemists, this fact comes to an ur-phenomenal appearance. 94 Among the many facts proving the mercurial nature of the metals, there is one of particular interest to us. This is their peculiar relationship to the processes of oxidation and reduction.

95 Metals, in their metallic state, are bearers of latent levity, which can be set free either through combustion or through corrosion.

96 They differ from one another by their relative degree of eagerness to enter into and remain in the metallic, 97 that is, the reduced state, or to assume and keep the state of the oxide (in which form they are found in the various metallic oxides and salts). 98 There are metals such as gold, silver, etc., for which the reduced state is more or less natural; others, such as potassium, sodium, etc., find the oxidised state natural and can be brought into and kept in the reduced state only by artificial means. 99 Between these extremes there are all possible degrees of transition, some metals more nearly resembling the 'noble', others more nearly the 'corrosive', metals.

100 We remember that it was the different relationship of sulphur and phosphorus to reduction and oxidation which led us to envisage them as ur-phenomenal representatives of the alchemic polarity. 101 We may therefore say that there are metals which from the alchemic point of view more nearly resemble sulphur, others more nearly phosphorus, whilst others again hold an intermediary position between the extremes. 102 It is on these differences among the various metals that their galvanic properties are based.

103 Let us from this point of view contemplate the following series of chemical elements, which is a representation of the so-called voltaic series:

104 Graphite, Platinum, Gold, Silver, Copper, Iron, Tin, Lead, Zinc, Aluminium, Magnesium, Sodium, Potassium. Any two of these metals constitute a voltaic cell. 105 Its electromotive force is determined by the distance in the series between the metals used. 106 Just as in the case of frictional electricity, the kind of electricity which is supplied by a certain metal depends on whether the other metal with which it is coupled stands to the right or to the left of it in the series.

107 Let us now see what happens in a galvanic cell when the two different metals are simultaneously exposed to the chemical action of the connecting fluid. 108 Each metal by itself would undergo oxidation with greater or less intensity, and the calorific energy hidden in it would become free in

the form of heat. 109 This process suffers a certain alteration through the presence of the second metal, which sets up an alchemic tension between the two. 110 Instead of a proper segregation of the primary polarity, heat-dust (in this case, heat-oxide), the heat remains matter-bound and appears on the surface of the two metals in a secondarily split form as positive and negative electricity.

111 The similarity between this process and the frictional generation of electricity is evident.

112 Our observations have shown that the emergence of the electric state, whether it be caused by friction or galvanically, depends on matter entering into a condition in which its cohesion is loosened-- 113 or, as we also put it, on its being turned into 'dust'-- and this in such a way that the escaping levity remains dust-bound. 114 This picture of electricity now enables us to give a realistic interpretation of certain phenomena which, 115 in the interpretation which the physicist of the past was bound to give them, have contributed much to the tightening of the net of scientific illusion. 116 Some sixty years after Dalton had established, purely hypothetically, the theory of the atomistic structure of matter, scientific research was led to the observation of actual atomistic phenomena. 117 Crookes found electricity appearing in his tubes in the form of discrete particles, with properties hitherto known only as appertaining to mass. 118 What could be more natural than to take this as evidence that the method of thought developed during the past era of science was on the right course?

119 The same phenomena appear in quite a different light when we view them against the background of the picture of electricity to which our observations have led. 120 Knowing that the appearance of electricity depends on a process of atomisation of some sort, we shall expect that where electricity becomes freely observable, it will yield phenomena of an atomistic kind. 121 The observations of electricity in a vacuum, therefore, yield no confirmation whatsoever of the atomistic view of matter.

122 The same is true of the phenomena bound up with radioactivity, which were discovered in direct consequence of Crookes's work. 123 We know that the naturally radioactive elements are all in the group of those with the highest atomic weight. 124 This fact, seen together with the characteristics of radioactivity, tells us that in such elements gravity has so far got the upper hand of levity that the physical substance is unable to persist as a spatially extended, coherent unit. 125 It therefore falls asunder, with the liberated levity drawn into the process of dispersion. Seen thus, radioactivity becomes a symptom of the earth's old age.

126 Before entering into a discussion of the question, which naturally arises at this point, as to how levity and gravity by their two possible ways of interaction--'sulphurous' or 'saline'-- determine the properties of so-called positive and negative electricity, 127 we shall first study the third mode of generating electricity, namely, by electromagnetic induction. 128 Along this way we shall arrive at a picture of the magnetic force which corresponds to the one already obtained of electricity. 129 This will then lead us to a joint study of the nature of electric polarity and magnetic polarity.

130 The discovery of the phenomena we call electromagnetic depended on the possibility of producing continuous electrical processes. This arose with Volta's invention. 131 When it became necessary to find a concept for the process which takes place in an electric conductor between the poles of a galvanic cell, the concept of the 'current', borrowed from hydrodynamics, suggested itself. 132 Ever since then it has been the rule to speak of the existence of a current within an electric circuit; its strength or intensity is measured in terms of a unit named in honour of Ampere.

133 This concept of the current has had a fate typical of the whole relation of human thought to the facts connected with electricity. 134 Long after it had been coined to cover phenomena which in themselves betray no movement of any kind between the electrical

poles, other phenomena which do in fact show such movements became known through Crookes's observations. 135 Just as in the case of atomism, they seemed to prove the validity of the preconceived idea of the current. 136 Soon, however, radiant electricity showed properties which contradicted the picture of something flowing from one pole to the other. 137 The cathode rays, for instance, were found to shoot forth into space perpendicularly from the surface of the cathode, without regard to the position of the anode. 138 At the same time Maxwell's hydrodynamic analogy (as our historical survey has shown) led to a view of the nature of electricity by which this very analogy was put out of court. 139 By predicting certain properties of electricity which come to the fore when its poles alternate rapidly, he seemed to bring electricity into close kinship with light. 140 Mathematical treatment then made it necessary to regard the essential energy process as occurring, not from one pole to the other, but at right angles to a line joining the poles (Poynting's vector). 141 This picture, however, satisfactory though it was in the realm of high frequency, failed as a means of describing so-called direct-current processes.

142 As a result of all this the theory of electricity has fallen apart into several conceptual realms lying, as it were, alongside one another, each consistent in itself but lacking any logical connexion with the others. 143 Although the old concept of the electric current has long lost its validity, scientific thought (not to speak of the layman's) has not managed to discard it. 144 To do this must therefore be our first task, if we want to attain to a realistic picture of electromagnetism.

145 While keeping strictly to the historical order of things, we shall try first to form a picture of what happens when we connect two electrically charged bodies by a conductor. 146 We know that we rightly describe the change of the dynamic properties of the part of space, in which the two bodies are present, by saying that a certain electric field prevails in it. 147 This field possesses different 'potentials' at its various points and

so there exists a certain potential difference between the two electric charges. What then happens when a so-called 'conductor' is brought into such a field?

148 From the point of view of the field-concept, conductivity consists in the property of a body not to allow any change of potential along its surface. 149 Such a surface, therefore, is always an equipotential. In the language of alchemy, conductivity is a mercurial property. In the presence of such a body, therefore, no Salt-Sulphur contrasts can obtain. 150 In view of what we found above as the mean position of the metals in the alchemic triad, it is significant that they, precisely, should play so outstanding a role as electrical conductors.

151 If we keep to pure observation, the only statement we can make concerning the effect produced by the introduction of such a body into the electric field is that this field suddenly disappears. 152 We shall see later in which direction this vanishing occurs. For the present it is sufficient to have formed the picture of the disappearance of the electrical condition of space as a result of the presence of a body with certain mercurial properties.

153 Nothing else, indeed, happens when we make the process continuous by using a galvanic source of electricity. 154 All that distinguishes a galvanic cell from the sources of electricity used before the time of Volta is its faculty of immediately re-establishing the field which prevails between its poles, whenever this field becomes extinguished by the presence of a conductor. 155 Volta himself saw this quite correctly. In his first account of the new apparatus he describes it as 'Leyden jars with a continuously re-established charge'. 156 Every enduring electrical process, indeed, consists in nothing but a vanishing and re-establishment of the electrical field with such rapidity that the whole process appears continuous.

157 Here, also, pure observation of the effect of a conductor in an electric field tells us that its action consists in the annihilation of the field. 158 There is no phenomenon which allows us to state that this process takes place along the axis

of the conductor. 159 If we wish to obtain a picture of the true direction, we must consider the condition of space which arises in place of the electric condition that has disappeared.

160 With the possibility of turning the cancellation of the electrical condition of space into a continuous process, it became possible to observe that the neutralisation of electric charges entails the appearance of heat and magnetism. 161 We must now ask which are the qualities of electricity on the one hand, and of heat and magnetism on the other, which account for the fact that where electricity disappears, the two latter forces are bound to appear. 162 Since magnetism is the still unknown entity among the three, we must now deal with it.

163 Unlike electricity, magnetism was first known in the form of its natural occurrence, namely as a property of certain minerals. 164 If we follow the same course which led us to start our study of electricity with the primitive process of generating it, we shall turn now to the basic phenomenon produced by a magnetic field already in existence. 165 Only when we have learn't all we can from this, shall we proceed to ask how magnetism comes into being. Obviously, we shall find this basic phenomenon in the effect of a magnet on a heap of iron filings.

166 Let us, to begin with, compare a mass of solid iron with the same quantity of it in powdered form. The difference is that the powder lacks the binding force which holds the solid piece together. 167 Now let us expose the powdered iron to the influence of a magnet. At once a certain ordering principle takes hold of the single particles. 168 They no longer lie at random and unrelated, apart from the inconspicuous gravitational effect they exert on one another, but are drawn into a coherent whole, thus acquiring properties resembling those of an ordinary piece of solid matter.

169 Read thus, the phenomenon tells us that a part of space occupied by a magnetic field has qualities which are otherwise found only where a coherent solid mass is present. 170 A magnetic piece of solid iron, therefore, differs from a non-magnetic piece

by giving rise in its surroundings to dynamic conditions which would otherwise exist only in its interior. 171 This picture of the relatedness of magnetism to solidity is confirmed by the fact that both are cancelled by heat, and increased by cold.

172 By its magnetic properties iron thus reveals itself as a substance capable of assuming the condition of solid matter to a degree surpassing ordinary solidity. 173 As an exceptional kind of metal it forms the counter-pole to mercury, in which the solid-fluid condition characteristic of all metallic matter is as much shifted towards the fluid as in iron it is to the solid. 174 Note in this respect the peculiar resistance of iron to the liquefying effect which mercury has on the other metals.

175 This picture of magnetism enables us to understand at once why it must occur together with heat at the place where an electric polarity has been cancelled by the presence of a conductor. 176 We have seen that electricity is levity coupled in a peculiar way with gravity; it is polarised levity (accompanied by a corresponding polarisation of gravity). 177 An electric field, therefore, always has both qualities, those of levity and of gravity. 178 We saw a symptom of this in electrical attraction and repulsion, so called; the attraction, we found, was due to negative density, the repulsion to positive density, imparted to space by the electrical fields present there. 179 Now we see that when, through the presence of a conductor, the electrical field round the two opposing poles vanishes, in its place two other fields, a thermal and a magnetic, appear. 180 Clearly, one of them represents the levity-part, the other the gravity-part, of the vanished electric field. 181 The whole process reminds one of combustion through which the ponderable and imponderable parts, combined in the combustible substance, fall apart and appear on the one hand as heat, and on the other as oxidized substance ('ash'). 182 Yet, between these two manifestations of heat there is an essential qualitative difference.

183 Although, from our view-point, magnetism represents only one 'half of a phenomenon, the other half of which is heat, we must not

forget that it is itself a bipolar force. 184 Thus, despite its apparent relation to gravity it does not represent, as gravity does, one pole of a primary polarity, with heat as the other pole. 185 Rather must it carry certain qualities of levity which, together with those of gravity, appear in a polarically opposite manner at its two poles. 186 Details of this will be shown later when we come to investigate the individual qualities of the two poles of magnetism and electricity. 187 Hence the heat that forms the counterpart to magnetism cannot be pure levity either. As the result of a certain coupling with gravity, it too has somehow remained polarically split.

188 This can easily be seen by considering the following. Unlike the levity-gravity polarity, in which one pole is peripheral and the other point-centred, both Doles of the electrical polarity are point-centred; 189 both are located in physical space, and thereby determine a definite direction within this space. It is this direction which remains a characteristic of both the magnetic and the thermal fields. 190 The direction of the thermal field as much as that of the magnetic is determined by its having as its axis the conductor joining the poles of the antecedent electrical field. 191 Both fields supplement each other in that the thermal radiation forms the radii which belong to the circular magnetic lines-of-force surrounding the conductor.

192 Our picture of the process which is commonly called an electric current is now sufficiently complete to allow us to make a positive statement concerning the direction in which it takes place. 193 Let us once more sum up: In order that this process may occur, there must be present in an electrically excited part of space a body which does not suffer the particular polarisation of space bound up with such a field. 194 As a result, the electrical field disappears, and in place of it appear a thermal field and a magnetic field, both having as their axis the line connecting the two poles. 195 Each of them spreads out in a direction at right angles to this fine. Obviously, therefore, it is in this radial direction that the transformation of

the electrical into the thermo-magnetic condition of space must take place.

196 This picture of the electro-thermo-magnetic happening, as regards its direction, is in complete accord with the result obtained (as indicated earlier) by the mathematical treatment of high-frequency phenomena. 197 Once more we see that quite primitive observations, when properly read, lead to findings for which scientific thought had to wait until they were forced on it by the progress of experimental technique-- 198 as even then science was left without a uniformly valid picture of the dynamic behaviour of electricity.

199 Further, we can now see that when we apply electricity to practical purposes, we are in fact seldom using electricity itself, but other forces 200 that is, other combinations of gravity and levity which we make effective by making electricity disappear. 201 The same is true of most of the methods of measuring electricity. As a rule, the force which sets the instrument in motion is not electricity but another force (magnetism, heat, etc.) which appears in the place of the vanishing electricity. 202 Thus the so-called intensity of an electric current is actually the intensity with which the electricity in question disappears! 203 Electricity serves us in our machines in the same way that food serves a living organism: it gets itself digested, and what matters is the resulting secondary product.

204 Just as alterations in the electrical condition of space give rise to the appearance of a magnetic field, any alteration of the magnetic state of space gives rise to the appearance of an electrical field. This process is called electromagnetic induction. 205 With its discovery, the generation of electricity through friction and in the galvanic way was supplemented by a third way. 206 By this means the practical use of electricity on a large scale became possible for the first time. 207 If our picture of the two earlier processes of generating electricity is correct, then this third way must also fit into the picture, although in this case we have no longer to do

with any direct atomisation of physical matter. 208 Our picture of magnetism will indeed enable us to recognise in electromagnetic induction the same principle on which we found the two other processes to rest.

209 Magnetism is polarised gravity. Hence it has the same characteristic of tending always to maintain an existent condition. 210 In bodies subject to gravity, this tendency reveals itself as their inertia. It is the inertia inherent in magnetism which we employ when using it to generate electricity. 211 The simplest example is when, by interrupting a 'primary current', we induce a 'secondary current' in a neighbouring circuit. 212 By the sudden alteration of the electric condition on the primary side, the magnetic condition of the surrounding space is exposed to a sudden corresponding change. 213 Against this the magnetic field 'puts up' a resistance by calling forth, on the secondary side, an electrical process of such direction and strength that the entire magnetic condition remains first unaltered and then, 214 instead of changing suddenly, undergoes a gradual transformation which ideally needs an infinite time for its accomplishment (asymptotic course of the exponential curve). 215 This principle rules every process of electromagnetic induction, whatever the cause and direction of the change of the magnetic field.

216 We know that electromagnetic induction takes place also when a conductor is moved across a magnetic field in such a way that, as the technical term goes, it 'cuts' the field's lines of force. 217 Whereas the process discussed above is employed in the transformer, this latter process is used in generation of electricity by dynamo. 218 We have seen that a magnetic field imparts to the relevant part of space qualities of density which otherwise prevail only in the interior of solid masses. 219 We remember further that the appearance of electricity, in the two other modes of generating it, is caused by the loosening of the coherence of the material substance. 220 A similar loosening of the coherence of the magnetic field takes place when its field-

lines are cut by the movement of the conductor across it. 221 Just as heat occurs when we move a solid object through a liquid, electricity occurs when we move a conductor across a magnetic field. In each case we interfere with an existing levity-gravity relationship.

222 Having established thus far the picture of both electricity and magnetism which shows each as an outcome of certain levity-gravity interactions, 223 we now ask how, in particular, negative and positive electricity on the one hand and north and south magnetism on the other are determined by these interactions. Let us again begin with electricity.

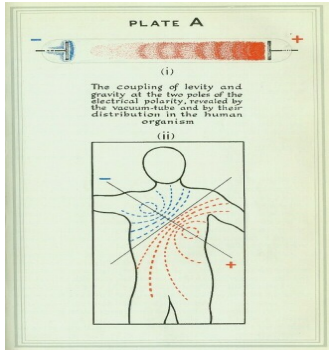
224 We remember that Galvani was led to his observations by the results of Walsh's study of the electric fishes. 225 While Galvani clung to the view that in his own experiments the source of the electrical force lay within the animal bodies, Volta saw the fallacy of that. 226 He then conceived the idea of imitating with purely inorganic substances the set-up which Galvani had come upon by accident. 227 The paradoxical result-- as he himself noticed with surprise-- was that his apparatus turned out to be a close replica of the peculiar organ with which the electric fishes are endowed by Nature. We must now take a closer view of this organ.

228 The electric organ of such a fish consists of many thousands of little piles, each made up of a very great number of plates of two different kinds, arranged in alternating layers. 229 The two kinds differ in substance: in one case the plate is made from a material similar to that present in the nervous system of animals; 230 in the other the resemblance is to a substance present in the muscular system, though only when the muscles are in a state of decay. 231 In this way the two opposing systems of the animal body' seem to be brought here into direct contact, repeated many thousands of times.

232 In the electric fishes, accordingly, sensation and will are brought into a peculiar interrelation. 233 For the will-pole is related to its bodily foundation in a manner which otherwise obtains only between the nervous system and the psychological

processes co-ordinated with it. 234 These fishes then have the capacity to send out force-currents which produce in other animals and in human 'concussion of the limbs', or in extreme cases paralysis and even death. 235 Through describing the process in this way we realise that electricity appears here as metamorphosed animal will, which takes this peculiar form because part of the animal's volitional system is assimilated to its sensory system in an exceptional manner.

236 It is known to-day that what Nature reveals so strikingly in the case of the electric fish, is nothing but the manifestation of a principle at work in the bodies of all beings endowed with sensation and volition-- 237 in corporeal terms, with the duality of a nervous and a muscular system - and therefore at work also in the human body. 238 Observation has shown that the activities of these two systems in human and animal are accompanied by the occurrence of different electric potentials in different parts of the body. 239 Plate A, Fig. iii, shows the distribution of the two polar electric forces in the human body. The bent lines in the diagram stand for curves of equal electric potential.



240 The straight line between them is the neutral zone. As might be expected, this line runs through the heart. What seems less obvious is its slanting position. Here the asymmetry, characteristic of the human body, comes to expression.

241 If we remember that the nervous system represents the salt-pole, and the metabolic system the sulphur-pole, of the human organism, and if we take into account the relationship between levity and gravity at the two poles, 242 we can see from the distribution of the two electricities that the coupling of levity and gravity at the negative pole of the electrical polarity is such that levity descends into gravity, while

at the positive pole gravity rises into levity. 243 Negative electricity therefore must have somehow a 'spherical' character, and positive electricity a 'radial'.

244 This finding is fully confirmed by electrical phenomena in the realm of Nature most remote from human-- though it was an effort to solve the enigma of human which led to the discovery of this realm. 245 Since Crookes's observations of the behaviour of electricity in a vacuum it is common knowledge that only the negative kind of electricity occurs as a freely radiating force-- though it retains some properties of inertia,-- 246 whereas positive electricity seems to be much more closely bound to minute particles of ponderable matter. 247 Here again we find gravity-laden levity on the negative side, levity-raised gravity on the positive.

248 The same language is spoken by the forms in which the luminous phenomena appear at the two poles of a Crookes tube. 249 Fig. i on Plate A represents the whole phenomenon as far as such a diagram allows. Here we see on the positive side radial forms appear, on the negative side planar-spherical forms. 250 As symbols of Nature's script, these forms tell us that cosmic periphery and earthly centre stand in a polar relation to each other at the two ends of the tube. 251 Our optical studies will later show that the colours which appear at the anode and cathode are also in complete accord with this.

252 At this point in our discussion it is possible to raise, without risk of confusing the issue, the question of the distribution of the two electric forces over the pairs of substances concerned in the generation of electricity both by friction and in the galvanic way. 253 This distribution seems to contradict the picture to which the foregoing observations have led us, for in both instances the 'sulphurous' substances (resin in one, the nobler metals in the other) become bearers of negative electricity; 254 while the 'saline' substances (glass and the corrosive metals) carry positive electricity. 255 Such a criss-crossing of the poles-surprising as it seems at first sight-- is not new to us. 256 We have met it in the distribution of

function of the plant's organs of propagation, and we shall meet a further instance of it when studying the function of the human eye. 257 Future investigation will have to find the principle common to all instances in Nature where such an interchange of the poles prevails.

258 While the electric field arising round an electrified piece of matter does not allow any recognition of the absolute characteristics of the two opposing electrical forces, we do find them revealed by the distribution of electricity in the human body. 259 Something similar holds good for magnetism. Only, to find the phenomena from which to read the absolute characteristics of the two sides of the magnetic polarity, we must not turn to the body of human but to that of the earth, 260 one of whose characteristics it is to be as much the bearer of a magnetic field as of gravitational and levitational fields. 261 There is significance in the fact that even to-day, when the tendency prevails to look for causes of natural phenomena not in the macrocosmic expanse, but in the microscopic confines of space, the two poles of magnetism are named after the magnetic poles of the earth. 262 It indicates the degree to which human's feeling instinctively relates magnetism to the earth as a whole.

263 In our newly developed terminology we may say that magnetism, as a polarity of the second order, represents a field of force both of whose poles are situated within finite space, 264 and that in the macro-telluric mother-field this situation is such that the axis of this field coincides more or less with the axis of the earth's physical body. 265 Thus the magnetic polarisation of the earth as a letter in Nature's script bids us rank it alongside other phenomena which in their way are an expression of the earth's being polarised in the north-south direction.

266 The Austrian geographer, E. Suess, in his great work The Countenance of the Earth, first drew attention to the fact that an observer approaching the earth from outer space would be struck by the one-sided distribution and formation of the earth's continents. 267 He would notice that most of

the dry land is in the northern hemisphere, leaving the southern hemisphere covered mainly with water. 268 In terms of the basic elementary qualities, this means that the earth is predominantly 'dry' in its northern half, and 'moist' in its southern.

269 In this fact we have a symbol which tells us that the earth represents a polarity of the second order, with its 'salt'-pole in the north and its 'sulphur'-pole in the south. 270 Hence the magnetism called 'North' must be of saline and therefore spherical nature, corresponding to the negative pole in the realm of electricity, while 'South' magnetism must be of sulphurous-- i.e. radial-nature, corresponding to positive electricity. 271 Moreover, this must hold good equally for the fields of magnetic force generated by naturally magnetic or artificially magnetized pieces of iron. 272 For the circumstance that makes a piece of matter into a magnet is simply that part of the general magnetic field of the earth has been drawn into it. 273 Of especial interest in this respect is the well-known dependence of the direction of an electrically produced magnetic field on the position of the poles of the electric field.

274 The insight we have now gained into the nature of electricity has led us to the realisation that with every act of setting electromagnetic energies in motion we interfere with the entire levity-gravity balance of our planet by turning part of the earth's coherent substance into cosmic 'dust'. 275 Remembering our picture of radioactivity, in which we recognised a sign of the earth's old age, we may say that whenever we generate electricity we speed up the earth's process of cosmic ageing. 276 Obviously this is tremendously enhanced by the creation of artificial radioactivity along the lines recently discovered, 277 whereby it has now become possible to transmute chemical elements into one another, or even to cancel altogether their gravity-bound existence.

278 To see things in this light is to realise that with our having become able to rouse electricity and magnetism from their dormant state and make them work for us, a

gigantic responsibility has devolved upon humankind. 279 It was human's fate to remain unaware of this fact during the first phase of the electrification of your civilisation; to continue now in this state of unawareness would spell peril to the human race.

280 The fact that modern science has long ceased to be a 'natural' science is something which has begun to dawn upon the modern scientific researcher. 281 What has thus come to him as a question finds a definite answer in the picture of electricity we have been able to develop. 282 It is again Eddington who has drawn attention particularly to this question: see the chapter, 'Discovery or Manufacture?' in his *Philosophy of Physical Science*. 283 It will be appropriate at this point to recall his remarks, for they bear not only on the outcome of our own present discussion, but also, as the next chapter will show, on the further course of our studies.

284 Eddington starts by asking: 'When Lord Rutherford showed us the atomic nucleus, did he find it or did he make it?' 285 Whichever answer we give, Eddington goes on to say, makes no difference to our admiration for Rutherford himself. But it makes all the difference to our ideas on the structure of the physical universe. 286 To make clear where the modern physicist stands in this respect, Eddington uses a striking comparison. 287 If a sculptor were to point in our presence to a raw block of marble saying that the form of a human head was lying hidden in the block, 'all our rational instinct would be roused against such an anthropomorphic speculation'. 288 For it is inconceivable to us that Nature should have placed such a form inside the block. Roused by our objection, the artist proceeds to verify his theory experimentally--'with quite rudimentary apparatus, too: 289 merely using a chisel to separate the form for our inspection, he triumphantly proves his theory.'

290 'Was it in this way', Eddington asks, 'that Rutherford rendered concrete the nucleus which his scientific imagination had created?' 291 One thing is certain: 'In every physical laboratory we

see ingeniously devised tools for executing the work of sculpture, according to the designs of the theoretical physicist. 292 Sometimes the tool slips and carves off an odd-shaped form which the physicist had not expected. Then we have a new experimental discovery,'

293 To this analogy Eddington adds the following even more drastic one: 'Procrustes, you will remember,' he says, 'stretched or chopped down his guests to fit the bed he constructed. 294 But perhaps you have not heard the rest of the story. He measured them up before they left the next morning, and wrote a learned paper '*On the Uniformity of Stature of Travellers for the Anthropological Society of Attica*.'

295 Besides yielding a definite answer to the question of how far the seemingly discovered facts of science are manufactured facts, 296 our newly won insight into the nature of the electric and magnetic polarties throws light also on the possibility of so handling both that their application will lead no longer to a cancellation, but to a true continuation, of Nature's own creative deeds.

COLOURS AS 'DEEDS AND SUFFERINGS OF LIGHT'

Ernst Lehrs

14 'As for what I have done as a poet, I take no pride in it whatever. Excellent poets have lived at the same time as myself; poets more excellent have lived before me, and others will come after me. 2 But that in my century I am the only person who knows the truth in the difficult science of colours--of that, I say, I am not a little proud, and here I have a consciousness of a superiority to many.'

3 In these words spoken to his secretary, Eckermann, in 1829, a few years before his death, Goethe gave his opinion on the significance of his scientific researches in the field of optical phenomena. 4 He knew that the path he had opened up had led him to truths which belong to the original truths of humankind. He expressed this by remarking that

his theory of colour was 'as old as the world'.

5 If in this book we come somewhat late to a discussion of Goethe's colour-theory, in spite of the part it played in his own scientific work, and in spite of its significance for the founding of a physics based on his method, the reasons are these. 6 When Goethe undertook his studies in this field he had not to reckon with the forms of thought which have become customary since the development of mechanistic and above all - to put it concisely - of 'electricalistic' thinking. 7 Before a hearing can be gained in our age for a physics of Light and Colour as conceived by Goethe, certain hindrances must first be cleared away. 8 So a picture on the one hand of matter, and on the other of electricity, such as is given when they are studied by Goethean methods, had first to be built up; 9 only then is the ground provided for an unprejudiced judgment of Goethe's observations and the deductions that can be made from them to-day.

10 As Professor Heisenberg, in his lecture quoted earlier (Chapter-2), rightly remarks, Goethe strove directly with Newton only in the realms of colour-theory and optics. 11 Nevertheless his campaign was not merely against Newton's opinions in this field. He was guided throughout by the conviction that the fundamental principles of the whole Newtonian outlook were at stake. 12 It was for this reason that his polemics against Newton were so strongly expressed, although he had no fondness for such controversies.13 In looking back on that part of the Farbenlehre which he had himself called 'Polemical' in the title, he said to Eckermann: 'I by no means disavow my severe dissections of the Newtonian statements; 14 it was necessary at the time and will also have its value hereafter; but at bottom all polemical action is repugnant to my nature, and I can take but little pleasure in it.'

15 The reason why Goethe chose optics as the field of conflict, and devoted to it more than twenty years of research and reflexion, amidst all the other labours of his rich life, lay certainly in his individual temperament-- 'zum Sehen geboren, zum Schauen

bestellt'. 16 At the same time one must see here a definite guidance of humanity. Since the hour had struck for humankind to take the first step towards overcoming the world-conception of the one-eyed, colour-blind onlooker, 17 what step could have been more appropriate than this of Goethe's, when he raised the eye's capacity for seeing colours to the rank of an instrument of scientific cognition?

18 In point of fact, the essential difference between Goethe's theory of colour and the theory which has prevailed in science (despite all modifications) since Newton's day, lies in this: 19 While the theory of Newton and his successors was based on excluding the colour-seeing faculty of the eye, Goethe founded his theory on the eye's experience of colour.

20 In view of the present scientific conception of the effect which a prismatic piece of a transparent medium has on light passing through it, 21 Goethe's objection to Newton's interpretation and the conclusions drawn from it seems by no means as heretical as it did in Goethe's own time and for a hundred years afterwards. 22 For, as Lord Rayleigh and others have shown, the facts responsible for the coming into being of the spectral colours, when these are produced by a diffraction grating, invalidate Newton's idea that the optical apparatus serves to reveal colours which are inherent in the original light. 23 Today it is known that these colours are an outcome of the interference of the apparatus (whether prism or grating) with the light. 24 Thus we find Professor R. W. Wood, in the opening chapter of his *Physical Optics*, after having described the historical significance of Newton's conception of the relation between light and colour, 25 saying: 'Curiously enough, this discovery, which we are taking as marking the beginning of a definite knowledge about light, is one which we shall demolish in the last chapter of this book, 26 for our present ideas regarding the action of the prism more nearly resemble the idea held previous to Newton's classical experiments. 27 We now believe that the prism actually manufactures the coloured light.'

28 We find ourselves faced here with an instance of the problem,

'Discovery or Manufacture?' dealt with by Eddington in the manner described in our previous chapter. 29 This very instance is indeed used by Eddington himself as a case in which the answer is definitely in favour of 'manufacture'. 30 Nevertheless, Eddington complains, experts, in spite of knowing better, keep to the traditional way of speaking about the spectral colours as being originally contained in the light. 'Such is the glamour of a historical experiment.' 31 It is for the same reason that Goethe's discovery continues to be unrecognised by the majority of scientists, who prefer, instead of examining the question for themselves, to join in the traditional assertion that 'Goethe never understood Newton'. 32 As Goethe relates at the conclusion of the 'historical' part of his Farbenlehre, he was drawn to study colour by his wish to gain some knowledge of the objective laws of aesthetics. 33 He felt too close to poetry to be able to study it with sufficient detachment, so he turned to painting-- 34 an art with which he felt sufficiently familiar without being connected with it creatively-- hoping that if he could discover the laws of one art they would prove applicable to others.

35 His visit to Italy, a land rich both in natural colour and in works of art, gave him a welcome opportunity to pursue this inquiry, but for a long time he made no headway. 36 The paintings he saw suggested no inherent law in their arrangement of colours, nor could the painters he questioned tell him of one. 37 The only qualitative distinction they seemed to recognise was between 'cold' and 'warm' colours.

38 His own observations led him to a definite experience of the quality of the colour blue, for which he coined the phrase 'feebleness of blue' ('Ohnmacht des Blau'). In some way this colour seemed to him to be related to black. 39 In order to rouse his artist friends and to stimulate their reflexions, he liked to indulge in paradoxes, as when he asserted that blue was not a colour at all. He found, however, as time went on, that in this way he came no nearer his goal.

40 Although the splendour of colour in the Italian sky and the Italian landscape made a powerful

impression on Goethe, 41 he found not enough opportunity for systematic study to allow him to arrive at more than a dim surmise of some law underlying the occurrence of colour in Nature. 42 Still, there was one thing he took home with him as a result of his labours. He had grown convinced that 'the first approach to colours as physical phenomena had to be sought from the side of their occurrence in Nature, if one would gain an understanding of them in relation to art'.

43 Back at home, he strove to recollect the theory of Newton as it was being taught in schools and universities-- namely, that 'colours in their totality are contained in light'. 44 Hitherto he had had no occasion to doubt the correctness of this theory. Like everyone else, he had heard it expounded in lectures as an incontestable result of empirical observation, though without this ever having been shown to him by way of experiment. 45 He convinced himself by consulting a manual that his recollection was correct, but at the same time he found that the theory there set forth gave no help in answering his questions. So he decided to examine the phenomena for himself.

46 For this purpose he borrowed a set of prisms from a friend living in near-by Jena, the physicist, BÃ¼ttner. 47 Since, however, he had at that time no opportunity of arranging a dark chamber on Newton's lines, where the necessary ray of light from a tiny hole in the window-covering was sent through a prism, 48 he postponed the whole thing, until in the midst of all his many other interests and duties it was forgotten. 49 In vain BÃ¼ttner pressed many times for the return of the prisms; at last he sent a mutual acquaintance with the injunction not to return without them. 50 Goethe then searched for the long-neglected apparatus and determined to take a rapid glance through one of the prisms before he gave them back.

51 He recalled dimly his pleasure as a boy at the vision of the world given him through a bit of similarly shaped glass. 'I well remember that everything looked coloured, but in what manner I could no longer recollect. 52 I was

just then in a room completely white; remembering the Newtonian theory, I expected, as I put the prism to my eye, to find the whole white wall coloured in different hues and to see the light reflected thence into the eye, split into as many coloured lights.

53 'But how astonished was I when the white wall seen through the prism remained white after as before. 54 Only where something dark came against it a more or less decided colour was shown, and at last the window-bars appeared most vividly coloured, while on the light-grey sky outside no trace of colouring was to be seen. 55 It did not need any long consideration for me to recognise that a boundary or edge is necessary to call forth the colours, and I immediately said aloud, as though by instinct, that the Newtonian doctrine is false.'

56 For Goethe, there could be no more thought of sending back the prisms, and he persuaded BÃ¼ttner to leave them with him for some time longer. 57 Goethe adds a short account of the progress of the experiments he now undertook as well as of his efforts to interest others in his discovery. 58 He makes grateful reference to those who had brought him understanding, and who had been helpful to him through the exchange of thoughts. 59 Among these, apart from Schiller, whom Goethe especially mentions, we find a number of leading anatomists, chemists, writers and philosophers of his time, but not a single one of the physicists then active in teaching or research. 60 The 'Guild' took up an attitude of complete disapproval or indifference, and so have things remained till a hundred years after his death, as Goethe himself prophesied. 61 One of the first systematic pieces of work which Goethe undertook in order to trace the cause of the Newtonian error was to go through Book-I of Newton's Optics, 62 sentence by sentence, recapitulate Newton's experiments and rearrange them in the order which seemed to him essential. 63 In so doing he gained an insight which was fundamental for all future work, and often proved very beneficial in the perfecting of his own methods. 64 His examination

of the Newtonian procedure showed him that the whole mistake rested on the fact that 'a complicated phenomenon should have been taken as a basis, and the simpler explained from the complex'. 65 Nevertheless, it still needed 'much time and application in order to wander through all the labyrinths with which Newton had been pleased to confuse his successors'.

66 It seems a small thing, and yet it is a great one, which Goethe, as the above description shows, discovered almost by chance. 67 This is shown by the conclusions to which he was led in the systematic prosecutions of his discovery. 68 An account of them is given in his BeitrÃ¤ge zur Optik, published in 1791, the year in which Galvani came before the public with his observations in the sphere of electricity.

69 Goethe describes in this book the basic phenomena of the creation of the prismatic colours, with particulars of a number of experiments so arranged that the truth he had discovered, contrary to Newton's view, comes to light through the very phenomena themselves. 70 Only much later, in the year 1810, and after he had brought to a certain conclusion four years previously the researches which he had pursued most carefully the whole time, 71 did he make public the actual masterpiece, Entwurf einer Farbenlehre. (An English translation of the didactic part appeared about ten years after Goethe's death.)

72 While leaving a more detailed description of the composition of Goethe's Entwurf for our next chapter, we shall here deal at once with some of the essential conclusions to which the reader is led in this book. 73 As already mentioned, Goethe's first inspection of the colour-phenomenon produced by the prism had shown him that the phenomenon depended on the presence of a boundary between light and darkness. 74 Newton's attempt to explain the spectrum out of light alone appeared to him, therefore, as an inadmissible setting aside of one of the two necessary conditions. 75 Colours, so Goethe gleaned directly from the prismatic phenomenon, are

caused by both light and its counterpart, darkness. 76 Hence, to arrive at an idea of the nature of colour, which was in accord with its actual appearance, he saw himself committed to an investigation of the extent to which the qualitative differences in our experience of colours rests upon their differing proportions of light and darkness.

77 It is characteristic of Goethe's whole mode of procedure that he at once changed the question, 'What is colour?' into the question, 'How does colour arise?' 78 It was equally characteristic that he did not, as Newton did, shut himself into a darkened room, so as to get hold of the colour-phenomenon by means of an artificially set-up apparatus. 79 Instead, he turned first of all to Nature, to let Her give him the answer to the questions She had raised. 80 It was clear to Goethe that to trace the law of the genesis of colour in Nature by reading Her phenomena, he must keep a look-out for occurrences of colours which satisfied the conditions of the Ur-phÃ¤nomen, as he had learned to know it. 81 This meant that he must ask of Nature where She let colours arise out of light and darkness in such a way that no other conditions contributed to the effect.

82 He saw that such an effect was presented to his eye when he turned his gaze on the one hand to the blue sky, and on the other to the yellowish luminous sun. 83 Where we see the blue of the heavens, there, spread out before our eyes, is universal space, which as such is dark. 84 Why it does not appear dark by day as well as by night is because we see it through the sun-illumined atmosphere. 85 The opposite role is played by the atmosphere when we look through it to the sun. In the first instance it acts as a lightening, in the second as a darkening, medium. 86 Accordingly, when the optical density of the air changes as a result of its varying content of moisture, the colour-phenomenon undergoes an opposite change in each of the two cases. 87 Whilst with increasing density of the air the blue of the sky brightens up and gradually passes over into white, the yellow of the sun

gradually darkens and finally gives way to complete absence of light.

88 The ur-phenomenon having once been discovered in the heavens, could then easily be found elsewhere in Nature on a large or small scale-as, for instance, in the blue of distant hills when the air is sufficiently opaque, 89 or in the colour of the colourless, slightly milky opal which looks a deep blue when one sees it against a dark background, and a reddish yellow when one holds it against the light. 90 The same phenomenon may be produced artificially through the clouding of glass with suitable substances, as one finds in various glass handicraft objects. 91 The aesthetic effect is due to the treated glass being so fashioned as to present continually changing angles to the light, when both colour-poles and all the intermediate phases appear simultaneously. 92 It is also possible to produce the ur-phenomenon experimentally by placing a glass jug filled with water before a black background, illuminating the jug from the side, and gradually clouding the water by the admixture of suitable substances. 93 Whilst the brightness appearing in the direction of the light goes over from yellow and orange to an increasingly red shade, the darkness of the black background brightens to blue, which increases and passes over to a milky white.

94 It had already become clear to Goethe in Italy that all colour-experience is based on a polarity, which he found expressed by painters as the contrast between 'cold' and 'warm' colours. 95 Now that the coming-into-being of the blue of the sky and of the yellow of the sun had shown themselves to him as two processes of opposite character, he recognised in them the objective reason why both colours are subjectively experienced by us as opposites. 96 'Blue is illumined darkness--yellow is darkened light'-- thus could he assert the urphenomenon, while he expressed the relation to Light of colours in their totality by saying: '*Colours are Deeds and Sufferings of Light*.'

97 With this, Goethe had taken the first decisive step towards his goal-- the tracing of human's

aesthetic experience to objective facts of Nature.

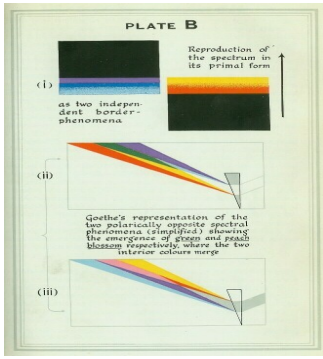
98 If we use the expressions of preceding chapters, we can say that Goethe, in observing the coloured ur-phenomenon, had succeeded in finding how from the primary polarity, Light-Dark, the opposition of the yellow and blue colours arises as a secondary polarity. 99 For such an interplay of light and darkness, the existence of the air was seen to be a necessary condition, representing in the one case a lightening, in the other, a darkening element. 100 That it was able to play this double role arose from its being on the one hand pervious to light, while yet possessing a certain substantial density. For a medium of such a nature Goethe coined the expression trÃ¼bes Medium.

101 There seems to be no suitable word in English for rendering the term trÃ¼be in the sense in which Goethe used it to denote the optical resistance of a more or less transparent medium. 102 The following remarks of Goethe's, reported by his secretary Riemer, will give the reader a picture of what Goethe meant by this term, clear enough to allow us to use the German word. 103 Goethe's explanation certainly shows how inadequate it is to translate trÃ¼be by 'cloudy' or 'semi-opaque' as commentators have done. 104 'Light and Dark have a common field, a space, a vacuum in which they are seen to appear. This space is the realm of the transparent. 105 Just as the different colours are related to Light and Dark as their creative causes, so is their corporeal part, their medium, TrÃ¼be, related to the transparent. 106 The first diminution of the transparent, i.e. the first slightest filling of space, the first disposition, as it were, to the corporeal, i.e. the non-transparent - this is TrÃ¼be.'

107 After Goethe had once determined from the macrotelluric phenomenon that an interplay of light and darkness within TrÃ¼be was necessary for the appearance of colour in space, 108 he had no doubt that the prismatic colours, too, could be understood only through the coming together of all these three elements. 109 It was now his task to examine in what way the prism, by its being

trÃ¼be, brings light and darkness, or, as he also expressed it, light and shadow, into interplay, when they meet at a boundary.

110 We must remember that on first looking through the prism Goethe had immediately recognised that the appearance of colour is always dependent on the existence of a boundary between light and darkness-- in other words, that it is a border phenomenon. 111 What colours appear on such a border depends on the position of light and darkness in relation to the base of the prism. 112 If the lighter part is nearer to the base, then blue and violet tints are seen at the border, and with the reverse position tints of yellow and red (Plate B, Fig. i).



113 Along this path of study Goethe found no reason for regarding the spectrum-phenomenon as complete only when both kinds of border-phenomena appear simultaneously 114 let alone when-- as a result of the smallness of the aperture through which the light meets the prism-- the two edges lie so close that a continuous band of colour arises. 115 Hence we find Goethe-- unlike Newton-- treating the two ends of the spectrum as two separate phenomena.

116 In this way, the spectrum phenomenon gave Goethe confirmation that he had succeeded in expressing in a generally valid form the law of the origin of the blue and the yellow colours, as he had read it from the heavens. 117 For in the spectrum, too, where the colour blue appears, there he saw darkness being lightened by a shifting of the image of the border between light and dark in the direction of darkness; 118 where yellow appears, he saw light being darkened by a shifting of the image in the direction of light. (See the arrow in Plate B, Fig. I above.)

119 In the colours adjoining these-- indigo and violet on the blue side,

orange and red on the yellow side-- Goethe recognised 'heightened' modifications of blue and yellow. 120 Thus he had learn't from the macro-telluric realm that with decreasing density of the corporeal medium, the blue sky takes on ever deeper tones, while with increasing density of the medium, the yellow of the sunlight passes over into orange and finally red. 121 Prismatic phenomenon and macrotelluric phenomenon were seen to correspond in this direction, too.

122 Faithful to his question, 'How does colour arise?' Goethe now proceeded to investigate under what conditions two borders, when placed opposite each other, provide a continuous band of colour-- 123 that is, a colour-band where, in place of the region of uncoloured light, green appears. 124 This, he observed, came about if one brought one's eye, or the screen intercepting the light, to that distance from the prism where the steadily widening yellow-red and the blue-violet colour-cones merge (See Plate-B, Fig.ii above). 125 Obviously, this distance can be altered by altering the distance between the two borders. In the case of an extremely narrow light-space, the blue and yellow edges will immediately overlap. 126 Yet the emergence of the green colour will always be due to a union of the blue and yellow colours which spread from the two edges. 127 This convinced Goethe that it is inadmissible to place the green in the spectrum in line with the other colours, as is customary in the explanation of the spectrum since Newton's time.

128 This insight into the relation of the central colour of the continuous spectrum to its other colours still further strengthened Goethe's conviction that in the way human experiences Nature in own soul, objective laws-of-Nature come to expression. 129 For just as we experience the colours on the blue side of the spectrum as cold colours, and those on the yellow side as warm colours, so does green give human the impression of a neutral colour, influencing us in neither direction. 130 And just as the experience of the two polar colour-ranges is an expression of the objective natural law behind them, so too is the

experience of green, the objective conditions of whose origin give it a neutral position between the two. 131 With this it also became clear why the vegetative part of the plant organism, the region of leaf and stem formation, where the light of the sun enters into a living union with the density of earthly substance, must appear in a garment of green.

132 Having in this way found the clue to the true genesis of the spectrum, Goethe could not fail to notice that it called for another-- a 'negative' spectrum, its polar opposite-- to make the half into a whole. 133 For he who has once learn't that light and darkness are two equally essential factors in the birth of colour, 134 and that the opposing of two borders of darkness so as to enclose a light is a 'derived' (abgeleitet) experimental arrangement, 135 is naturally free to alter the arrangement and to supplement it by reversing the order of the two borders, thus letting two lights enclose a darkness between them.

136 If one exposes an arrangement like this to the action of the prism, whose position has remained unchanged, colours appear on each of the two edges, as before, but in reverse order (Fig. iii). 137 The spectral phenomenon now begins at one side with light blue and passes into indigo and violet, with uncoloured darkness in the centre. 138 From this darkness it emerges through red and passes through orange to yellow at the other end.

139 Again, where the two interior colour-cones merge, there an additional colour appears. Like green, it is of a neutral character, but at the same time its quality is opposite to that of green. 140 In Newtonian optics, which assumes colour to be derived from light only, this colour has naturally no existence. 141 Yet in an optics which has learn't to reckon with both darkness and light as generators of colour, the complete spectrum phenomenon includes this colour equally with green. 142 For lack of an existing proper name for it, Goethe termed it 'pure red'-- since it was free from both the blue tinge of the mauve, and the yellow tinge of the red end of the ordinary spectrum, 143 or 'peach-blossom' (pfirsichblÃ¼t), or 'purple' (as being nearest to the

dye-stuff so called by the ancients after the mollusc from which it was obtained).

144 It needs only a glance through the prism into the sunlit world to make one convinced of the natural appearing of this delicate and at the same time powerfully luminous colour. 145 For a narrow dark object on a light field is a much commoner occurrence in Nature than the enclosing by two broad objects of a narrow space of light, the condition necessary for the emergence of a continuous colour-band with green in the middle. 146 In fact, the spectrum which science since the time of Newton regards as the only one, appears much more rarely among natural conditions than does Goethe's counter-spectrum.

147 With the peach-blossom a fresh proof is supplied that what human experiences in own soul is in harmony with the objective facts of Nature. 148 As with green, we experience peach-blossom as a colour that leaves us in equilibrium. 149 With peach-blossom, however, the equilibrium is of a different kind, owing to the fact that it arises from the union of the colour-poles, not at their original stage but in their 'heightened' form. 150 And so green, the colour of the plant-world harmony given by Nature, stands over against 'purple', the colour of the human being striving towards harmony. 151 By virtue of this quality, purple served from antiquity for the vesture of those who have reached the highest stage of human development for their time. 152 This characteristic of the middle colours of the two spectra was expressed by Goethe when he called green 'real totality', and peach-blossom 'ideal totality'.

153 From this standpoint Goethe was able to smile at the Newtonians. He could say that if they persisted in asserting that the colourless, so-called 'white' light is composed of the seven colours of the ordinary spectrum-- red, orange, yellow, green, blue, indigo, violet-- 154 then they were in duty bound to maintain also that the colourless, 'black' darkness is composed of the seven colours of the inverted spectrum-- yellow, orange, red, purple, violet, indigo, blue.

155 Despite the convincing force of this argument, the voice of the Hans Andersen child speaking through Goethe failed to gain a hearing among the crowd of Newtonian faithful. 156 So has it been up to the present day-- regardless of the fact that, as we have shown, modern physics has reached results which make a contradiction of the Newtonian concept of the mutual relation of light and colour no longer appear so heretical as it was in Goethe's time.

157 When we compare the way in which Goethe, on the one hand, and the physical scientist, on the other, have arrived at the truth that what Newton held to be 'discovery' was in actual fact 'manufacture', 158 we find ourselves faced with another instance of a fact which we have encountered before in our study of electricity. 159 It is the fact that a truth, which reveals itself to the spectator-scientist only as the result of a highly advanced experimental research, 160 can be recognised through quite simple observation when this observation is carried out with the intention of letting the phenomena themselves speak for their 'theory'. 161 Furthermore, there is a corresponding difference in the effect the knowledge of such truth has on the human mind. 162 In the field of electricity we saw that together with the scientist's recognition of the absolute qualities of the two polar forms of electricity a false semblance of reality was lent to the hypothesis of the atomic structure of matter. 163 Something similar has occurred in the field of optics. Here, after having been forced to recognise the fallacy of Newton's theory, the spectator's mind has been driven to form a concept of the nature of light which is further than ever from the truth. 164 For what then remains of light is-- in Eddington's words-- a 'quite irregular disturbance, with no tendency to periodicity', which means that to light is assigned the quality of an undefined chaos (in the negative sense of this word) sprung from pure chance. 165 Moreover, as Eddington shows, the question whether the optical contrivance 'sorts out' from the chaotic light a particular periodicity, or whether it

'impresses' this on the light, becomes just 'a matter of expression'. 166 So here, too, the modern investigator is driven to a resigned acknowledgment of the principle of Indeterminacy.

167 No such conclusions are forced upon the one who studies the spectrum phenomenon with the eyes of Goethe. Like the modern experimenter, he, too, is faced with the question 'Discovery or Manufacture?' and he, too, finds the answer to be 'Manufacture'. 168 But to him Nature can disclose Herself as the real manufacturer, showing him how She goes to work in bringing about the colours, 169 because in following Goethe he is careful to arrange his observations in such a way that they do not veil Nature's deeds.

SEEING AS 'DEED' – I

Ernst Lehrs

15 Having made ourselves so far acquainted with the fundamentals of Goethe's approach to the outer phenomena of colour involved in the spectrum, we will leave this for a while to follow Goethe along another no less essential line of inquiry. 2 It leads us to the study of our own process of sight, by means of which we grow aware of the optical facts in outer space.

3 The importance which Goethe himself saw in this aspect of the optical problem is shown by the place he gave it in the didactic part of his *Farbenlehre*. 4 The first three chapters, after the Introduction, are called 'Physiological Colours', 'Physical Colours', and 'Chemical Colours'. 5 In the first chapter, Goethe summarises a group of phenomena which science calls 'subjective' colours, since their origin is traced to events within the organ of sight. 6 The next chapter deals with an actual physics of colour-- that is, with the appearance of colours in external space as a result of the refraction, diffraction and polarisation of light. 7 The third chapter treats of material colours in relation to chemical and other influences. 8 After two chapters which need not concern us here comes the sixth and last chapter, entitled 'Physical-Moral Effect of Colour' ('Sinnlich-sittliche Wirkung der Farben'), which crowns the whole. 9 There, for the

first time in the history of modern science, a bridge is built between Physics, Aesthetics and Ethics. 10 We remember it was with this aim in view that Goethe had embarked upon his search for the solution of the problem of colour.

11 In this chapter the experiencing of the various colours and their interplay through the human soul is treated in many aspects, 12 and Goethe is able to show that what arises in human's consciousness as qualitative colour-experience is nothing but a direct 'becoming-inward' of what is manifested to the 'reader's' eye and mind as the objective nature of colours. 13 So, in one realm of the sense-world, Goethe succeeded in closing the abyss which divides existence and consciousness, so long as the latter is restricted to a mere onlooker-relationship towards the sense-world.

14 If we ask what induced Goethe to treat the physiological colours before the physical colours, thus deviating so radically from the order customary in science, we shall find the answer in a passage from the Introduction to his Entwurf. 15 Goethe, in giving his views on the connexion between light and the eye, says: 'The eye owes its existence to light. 16 Out of indifferent auxiliary animal organs the light calls forth an organ for itself, similar to its own nature; thus the eye is formed by the light, for the light, so that the inner light can meet the outer.' 17 In a verse, which reproduces in poetic form a thought originally expressed by Plotinus, Goethe sums up his idea of the creative connexion between eye and light as follows:

18 Unless our eyes had something of the sun, How could we ever look upon the light? Unless there lived within us God's own might, How could the Godlike give us ecstasy? (Trans. Stawell-Dickinson)

19 By expressing himself in this way in the Introduction to his Farbenlehre, Goethe makes it clear from the outset that when he speaks of 'light' as the source of colour-phenomena, he has in mind an idea of light very different from that held by modern physics. 20 For in dealing with optics, physical science turns at once to phenomena of light found outside

human-- 21 in fact to phenomena in that physical realm from which, as the lowest of the kingdoms of Nature, the observations of natural science are bound to start. 22 Along this path one is driven, as we have seen, to conceive of light as a mere 'disturbance' in the universe, a kind of irregular chaos. 23 In contrast to this, Goethe sees that to gain an explanation of natural physical phenomena which will be in accord with Nature, we must approach them on the path by which Nature brings them into being. 24 In the field of light this path is one which leads from light as creative agent to light as mere phenomenon. 25 The highest form of manifestation of creative light most directly resembling its Idea is within human. 26 It is there that light creates for itself the organ through which, as manifest light, it eventually enters into human consciousness. 27 To Goethe it was therefore clear that a theory of light, which is to proceed in accord with Nature, should begin with a study of the eye: its properties, its ways of acting when it brings us information of its deeds and sufferings in external Nature. 28 The eye with its affinity to light comes into being in the apparently dark space of the mother's womb. 29 This points to the possession by the human organism of an 'inner' light which first forms the eye from within, in order that it may afterwards meet the light outside. 30 It is this inner light that Goethe makes the starting-point of his investigations, and it is for this reason that he treats physiological colours before physical colours. 31 Of fundamental significance as regards method is the way in which Goethe goes on from the passage quoted above to speak of the activity of the inner light: 32 'This immediate affinity between light and the eye will be denied by none; to consider them identical in substance is less easy to comprehend. 33 It will be more intelligible to assert that a dormant light resides in the eye, and that this light can be excited by the slightest cause from within or from without. 34 In darkness we can, by an effort of imagination, call up the brightest images; in dreams, objects appear to us as in broad daylight; 35 if we are awake, the slightest external action of light is

perceptible, and if the organ suffers a mechanical impact light and colours spring forth.'

36 What Goethe does here is nothing less than to follow the development of sight to where it has its true origin. 37 Let us remember that a general source of illusion in the modern scientific picture of the world lies in the fact that the onlooker-consciousness accepts itself as a self-contained ready-made entity, 38 instead of tracing itself genetically to the states of consciousness from which it has developed in the course of evolution. 39 In reality, the consciousness kindled by outer sense-perception was preceded by a dreaming consciousness, and this by a sleeping consciousness, both for the individual and for humanity as a whole. 40 So, too, outer vision by means of the physical apparatus of the eye was preceded by an inner vision. 41 In dreams we still experience this inner vision; we use it in the activity of our picture-forming imagination; and it plays continuously upon the process of external sight. 42 Why we fail to notice this when using our eye in the ordinary way, is because of that dazzling process mentioned earlier in this book. 43 Goethe's constant endeavour was not to become the victim of this blindness-- that is, not to be led by day-time experience to forget the night-side of human life. 44 The passage quoted from the Introduction to his Farbenlehre shows how, in all that he strove for, he kept this goal in view.

45 How inevitably a way of thinking that seeks an intuitive understanding of Nature is led to views like those of Goethe is shown by the following quotations from Reid and Ruskin, 46 expressing their view of the relationship between the eye, or the act of seeing, and external optical phenomena. 47 In his Inquiry, at the beginning of his review of visual perceptions, Reid says:

'The structure of the eye, and of all its appurtenances, the admirable contrivances of Nature for performing all its various external and internal motions and the variety in the eyes of different animals, 48 suited to their several natures and ways of life, clearly demonstrate this organ to be a

masterpiece of Nature's work. 49 And he must be very ignorant of what hath been discovered about it, or have a very strange cast of understanding, who can seriously doubt, whether or not the rays of light and the eye were made for one another with consummate wisdom, and perfect skill in optics."

50 The following passage from Ruskin's Ethics of the Dust (Lecture-X) brings out his criticism of the scientific way of treating of optical phenomena:

51 'With regard to the most interesting of all their [the philosophers'] modes of force-light; they never consider how far the existence of it depends on the putting of certain vitreous and nervous substances into the formal arrangement which we call an eye. 52 The German philosophers began the attack, long ago, on the other side, by telling us there was no such thing as light at all, unless we choose to see it. 53 Now, German and English, both, have reversed their engines, and insist that light would be exactly the same light that it is, though nobody could ever see it. 54 The fact being that the force must be there, and the eye there, and 'light' means the effect of the one on the other-- 55 and perhaps, also-- Plato saw farther into that mystery than anyone has since, that I know of-- on something a little way within the eyes.'

56 Remarks like these, and the further quotation given below, make it seem particularly tragic that Ruskin apparently had no knowledge of Goethe's Farbenlehre. 57 This is the more remarkable in view of the significance which Turner, with whom Ruskin stood in such close connexion, ascribed to it from the standpoint of the artist. 58 For the way in which Ruskin in his Modern Painters speaks of the effect of the modern scientific concept of colours upon the ethical-religious feeling of human, shows that he deplores the lack of just what Goethe had long since achieved in his Farbenlehre where, 59 starting with purely physical observations, he had been able to develop from them a 'physical-moral' theory of colour.

60 Ruskin's alertness to the effect on ethical life of a scientific

world-picture empty of all qualitative values led him to write: 'It is in raising us from the first state of inactive reverie to the second of useful thought, that scientific pursuits are to be chiefly praised. 61 But in restraining us at this second stage, and checking the impulses towards higher contemplation, they are to be feared or blamed. 62 They may in certain minds be consistent with such contemplation, but only by an effort; 63 in their nature they are always adverse to it, having a tendency to chill and subdue the feelings, and to resolve all things into atoms and numbers. 64 For most people, an ignorant enjoyment is better than an informed one, it is better to conceive the sky as a blue dome than a dark cavity, and the cloud as a golden throne than a sleety mist. 65 I much question whether anyone who knows optics, however religious he may be, can feel in equal degree the pleasure and reverence an unlettered peasant may feel at the sight of a rainbow.'

66 What Ruskin did not guess was that the rudiments of the 'moral theory of light' for which he craved, as this passage indicates, had been established by Goethe long before.

67 In the section of his Farbenlehre dealing with 'physiological colours', Goethe devotes by far the most space to the so-called 'afterimages' which appear in the eye as the result of stimulation by external light, and persist for some little time. 68 To create such an afterimage in a simple way, one need only gaze at a brightly lit window and then at a faintly lit wall of the room. 69 The picture of the window appears there, but with the light-values reversed: the dark cross-bar appears as light, and the bright panes as dark.

70 In describing this phenomenon Goethe first gives the usual explanation, that the part of the retina which was exposed to the light from the window-panes gets tired, and is therefore blunted for further impressions, 71 whereas the part on which the image of the dark frame fell is rested, and so is more sensitive to the uniform impression of the wall. 72 Goethe, however, at once adds that although this explanation may

seem adequate for this special instance, there are other phenomena which can be accounted for only if they are held to derive from a 'higher source'. 73 Goethe means experiences with coloured after-images. This will be confirmed by our own discussion of the subject.

74 What we first need, however, is a closer insight into the physiological process in the eye which causes the after-images as such. 75 Wherever Goethe speaks of a simple activity of the retina, we are in fact concerned with a co-operation of the retina with other parts of our organ of sight. 76 In order to make this clear, let us consider how the eye adapts itself to varying conditions of light and darkness. 77 It is well known that if the eye has become adjusted to darkness it is dazzled if suddenly exposed to light, even though the light be of no more than quite ordinary brightness. 78 Here we enter a border region where the seeing process begins to pass over into a pathological condition. 79 A 'secret' of the effect of light on the eye is here revealed which remains hidden in ordinary vision, for normally the different forces working together in the eye hold each other in balance, so that none is able to manifest separately. 80 This equilibrium is disturbed, however, when we suddenly expose the eye to light while it is adapted to darkness. 81 The light then acts on the eye in its usual way, but without the immediate counter-action which normally restores the balance. 82 Under these conditions we notice that the sudden dazzling has a painful influence on the eye-- that is, an influence in some way destructive. 83 This will not seem surprising if we remember that when light strikes on the background of the eye, consciousness is quickened, and this, as we know, presupposes a breaking down of substance in some part of the nervous system. 84 Such a process does in fact occur in the retina, the nerve-part of the eye, when external light falls upon it. 85 If the eye were solely a structure of nerves, it would be so far destroyed by the impact of light that it could not be restored even by sleep, as are the more inward parts of the nervous system. 86 But the eye receives

also a flow of blood, and we know that throughout the threefold human organism the blood supplies the nervous system with building-up forces, polarically opposite to the destructive ones. 87 In sleep, as we have already seen, the interruption of consciousness allows the blood to inundate the nervous system, as it were, with its healing, building-up activity. 88 It is not necessary, however, for the whole of the body to pass into a condition of sleep before this activity can occur. 89 It functions to some extent also in the waking state, especially in those parts of the organism which, like the eye, serve in the highest degree the unfolding of consciousness.

90 Having established this, we have a basis for an understanding of the complete process of vision. 91 We see that it is by no means solely the nerve part of the eye which is responsible for vision, as the spectator-physiology was bound to imagine. 92 The very fact that the place where the optic nerve enters the eye is blind indicates that the function of mediating sight cannot be ascribed to the nerve alone. 93 What we call 'seeing' is far more the result of an interplay between the retina carrying the nerves, and the choroid carrying the blood-vessels. 94 In this interplay the nerves are the passive, receptive organ for the in-working of external light, while the blood-activity comes to meet the nerve-process with a precisely correlated action. 95 In this action we find what Goethe called the 'inner light'. The process involved in adaptation now becomes comprehensible. 96 The cause of the dazzling effect of light of normal intensity on an eye adapted to the dark, is that in such an eye the blood is in a state of rest, and this prevents it from exercising quickly enough the necessary counter-action to the influence of the light. 97 A corresponding effect occurs when one suddenly exposes to darkness the eye adapted to light. 98 One can easily observe what goes on then, if, after looking for a time at an undifferentiated light surface such as the evenly luminous sky, one covers the opened eyes with the hollowed hands. 99 It will then be found that the space before the eyes is filled by a sort of white light, and by

paying close attention one recognises that it streams from the eyes out into the hollowed space. 100 It may even be several minutes before the field of vision really appears black, that is, before the activity of the inner light in the choroid has so far died away that equilibrium prevails between the non-stimulated nerves and the non-stimulated blood.

101 With this insight into the twofold nature of the process of vision we are now able to describe more fully the negative after-image. 102 Although in this case, as Goethe himself remarked, the ordinary explanation seems to suffice, yet in view of our later studies it may be well to bring forward here this wider conception.

103 On the basis of our present findings it is no longer enough to trace the appearing of the after-image solely to a differential fatigue in the retina. 104 The fact is that as long as the eye is turned to the bright window-pane a more intensive blood-activity occurs in the portions of the eye's background met by the light than in those where the dark window-bar throws its shadow on the retina. 105 If the eye so influenced is then directed to the faintly illumined wall of the room, the difference in the activity of the blood persists for some time. 106 Hence in the parts of the eye adapted to darkness we experience the faint brightness as strongly luminous, even dazzling, whereas in the parts more adapted to light we feel the same degree of brightness to be dark. 107 That the action of the inner light is responsible for the differences becomes clear if, while the negative after-image is still visible, we darken the eye with the hollowed hands. 108 Then at once in the dark field of vision the positive facsimile of the window appears, woven by the activity of the blood which reproduces the outer reality.

109 Having traced the colourless after-image to 'higher sources'--that is, to the action of the blood--let us now examine coloured afterimages. 110 We need first to become conscious of the colour-creating light-activity which resides in the blood. For this purpose we expose the eyes for a

moment to an intense light, and then darken them for a sufficient time.

111 Nothing in external Nature resembles in beauty and radiance the play of colour which then arises, unless it be the colour phenomenon of the rainbow under exceptionally favourable circumstances.

112 The physiological process which comes to consciousness in this way as an experience of vision is exactly the same as the process which gives us experiences of vision in dreams. 113 There is indeed evidence that when one awakens in a brightly lit room out of vivid dreaming, one feels less dazzled than on waking from dreamless sleep. 114 This indicates that in dream vision the blood in the eye is active, just as it is in waking vision. 115 The only difference is that in waking consciousness the stimulus reaches the blood from outside, through the eye, whereas in dreams it comes from causes within the organism. 116 The nature of these causes does not concern us here; it will be dealt with later. 117 For the moment it suffices to establish the fact that our organism is supplied with a definite activity of forces which we experience as the appearance of certain images of vision, no matter from which side the stimulus comes. 118 All vision, physiologically considered, is of the nature of dream vision; that is to say, we owe our day-waking sight to the fact that we are able to encounter the pictures of the outer world, brought to us by the light, with a dreaming of the corresponding after-images.

119 Just as the simple light-dark after-image shows a reversal of light-values in relation to the external picture, so in the coloured afterimages there is a quite definite and opposite relationship of their colours to those of the original picture. 120 Thus, if the eyes are exposed for some time to an impression of the colour red, and then directed to a neutral surface, not too brightly illuminated, one sees it covered with a glimmering green. 121 In this way there is a reciprocal correspondence between the colour-pairs Red-Green, Yellow-Violet, Blue-Orange. 122 To whichever of these six colours one exposes the eye, an

after-image always appears of its contrast colour, forming with it a pair of opposites.

123 We must here briefly recall how this phenomenon is generally explained on Newtonian lines. The starting-point is the assumption that the eye becomes fatigued by gazing at the colour and gradually becomes insensitive to it. 124 According to Newton's theory, if an eye thus affected looks at a white surface, the sum of all the colours comes from there to meet it, while the eye has a reduced sensitivity to the particular colour it has been gazing at. 125 And so among the totality of colours constituting the 'white' light, this one is more or less non-existent for the eye. The remaining colours are then believed to cause the contrasting colour-impression.

126 If we apply the common sense of the Hans Andersen child to this, we see where it actually leads. For it says no less than this: as long as the eye is in a normal condition, it tells us a lie about the world, for it makes white light seem something that in reality it is not. 127 For the truth to become apparent, the natural function of the eye must be reduced by fatigue. 128 To believe that a body, functioning in this way, is the creation of God, and at the same time to look on this God as a Being of absolute moral perfection, would seem a complete contradiction to the Hans Andersen child. 129 In this contradiction and others of the same kind to which nowadays every child is exposed repeatedly and willy-nilly in school lessons and so on-- 130 we must seek the true cause of the moral uncertainty so characteristic of young people today. It was because Ruskin felt this that he called for a 'moral' theory of light.

131 Since Goethe did not judge human from artificially devised experiments, but the latter from human, quite simple reflexions led him to the following view of the presence of the contrasting colour in the coloured after-images. 132 Nature outside human had taught you that life on all levels takes it course in a perpetual interplay of opposites, manifested externally in an interplay of diastole and systole comparable to the process of breathing. 133 He, therefore, traced the interchange of light-values in

colourless after-images to a 'silent resistance which every vital principle is forced to exhibit when some definite condition is presented to it. 134 Thus, inhalation presupposes exhalation; thus every systole, its diastole. 135 When darkness is presented to the eye, the eye demands brightness, and vice versa: it reveals its vital energy, its fitness to grasp the object, precisely by bringing forth out of itself something contrary to the object.'

136 Consequently he summarises his reflexions on coloured afterimages and their reversals of colour in these words: 'The eye demands actual completeness and closes the colour-circle in itself.' 137 How true this is, the law connecting the corresponding colours shows, as may be seen in the following diagram. 138 Here, red, yellow and blue as three primary colours confront the three remaining colours, green, violet and orange in such a way that each of the latter represents a mixture of the two other primary colours.

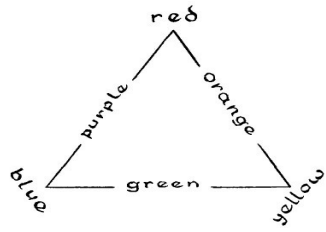


FIG. 10.

(Fig. 10.)

139 Colour and contrast-colour are actually so related that to whatever colour the eye is exposed it produces a counter-colour so as to have the sum-total of all the three primary colours in itself. 140 And so, in consequence of the interplay of outer and inner light in the eye, there is always present in it the totality of all the colours.

141 It follows that the appearance of the contrast-colour in the field of vision is not, as the Newtonian theory asserts, the result of fatigue, but of an intensified activity of the eye, which continues even after the colour impression which gave rise to it has ceased. 142 What is seen on the neutral surface (it will be shown later why we studiously avoid speaking of 'white light') is no outwardly existing colour at all. 143 It is the activity of the eye itself, working in a dreamlike way from its blood-vessel system, and

coming to our consciousness by this means.

144 Here again, just as in the simple opposition of light and dark, the perception of coloured after-images is connected with a breaking-down process in the nerve region of the eye, and a corresponding building-up activity coming from the blood. 145 Only in this case the eye is not affected by simple light, but by light of a definite colouring. 146 The specific destructive process caused by this light is answered with a specific building-up process by the blood. 147 Under certain conditions we can become dreamily aware of this process which normally does not enter our consciousness. In such a case we see the contrasting colour as coloured after-image.

148 Only by representing the process in this way do we do justice to a fact which completely eludes the onlooker-consciousness-- 149 namely, that the eye produces the contrasting colour even while it is still exposed to the influence of the outer colour. 150 Since this is so, all colours appearing to us in ordinary vision are already tinged by the subdued light of the opposite colour, produced by the eye itself. 151 One can easily convince oneself of this through the following experiment. Instead of directing the eye, after it has been exposed to a certain colour, to a neutral surface, as previously, gaze at the appropriate contrasting colour. 152 The first and second coloured surfaces should be so arranged that the former is considerably smaller than the latter. 153 Then, in the middle of the second surface (and in a field about the size of the first), its own colour appears, with a strikingly heightened intensity.

154 Here we find the eye producing, as usual, a contrast-colour from out of itself, as an after-image, even while its gaze is fixed on the same colour in the outer world. 155 The heightened brilliance within the given field is due to the addition of the after-image colour to the external colour.

156 The reader may wonder why this phenomenon is not immediately adduced as a decisive proof of the fallacy of the whole Newtonian theory of the relation

of 'white' light to the various colours. 157 Although it does in fact offer such a proof, we have good reason for not making this use of it here. 158 Throughout this book it is never our intention to enter into a contest of explanations, or to defeat one explanation by another. 159 How little this would help will be obvious if we realise that research was certainly not ignorant of the fact that the opposite colour arises even when the eye is not turned to a white surface. 160 In spite of this, science did not feel its concept of white light as the sum of all the colours to be an error, since it has succeeded in 'explaining' this phenomenon too, and fitting it into the prevailing theory. 161 To do so is in thorough accord with spectator-thinking. Our own concern, however, as in all earlier cases, is to replace this thinking with all its 'proofs' and 'explanations' by learning to read in the phenomena themselves. 162 For no other purpose than this the following facts also are now brought forward.

163 Besides Rudolf Steiner's fundamental insight into the spiritual-physical nature of the growing human being, through which he laid the basis of a true art of education, he gave advice on many practical points. 164 For example, he indicated how by the choice of a suitable colour environment one can bring a harmonising influence to bear on extremes of temperament in little children. 165 To-day it is a matter of practical experience that excitable children are quietened if they are surrounded with red or red-yellow colours, or wear clothes of these colours, 166 whereas inactive, lethargic children are roused to inner movement if they are exposed to the influence of blue or blue-green colours.

167 This psychological reaction of children to colour is not surprising if one knows the role played by the blood in the process of seeing, and how differently the soul-life of human is connected with the blood-nerve polarity of your organism in childhood and in later life. 168 What we have described as the polar interplay of blood and nerve in the act of sight is not confined to the narrow field of the

eye. 169 Just as the nerve processes arising in the retina are continued to the optic centre in the cerebrum, so must we look for the origin of the corresponding blood process not in the choroid itself, but in the lower regions of the organism. 170 Wherever, therefore, the colour red influences the whole nerve system, the blood system as a whole answers with an activity of the metabolism corresponding to the contrasting colour, green. 171 Similarly it reacts as a whole to a blue-violet affecting the nerve system, this time with a production corresponding to yellow-orange.

172 The reason why in later years we notice this so little lies in a fact we have repeatedly encountered. 173 The consciousness of the grown human to-day, through its one-sided attachment to the death-processes in the nerve region, pays no attention to its connexion with the life-processes centred in the blood system. 174 In this respect the condition of the little child is quite different. Just as the child is more asleep in its nerve system than the grown-up person, it is more awake in its blood system. 175 Hence in all sense-perceptions a child is not so much aware of how the world works on its nerve system as how its blood system responds. 176 And so a child in a red environment feels quietened because it experiences, though dimly, how its whole blood system is stimulated to the green production; 177 bluish colours enliven it because it feels its blood answer with a production of light yellowish tones.

178 From the latter phenomena we see once more the significance of Goethe's arrangement of his Farbenlehre. 179 For we are now able to realise that to turn one's attention to the deeds and sufferings of the inner light means nothing less than to bring to consciousness the processes of vision which in childhood, though in a dreamlike way, determine the soul's experience of seeing. 180 Through placing his examination of the physiological colours at the beginning of his Farbenlehre, Goethe actually took the path in scientific research to which Thomas Reid pointed in philosophy. 181 By adapting Reid's words we can say that Goethe, in his Farbenlehre, proclaims as a

basic principle of a true Optics: that we must become again as little children if we would reach a philosophy of light and colours.

SEEING AS 'DEED' – II

Ernst Lehrs

16 The observation of our own visual process, which we began in the last chapter, will serve now to free us from a series of illusory concepts which have been connected by the onlooker-consciousness with the phenomena brought about by light. 2 There is first the general assumption that light as such is visible. In order to realise that light is itself an invisible agent, we need only consider a few self-evident facts-- 3 for instance, that for visibility to arise light must always encounter some material resistance in space. 4 This is, in fact, an encounter between light, typifying levity, and the density of the material world, typifying gravity. 5 Accordingly, wherever visible colours appear we have always to do with light meeting its opposite. 6 Optics, therefore, as a science of the physically perceptible is never concerned with light alone, but always with light and its opposite together. 7 This is actually referred to in Ruskin's statement, quoted in the last chapter, where he speaks of the need of the 'force' and of the intercepting bodily organ before a science of optics can come into existence. 8 Ruskin's 'light', however, is what we have learn't with Goethe to call 'colour', whereas that for which we reserve the term 'light' is called by him simply 'force'.

9 All this shows how illusory it is to speak of 'white' light as synonymous with simple light, in distinction to 'coloured' light. 10 And yet this has been customary with scientists from the time of Newton until today, not excluding Newton's critic, Eddington. 11 In fact, white exists visibly for the eye as part of the manifested world, and is therefore properly characterised as a colour. This is, therefore, how Goethe spoke of it. 12 We shall see presently the special position of white, and likewise of black, as a colour among colours. 13 What matters

first of all is to realise that white must be strictly differentiated from light as such, for the function of light is to make visible the material world without itself being visible.

14 To say that light is invisible, however, does not mean that it is wholly imperceptible. 15 It is difficult to bring the perception of light into consciousness, for naturally our attention, when we look out into light-filled space, is claimed by the objects of the illuminated world, in all their manifold colours and forms. 16 Nevertheless the effect of pure light on our consciousness can be observed during a railway journey, for instance, when we leave a tunnel that has been long enough to bring about a complete adaptation of the eyes to the prevailing darkness. 17 Then, in the first moments of the lightening of the field of vision, and before any separate objects catch the attention, we can notice how the light itself exercises a distinctly expanding influence on our consciousness. 18 We feel how the light calls on the consciousness to participate, as it were, in the world outside the body.

19 It is possible also to perceive directly the opposite of light. This is easier than the direct perception of light, for in the dark one is not distracted by the sight of surrounding objects. 20 One need only pay attention to the fact that, after a complete adapting of the eyes to the dark, one still retains a distinct experience of the extension of the field of vision of both eyes. 21 We find here, just as in the case of light, that our will is engaged within the eye in a definite way; a systolic effect proceeds from dark, a diastolic effect from light. 22 We have a distinct perception of both, but not of anything 'visible' in the ordinary sense.

23 With regard to our visual experience of white and black, it is quite different. We are concerned here with definite conditions of corporeal surfaces, just as with other colours, 24 although the conditions conveying the impressions of white or black are of a special character. 25 A closer inspection of these conditions reveals a property of our act of

seeing which has completely escaped scientific observation, but which is of fundamental importance for the understanding of optical phenomena dynamically.

26 It is well known that a corporeal surface, which we experience as white, has the characteristic of throwing back almost all the light that strikes it, whereas light is more or less completely absorbed by a surface which we experience as black. 27 Such extreme forms of interplay between light and a corporeal surface, however, do not only occur when the light has no particular colour, but also when a coloured surface is struck by light of the same or opposite colour. 28 In the first instance complete reflexion takes place; in the second, complete absorption. And both these effects are registered by the eye in precisely the same manner as those mentioned before. 29 For example, a red surface in red light looks simply white; a green surface in red light looks black.

30 The usual interpretation of this phenomenon, namely, that it consists in a subjective 'contrast' impression of the eye-- 31 a red surface in red light looking brighter, a green surface darker, than its surroundings, and thereby causing the illusion of white or black-- is a typical onlooker-interpretation against which there stands the evidence of unprejudiced observation. 32 The reality of the 'white' and the 'black' seen in such cases is so striking that a person who has not seen the colours of the objects in ordinary light can hardly be persuaded to believe that they are not 'really' white or black. 33 The fact is that the white and the black that are seen under these conditions are just as real as 'ordinary' white and black. 34 When in either instance the eye registers 'white' it registers exactly the same event, namely, the total reflexion of the light by the surface struck by it. 35 Again, when the eye registers 'black' in both cases it registers an identical process, namely, total absorption of the light.

36 Seen thus, the phenomenon informs us of the significant fact that our eye is not at all concerned with the colour of the light that enters its own cavity, but rather

with what happens between the light and the surface on which the light falls. 37 In other words, the phenomenon shows that our process of seeing is not confined to the bodily organ of the eye, but extends into outer space to the point where we experience the visible object to be.

38 This picture of the visual process, to which we have been led here by simple optical observation, was reached by Thomas Reid through his own experience of how, in the act of perceiving the world, human is linked intuitively with it. 39 We remember that he intended in his philosophy to carry ad absurdum the hypothesis that 'the images of the external objects are conveyed by the organs of sense to the brain and are there perceived by the mind'. 40 Common Sense makes Reid speak as follows: 'If any person will shew how the mind may perceive images of the brain, I will undertake to shew how it may perceive the most distant objects; 41 for if we give eyes to the mind, to perceive what is transacted at home in its dark chamber, why may we not make the eyes a little longer-sighted? 42 And then we shall have no occasion for that unphilosophical fiction of images in the brain.' Reid proceeds to show this by pointing out, first, that we must only use the idea of 'image' for truly visual perceptions; 43 secondly, that the sole place of this image is the background of the eye, and not any part of the nervous system lying beyond; 44 thirdly, that even this retina-image, as such, does not come to our consciousness, but serves only to direct the consciousness to the cause of the image, namely, the external object itself. 45 In what follows we shall deal with an observation which will show how right Reid was in this respect.

46 Those familiar with this observation-- well known indeed to those living in the hilly and mountainous districts both here and on the Continent-- 47 know that when distant features of the landscape, in an otherwise clear and sunlit atmosphere, suddenly seem almost near enough to touch, rainy weather is approaching. 48 Likewise a conspicuous increase in distance, while the sky is still

overcast, foreshadows fine weather.

49 This effect (the customary 'explanation' of which is, as usual, of no avail to us and so need not concern us here) ranks with phenomena described in optics under the name of 'apparent optical depth', a subject we shall discuss more fully in the next chapter. 50 It suffices here to state that it is the higher degree of humidity which, by lending the atmosphere greater optical density (without changing its clarity), makes distant objects seem to be closer to the eye, and vice versa. 51 (If we could substitute for the air a much lighter gas-- say, hydrogen-- then the things we see through it would look farther off than they ever do in our atmosphere. 52 Observations such as these show us that (a) when external light strikes the retina of our eye, our inner light is stimulated to move out of the eye towards it; 53 (b) in pressing outward, this inner light meets with a certain resistance, and the extent of this determines at what distance from the eye our visual ray comes to rest as the result of a kind of exhaustion. 54 Just as the outer light reaches an inner boundary at our retina, so does the inner light meet with an outer boundary, set by the optical density of the medium spread out before the eye, 55 Outer and inner light interpenetrate each other along the whole tract between these two boundaries, but normally we are not conscious of this process. 56 We first become conscious of it where our active gaze-- that is, the inner light sent forth through the eye-- reaches the limit of its activity. At that point we become aware of the object of our gaze. 57 So here we find confirmed a fact noted earlier, that consciousness-- at least at its present state of evolution-- arises where for some reason or other our volition conies to rest.

58 The foregoing observations have served to awaken us in a preliminary way to the fact that an essential part of our act of seeing takes place outside our bodily organ of vision 59 and that our visual experience is determined by what happens out there between our gaze and the medium it has to penetrate. 60 Our next task will be to find out how this part of our

visual activity is affected by the properties of the different colours. 61 We shall thereby gain a further insight into the nature of the polarity underlying all colour-phenomena, and this again will enable us to move a step further towards becoming conscious of what happens in our act of seeing.

62 We shall start by observing what happens to the two sides of the colour-scale when the optical medium assumes various degrees of density. 63 For the sky to appear blue by day a certain purity of the atmosphere is needed. 64 The more veiled the atmosphere becomes the more the blue of the sky turns towards white; the purer and rarer the atmosphere, the deeper the blue, gradually approaching to black. 65 To mountain climbers and those who fly at great heights it is a familiar experience to see the sky assume a deep indigo hue. 66 There can be no doubt that at still higher altitudes the colour of the sky passes over into violet and ultimately into pure black. 67 Thus in the case of blue the field of vision owes its darkening to a decrease in the resistance by which our visual ray is met in the optical medium. 68 It is precisely the opposite with yellow. For here, as the density of the medium increases, the colour-effect grows darker by yellow darkening first to orange and then to red, until finally it passes over into complete darkness. 69 This shows that our visual ray is subject to entirely different dynamic effects at the two poles of the colour-scale. 70 At the blue pole, the lightness-effect springs from the resistant medium through which we gaze, a medium under the influence of gravity, 71 while the darkness is provided by the anti-gravity quality of cosmic space, which as a 'negative' resistance exercises a suction on the eye's inner light. 72 At the yellow pole it is just the reverse. Here, the resistant medium brings about a darkening of our field of vision, while the lightness-effect springs from a direct meeting of the eye with light, and so with the suctional effect of negative density.

73 Our pursuit of the dynamic causes underlying our apperception of the two poles of the colour-scale has led us to a point where it becomes necessary

to introduce certain new terms to enable us to go beyond Goethe's general distinction between Finsternis (darkness) and Licht (light). 74 Following Goethe, we have so far used these two terms for what appears both in blue and yellow as the respective light and dark ingredients. 75 This distinction cannot satisfy us any more. For through our last observations it has become clear that the Finsternis in blue and the Licht in yellow are opposites only in appearance, 76 because they are both caused by Levity, and similarly that the lightening effect in blue and the darkening effect in yellow are both effected by Gravity. 77 Therefore, to distinguish between what appertains to the primary polarity, Levity-Gravity, on the one hand, and their visible effects in the secondary polarity of the colours, on the other, 78 we shall henceforth reserve the term darkness and, with it, lightness for instances where the perceptible components of the respective colours are concerned, while speaking of Dark and Light where reference is made to the generating primary polarity.

79 If we are justified in thus tracing the colour-polarity to a polarically ordered interplay between levity and gravity, we may then pursue the following line of thought. 80 We know from earlier considerations that wherever such an interplay between the poles of the primary polarity takes place, we have to do, in geometric terms, with the polarity of sphere and radius. 81 We may therefore conclude that the same characteristics will apply to the way in which the blue of the sky and the yellow of the sunlight are encountered spatially. 82 Now we need only observe how the blue heavens arch over us spherically, on the one hand, and how the yellow brightness of the sun penetrates the air ray-wise, on the other, in order to realise that this really is so.

83 Having thus established the connexion of the two poles of the colour-scale with the spherical and radial structure of space, we are now able to express the Goethean ur-phenomenon in a more dynamic way as follows: 84 On the one

hand, we see the blue of the heavens emerging when levity is drawn down by gravity from its primal invisibility into visible, spherical manifestation. 85 In the yellow of the sunlight, on the other hand, we see gravity, under the influence of the sun's levity, gleaming up radially into visibility. 86 The aspect of the two colour-poles which thus arises before us prompts us to replace Goethe's 'lightened Dark' by Earthward-dawning-Levity, and his 'darkened Light' by Heavenward-raying-Gravity.

87 We have now to show that this picture of the dynamic relationship which underlies the appearance of the colour-polarity in the sky is valid also for other cases 88 which are instances of the ur-phenomenon of the generation of colour in Goethe's sense, but seem not to lend themselves to the same cosmic interpretation. 89 Such a case is the appearance of yellow and blue when we look through a clouded transparent medium towards a source of light or to a black background. 90 There is no special difficulty here in bringing the appearance of yellow into line with its macrotelluric counterpart, but the appearance of blue requires some consideration.

91 We have seen that a corporeal surface appears as black if light striking it is totally absorbed by it. 92 Thus, wherever our eye is met by the colour black, our visual ray is engaged in a process whereby light disappears from physical space. 93 Now we need only bring this process into consciousness-- as we have tried to do before in similar instances-- to realise that what happens here to the visual ray is something similar to what it undergoes when it is directed from the earth into cosmic space.

94 Note, in this respect, the principle of the mirror as another instance of the fact that the interplay between light and an illumined surface can have on the visual ray an effect similar to that of external space. 95 For the optical processes which occur on the surface of a mirror are such that, whilst taking place on a two-dimensional plane, they evoke in our consciousness pictures of exactly the same nature as if we were looking through the mirror into the space behind it.

96 The value of our picture of the colour-polarity is shown further if we observe how natural phenomena based on the same kind of polarity in other realms of nature fit in with it. 97 We remember that one of Goethe's starting-points in his investigation of the riddle of colour was the observation that of the totality of colours one part is experienced as 'warm' and the other as 'cold'. 98 Now we can go further and say that the colours of the spherical pole are experienced as cold, those of the radial pole as warm. This corresponds precisely to the polarity of snow-formation and volcanic activity. 99 The former, being the spherically directed process, requires physically low temperatures; the latter, being the radially directed process, requires high temperatures. 100 Here, once more, we see with what objectivity the human senses register the facts of the outer world.

101 Another realm of phenomena based on a similar polar order is that of electricity. When we studied the negative and positive poles of the vacuum tube, with regard to the polar distribution of radius and sphere, 102 our attention was drawn to the colours appearing on the two electrodes--red at the (positive) anode, blue at the (negative) cathode. Again we find a coincidence with the natural order of the colours.

103 Note how the qualitative dynamic method employed here brings into direct view the relationship between light and electricity, while it precludes the mistake of tracing light processes to those of electricity, as modern science does. 104 Nor are electric processes 'explained' from this point of view merely as variations of light processes. 105 Rather is the relation between light and electricity seen to be based on the fact that all polarities arising perceptibly in Nature are creations of the same primeval polarity, that of Levity and Gravity. 106 The interplay of Levity and Gravity can take on many different forms which are distinguished essentially by differences in cosmic age. 107 Thus the colour-polarity in its primal form, made manifest by the heavens, differs as much from the corresponding polarity shown by the vacuum tube, as does the

lightning in the heights from the electric spark.

108 With the aid of what we have learn't here concerning outer light-processes we shall turn once more to the activity of our own inner light. 109 We may expect by now that our eye is fitted with two modes of seeing activity, polar to each other, 110 and that the way in which they come into operation depends on whether the interplay of positive and negative density outside the eye leads to the appearance of the blue-violet or of the yellow-red side of the colour-scale. 111 Such a polarity in the activity of the eye can indeed be established. Along with it goes a significant functional difference between the two eyes (not unlike that shown of the two hands).

112 To observe this we need simply to compare the two eyes of a person in a photograph by covering alternately the right and the left half of the face. 113 Nearly always it will be found that the right eye looks out clearly into the world with an active expression, and the left eye with a much gentler one, almost held back. 114 Artists are well aware of this asymmetry, as of others in the human countenance, and are careful to depict it. 115 An outstanding example is Raphael's Sistine Madonna, where in the eyes and whole countenance both of Mother and Child this asymmetry can be studied in a specially impressive way.

116 Inner observation leads to a corresponding experience. A convenient method is to exercise the two eyes in complete darkness, in the following way. 117 One eye is made to look actively into the space in front of it, as if it would pierce the darkness with its visual ray, while the activity of the other eye is held back, so that its gaze rests only superficially, as it were, on the darkness in front of it. 118 Experience shows that most people find it natural to give the active note to the right eye, and the passive note to the left. 119 Once one has grown conscious of this natural difference between the two eyes, it is quite easily detected while one is looking normally into the light-filled environment. 120 We thereby realise that for the two eyes to act differently in this way is the usual thing. As an instance

where this fact is well observed and effectively made use of, that of shooting may be mentioned here, especially shooting at flying game. 121 Those who train in this sport learn to make a completely different use of the two eyes in sighting the target. The naturally more active eye-- only once in about fifty cases is it the left-- is called by them the 'master-eye'. 122 Whilst the less actively gazing eye is usually employed for surveying the field as a whole into which the target is expected to enter, the master-eye is used for making active contact with the target itself ('throwing' oneself on the target 'through' the eye).

123 One further observation may be added. If one looks with rested eyes and in very faint daylight (perhaps in the early morning on awakening) at a white surface, while opening and closing the eyes alternately, then the white surface looks faintly reddish to the 'master-eye', and faintly bluish to the other.

124 Following the lines of our treatment of after-images in the last chapter, we will next inquire into the anatomical and physiological basis of the two opposite sight-activities. 125 In the previous instance we found this in the polarity of nerve and blood. This time we must look for it in a certain twofold structure of the eye itself. 126 We shall best perceive this by watching the 'becoming' of the eye, thus again following a method first shown by Goethe.

127 Fig. 11 shows the human eye in different stages of its embryonic formation.

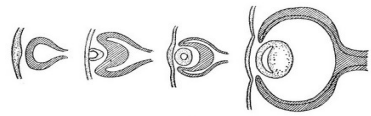


Fig. 11.

128 The eye is clearly seen to consist of two parts essentially different in origin. 129 Growing out from the interior of the embryonic organism is a structure that is gradually pushed in, and in its further development becomes the entire posterior part of the eye, destined to carry its life-imbued functions. 130 A second independent part grows towards this from outside; this is at first a mere thickening of the embryonic skin formation, but later it loosens itself and presses forward into the interior of the cup-shaped structure. 131 It is gradually

enclosed by this, and evolves finally into that part of the finished eye which embodies the optical apparatus functioning according to purely physical laws.

132 This series of forms shows that in the embryonic formation of the eye we are confronted with two processes, one of spherical, and the other of radial orientation. 133 Consequently the two parts of the eye are differentiated in such a way that the posterior part, which has grown forth radially from the embryonic organism, as the life-filled element represents the sulphur-pole of the total eye, 134 while the anterior part, with its much more crystalline nature, having grown spherically towards the organism, represents the eye's salt-pole.

135 Closer inspection into the connexion of the two visual activities of the eye with its basic corporeal parts reveals that here, at the outermost boundary of the human organism, we encounter once more that peculiar reversal of functions which we have already several times met in various realms of Nature. 136 For the anterior part of the eye-- its salt-pole-- which has come into being through a spherically directed formative process, seems to be the one through which we exercise the perceptive activity streaming out radially from the eye, 137 whilst the posterior part-- the eye's sulphur-pole-- which has come into being through radially directed formative action, serves that form of seeing which is more receptive and is carried out in a plane-wise manner.

138 Considerations of this kind, and they alone, enable us also to draw true comparisons between the different sense-organs. 139 Take the organ of hearing. Usually the ear is assumed to fill the same role in the field of hearing as does the eye in the field of seeing. 140 In fact the ear corresponds to only one half of the eye; the other half must be looked for in the larynx. 141 In other words, the two parts of the eye are represented in the realm of hearing by two separate organs, ear and larynx. 142 Speaking from the aspect of metamorphosis, the vital part of our eye may be regarded as our 'light-ear'; the crystalline part, as our 'light-larynx'. 143 In order to

come consciously to a perception of sight we must 'listen' to the 'deeds and sufferings' of light, while at the same time we meet them with the help of the 'speaking' of our inner light. 144 Something similar holds good for hearing. In fact, observation reveals that we take in no impression of hearing unless we accompany it with an activity of our larynx, even though a silent one. 145 The significance of this fact for the total function of hearing will occupy us more fully later.

146 Our insight into the polar nature of visual activity will enable us now to link the external interplay of Light and Dark-- 147 to which the physical colours owe their existence-- to that play of forces which we ourselves set in motion when our eye meets the world of colours in their polar differentiation.

148 We established earlier that in the cold colours the role of darkness belongs to the pole of levity or negative density, and the role of lightness to the pole of gravity or positive density, whereas in the case of the warm colours the roles are reversed. 149 Let us now unite with this the insight we have meanwhile gained into the two kinds of activity in seeing-- the receptive, 'left-eyed' and the radiating, 'right-eyed'-- which mediate to us the experience of the positive or negative density of space spread out before our eyes. 150 Taking together the results of outer and inner observation, we can express the polarity ruling in the realm of colour as follows.

151 If lightness and darkness as elements of colour, meet us in such a way that lightness, by reason of its positive density, calls forth 'left-eyed' activity, and darkness, by reason of its negative density, 'right-eyed' activity, then our soul receives the impression of the colour blue and colours related to blue. 152 If lightness and darkness meet us so that we see the former in a 'right-eyed', and the latter in a 'left-eyed' way, then we experience this as the presence of yellow and the colours related to it.

153 The reason why we usually fail to observe the different kinds of interplay of the two modes of

seeing, when we perceive one or other of the two categories of colour, 154 is because in ordinary sight both eyes exercise each of the two activities without our becoming aware which is the leading one in a particular eye. 155 If, however, one has come to a real experience of the inner polarity of the visual act, one needs only a little practice to realise the distinction. 156 For example, if one looks at the blue sky, notably at noon-time, on the side away from the sun, or at the morning or evening sky, shining yellow and red, 157 one quickly becomes conscious of how our eyes take hold of the particular contribution which Light and Dark make to one or other of the two colour appearances.

158 In the natural course of our argument we had to keep at first to the appearance of colours as they come freely before us in space. 159 The results we have obtained, however, hold good equally well for the permanent tints of material objects, as the following example will show.

160 A fact known to science is that red and blue surface colours, when illumined by light of steadily diminishing intensity, are seen to reverse their normal ratio of brightness. 161 This phenomenon can be seen in Nature, if, for instance, one observes a bed of blue and red flowers in the fading evening light and compares the impression with that which the same flowers make in bright daylight. 162 If the phenomenon is reproduced artificially, the actual transition from one state to the other can be clearly observed. 163 The easiest way is to place a red and a blue surface side by side under an electric light whose intensity can be gradually lessened by means of a sliding resistance. 164 Here, as much as in the natural phenomenon, our reason finds it difficult to acknowledge that the surface gleaming in a whitish sheen should be the one which ordinarily appears as darkling blue, 165 and that the one disappearing into darkness should be the surface which normally presents itself as radiant red.

166 This riddle is readily solved if we apply what we have learn't about the particular shares of lightness and darkness in these two

colours, and if we link this up with the respective forms of seeing exercised by our two eyes. 167 To the dim light, clearly, our eyes will respond more with the 'left-eyed' than with the 'right-eyed' form of vision. 168 Now we know that it is 'left-eyed' vision which is roused by the lightness-component in blue and the darkness-component in red. 169 It is only to be expected, therefore, that these elements should become conspicuous when in the dim light our seeing is mainly 'left-eyed'. 170 This solution of the problem makes us realise further, that the laws which Goethe first found for the coming into appearance of colours freely hovering in space are indeed applicable to the fixed material colours as well.

OPTICS OF THE DOER

Ernst Lehrs

17 Three basic concepts form the foundation for the present-day scientific description of a vast field of optical phenomena, 2 among them the occurrence of the spectral colours as a result of light passing through a transparent medium of prismatic shape. They are: 'optical refraction', 'light-ray', and 'light-velocity'-- the latter two serving to explain the first. 3 In a science of optics which seeks its foundation in the intercourse between human's own visual activity and the doings and sufferings of light, these three concepts must needs undergo a decisive change, both in their meaning and in their value for the description of the relevant optical phenomena. 4 For they are all purely kinematic concepts typical of the onlooker-way of conceiving things-- concepts, that is, to which nothing corresponds in the realm of the actual phenomena.

5 Our next task, therefore, will be, where possible, to fill these concepts with new meaning, or else to replace them by other concepts read from the actual phenomena. 6 Once this is done the way will be free for the development of the picture of the spectrum phenomenon which is in true accord with the Goethean conception of Light and Colour.

7 The first to be brought in this sense under our examination is the concept of the 'light-ray'. 8 In present-day optics this concept

signifies a geometrical line of infinitely small width drawn, as it were, by the light in space, while the cone or cylinder of light actually filling the space is described as being composed of innumerable such rays. 9 In the same way the object producing or reflecting light is thought of as composed of innumerable single points from which the light-rays emerge. All descriptions of optical processes are based upon this conception. 10 Obviously, we cannot be satisfied with such a reduction of wholes into single geometrically describable parts, followed by a reassembling of these parts into a whole. 11 For in reality we have to do with realms of space uniformly filled with light, whether conical or cylindrical in form, which arise through certain boundaries being set to the light. 12 In optical research we have therefore always to do with pictures, spatially bounded. Thus what comes before our consciousness is determined equally by the light calling forth the picture, and by the unlit space bordering it.

13 Remembering the results of our earlier study, we must say further of such a light-filled realm that it lacks the quality of visibility and therefore has no colour, not even white. 14 Goethe and other 'readers', such as Reid and Ruskin, tried continually to visualize what such a light-filled space represents in reality. 15 Hence they directed their attention first to those spheres where light manifests its form-creative activity, as in the moulding of the organ of sight in animal or human, 16 or in the creation of the many forms of the plant kingdom-- and only then gave their mind to the purely physical light-phenomena. 17 Let us use the same method to form a picture of a light-filled space, and to connect this with the ideas we have previously gained on the co-operation in space of levity and gravity.

18 Suppose we have two similar plant-seeds in germ; and let one lie in a space filled with light, the other in an unlit space. 19 From the different behaviour of the two seeds we can observe certain differences between the two regions of space. 20 We note that

within the light-filled region the spiritual archetype of the plant belonging to the seed is helped to manifest itself physically in space, whereas in the dark region it receives no such aid. 21 For in the latter the physical plant, even if it grows, does not develop its proper forms. 22 This tells us, in accordance with what we have learn't earlier, that in the two cases there is a different relation of space to the cosmically distant, all-embracing plane. 23 Thus inside and outside the light-region there exists a quite different relation of levity and gravity-- and this relation changes abruptly at the boundaries of the region. 24 This fact will be of especial importance for us when we come to examine the arising of colours at the boundary of Light and Dark, when light passes through a prism.

25 After having replaced the customary concept of the light-bundle composed of single rays by the conception of two dynamically polar realms of space bordering each other, we turn to the examination of what is going on dynamically inside these realms. 26 This will help us to gain a proper concept of the propagation of light through space.

27 In an age when the existence of a measurable light-velocity seems to belong to the realm of facts long since experimentally proved; 28 when science has begun to measure the universe, using the magnitude of this velocity as a constant, valid for the whole cosmos; 29 and when entire branches of science have been founded on results thus gained, it is not easy, and yet it cannot be avoided, to proclaim that neither has an actual velocity of light ever been measured, 30 nor can light as such ever be made subject to such measurement by optical means-- and that, moreover, light, by its very nature, forbids us to conceive of it as possessing any finite velocity. 31 With the last assertion we do not mean to say that there is nothing going on in connexion with the appearance of optical phenomena to which the concept of a finite velocity is applicable. 32 Only, what is propagated in this way is not the entity we comprise under the concept of 'light'. 33 Our next task, therefore, will be to create a proper distinction between

what moves and what does not move spatially when light is active in the physical world. 34 Once more an historical retrospect will help us to establish our own standpoint with regard to the existing theories.

35 The first to think of light as possessing a finite velocity was Galileo, who also made the first, though unsuccessful, attempt to measure it. 36 Equally unsuccessful were attempts of a similar nature made soon afterwards by members of the Accademia del Cimento. 37 In both cases the obvious procedure was to produce regular flashes of light and to try to measure the time which elapsed between their production and their observation by some more or less distant observer. 38 Still, the conviction of the existence of such a velocity was so deeply ingrained in the minds of people that, when later observations succeeded in establishing a finite magnitude for what seemed to be the rate of the light's movement through space, 39 these observations were hailed much more as the quantitative value of this movement than as proof of its existence, which was already taken for granted.

40 A clear indication of human's state of mind in regard to this question is given in the following passage from Huygens's famous TraitÃ© de la LumiÃ¨re, by which the world was first made acquainted with the concept of light as a sort of undulatory movement.

41 'One cannot doubt that light consists in the movement of a certain substance. For if one considers its production one finds that here on the earth it is chiefly produced by fire and flame, 42 which without doubt contain bodies in rapid motion, for they dissolve and melt numberless other bodies. 43 Or, if one considers its effects, one sees that light collected, for instance, by a concave mirror has the power to heat like fire, i.e. to separate the parts of the bodies; 44 this assuredly points to movement, at least in true philosophy in which one traces all natural activity to mechanical causes. 45 In my opinion one must do this, or quite give up all hope of ever grasping anything in physics.'

46 In these words of Huygens it must strike us how he first provides an explanation for a series of phenomena as if this explanation were induced from the phenomena themselves. 47 After he has drawn quite definite conclusions from it, he then derives its necessity from quite other principles-- namely, from a certain method of thinking, accepting this as it is, unquestioned and unalterably established. 48 We are here confronted with an 'unlogic' characteristic of human thinking during its state of isolation from the dynamic substratum of the world of the senses, an unlogic which one encounters repeatedly in scientific argumentation once one has grown aware of it. 49 In circles of modern thinkers where such awareness prevails (and they are growing rapidly to-day) the term 'proof of a foregone conclusion' has been coined to describe this fact.

50 'Proof of a foregone conclusion' is indeed the verdict at which one arrives in respect of all the observations concerned with the velocity of light-- 51 whether of existing phenomena detectable in the sky or of terrestrial phenomena produced artificially-- if one studies them with the attitude of mind represented by the child in Hans Andersen's story. 52 In view of the seriousness of the matter it will not be out of place if we discuss them here as briefly as possible, one by one.

53 The relevant observations fall into two categories: observations of certain astronomical facts from which the existence of a finite velocity of light and its magnitude as an absolute property of it has been inferred; 54 and terrestrial experiments which permitted direct observation of a process of propagation connected with the establishment of light in space resulting in the measurement of its speed. 55 To the latter category belong the experiments of Fizeau (1849) and Foucault (1850) as well as the Michelson-Morley experiment with its implications for Einstein's Theory of Relativity. 56 The former category is represented by Roemer's observations of certain apparent irregularities in the times of revolution of one of Jupiter's

moons (1676), 57 and by Bradley's investigation into the reason for the apparent rhythmic changes of the positions of the fixed stars (1728).

58 We shall start with the terrestrial observations, because in their case alone is the entire path of the light surveyable, 59 and what is measured therefore is something appertaining with certainty to every point of the space which spreads between the source of the light and the observer. 60 For this reason textbooks quite rightly say that only the results drawn from these terrestrial observations have the value of empirically observed facts. (The interpretation given to these facts is another question.)

61 Now, it is a common feature of all these experiments that by necessity they are based on an arrangement whereby a light-beam can be made to appear and disappear alternately. 62 In this respect there is no difference between the first primitive attempts made by Galileo and the Academicians, and the ingeniously devised experiments of the later observers, whether they operate with a toothed wheel or a rotating mirror. 63 It is always a flash of light-- and how could it be otherwise?-- which is produced at certain regular intervals and used for determining the speed of propagation.

64 Evidently what in all these cases is measured is the speed with which a beam of light establishes itself in space. 65 Of what happens within the beam, once it is established, these observations tell nothing at all. 66 The proof they are held to give of the existence of a finite speed of light, as such, is a 'proof of a foregone conclusion'. 67 All they tell us is that the beam's front, at the moment when this beam is first established, travels through space with a finite velocity and that the rate of this movement is such and such. 68 And they tell us nothing at all about other regions of the cosmos.

69 That we have to do in these observations with the speed of the light-front only, and not of the light itself, is a fact fully acknowledged by modern physical optics. 70 Since Lord Rayleigh first discussed this matter in the eighties of the last century,

physicists have learn't to distinguish between the 'wave-velocity' of the light itself and the velocity of an 'impressed peculiarity', the so-called 'group-velocity', 71 and it has been acknowledged that only the latter has been, and can be, directly measured. 72 There is no possibility of inferring from it the value of the 'wave-velocity' unless one has a complete knowledge of the properties of the medium through which the 'groups' travel. 73 Nevertheless, the modern mind allows itself to be convinced that light possesses a finite velocity and that this has been established by actual measurement. 74 We feel reminded here of Eddington's comment on Newton's famous observations: 'Such is the glamour of a historical experiment.' (Chapter-14.)

75 Let us now turn to Roemer and Bradley. In a certain sense Roemer's observations and even those of Bradley rank together with the terrestrial measurements. 76 For Roemer used as optical signals the appearance and disappearance of one of Jupiter's moons in the course of its revolution round the planet; thus he worked with light-flashes, as the experimental investigations do. 77 Hence, also, his measurements were concerned-- as optical science acknowledges-- with group-velocity only. 78 In fact, even Bradley's observations, although he was the only one who operated with continuous light-phenomena, are exposed to the charge that they give information of the group-velocity of light, and not of its wave-velocity. 79 However, we shall ignore these limitations in both cases, because there are quite other factors which invalidate the proofs they are held to give, and to gain a clear insight into these factors is of special importance for us.

80 Roemer observed a difference in the length of time during which a certain moon of Jupiter was occulted by the planet's body, and found that this difference underwent regular changes coincident with the changes in the earth's position in relation to Jupiter and the sun. 81 Seen from the sun, the earth is once a year in conjunction with Jupiter, once in opposition to it. 82 It seemed

obvious to explain the time-lag in the moon's reappearance, when the earth was on the far side of the sun, by the time the light from the moon needed to cover the distance marked by the two extreme positions of the earth-- that is, a distance equal to the diameter of the earth's orbit. 83 On dividing the observed interval of time by the accepted value of this distance, Roemer obtained for the velocity of light a figure not far from the one found later by terrestrial measurements.

84 We can here leave out of account the fact that Roemer's reasoning is based on the assumption that the Copernican conception of the relative movements of the members of our solar system is the valid conception, 85 an assumption which, as later considerations will show, cannot be upheld in a science which strives for a truly dynamic understanding of the world. 86 For the change of aspect which becomes necessary in this way does not invalidate Roemer's observation as such; it rules out only the customary interpretation of it. 87 Freed from all hypothetical by-thought, Roemer's observation tells us, first, that the time taken by a flash of light travelling from a cosmic light-source to reach the earth varies to a measurable extent, 88 and, secondly, that this difference is bound up with the yearly changes of the earth's position in relation to the sun and the relevant planetary body.

89 We leave equally out of account the fact that our considerations of the nature of space in Chapter -12 render it impermissible to conceive of cosmic space as something 'across' which light (or any other entity) can be regarded as travelling this or that distance in this or that time. 90 What matters to us here is the validity of the conclusions drawn from Roemer's discovery within the framework of thought in which they were made.

91 Boiled down to its purely empirical content, Roemer's observation tells us solely and simply that within the earth's cosmic orbit light-flashes travel with a certain measurable speed. 92 To regard this information as automatically valid, firstly for light which is continuously present, and secondly for everywhere in the

universe, rests again on nothing but a foregone conclusion.

93 Precisely the same criticism applies to Bradley's observation, and to an even higher degree. 94 What Bradley discovered is the fact that the apparent direction in which we see a fixed star is dependent on the direction in which the earth moves relatively to the star, a phenomenon known under the name of 'aberration of light'. 95 This phenomenon is frequently brought to students' understanding by means of the following or some similar analogy. 96 Imagine that a machine-gun in a fixed position has sent its projectile right across a railway-carriage so that both the latter's walls are pierced. 97 If the train is at rest, the position of the gun could be determined by sighting through the shot-holes made by the entrance and exit of the bullet. 98 If, however, the train is moving at high speed, it will have advanced a certain distance during the time taken by the projectile to cross the carriage, and the point of exit will be nearer the rear of the carriage than in the previous case. 99 Let us now think of an observer in the train who, while ignorant of the train's movement, undertook to determine the gun's position by considering the direction of the line connecting the two holes. 100 You would necessarily locate the gun in a position which, compared with its true position, would seem to have shifted by some distance in the direction of the train's motion. 101 On the other hand, given the speed of the train, the angle which the line connecting the two holes forms with the true direction of the course of the projectile-- the so-called angle of aberration-- provides a measure of the speed of the projectile.

102 Under the foregone conclusion that light itself has a definite velocity, and that this velocity is the same throughout the universe, 103 Bradley's observation of the aberration of the stars seemed indeed to make it possible to calculate this velocity from the knowledge of the earth's own speed and the angle of aberration. 104 This angle could be established by comparing the different directions into which a telescope has to be turned at different times of the year in order to focus a

particular star. 105 But what does Bradley's observation tell us, once we exclude all foregone conclusions?

106 As the above analogy helps towards an understanding of the concept of aberration, it will be helpful also to determine the limits up to which we are allowed to draw valid conclusions from the supposed occurrence itself. 107 A mind which is free from all preconceived ideas will not ignore the fact that the projectile, by being forced to pierce the wall of the carriage, suffers a considerable diminution of its speed. 108 The projectile, therefore, passes through the carriage with a speed different from its speed outside. 109 Since, however, it is the speed from hole to hole which determines the angle of aberration, no conclusion can be drawn from the latter as to the original velocity of the projectile. 110 Let us assume the imaginary case that the projectile was shot forth from the gun with infinite velocity, and that the slowing-down effect of the wall was great enough to produce a finite speed of the usual magnitude, 111 then the effect on the position of the exit hole would be precisely the same as if the projectile had moved all the time ' with this speed and not been slowed down at all.

112 Seeing things in this light, the scientific Andersen child in us is roused to exclaim: 'But all that Bradley's observation informs us of, with certainty is a finite velocity of the optical process going on inside the telescope!' 113 Indeed, if someone should claim with good reason (as we shall do later on) that light's own velocity is infinite, 114 and (as we shall not do) that the dynamic situation set up in the telescope had the effect of slowing down the light to the measured velocity-- there is nothing in Bradley's observation which could disprove these assertions.

115 Having thus disposed of the false conclusions drawn by a kinematically orientated thinking from the various observations and measurements of the velocity which appears in connexion with light, we can carry on our own studies undisturbed. 116 Two observations stand before us representing empirically

established facts: 117 one, that in so far as a finite velocity has been measured or calculated from other observations, nothing is known about the existence or magnitude of such a velocity except within the boundaries of the dynamic realm constituted by the earth's presence in the universe; 118 the other, that this velocity is a 'group'-velocity, that is, the velocity of the front of a light-beam in process of establishment. 119 Let us see what these two facts have to tell us when we regard them as letters of the 'word' which light inscribes into the phenomenal world as an indication of its own nature. 120 Taking the last-named fact first, we shall make use of the following comparison to help us realise how little we are justified in drawing from observations of the front speed of a light-beam any conclusions concerning the kinematic conditions prevailing in the interior of the beam itself. 121 Imagine the process of constructing a tunnel, with all the efforts and time needed for cutting its passage through the resisting rock. 122 When the tunnel is finished the activities necessary to its production are at an end. 123 Whereas these continue for a limited time only, they leave behind them permanent traces in the existence of the tunnel, which one can describe dynamically as a definite alteration in the local conditions of the earth's gravity. 124 Now, it would occur to no one to ascribe to the tunnel itself, as a lasting quality, the speed with which it had been constructed. 125 Yet something similar happens when, after observing the velocity required by light to lay hold on space, this velocity is then attributed to the light as a quality of its own. 126 It was reserved for a mode of thought that could form no concept of the real dynamic of Light and Dark, to draw conclusions as to the qualities of light from experiences obtained through observing its original spreading out into space.

127 To speak of an independently existing space within which light could move forward like a physical body, is, after what we have learn't about space, altogether forbidden. 128 For space in its relevant structure is itself but a result of a particular co-ordination

of levity and gravity or, in other words, of Light and Dark. 129 What we found earlier about the qualities of the two polar spaces now leads us to conceive of them as representative of two limiting conditions of velocity: 130 absolute contraction representing zero velocity; absolute expansion, infinite velocity (each in its own way a state of 'rest'). 131 Thus any motion with finite velocity is a mean between these two extremes, and as such the result of a particular co-ordination of levity and gravity. 132 This makes it evident that to speak of a velocity taking its course in space, whether with reference to light or to a physical body in motion, is something entirely unreal.

133 Let us now see what we are really told by the number 186,000 miles a second, as the measure of the speed with which a light-impulse establishes itself spatially. 134 In the preceding chapter we learn't that the earth's field of gravity offers a definite resistance to our visual ray. What is true for the inner light holds good equally for the outer light. 135 Using an image from another dynamic stratum of Nature we can say that light, while appearing within the field of gravity, 'rubs' itself on this. 136 On the magnitude of this friction depends the velocity with which a light-impulse establishes itself in the medium of the resisting gravity. 137 Whereas light itself as a manifestation of levity possesses infinite velocity, this is forced down to the known finite measure by the resistance of the earth's field of gravity. 138 Thus the speed of light which has been measured by observers such as Fizeau and Foucault reveals itself as a function of the gravitational constant of the earth, and hence has validity for this sphere only. 139 The same is true for Roemer's and Bradley's observations, none of which, after what we have stated earlier, contradicts this result. 140 On the contrary, seen from this viewpoint, Roemer's discovery of the light's travelling with finite speed within the cosmic realm marked by the earth's orbit provides an important insight into the dynamic conditions of this realm.

141 Among the experiments undertaken with the aim of

establishing the properties of the propagation of light by direct measurements, quoted earlier, we mentioned the Michelson-Morley experiment as having a special bearing on Einstein's conceptual edifice. 142 It is the one which has formed the foundation of that (earlier) part of Einstein's theory which he himself called the Special Theory of Relativity. 143 Let us see what becomes of this foundation-- and with it the conceptual edifice erected upon it-- when we examine it against the background of what we have found to be the true nature of the so-called velocity of light. 144 It is generally known that modern ideas of light seemed to call for something (Huygens's 'certain substance') to act as bearer of the movement attributed to light. 145 This led to the conception of an imponderable agency capable of certain movements, and to denote this agency the Greek word ether was borrowed. 146 How this word can be used again to-day in conformity with its actual significance will be shown in the further course of our discussions. 147 Nevertheless, all endeavours to find in the existence of such an ether a means of explaining wide fields of natural phenomena were disappointed. 148 For the more exact concepts one tried to form of the characteristics of this ether, the greater the contradictions became. 149 One such decisive contradiction arose when optical means were used to discover whether the ether was something absolutely at rest in space, through which physical bodies moved freely, or whether it shared in their movement. 150 Experiments made by Fizeau with running water seemed to prove the one view, those of Michelson and Morley, involving the movement of the earth, the other view. 151 In the celebrated Michelson-Morley experiment the velocity of light was shown to be the same, in whatever direction, relative to the earth's own motion, it was measured. 152 This apparent proof of the absolute constancy of light-velocity-- which seemed, however, to contradict other observations-- induced Einstein to do away with the whole assumption of a bearer of the movement underlying light, whether the bearer were supposed

to be at rest or itself in motion. 153 Instead, he divested the concepts of space and time, from which that of velocity is usually derived, of the absoluteness hitherto attributed to them, 154 with the result that in his theory time has come to be conceived as part of a four-dimensional 'space-time continuum'.

155 In reality the Michelson-Morley experiment presents no problem requiring such labours as those of Einstein for its solution. 156 For by this experiment nothing is proved beyond what can in any event be known-- namely, that the velocity of the propagation of a light-impulse is constant in all directions, 157 so long as the measuring is confined to regions where the density of terrestrial space is more or less the same. 158 With the realisation of this truth, however, Einstein's Special Theory loses its entire foundation. All that remains to be said about it is that it was a splendid endeavour to solve a problem which, rightly considered, does not exist.

159 Now that we have realised that it is inadmissible to speak of light as consisting of single rays, or to ascribe to it a finite velocity, 160 the concept of the refraction of light, as understood by optics to-day and employed for the explanation of the spectrum, also becomes untenable. Let us find out what we must put in its place.

161 The phenomenon which led the onlooker-consciousness to form the idea of optical refraction has been known since early times. 162 It consists in the fact, surprising at first sight, that an object, such as a coin, which lies at the bottom of a vessel hidden from an observer by the rim, becomes visible when the vessel is filled with water. 163 Modern optics has explained this by assuming that from the separate points of the floor of the vessel light-rays go out to all sides, one ray falling in the direction of the eye of the observer. 164 Hence, because of the positions of eye and intercepting rim there are a number of points from which no rays can reach the eye. One such point is represented by the coin (P in Fig. 12a).

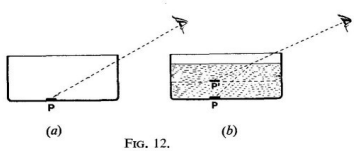


FIG. 12.

165 Now if the vessel is filled with water, light-rays emerging from it are held to be refracted, so that rays from the points hitherto invisible also meet the eye, which is still in its original position. 166 The eye itself is not conscious of this 'break' in the light-rays, because it is accustomed to 'project' all light impressions rectilinearly out into space (Fig. 12b.). 167 Hence, it sees *P* in the position of *P*'. This is thought to be the origin of the impression that the whole bottom of the vessel is raised.

168 This kind of explanation is quite in line with the peculiarity of the onlooker-consciousness, noted earlier, to attribute an optical illusion to the eye's way of working, while charging the mind with the task of clearing up the illusion. 169 In reality it is just the reverse. Since the intellect can form no other idea of the act of seeing than that this is a passive process taking place solely within the eye, it falls, itself, into illusion. 170 How great is this illusion we see from the fact that the intellect is finally obliged to make the eye somehow or other 'project' into space the impressions it receives--a process lacking any concrete dynamic content.

171 Once more, it is not our task to replace this way of 'explaining' the phenomenon by any other, but rather to combine the phenomenon given here with others of kindred nature so that the theory contained in them can be read from them direct. 172 One other such phenomenon is that of so-called apparent optical depth, which an observer encounters when looking through transparent media of varying optical density. 173 What connects the two is the fact that the rate of the alteration of depth, and the rate of change of the direction of light, are the same for the same media.

174 In present-day optics this phenomenon is explained with reference to the former. 175 In proceeding like this, optical science makes the very mistake which Goethe condemned in Newton, saying that a complicated phenomenon was made the basis,

and the simpler derived from the complex. 176 For of these two phenomena, the simpler, since it is independent of any secondary condition, is the one showing that our experience of depth is dependent on the density of the optical medium.

177 The latter phenomenon we met once before, though without reference to its quantitative side, when in looking at a landscape we found how our experiences of depth change in conformity with alterations in atmospheric conditions. 178 This, then, served to make us aware that the way we apprehend things optically is the result of an interplay between our visual ray and the medium outside us which it meets.

179 It is exactly the same when we look through a vessel filled with water and see the bottom of it as if raised in level. 180 This is in no sense an optical illusion; it is the result of what takes place objectively and dynamically within the medium, when our eye-ray passes through it. 181 Only our intellect is under an illusion when, in the case of the coin becoming visible at the bottom of the vessel, it deals with the coin as if it were a point from which an individual ray of light went out.. .. etc., 182 instead of conceiving the phenomenon of the raising of the vessel's bottom as one indivisible whole, wherein the coin serves only to link our attention to it.

183 Having thus cleared away the kinematic interpretation of the coin-in-the-bowl phenomenon, we may pass on to discuss the optical effect through which the so-called law of refraction was first established in science. 184 Instead of picturing to ourselves, as is usually done, light-rays which are shifted away from or towards the perpendicular at the border-plane between two media of different optical properties, we shall rather build up the picture as light itself designs it into space.

185 We have seen that our inner light, as well as the outer light, suffers a certain hindrance in passing through a physical medium-- even such as the earth's gravity-field. 186 Whilst we may not describe this retardation, as is usually done, in terms of a smaller velocity of light itself within the denser medium, we may rightly

say that density has the effect of lessening the intensity of the light. 187 It is the time required for the initial establishment of a light-filled realm which is greater within such a medium than outside it. 188 Now by its very nature the intensity of light cannot be measured in spatial terms. Yet there is a phenomenon by which the decrease of the inner intensity of the light becomes spatially apparent and thus spatially measurable. 189 It consists in the alteration undergone by the aperture of a cone of light when passing from one optical medium to another.

190 If one sets in the path of a luminous cone a glass-walled trough filled with water, then, if both water and surrounding air are slightly clouded, the cone is seen to make a more acute angle within the water than outside it (Fig. 13).

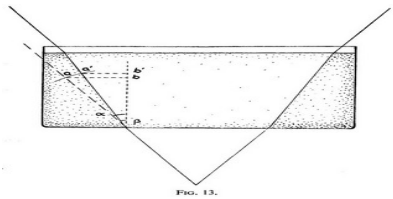


Fig. 13.

191 Here in an external phenomenon we meet the same weakening in the light's tendency to expand that we recognised in the shortening of our experience of depth on looking through a dense medium. 192 Obviously, we expect the externally observable narrowing of the light-cone and the subjectively experienced change of optical depth to show the same ratio.

193 In order to compare the rate of expansion of a luminous cone inside and outside water, we must measure by how much less the width of the cone increases within the water than it does outside. 194 To be comparable, the measurements must be based upon the same distances on the edge of the cone, because this is the length of the way the light actually travels. 195 In Fig. 13 this is shown by the two distances, *a*-*b* and *a*'-*b*'. Their ratio is the same as that by which the bottom of a vessel appears to be raised when the vessel is filled with water (4:3).

196 Thus by means of pure observation we have arrived at nothing less than what is known to physical optics as Snell's Law of Refraction. 197 This law was itself the result of pure observation, but was clothed in a conceptual form

devoid of reality. 198 In this form it states that a ray of light in transition between two media of different densities is refracted at their boundary surface 199 so that the ratio of the angle which is formed by the ray in either medium with a line at right angles to the boundary surface is such that the quotient of the sines of both angles is for these media a constant factor. In symbols

sin Î± / sin Î² = c.

200 It will be clear to the reader familiar with trigonometry that this ratio of the two sines is nothing else but the ratio of the two distances which served us as a measure for the respective apertures of the cone. 201 But whereas the measurement of these two distances is concerned with something quite real (since they express an actual dynamic alteration of the light), 202 the measuring of the angle between the ray of light and the perpendicular is founded on nothing real. 203 It is now clear that the concept of the ray, as it figures in the usual picture of refraction, is in reality the boundary between the luminous space and its surroundings. 204 Evidently the concept of the perpendicular on the boundary between the two media is in itself a complete abstraction, since nothing happens dynamically in its direction.

205 To a normal human understanding it is incomprehensible why a ray of light should be related to an external geometrical line, as stated by the law of refraction in its usual form. 206 Physical optics, in order to explain refraction, had therefore to resort to light-bundles spatially diffused, 207 and by use of sundry purely kinematic concepts, to read into these light-bundles certain processes of motion, which are not in the least shown by the phenomenon itself. 208 In contrast to this, the idea that the boundary of a luminous cone is spatially displaced when its expansion is hindered by an optical medium of some density, 209 and that the measure of this displacement is equal to the shortening of depth which we experience in looking through this medium, is directly evident, since all its elements are taken from observation.

210 From what we have here found we may expect that in order to explain the numerical relationships between natural phenomena-- with which science in the past has been solely concerned,-- 211 we by no means require the artificial theories to which the onlooker in human, confined as you are to abstract thinking, has been unavoidably driven. 212 Indeed, to an observer who trains the self on the lines indicated in this book, even the quantitative secrets of Nature will become objects of intuitive judgment, just as Goethe, by developing this organ of understanding, first found access to Nature's qualitative secrets. 213 The change in our conception of number which this entails will be shown at a later stage of our discussions.

THE SPECTRUM AS A SCRIPT OF THE SPIRIT

Ernst Lehrs

18 The realisation that Newton's explanation of the spectrum fails to meet the facts, prompted Goethe to engage in all those studies which made him the founder of a modern optics based on intuitive participation in the phenomena. 2 In spite of all that he achieved, however, he never reached a real solution of the riddle of the colour-phenomenon produced when light passes through a transparent body of prismatic shape. 3 For his assumption of certain 'double images', which are supposed to appear as a result of the optical displacement of the boundaries between the Light-filled and the Dark-filled parts of space 4 and the mutual superposition of which he believed to be responsible for the appearance of the respective colours, does not solve the problem.

5 What hindered Goethe in this field was his limited insight into the nature of the two distinct kinds of forces which, as we have noted in the course of our own inquiries, correspond to his concepts of Licht and Finsternis.

6 With the aid of this distinction-- which we have indeed established through a consistent application of Goethe's method-- we shall now be able to develop precisely that insight into the coming-into-being

of the spectral colours which Goethe sought.

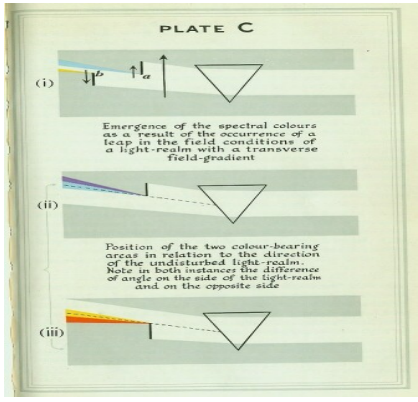
7 Dynamically, the process of the formation of the spectrum by light that passes through a prism divides into two clearly distinguishable parts. 8 The first consists in the influence which the light undergoes inside the prism as a result of the latter's special shape, 9 the other, in what happens outside the prism at the boundary between the Light-space-- influenced by the shape of the prism-- and the surrounding Dark-space. Accordingly, we shall study these two parts of the process separately.

10 As an aid to distinguishing clearly one process from the other, we shall suppose the prism experiment to be so arranged that the light area is larger than the width of the prism, which will then lie completely within it. 11 We shall further suppose the dimensions of the whole to be such that the part observable on the screen represents only a portion of the total light-realm situated between the boundaries of the prism. 12 The result is that the screen depicts a light-phenomenon in which there is no trace of colour. 13 For normal eyesight, the phenomenon on the screen differs in no way from what it would be if no prism intervened in the path of the light.

14 These two seemingly identical light-phenomena reveal at once their inner dynamic difference if we narrow the field of light from either side by introducing into it an object capable of casting shadow. 15 If there is no prism we see simply a black shadow move into the illumined area on the screen, no matter from which side the narrowing comes. 16 If, however, the light has come through a prism (arranged as described above) certain colours appear on the boundary between the regions of light and shadow, and these differ according to the side from which the darkening is effected. 17 The same part of the light area may thus be made to display either the colours of the blue pole of the colour-scale, or those of the yellow pole. 18 This shows that the inner dynamic condition of the light-realm is altered in some way by being exposed to an optically resistant medium of prismatic

shape. 19 If we are to find the cause and nature of this alteration we must revert to the prism itself, and inquire what effect it has on light in the part of space occupied by it. 20 By proceeding in this way we follow Goethe's model: first, to keep the two border-phenomena separate, and, secondly, not to ascribe to the light itself what is in fact due to certain boundary conditions.

21 In order to realise what happens to the light in passing through the prism, let us remember that it is a characteristic of an ordinary light-beam to direct itself through space in a straight line if not interfered with, and to illuminate equally any cross-section of the area it fills. 22 Both these features are altered when the light is exposed to a transparent medium of prismatic shape-- 23 that is, to an optically resistant medium so shaped that the length of the light's passage through it changes from one side of the beam to the other, being least at the so-called refracting edge of the prism, greatest at the base opposite to that. 24 The dimming effect of the medium, therefore, has a different magnitude at each point of the width of the beam. 25 Obviously, the ratio between levity and gravity inside such a light-realm, instead of being constant, varies from one side to the other. 26 The result is a transverse dynamic impulse which acts from that part of the light-realm where the weakening influence of the prism is least towards the part where it is strongest (see long arrow in Plate C, Fig. i).



27 This impulse manifests in the deflection of the light from its original course. 28 Apart from this, nothing is noticeable in the light itself when caught by an observation screen, the reason being that the transverse impulse now immanent in the light-realm has no effect on the reflecting surface.

29 The situation changes when the light-realm is narrowed down from one side or the other-- in other words, when an abrupt change of the field-conditions, that is, a sudden leap from light to dark or from dark to light, is introduced within this realm. 30 In this case, clearly, the effect of the transverse field-gradient on such a leap will be different, depending on the relation between the directions of the two (see small arrows in Plate C, Fig. i). 31 Our eyes witness to this difference by seeing the colours of the blue pole of the colour-scale appear when the field-gradient is directed towards the leap *(a)*, and the colours of the yellow pole when the gradient is directed away from it *(b)*.

32 For our further investigation it is very important to observe how the colours spread when they emerge at the edge of the shadow-casting object thus introduced into the light-realm from the one side or the other. 33 Figs, ii and iii on Plate C show, closely enough for our purpose, the position of the colour-bearing areas in each case, with the dotted line indicating the direction which the light would have at the place of origin of the colours if there were no object interfering with its free expansion. 34 We observe a distinct difference in the widening out of the two colour-areas on both sides of the original direction of the light: 35 in each case the angle which the boundary of the colour-area forms with this direction is smaller on the side of the colours nearest the light-realm (blue and yellow respectively) than on the opposite side (violet and red).

36 Remembering what we have learn't about the dynamic characteristics of the two colour-poles, we are now in a position to state the following. 37 When a light-area subject to a lateral gradient is narrowed down, so that the gradient is directed towards the narrowing object, colours arise in which the interaction between the two polarically opposite forms of density is such that positive density makes for lightness, and negative density for darkness. 38 Whereas, when the border is so situated that the gradient is directed away from it, the interaction is such that positive density makes for darkness, and

negative density for lightness. 39 Further, the fact that on both occasions the darkness element in the colour-band increases in the outward direction tells us that in this direction there is on the blue-violet side a gradual decrease in positive, and increase in negative, density, while on the opposite side we find just the reverse. 40 We note again that both processes occupy a considerable part of the space originally outside the boundaries of the light-area-- 41 that is, at the violet end the part towards which the light-beam is deflected, and at the red end the part from which it turns away.

42 The visual ray, when penetrating actively into the two colour-phenomena thus described, receives evidence of a dynamic happening which may be expressed as follows. 43 Where the transverse impulse, which is due to the varying degree of TrÃ¼bung in the light-realm, is directed towards the latter's edge, 44 the intermingling of the Dark-ingredient and the Light-ingredient, contained in that realm, is such that Dark follows Light along its already existing gradient, thereby diminishing steadily. 45 Hence our visual ray, meeting conditions quite similar to those occurring when we look across the light-filled atmosphere into universal space, notifies us of the presence of the blue-violet colour-pole. 46 If, on the other hand, the edge is in the wake of the transverse impulse, then a kind of dynamic vacuum arises in that part of space from which the beam is deflected, 47 with the effect that the Dark-ingredient, imprinted on the light within the prism, is drawn into this vacuum by following a kind of suctional influence. 48 Consequently Dark and Light here come to oppose one another, and the former, on its way out of the light-area, gains in relative strength. 49 On this side our visual ray meets conditions resembling those which occur when we look across the darkening atmosphere into the sun. 50 Accordingly our optical experience tells us of the presence of the yellow-red colour-pole.

51 From our description of the two kinds of dynamic co-ordination of positive and negative density at the two ends of the spectrum it

follows that the spatial conditions prevailing at one end must be quite different from those at the other. 52 To see this by way of actual perception is indeed not difficult. In fact, if we believe that we see both ends of the spectrum lying, as it were, flatly on the surface of the observation screen, this is merely an illusion due to our superficial way of using our eyes. 53 If we gaze with our visual ray (activated in the manner previously described) into the two sides of the spectrum, while turning our eyes alternately in one or other direction, 54 we soon notice that the colours of the yellow-red rise towards the eye so as to give the impression of protruding almost corporeally from the surface of the screen. 55 We feel: Density obtains here in a state of fiery radiation. When turning to the other side we feel our visual ray, instead of being as before caught up in the colours, passing freely across the colours as if carried by them into the infinite. 56 On the blue-violet side, space itself seems to fluoresce mysteriously. 57 Following Goethe's conception of the physical-moral effect of colours, we may describe the experience received thus from the two poles of the spectrum by saying that an 'other-worldly' character belongs to the colours of the blue-violet pole; an 'earthly' character to those of the yellow-red; 58 while that of green, which appears when both sides are made to overlap, witnesses to its mediating nature between the two.

59 In our endeavour to view the fundamental experiment of Newtonian optics with the eyes of Goethe we have been led from the wide expanse of the earth's sunlit periphery into the confines of the darkened experimental chamber. 60 With the aid of the results gained from studying the artificially produced spectrum phenomenon, we shall now return to our original field of observation in order to study the same phenomenon in Nature. 70 There it meets us in the form of the rainbow, which we shall now be able to read as a chapter in the great book of Nature.

71 From what we have learn’t already we can say at once that the rainbow must represent some sort of border-phenomenon, thus

pointing to the existence of a boundary between two space-regions of differing illumination. 72 Our question therefore must be: what is the light-image whose boundary comes to coloured manifestation in the phenomenon of the rainbow? 73 There can be no doubt that the image is that of the sun-disk, shining in the sky. 74 When we see a rainbow, what we are really looking at is the edge of an image of the sun-disk, caught and reflected, owing to favourable conditions, in the atmosphere. 75 Observe in this respect that the whole area inside the rainbow is always considerably brighter than the space outside.

76 Once we realise this to be the true nature of the rainbow, the peculiar order of its colours begins to speak a significant language. 77 The essential point to observe is that the blue-violet part of the spectrum lies on the inner side of the rainbow-arch-- the side immediately adjoining the outer rim of the sun-image-- 78 while the yellow-red part lies on the outer side of the arch-- the side turned away from the sun-image. 79 What can we learn from this about the distribution of positive and negative density inside and outside the realm occupied by the sun-disk itself in the cosmos?

80 We remember that along the gradient from blue to violet, negative density (Light) increases and positive density (Dark) decreases, while from yellow to red it is just the reverse-positive density increases and negative density decreases. 81 The rainbow therefore indicates a steady increase of Dark towards the outer rim, and of Light towards the inner. 82 Evidently, what the optical image of the sun in the atmosphere thus reveals concerning the gradation of the ratio between Light and Dark in the radial direction, is an attribute of the entire light-realm which stretches from the sun to that image. 83 And again, the attribute of this realm is but an effect of the dynamic relation between the sun itself and the surrounding cosmic space. 84 The rainbow thus becomes a script to us in which we read the remarkable fact that the region occupied by the sun in the cosmos is a region of negative density, in relation to which the

region surrounding the sun is one of positive density. 85 Far from being an accumulation of ponderable matter in a state of extremely high temperature, as science supposes, the sun represents the very opposite of ponderability. 86 It would be beyond the scope of this book to show how in the light of this fact one learns to re-read the various solar phenomena known to science.

87 Once we realise this, our judgment of all that our terrestrially devised optical instruments, such as the telescope and spectroscope, tell us about the nature of the sun and its surroundings, will change accordingly. 88 For it becomes clear that for the interpretation of solar phenomena shown by these instruments we cannot properly use concepts derived from observations within the earth's realm of positive density. 89 To compare adequately solar and terrestrial phenomena, we must keep in mind that they are in every respect polar opposites. 90 For instance, the fact that the spectroscope reveals phenomena in the sun's light which are strikingly similar to others occurring when earthly matter is first caused to emit light-- 91 that is, brought near the upper border of its ponderable existence-- and then studied spectroscopically, should not impose on us the illusion that the sun consists of matter in this same condition. 92 On the contrary, the similarity should tell us that imponderable substance, while on its way between sun and earth to ponderable existence, assumes, at the point of transition, aspects exactly like those revealed by ponderable substance at the corresponding point in its upward transformation.

93 What we observe, when we study the sun through a spectroscope, is not the sun itself, but the conditions obtaining in this border-region, where imponderable substance enters the earth-realm. 94 The rainbow, directly we learn to see it as the border-phenomenon that it is, tells us something of itself which revives in modern form a conception held generally in former ages, when it was seen as a

mediator between the cosmic-divine and the earthly-human worlds. 95 Thus the Bible speaks of it as a symbol of God's reconciliation with the human race after the great Flood. 96 Thus the Greeks beheld it when they saw it as the bridge of Iris, messenger of the Gods; 97 and similarly the Germanic mythology speaks of it as the pathway along which the souls of the fallen warriors draw near to Valhalla. 98 By recovering this old conception in a new and scientifically grounded form we are enabled also to rectify the misunderstanding from which the ancient bridge-conception of the rainbow has suffered in later days, when tradition had begun to replace direct insight into the truth. 99 When with the rise of human's onlooker-relation to the world of the senses, the rainbow could appear to you only as a form flattened against the sky, 100 people began to think that the ancient picture of it as a bridge had been derived from its likeness to the latter's arched form. 101 Representations of the rainbow from these times indeed show super-sensible beings, such as the souls of the dead, moving upwards and downwards along the two halves of the arch. 102 It is not in this abstract way that ancient human formed their cosmic imagery. 103 What was seen going on between the upper and nether worlds when a rainbow appeared in the heights of the atmosphere was no traffic over the arch, but an interplay across the rainbow between the realm of levity, 104 glimmering down in the rainbow's violet border, and the realm of gravity glowing up from the red. And this is how we have now learn't to see it again.

105 At one point in our optical studies we referred to some words of Ruskin in which he deplored the influence exerted on the soul-life of modern human by the world-conception of science. 106 He illustrated this by showing how much less inspiration a person trained in the science of optics receives from the sight of a rainbow than does a 'simple peasant'. 107 One lesson of our studies is that training in optics, if it proceeds on Goethean lines, has no such detrimental effect. 108 There is, however, a further

problem, outside Ruskin's scope, which we are now able to approach in the same healthy way.

109 Ruskin distinguishes between three possible stages in human's relation to the world of the senses. The first stage he calls that of 'inactive reverie'; 110 the second-- in a certain respect more advanced-- that of 'useful thought', the stage of scientifically awakened human to whom all things disintegrate into countable and nothing but countable parts. 111 Beyond this, Ruskin conceives of a third, still higher stage, in which human becomes capable of raising the self through 'higher contemplation' into an artistic-ethical relation to the content of the sense-world.

112 Now, in the way Ruskin represents the second and third stages they seem to be exclusive of one another. That was as far as he could go, in his own day. 113 Natural observation along Goethean lines leads to a form of higher contemplation which unites the second and third stages by nourishing human's ethical being and at the same time furnishing you with useful knowledge-- 114 knowledge, that is, which enables you to improve the conditions of the human race on the earth. 115 The following is an example of the practical possibilities that open up in the field we are discussing if we apply the knowledge gained through our new approach to the forces working in Nature.

116 We shall speak here of a task of experimental research which was mentioned by Rudolf Steiner in connexion with the renewal of natural science.

117 Rudolf Steiner felt the need for pioneers who, by advancing along the paths opened up by Goethe, would press forward into the realm of undiscovered phenomena on the upper border of Nature, 118 and this prompted him to give to those who were ready to listen various pointers towards new ways of experimental research. 119 In so far as practical results have already been reached along these lines, they lie in the fields of biology and physiology (and of chemistry, in a certain respect) rather than in that of physics. 120 Now, among the indications given in this latter field, and not yet worked out, there is one which deals with a way,

unknown to-day, of influencing the spectrum by the magnet.

121 The possibility of a magnetic influence on the spectrum was, in itself, not unknown to physics. It was the Dutchman, Zeeman, who first observed a change in the appearance of certain spectral lines as a result of light passing through a magnetic field. 122 This discovery, however, is in two respects typical of modern science. The Zeeman effect consists in the splitting up of certain spectral lines into other lines-- hence, of a breaking up of a whole into parts. 123 And by seemingly providing a decisive confirmation of contemporary views concerning the electromagnetic nature of light, Zeeman's discovery has formed one of the milestones in the progress of physical thought-- 124 with the usual result that an enlargement of human's knowledge of the behaviour of natural forces has served to entangle your conception of Nature still more deeply in illusion.

125 Apart from the fact that our own way of combining observation and thought guards us against drawing theoretical conclusions from Zeeman's discovery, 126 Rudolf Steiner's indication opens up the prospect of achieving quite practical results, opposite in character to those of the Zeeman effect. 127 For in contradistinction to the use of a magnetic field for splitting the spectrum, Rudolf Steiner has made us aware of the possibility of uniting into a higher synthesis parts of the spectrum which normally appear in separated form. 128 His indication points to nothing less than a leading over of the optically produced spectrum from its usual linear form, with two boundaries on either side, into a closed circular form, and of doing this by an adequate application-- as yet undiscovered-- of magnetic force. 129 Further, according to his statement, the point where the two ends of the spectrum meet will prove to be a fountain-head of certain higher natural forces which otherwise are not directly accessible.

130 In order to understand how this is possible, we must remember that in two respects the spectrum is not a complete phenomenon. 131

MATTER

There is, to begin with, the fact that the colour-band visible on the observation screen is only apparently confined to the surface of the screen. 132 For, as we have seen, because of the differing co-ordination of levity and gravity at the two ends of the spectrum, the conditions of space prevailing at each are polarically opposite. 133 Negative space opens up spherically behind the blue-violet colours on one side, while positive space, filled by the radially shining yellow-red colours, arises on the other. 134 So we see that what we found earlier for the two poles of magnetism and electricity holds good also for the spectrum. 135 That is, the two processes bringing about the relevant phenomena are not confined to the part of space which these phenomena seem to occupy; for the whole positive and negative realms of the universe share in them. 136 Hence the spectrum, though apparently bounded at its two ends, proves by its very nature to be part of a greater whole.

137 Once before we were led to recognise-- though from a different aspect-- that the spectrum is a phenomenon which, when rightly viewed, calls for a certain completion. 138 In following Goethe's initial observations we realised that the known spectrum, extending from red via green to violet, has a counterpart extending from violet via peach-blossom to red. 139 The reader may have wondered why we never returned to this other spectrum, in spite of the role it played in making Goethe aware of Newton's error. 140 The reason was that in order to gain the understanding we needed of the spectrum, we had to observe the two border-phenomena independently-- that is, without regard to their relative positions. 141 Moreover, with ordinary optical means it is possible to produce only one type of spectrum at a time, so that each is left in need of being complemented by the other. 142 In order to have both together in finite space, as part of one and the same phenomenon, space itself must be dynamically transformed in such a way that the continuation of the finite spectral band running through infinity enters into the finite as well.

MATTER

143 Our understanding of magnetism as a specific representation of the polarity of the second order enables us to comprehend, at least in principle, how magnetism might influence--not light itself, as present-day physics erroneously believes-- 144 but the secondary polarity of the spectral colours formed out of the primary polarity Light and Dark. 145 To see this in all necessary detail is a task of the future, beyond the scope of this book. 146 We have here to continue our account of Rudolf Steiner's statement by communicating what he indicated concerning the particular nature of the new source of force 147 which would appear in the normally infinite part of the spectrum, if this were brought into the region of the finite.

148 In order to understand the significance of this indication we must turn our attention to parts of the ordinary spectrum, well known in themselves, which we have purposely left out of our study so far. 149 These are the regions of the ultra-violet and the infra-red, invisible in themselves, but forming part of the spectrum as a whole. 150 The ultraviolet manifests through chemical effects, the infra-red through thermal effects. 151 We have left them out of our considerations because these regions of the spectrum differ from the visible part not only quantitatively, as present-day science believes, but qualitatively also, and in a fundamental way. 152 We must regard them as dynamic realms of particularly extreme spherical and radial activities. 153 As such they represent metamorphoses, in the Goethean sense, of the levity-gravity interaction represented by the optically visible part of the spectrum. 154 In this way the spectrum discloses a threefold differentiation of that region of force, which up to now we have called simply levity, into activities producing chemical, optical and thermal effects.

155 So far physical investigation is able to lead us, but no further. If, however, we let Nature Herself speak to us, while holding this differentiated concept of levity in mind, She tells us that beyond the three metamorphoses envisaged so far, there must be a fourth.

156 Let us remember that it was certain phenomena of life which first made us aware of the existence of a realm of forces with the attributes of anti-gravity, and that these forces revealed themselves first as creators of form. 157 Now it is obvious that warmth, light and chemical energy, though they all play an essential part in living organisms, could never by themselves bring about that 'catching from chaos, carbon, water, lime and whatnot 158 and fastening them into a given form' which Ruskin describes as the activity of the spirit in the plant. 159 In order to be in this sense an instrument of the spirit active in Nature, levity must be capable of yet another metamorphosis into an activity which controls the other three, 160 so that through their action, definitely shaped organic structures may come into being.

161 The reason why this fourth and highest metamorphosis of Light does not appear in the ordinary spectrum is because it is of too spiritual a quality to be caught by the optical apparatus. 162 In Nature Herself a creative life-process requires always the presence of a germ already imbued with life. 163 And so, in order to call this fourth metamorphosis of Light into the spectrum, stronger means are needed than the mere optical transformation of light-filled spaces. This stronger agent, according to Rudolf Steiner, is magnetism. 164 With the aid of this it will be possible to organise together round a common spatial centre that part of the activity of levity which escapes the optical instrument and thus remains cosmic, and that part which appears by itself in terrestrial space.

165 Once this is practically carried out, we may expect a complete colour-circle to appear as already divined by Goethe. 166 The full circle consists of twelve discernible colours, with the Goethean peach-blossom diametrically opposite the green. 167 It is in this region of the peach-blossom that-- again according to Rudolf Steiner-- we shall find a source of actively working life-forces, springing from the fourth metamorphosis of levity. 168 Such

is the prospect for research work guided on the new lines.

TOWARDS A NEW COSMOSOPHY

THE COUNTRY IN WHICH HUMAN IS NOT A STRANGER

Ernst Lehrs

I question not my Corporeal or Vegetative Eye any more than I question a window concerning sight. I look through it and not with it. – WILLIAM BLAKE.

(a) INTRODUCTORY NOTE

19 A fundamental achievement along our path of study was the recognition that a force of levity exists, polar to that of gravity, and that these two together represent a primary polarity in Nature which in turn is the source of Nature's manifold secondary polarities.

2 In the last part of these studies a vista opened up of an inner differentiation of levity itself into warmth, light, chemical action and the formative activity of life. 3 Our next task will be to develop a clearer conception of these four modes of action of levity.

4 In undertaking this task, however, we shall have to extend our observations of Nature beyond the frontier that can be reached by using only what we can learn from Goethe. 5 It is here that Rudolf Steiner comes to our aid by what he was able to impart through his researches in the realm of the super-sensible itself.

6 This turning to information given by another mind, whose sources of knowledge are beyond our own immediate reach, seems at first sight to be incompatible with the principles guiding all our studies hitherto; 7 for in gaining insight into the How and Whence of a phenomenon of the sense-world we have up to now admitted only what is yielded by an observation of the phenomenon per se (though with the aid of the 'eye of the spirit') and of other phenomena related to it. 8 This is what we have called '*reading in the book of Nature*', and we have found it to be the method on which a science aspiring to overcome the onlooker-picture of the universe must be based. 9 So we must first make sure that the step we now propose to take does not violate this principle.

10 The assurance we want will be found in two characteristics of the communications made by Rudolf Steiner from his researches. 11 The content of these communications was acquired by way of a 'reading' which is nothing but a higher metamorphosis of the reading first employed by Goethe; 12 and the acceptance of this content by another mind is itself nothing but another act of reading, save that the direction of the reading gaze differs from the usual one.

13 In order to understand this we must go back to what we learn't in the course of our optical studies as to the two forms of vision arising from the activity of the eye's inner light-- the dream-vision and the seeing of after-images. 14 Of these two, seeing in dream is in a certain sense the purer form of inner seeing in that it arises without any outer stimulus exercised upon the physical organ of sight. 15 On the other hand, it lacks that objective conformity to law characteristic of the after-images which mirror the order of the external world. 16 There is an arbitrary, enigmatic element in dream-pictures, and their logic often seems to run counter to that of waking consciousness. 17 A further characteristic of dream-perception is that we are tied to the level of consciousness prevailing in the dream. 18 While we are dreaming we cannot awaken to the extent of being able to make the pictures the object of conscious observation.

19 With the after-images it is different. Although to begin with they are present in our consciousness with a clarity no greater than that of the dream-pictures, 20 nevertheless we are able so to enhance our consciousness of them as to bring them under observation like any external phenomenon. 21 As previously shown, it is possible, even while the eye is riveted on an impression from outside, to develop such awareness in the activity of the inner light called forth by this impression, 22 that together with the results of the deeds and sufferings of the light we can perceive something of these deeds and sufferings themselves. 23 Perception of the after-images thus turns into what we may call perception of simultaneous images. 24 This

activity of the eye corresponds with what Goethe, in a different connexion, called an 'alliance of the eyes of spirit with the eyes of the body'.

25 These two forms of visual perception-- which we may briefly call: (1) perception of post-images, and (2) perception of co-images-- represent successive rungs on a 'spiritual ladder' pointing beyond themselves to a further rung. 26 By the logic of succession this may be expected to consist in some sort of seeing of pre-images, with the characteristic of being a still less physical mode of seeing than the two others. 27 This seeing must be based on an activity of the inner light which will be similar to that in dream by its arising without any stimulus from external light-impressions, yet at the same time there must be no arbitrariness in the contents of this perception. 28 Further, our consciousness in this perceptive activity must be such as to allow us to be in full control of it, as we are of ordinary day-waking seeing.

29 This kind of pure sense-free perception does indeed exist, and it can be aroused by means of a well-ordered training from the dormant state in which it is present in every human being. 30 Anyone who learns to see in this way gains perception of the activity of cosmic light, contacting it directly with own inner light-- that is to say, without mediation of your corporeal eye which is subject to gravity. 31 So this eye-of-the-spirit becomes capable of perceiving the levity-woven archetypes (ur-images), which underlie all that the physical eye discerns in the world of ordinary space.

32 In respect of the intrinsic character of the world-content thus perceived, Rudolf Steiner called this mode of perception, Imaginative perception, or, simply, Imagination. By so doing he invested this word with its due and rightful meaning.

33 From what we found in our optical studies concerning the nature of after-images (Chapter-15), it is clear that the acquisition of Imaginative perception rests on a re-awakening in the eye 34 and thus in the total organism behind the eye-- of certain 'infant' forces which have grown dormant in the course of the growing up of the

human being. 35 It thus represents a fulfillment of Thomas Reid's philosophic demand. Consequently we find among the descriptions which Traherne gives of the mode of perception peculiar to human when the inner light, brought into this world at birth, is not yet absorbed by the physical eye, 36 many helpful characterisations of the nature of Imaginative perception, some of which may be quoted here.

37 Consider, in this respect, the following passage from Traherne's poem The Praeparative, quoted earlier. 38 In describing the state of soul at a time when the physical senses are not yet in operation, Traherne says:

'Then was my Soul my only All to me,
A living, endless Ey, Whose Power, and Act, and Essence was to see:

39 I was an inward Sphere of Light Or an interminable Orb of Sight,
Exceeding that which makes the Days,
A vital sun that shed abroad its Rays:

40 All Life, all Sense,
A naked, simple, pure Intelligence."

41 This is the condition of soul of which Traherne says in the same poem that through it a human is still a recipient of the 'true Ideas of all things'. 42 In this condition the object of sight is not the corporeal world which reflects the light, but light itself, engaged in the weaving of the archetypal images. 43 In a later passage of the same poem Traherne expresses this by saying:

'Tis not the Object, but the Light
That maketh Hev'n. ...'

44 And more clearly still in the following part of his poem

An Infant Eye:
'A simple Light from all Contagion free,
A Beam that's purely Spiritual, an Ey

45 That's altogether Virgin, Things doth see
Ev'n like unto the Deity;
That is, it shineth in an hevenly Sense,
And round about (Unmov'd) its Light dispense.

MATTER

46 'The visiv Rays are Beams of Light indeed,
Refined, subtil, piercing, quick and pure;
And as they do the sprightly winds exceed,
Are worthy longer to endure;
47 They far out-shoot the Reach of Grosser Air,
With which such Excellence may not compare.
But being once debas'd, they soon becom
Less activ than they were before.'

48 How at this stage the soul experiences the act of perception in itself is shown in the following passage from the poem Wonder:

'A Nativ Health and Innocence
Within my Bones did grow
And while my God did all his Glories show I felt a vigour in my Sense
49 That was all SPIRIT: I within did flow With seas of Life like Wine.'

50 Utterances of this kind illustrate the fact that perception of the ur-images of the world consists in a reading with the eye-of-the-spirit, 51 which has been rendered so strong that for its action no support from the physical eye is any longer required. 52 This faculty of spiritual Imagination (which Rudolf Steiner was able to exercise in advance of other human beings) is acquired on a path of training which is the direct continuation of the Goethean path. 53 It remains to show that acceptance of information obtained through spiritual Imagination, without ourselves being as yet in actual command of it, is not in contradiction with the principles of 'reading'. 54 Let us, to this end, think of reading in the ordinary sense of this word, calling to mind that for the acquisition of this faculty we depend on someone who can teach it because he already has it. 55 Exactly the same holds good for the reading with which we are here concerned. Here, too, a teacher already possessing this faculty is required. 56 Thus Goethe became for us a teacher of reading, and it would be a mistake to imagine that he, for his part, needed no teacher. 57 In his case this function was fulfilled partly by what he learned through his studies of the earlier

fruits of human's spiritual activity, that is, from an epoch when vestiges at least of the original, instinctive faculty of spiritual Imagination were still extant. 58 A similar function on our own path of study was performed by our occupation with the old doctrine of the four elements and the basic concepts of alchemy. 59 Indispensable as is such a training in reading by turning to past conceptions of human, it does not suffice to meet the present-day demands of a scientific understanding of the universe. 60 For this, we need a 'technique' of reading that cannot be attained along these lines alone. 61 Awareness of this fact led Rudolf Steiner to pursue his spiritual-scientific investigations and to communicate the results in such a way that they can be a 'school of reading' for those who study them. 62 In point of fact we have already made use in this sense of one of the results of Rudolf Steiner's researches, for at the very beginning of this book his picture of the threefold psycho-physical organism of human was taken as the basis of our own investigations. 63 The reason why the present remarks were not then included is that the relevant results of higher research were in that case of such a nature that, once known, they could be confirmed by the simplest kind of self-observation. 64 The fact, however, remains that from the very beginning we have called upon one fully trained in reading, to help in deciphering certain facts of Nature-- in this case of human nature. 65 A similar need, though now in an amplified form, arises at the present stage of our studies. And here, out of the wealth of knowledge conveyed by Rudolf Steiner from the realm of super-sensible Imagination, 66 it is his characterisation of the four modifications of levity which will now give the guidance necessary for our own observation. 67 Adopting the terminology chosen by him for the description of this sphere, we shall in future speak of it as of the 'Ether' pervading the universe (thus using this word also in its true and original meaning). 68 Accordingly, we shall refer to its fourfold differentiation as to the four kinds of ether: Warmth-Ether,

Light-Ether, Chemical Ether and Life-Ether.

(b) WARMTH

69 We begin with the warmth-ether as the only modification of ether which combines certain etheric with certain physical properties. 70 Constituting as it does a border-condition between the two worlds, the warmth-ether has, on the one hand, the function of receiving the picture-weaving transmitted to it by the higher ethers, 71 and, on the other, of bringing physical matter into the state where it becomes receptive to the working of the etheric forces. 72 The warmth-ether achieves this by freeing matter from being controlled one-sidedly by the centre-bound forces of the earth. 73 It thus calls forth, when acting physically, the processes of melting of solids and of evaporation of liquids: phenomena which yielded the initial observations for our introduction of the concept of levity. 74 In processes of this kind we now recognise the physical manifestation of a universal function of the warmth-ether, namely, to divest matter of all form and to lead it over from the realm dominated by gravity into that of levity. 75 Provided we attach the right meaning to the word, we may say that the function of the warmth-ether is to bring about chaos at the upper border of physical Nature. 76 It is thus that we have already found it working in the plant, when through the union of the pollen with the seed a state of chaos is produced within the seed, which enables the type to impress anew its form-principle into it.

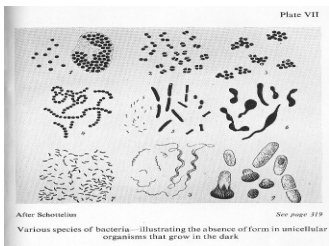
77 Another instance of the warmth-ether's anti-gravitational effect, also discussed earlier, is the earth's seismic activity. 78 True, it appears at first sight as if little were gained by speaking of warmth-ether, instead, as we did previously, of levity in general. 79 But it must not be forgotten that in the ether-realm as a whole, warmth-- that is, the overcoming of earthly gravity-- is only one of the four modes of etheric action, albeit the one which enables the other three to work into the physical world. 80 We shall see, later on, that only by taking into account the action of

the higher modifications of the ether is it possible to gain insight into the true causes of the apparently so arbitrary occurrences of volcanic and kindred phenomena. 81 Here, too, it is the function of the warmth-ether to produce in the physical sphere the chaos which is necessary to make the physical sphere receptive to the activities going on in higher spheres.

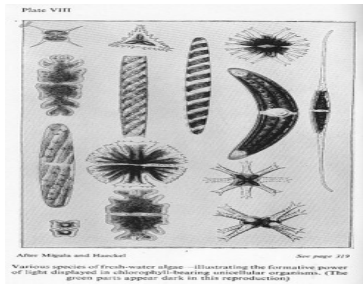
82 In view of this universal function of the warmth-ether, which distinguishes it from the other modifications of ether, we may give it as a second name that of 'chaoticising ether'.

(c) LIGHT

83 The function of the light-ether, the second of the four modes of ether, can best be envisaged by thinking of the difference between a plant growing in darkness (perhaps a potato sprouting in a cellar) and another of the same species exposed to the influence of the light.



84 On Plates VII and VIII two kinds of unicellular organisms are shown, of one which-- the green algae-- is accustomed to live in light, the other-- the bacilli-- in darkness.



85 These things are, of course, well-known facts. Our purpose here, however, is not merely to record them as 'fact', but, by re-creating them within ourselves, to use them to gain an experience of the function of the light-ether.

86 The following passages from Goethe's Metamorphosis of Plants are a classical example of

observation of the activity of the light-ether in the plant. 87 They are taken from the second part of the essay, where Goethe is describing leaf-development: 88 'While the leaves owe their first nourishment principally to the more or less modified watery parts, which they draw from the stem, they are indebted for their increased perfection and refinement to the light and air. 89 The cotyledons which are formed beneath the closed seed-sheath are charged, so to speak, with only a crude sap; they are scarcely and but rudely organised and quite undeveloped. 90 In the same way the leaves are more rudely organised in plants which grow under water than in others which are exposed to the open air. 91 Indeed, even the same species of plant develops smoother and less intricately formed leaves when growing in low damp places, whereas, if transplanted to a higher region, it will produce leaves which are rough, hairy and more delicately finished.'

92 'So it is also with the anastomosis of the vessels which spring forth from the larger veins, seeking each other with their ends and coalescing, and thus providing the necessary basis for the leaf-skin or cuticle. 93 All this, if not entirely caused by subtle forms of air, is at least very much furthered by them. 94 If the leaves of many water-plants are thread-like or assume the form of antlers, we are inclined to attribute it to lack of complete anastomosis. 95 The growth of the water buttercup, Ranunculus aquatilis, shows this quite obviously, with its aquatic leaves consisting of mere thread-like veins, while in the leaves developed above water the anastomosis is complete and a connected plane is formed. 96 Occasionally, indeed, in this plant, the transition may be still more definitely observed, in leaves which are half anastomosed and half thread-like.'

97 The second of these paragraphs describes the phenomenon of vascular anastomosis which, having already been more than once an object of our study, here reveals a new meaning. 98 If, following Goethe's method, we re-create in our mind the repeated separations and reunions of the sap-vessels, while keeping in view

the fact that the leaf's outer form is the result of a purposive, many times repeated anastomosis, 99 then the picture of the activity of weaving arises before our mind's eye. (Hence the word 'tissue' for the flesh of a living being.) 100 In truth all Nature's forms are woven of light, including the crystals.

101 How clear a picture Goethe had of the conformity of human's act of thinking with Nature's way of producing Her forms-- both being an act of super-sensible weaving-- is shown by the following two verses. 102 That on the left is a passage from Faust, from the scene in which Mephisto (disguised as Faust) instructs the young Scholar. 103 The other is an altered version of it, written by Goethe at a later time to conclude an essay (Bedenken und Ergebung) in which he deals with the problem of the relation between Experience and Idea:

104 Truly, when humans their thoughts conceive
'Tis as if some masterpiece they weave.
One thread, and a thousand strands take flight,
Swift to and fro the shuttles going,
All unseen the threads a-flowing,
One stroke, and a thousand close unite.

105 So with a modest eye perceive Her masterpiece Dame Nature weave. One thread, and a thousand strands take flight, Swift to and fro the shuttles going, Each to the other the threads a-flowing, One stroke, and a thousand close unite.

106 What Goethe wants to show here by applying to the activity of Nature the same image which he used originally to depict the act of thinking, 107 we can express to-day by saying that it is the identity of the activity of the light-ether in human thinking and in external Nature 108 which is responsible for the fact that the objective ideas operating in Nature can become the content of human's consciousness in the form of thoughts.

109 Following our previous procedure when we gave the warmth-ether a second name by calling it chaoticising ether, we can denote the light-ether also as 'weaving ether'.

110 If at this point in our discussion we revert once more to

the realm of physical manifestations of light, dealt with in the preceding chapters, 111 we do so because by studying them in the present context we shall gain further insight into the fact that one plane of Nature provides illustrations of processes which on another plane remain more or less veiled. 112 At the same time this will help us to learn more about the properties of levity-space. The optical phenomenon which we shall discuss in this sense is that of the so-called pin-hole camera. 113 The pin-hole camera effect is easily produced by a keyhole in a closed door which on one side faces a window and on the other leads to a comparatively dark room.

114 The usual explanation of the appearance of the optical image on the back inside wall of such a camera is that light-rays, emanating from every point outside, cross each other in the aperture of the camera and so-- again point by point-- create the inverted image. 115 No such explanation, clearly, is open to us. For the world of external objects is a whole, and so is its image appearing in the camera. 116 Equally, the light entering the camera is not a sum of single rays. Pure observation leads to the following description of the optical process.

117 By surveying the path which the light takes from the illuminated surface of the outer objects via the pin-hole to the optical image inside the camera, 118 we realise that the light-realm engaged in this process has the shape of a double cone, with its apex in the opening of the camera. 119 Within this cone the light carries the image across the space stretching in front of the light-reflecting objects up to the point where the image becomes visible by being caught on the back wall of the camera.

120 Thus in every section of the cone the image is present in its totality-- even in the very apex of the cone. 121 There, too, the image in all its details is present as a whole, though without (ideally) any spatial extension. 122 Seen thus, on this level of its action the light-ether reveals as one of its characteristics the faculty of making present in a spaceless point an image originally

expanded in space, and of letting it emerge from this point in spatial expansion.

123 Further, there is the fact that, wherever we set up a pin-hole camera, the aperture in its front will cause the formation of an optical image inside it. 124 This shows that each point in space filled with light is the bearer of an optical image, contracted to a point, of the entire world of light-reflecting objects surrounding it. 125 All we do with such a camera is to select a particular image and bring it to separate visibility.

126 Through these observations we grow aware of light's faculty of communicating simultaneously to space as a whole, and to each point in it, a potential image of the light-reflecting object.

127 What we observe here in the sphere of physical light-activity is exactly what the light-ether performs on a higher level of Nature when with its help the spiritual archetype of a plant takes on spatial appearance. 128 For to this end the archetype, itself without spatial limitations, imprints its image into the tiny seed, whence the growing plant organism carries it again into space. 129 And there is in principle no limitation to the number of such seeds, each of which will bear the complete image of the archetype.

(d) SOUND

130 The characteristics of the third modification of ether are such that they prompted Rudolf Steiner to give it as a second name, besides chemical ether, that of sound-ether. 131 In view of the fact, stressed at the beginning of this chapter, that perception of the ether is achieved by a heightening of the power of the spirit-eye, 132 it must cause surprise to learn that a certain mode of activity of the ether has a quality which makes appeal to aural experiences. 133 The full answer to this riddle must await the discussion that follows this chapter. Two points, however, may be brought forward at once. 134 Firstly, where gravity, with its tendency to individualise, is absent, no such sharp distinctions exist between one form of perception and another as are

found in the sphere of the physical senses. 135 Secondly, even in ordinary sense-perception a certain overlapping of visual and aural experiences is known to us. 136 We need only think how common it is to give musical attributes, such as 'consonant' and 'dissonant' to colours, and to describe tones as 'light' and 'dark'. The reason is that subconsciously we accompany visual experiences with tone-sensations, and vice versa. 137 Cases are even known of human beings in whom the secondary sensation occurs with such intensity as to equal the primary one. Such people say that they 'see' sounds and 'hear' colours.

138 Everything that is true of the super-sensible sphere we may expect to come to expression in some form in the world of sense-perception. 139 The sphere of the ether is the sphere of the creative archetypes of the world, and when we learn that to one part of this world the character of sound is attributed, 140 we must search for a phenomenon, perceptible to our senses, which reveals to us the secret of the sound's form-creating power. 141 This we have in the so-called sound-figures, discovered by the German physicist Chladni (1756-1827) and called after him 'Chladni's sound-figures'. A short description of how they are produced will not be out of place.

142 A round or square plate of glass or brass, fixed at its centre so that it can vibrate freely at its edges, is required. 143 It is evenly and not too thickly covered with fine sand or lycopodium powder and then caused to vibrate acoustically by the repeated drawing of a violin-bow with some pressure across the edge of the plate until a steady note becomes audible. 144 Through the vibrations thus caused within the plate, the particles of sand or powder are set in movement and caused to collect in certain stationary parts of the plate, thereby creating figures of very regular and often surprising form. 145 By stroking the plate at different points on the edge, and at the same time damping the vibrations by touching the edge at other points with the finger, notes of different pitch can be produced, 146 and for each of these notes a

characteristic figure will appear (Fig. 14).

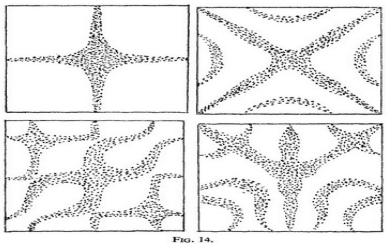


FIG. 14.

147 The significance for us of Chladni's experiment will emerge still more clearly if we modify it in the following way. 148 Instead of directly setting the plate with the powder into vibration by stroking it with the bow, we produce a corresponding movement on a second plate and let it be transmitted to the other by resonance. 149 For this purpose the two plates must be acoustically tuned to each other and placed not too far apart. 150 Let us imagine, further, that the whole experiment was arranged-- as it well might be-- in such a way that the second plate was hidden from a spectator, who also lacked the faculty of hearing. 151 This gives us a picture of the situation in which we find ourselves whenever the higher kinds of ether by way of a tone-activity inaudible to our physical ear, cause shapeless matter to assume regularly ordered form.

152 This comparison of the activity of the sound-ether, as the form-creating element in Nature, with Chladni's phenomenon is drawn correctly only if we recognise that the conception of form, 153 as an expression of that which is called forth through the etheric forces in Nature, comprises more than the external spatially bounded shape of an organic or inorganic entity. 154 Apart from the fact already indicated, that for the formation of such entities the co-operation also of life-ether is necessary, 155 we can judge the activity of sound-ether correctly only if we conceive it as a much more inward activity, compared with the formation in external space of Chladni's figures. 156 In the latter case, the reason why the influence of sound causes nothing beyond the ordering of form in outer space is because on this plane of Nature the only changes that can occur are changes in the positions of separate physical bodies. 157 Where the forces of sound in ether-form are able to take hold of matter from within, they can produce changes

of form of a quite different kind. 158 This effect of the activity of sound-ether has given it its other name: chemical ether.

159 We have mentioned once before that our conception of 'form' in organically active nature must not be limited merely to that of a body's spatial outline. 160 This was in connexion with Ruskin's definition of the spiritual principle active in plant-formation as 'the power that catches out of chaos charcoal, water, lime and whatnot, and fastens them down into a given form'. 161 Besides the external order of matter revealed in space-form, there exists also an inner qualitative order expressed in a body's chemical composition. 162 Upon this inner chemical order is based all that we encounter as colour, smell, taste, etc., of a substance, as well as its nourishing, healing or harmful properties. 163 Accordingly, all these parts of an organism, both in the plant-kingdom and within the higher organisms, have a certain inner material order, apart from their characteristic space-structure. 164 The one is never present without the other, and in some way they are causally connected.

165 In this inner order of substance we must see in the very first place the work of the sound or chemical ether. 166 And we should be aware that by the word 'chemistry' in this connexion we mean something much more far-reaching than those chemical reactions which we can bring about by the reciprocal affinity of physical substances, however complicated these reactions may be. 167 A few examples will illustrate the difference between chemical processes caused by direct influence of the chemical ether, and others in which only the physical consequences of the ether are effective. 168 In his book, *Man the Unknown*, Professor Carrel shows very impressively, by an example from the human organism, the difference of quantitative ratio in externally similar processes, one of which occurs within the domain of life, the other, outside it. 169 He compares the quantity of liquid necessary to keep artificially alive a piece of living tissue which has

been reduced to pulp, with the quantity of blood doing the same within the living organism. 170 If all the tissues of a human body were treated in this way, it would take 45,000 gallons of circulating fluid to keep them from being poisoned in a few days by their own waste products. Within the living organism the blood achieves the same task with 1-gallons.

171 Very many chemical changes within living organisms are effected by the two polar processes of oxidation and reduction. 172 We have discussed them repeatedly as hieroglyphs of much that occurs in Nature by way of polarity. 173 In accordance with the principle ruling the physical plane of Nature, that differences of level tend to disappear, oxidation can occur by itself, whereas reduction requires the expenditure of energy. 174 Let us from this point of view compare the transformation of oxidized into reduced iron, as it takes place inside and outside the realm of life.

175 An example of this process in its purely physical form is the reduction of iron-ore to metallic iron in blast-furnaces, 176 where, with the help of high temperature and high pressure, carbon is made to combine with the oxygen ingredient of the ore and to impart to it its own imponderable energy. 177 Precisely the same process is going on continuously and unobtrusively within the human body under normal bodily conditions of temperature and pressure, 178 when the oxy-haemoglobin of the arterial blood changes over into the haemoglobin of the venous blood. 179 A macrotelluric counterpart of this is the transformation of the red river-mud into the blue-black continental mud at the bottom of the sea, around the continental shores. 180 Here, again, reduction takes place without those preliminaries that are necessary for carrying through the process by technical means.

181 Through examples of this kind we gain insight into the nature of the chemical ether as a 'magic' force (in the sense in which we have introduced this term at the beginning of the book). 182 What the chemical ether is capable of effecting in a gentle manner, so to speak, in cooperation with the

inertness-overcoming power of the warmth-ether, 183 can be imitated physically only by an extraordinary concentration of external energy and the use of masses of material substance. 184 At the same time the imitation is never complete. For to all that happens through the action of the chemical ether there belongs the quality of cosmic youth, while everything brought about in a purely physical manner is of necessity cosmically old.

185 Of all the provinces of Nature towards which human's exploring eye has turned since the dawn of the onlooker-consciousness, none has furthered your purely quantitative thinking more than chemistry, 186 ever since the discovery that the chemical reactions of the various substances are conditioned by a quite definite and constant numerical relationship. 187 It was these relationships which impelled the rise of the atomic conception of matter and all its consequences. 188 For since the onlooker-consciousness is quite unable to conceive the existence of numerical relationships in the physical world except as sums of computable units in space, 189 it was natural for this type of consciousness to reduce all empirically established numerical relationships to corresponding relationships among quantities of the smallest possible material or matter-like units.

190 Scientific thinking, if guided by knowledge of the existence of etheric forces and their action, has no need of such an interpretation of the numerical relationships revealed in the physical world; 191 for it knows them to be nothing but the last expression of the action of the chemical ether (hence occasionally also called 'number-ether' by Rudolf Steiner). 192 To do justice to the appearance of measurable numerical relationships in Nature, in whatever sphere, it is necessary to free ourselves from the abstract conception of number which governs modern scientific thought and to replace it by a more concrete one. 193 We shall rind that for the existence of a certain number there may be two quite different reasons, although the method of establishing the number

itself is the same in each case. A simple example will illustrate this.

194 Let us look at a number of similar objects, say a group of five apples. We observe that the relation of the number five to the group of objects in front of us is purely external and accidental. 195 In applying to it the conception 'five' we combine the single objects into a group and give it a name, or numerical label, which has nothing to do with the nature of the items making up the group. 196 This way of thinking, we may observe, is of exactly the kind which the nominalists of the Middle-Ages attributed to every conception formed by the human mind. 197 In fact, the process of counting is a process of pure abstraction. 198 The more differentiated are the things which we want to combine into a group through the process of counting, the further this abstraction has to go. 199 We can count apples and pears together under the collective conception of 'fruit'; if turnips are added, we must help ourselves out with the conception 'vegetable products'; until finally we deal only with 'things', without considering any qualitative differentiation. 200 Thus the conception of number is created solely within the human mind, which applies it to things from outside.

201 From the moment when human consciousness was unable to attribute to itself any other than a purely nominalistic mode of comprehension it was inevitable that all explanations of natural phenomena would have two results: 202 (1) the exclusion from observation of everything that could not be conceived in terms of numbers, 203 and (2) an endeavour to find for every numerical relationship capable of empirical proof an explanation which could be interpreted as the result of taking qualitatively identical units and counting them. 204 For this method of forming conceptions is the only one which nominalism can accept with a good conscience. The fact that in so doing it is led ad-absurdum has only quite lately occurred to it. 205 For if by the logical following of this path-- as in modern theoretical physics-- the whole universe is dissolved into

units which can no longer be distinguished from each other, 206 then it will become impossible to count these parts, for it cannot be established whether any given one of these hypothetical elemental particles has been counted or not. 207 None the less, Eddington claimed to have found the exact number of particles composing the universe-- a number with 80 figures-- by using a special calculus, 208 but this number is valid only on the supposition that the particles cannot be counted because they are indistinguishable! 209 However correct the nominalistic conception of number may be in such a case as that of numbering the five apples, it is wholly incorrect to restrict the concept of number itself to one valid for this kind of occurrence. 210 We shall see this immediately if we take one of the apples and cut it across. There we find the number five confronting us in the well-known star-like figure, represented by the fivefold pericarp in the centre of the apple. 211 What human, restricted as you was to the mode of understanding, has completely overlooked is this: although the act of counting, by which we establish the number five, is the same in both cases, the quality of the number five is totally different. 212 For in the case of the five pericarps this number is a quality immanent in the apple, which it shares with the whole species of Rosaceae. The apple itself is just as much 'five' as it is 'round', 'sweet', etc. 213 In the super-sensible type which creates in the plant its own organ of manifestation, the creation of a number-- in the apple the number five-- is part of the form-creating activities characteristic of the type. 214 The numerical relationships which appear between natural phenomena depend upon the way in which the chemical ether participates. 215 This is true equally of those discovered by chemistry in the sphere of inorganic matter and used to-day with such great success.

216 Let us be quite clear that the relationship of unity to plurality in the case of the five apples is totally different from what it is in the fivefold pericarp. 217 In the first case unity is the smallest quantity represented by each of the five

apples. There, the step from one to two is made by joining together two units from outside. The path from one to many is by way of continuous addition. 218 In the second case the unity is represented by the pericarp - i.e. by the one comprising the many, the latter appearing as parts of the whole. 219 In such a case two is part of one and so are three, four, five, etc. Plurality arises from a continuous process of division of unity.

220 The ancient world knew the idea of number only in the last-mentioned form. There unity appeared as an all-embracing magnitude, revealed through the Universe. 221 The world's manifoldness was felt to be not a juxtaposition of single things, externally connected, but the content of this unity, and therefore derived from it. 222 This was expressed by the pre-Socratic Greek philosophers in the formula ÎÎ½ Î°Î±Î¹ Ï€Î±Î½ (the One and the All).

223 With the appearance of the Arabs on the scene of history, human thought turned to the additive concept of number, and the original distributive concept receded gradually into oblivion. 224 The acceptance of the new concept made it possible for the first time to conceive the zero. 225 It is clear that by a continuous division of unity one is carried to a constantly growing number of constantly diminishing parts, but without ever reaching the nothing represented by the number zero. 226 To-day we should say that in this way we can reach zero only by an infinite series of steps. Yet the idea of the infinite did not exist in this form for ancient human. 227 On the other hand, in the arabic conception of number the steps necessary to reach zero are finite. 228 For just as by the external addition of unities we can step forward from one number to the next, so we can also step back on the same path by repeated subtractions of unities. 229 Having thus reached One, nothing can stop us from going beyond it by one more such step. The arabic numeral system, therefore, is the only one to possess its own symbol for zero.

230 It has been correctly noted that the penetration into European

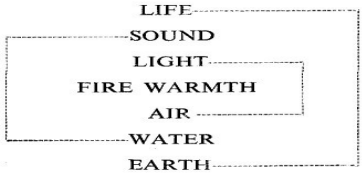
thought of this additive concept of number was responsible for developing the idea of the machine; 231 for it accustomed human beings to think calmly of zero as a quantity existing side by side with the others. 232 In ancient human the idea of nothingness, the absolute void, created fear; they judged Nature's relation to the void accordingly, as the phrase 'Natura abhorret vacuum' indicates. 233 Their capacity to think fearlessly of this vacuum and to handle it thus had to be developed in order to bring about the Machine Age, and particularly the development of efficient steam engines. 234 Consider also the decisive part played by the vacuum in Crookes's researches, through which the path to the sub-physical realm of Nature was laid open.

235 Yet Nature makes use of number as a regulating factor in quite a different way from its appearance in the purely electrical and gravitational connexions of inorganic matter, 236 namely where sound-ether from the upper boundary of Nature so regulates Nature's dynamic that the manifold sense-qualities appear in their time-and-space order. 237 When we interpret the arrangement of numbers found there on a nominalistic basis, as is done when the axis- and angle-relationships of crystals are reduced to a mere propinquity of the atoms distributed like a grid in space, 238 or when the difference in angle of the position of the various colours in the spectrum is reduced to mere differences in frequency of the electromagnetic oscillations in a hypothetical ether-- 239 then we bar the way to the comprehension not only of number itself, as a quality among qualities, but also of all other qualities in Nature.

(e) LIFE

240 As already mentioned, the three kinds of ether, warmth, light and sound, are not sufficient in themselves to bring into existence what in its proper sense we call 'life' in Nature, i.e. the formation of single living organisms. 241 This requires the action of a fourth kind of ether, the life-ether, ranged above the other three. 242 We can best comprehend the life-ether's

contribution to the total activity of the ether in Nature by considering the interaction of the four kinds of ether with the four physical elements.



243 We have seen that the warmth-ether has the double function of being at once the lowest ether and the highest physical element, thus acting as a sphere of reflexion for the other kinds of ether and the elements respectively. 244 Each stage in the etheric has its reflexion in the physical, as the above table shows. Thus to the physical air the etheric light is related. 245 The affinity of light and air is best seen in the plant and its leaf-formation. 246 To bring about real changes in the material composition of the physical world requires the stronger powers of the chemical ether. 247 Therefore it is also the first ether of which we had to speak as 'magical' ether. 248 Its effects reach into the watery element which is already bound up with gravity, but by its own strength it cannot penetrate beyond that. 249 The causation of material changes in the liquid sphere would in fact be all that these three kinds of ether could achieve together.

250 Only when the power of the life-ether is added to the three others can etheric action reach as far as the sphere of solid matter. 251 Thus the life-ether is responsible for all solid formation in Nature, both in Her organic and inorganic fields (the latter-crystal-formation-being the effect of external ether-action). 252 It is to the action of the life-ether that Nature owes the existence in Her different realms of multitudes of separate solid forms. 253 To mention an instance from our previous studies: in the same way as volcanic phenomena manifest the warmth-ether's gravity-overcoming power on a macrotelluric scale, so snow-formation illustrates the life-ether's matter-shaping might.

254 Through its power to bind flowing action into solid form, the life-ether is related to the sound-ether in the same way as the articulated word formed by human speaking is related to the mere musical tone. The latter by itself is

as it were fluid. 255 In human speech this fluidity is represented by the vowels. With a language consisting only of vowels human would be able to express feelings, but not thoughts. 256 To let the word as carrier of thought arise out of sound, human speech possesses the consonants, which represent the solid element in it.

257 The emergence of the sense-bearing word from the merely ringing sound is an exact counterpart to what takes place in Nature when the play of organic liquids, regulated by the chemical ether, is caused by the life-ether to solidify into outwardly perceptible form. 258 By reading in this way the special function of the life-ether among the other three, we are led to the term ' Word-ether' as an appropriate second name for it, corresponding to the term sound-ether for the chemical ether.

PRO ANIMA

Ernst Lehrs

Thy functions are ethereal,
As if within thee dwelt a glancing mind,
Organ of vision! And a Spirit aÃ«real
Informs the cell of Hearing, dark and blind.
W. WORDSWORTH

(a) THE WELL-SPRINGS OF NATURE'S DEEDS AND SUFFERINGS

20 As our observations have shown, gravity and levity not only exist side by side as a primary polarity; the manifold interaction of their fields gives rise to all sorts of secondary polarities. 2 Obviously, this interaction must be brought about by a further kind of force to which gravity and levity are subordinate. 3 In what follows we shall try, so far as is possible within the scope of this book, to throw light on the nature of this force. 4 Since the direct experience of the dynamic realm constituted by it is based on faculties of the mind other than those needed for the Imaginative perception of the etheric realm, we shall have to examine also the nature and origin

of these faculties. 5 This will lead us again to the study of one of human's higher senses, this time your sense of hearing, with the aim of finding the spiritual function that is hidden in it. 6 But our order of procedure will have to differ from the one followed in the last chapter, because it will be necessary first to make ourselves acquainted with the nature of the new force and then to turn to an examination of the sense-activity concerned.

7 Let our first object of observation be human in so far as you illustrates a polarity of the second order.

8 When studying human's nature with the idea of understanding the genesis of your onlooker-consciousness, it will be remembered, we had to examine the ordering of your consciousness into waking, dreaming and sleeping in the different members of your organism. 9 We recognised three different organic systems, the sensory-nerve system, the rhythmic system and the metabolic-limb system, as the bodily foundation of three different soul activities. 10 These are the thought-forming activity which belongs to waking consciousness; the feeling activity which belongs to dream consciousness; and the willing activity which belongs to sleep consciousness. 11 We then saw in these three systems representatives of the three alchemical functions--'sulphurous' in the metabolic, 'saline' in the nervous, 'mercurial' in the mediating rhythmic system.

12 Regarded thus, human's nature reveals itself as being endowed with a physical organisation, and an etheric organisation, which are brought into different relationships by being acted upon by a third organisation consisting of forces of the kind here to be studied. 13 At your lower pole these forces co-ordinate the ether and physical organisations in a manner corresponding to the function of the 'sulphur'-pole of the alchemical triad. 14 Here, therefore, the warmth-ether takes the lead and acts in such a way that the higher kinds of ether are able to come to expression in material processes of the body. 15 At the upper pole corresponding forces co-ordinate the physical and ether

organisations in a way characteristic of the 'salt'-pole. 16 This gives the lead to the life-ether, so that the physical organism provides the foundation for the activity of the ether-forces without, however, being actually penetrated by them-- at least after completion of the embryonic and first post-embryonic development. 17 As a result, consciousness lights up in this part of the body. The rhythmic sphere, being the 'mercurial' middle, is distinguished by an alternation of the two conditions described. 18 With each diastole it becomes more akin to the pole below, and with each systole more akin to the pole above. Here, therefore, the lighting up of consciousness is only partial. 19 By means of these observations we realise that the third type of force, in so far as it is active in human, has the capacity, by co-ordinating the physical and etheric parts of the organism in one way or another, 20 to promote happenings either of a more corporeal or a more psychical nature-- namely, motion at one pole, sensation at the other, and feeling in the middle between them. 21 Remembering Goethe's formula, 'colours are deeds and sufferings of light', we realise how deeply true the concepts were to which he was led by his way of developing observation and thought.

22 What we have now brought to our awareness by studying human, holds good in some sense also for the animal. 23 The animal, too, is polarised into motion and sensation. 24 What makes the animal differ from human need not concern us here, for it belongs to a dynamic realm other than the one we are now studying. This other realm will come under consideration in the next chapter. 25 Quite a different picture arises when we turn to the plant. The plant, too, is characterised by a threefold structure, root, stem with leaves, and florescence, which in their way represent the three alchemical functions. 26 Consequently, there is also motion in the plant, although this is confined to internal movements leading to growth and formation. 27 And at the opposite pole there is sensation, though again very different from the sensation

experienced by higher living beings. 28 What we mean here by 'sensation' can be best expressed by quoting the following passage from Ruskin's The Queen of the Air, in which the dual activity of the dynamic which we seek to understand is brought out particularly clearly.

29 In describing the forming of blossom in the plant as the climax of the 'spirit' active in it, Ruskin says: 'Its (the plant's) form becomes invested with aspects that are chiefly delightful to our own human passions; 30 namely, first, with the loveliest outlines of shape and, secondly, with the most brilliant phases of the primary colours, blue, yellow, red or white, the unison of all; 31 and to make it more strange, this time of peculiar and perfect glory is associated with relations of the plants or blossoms to each other, correspondent to the joy of love in human creatures and having the same object in the continuance of the race.'

32 If we wish to understand why the same dynamic action working on the physical and etheric organisms of the plant, on the one hand, and of human and the animal, on the other, brings about effects so different, we must turn to the realm whence this action originates in both cases. 33 For the animal and for human this realm is situated within their organisms because in addition to their individual physical and etheric organisations they are endowed also with an individual organisation of the higher kind. 34 Not so with the plant. For the rhythms of its growth, the successive formation of its various organs, the production of its colours, etc., the plant depends on outer conditions.

35 What strikes us first in this respect is the plant's dependence on the succession of the seasons. These in turn are an outcome of the changing mutual positions of earth and sun. 36 That which forms part of the individual organism in higher living beings is located in the cosmic surroundings of the plant. 37 In fact, it is our planetary system which provides the forces that stir the etheric and physical forces of the earth to their various interactions, thus bringing about

all the manifold secondary polarities.

38 Before we embark on a description of further phenomena which testify to the cosmic nature of the forces with which we are here concerned, 39 it will be well (following a principle applied before) to establish the historical antecedents of the conception of the universe we are about to develop. 40 We realise that the type of force with which we are here seeking to become familiar is the one responsible for the existence of what we commonly call 'soul'. 41 The creation of a body-bound soul, however, is only one particular form of the activity of these forces. Another is the one which we have just seen manifest in the plant. 42 In yet another way the same forces function as movers and stirrers of the macro-telluric processes of the earth, and beyond this of the happenings in the body of our planetary system, including the movements of the various planets.

43 This is an aspect which was by no means unfamiliar to ancient human. It was naturally lost when the onlooker-consciousness awoke. 44 In this respect it is of historical significance that the same man, G. A. Borelli (1608-79), a member of the Florentine Academy, 45 who was the first to inquire into the movements of the animal and human body from a purely mechanical point of view, made the first attempt to deduce the planetary movements from a purely physical cause. 46 Through this fact an impulse comes to expression which we may term Contra Animam, and against which we have to put our Pro Anima, in much the same way that we put our Pro Levitate against the Contra Levitatem call of the Florentine Academicians.

47 It will help our further descriptions if we introduce at this point the name which Rudolf Steiner adopted for the type of forces we are concerned with here. 48 In view of the fact that their origin lies in the extra-terrestrial realm of the universe, he called them 'astral' forces, thereby giving back to this term, also, its true and original meaning. It is under this name that we shall speak of them henceforth. 49 To make ourselves

more familiar with the character of the astral forces, it will be well to observe them first of all in their macrotelluric form of activity. 50 There is, as already mentioned, the rhythmic occurrence of the seasons in connexion with the varying relative positions of earth and sun. 51 Alongside this we may put the rhythm of the tides, coincident with the phases of the moon. 52 Just as the solar rhythm manifests in an alternating rise and fall of the saps in the plants, so also does the lunar rhythm. 53 Note how this fact actually vitiates the usual explanation that the tidal rhythm of the sea is caused by a gravitational pull exerted by the moon's body on the oceanic water. 54 In neither instance is the change of position of the relevant cosmic body-- in our examples that of the sun or moon in relation to the earth-- the 'cause' of the corresponding rhythmic events on the earth. 55 Together with all other rhythmic events of equal periodicity, it is itself the effect of the activity of a force-sphere constituting the cosmic realm to which the relevant planetary body belongs.

56 From this statement three major questions arise, which need to be answered before we can carry on our description of the astral forces themselves:

57 Firstly, by the way we have spoken of the varying relations of the sun and moon to the earth, seeing in them the effects of certain astral activities, 58 we have treated them as if they were of like Nature, namely, resulting from a movement of the relevant heavenly body round the earth. 59 According to the Copernican conception, however, only the moon rotates round the earth, whereas the apparent yearly progression of the sun is actually caused by the earth's motion round the sun. 60 This raises the question of how far the Copernican, heliocentric aspect is valid in a science which strives to embrace the astral realm of the universe in its inquiries.

61 Secondly, what roles do the other members of our planetary system play as compared with those of the sun and the moon?

62 Thirdly, if it is true that the essential solar and lunar effects-- and presumably the effects of the

other planets-- on the earth do not spring from physical influence exerted by the visible bodies of the planets concerned, 63 but from certain astral force-fields of which these bodies themselves form part, what is the significance of such a body within the planet's dynamic whole?

64 Starting with the answer to the first question, we shall quote the following passage from a lecture on theoretical physics given by Professor Planck in 1909 at the Columbia University, New York:

65 'Only the hypothesis of the general value of the principle of Relativity in mechanics could admit the Copernican system into physics, since this principle guarantees the independence of all processes on the earth from the progressive motion of the earth. 66 For, if we had to make allowance for this motion, then I should, for instance, have to reckon with the fact that the piece of chalk in my hand possesses the enormous kinetic energy corresponding to a velocity of about 30 km/sec.'

67 The implications for us of these remarks by an eminent physicist can be expressed as follows:

68 In a science which knows how to deal with movement as an event of absolute dynamic reality, the Copernican aspect loses its significance as the only valid aspect of our cosmic system. 69 For its application as a means of describing the dynamic happenings within this system presupposes the acceptance of Einstein's relativistic conception of motion. 70 Indeed, for the building up of a picture of the dynamic structure of our system, the Copernican view-point is inadequate.

71 This statement must not be taken to deny all justification to the heliocentric view-point. There is, after all, the fact that the orbits which the heavenly bodies appear to follow when viewed in this way, assume a particular geometrical character which cannot be accidental. 72 And more than that, when the heliocentric aspect is seen in its true setting, it forms (as will be shown later) an extremely revealing part of the script which tells us of the nature of the astral forces. 73 All that is required is that the heliocentric picture be taken for what it is, namely, a

purely kinematic aspect of the true dynamic ordering of our cosmic system, which in itself calls for quite other means of conceptual representation.

74 From the point of view of the astral order of the universe, the earth appears in the centre of a number of force-fields which penetrate each other 75 and in their peripheral region extend beyond one another in accordance with the respective orbits of the various planetary bodies. 76 How many force-fields there are, and what is the respective character of each, will become clear from the following consideration, which will also provide the answer to the second of our three questions.

77 As the originator of the secondary polarities in earthly Nature the astral realm must undoubtedly itself be structured polarically, 78 one part of it forming the cause of all the happenings by which levity is brought into interaction with gravity, the other of all the happenings by which gravity is brought into interaction with levity. 79 There must be a further part which is responsible for the establishment of the 'mercurial' mean between the two poles of the secondary polarity. This leads us to a threefold aspect of the astral realm.

80 Closer inspection reveals a repetition of this threefold order within each of the two polar regions. 81 In Chapter-12 we learn't to distinguish the material happenings at the two poles of the secondary polarity by observing their appearance in the plant as 'sublimation', on the one hand, and 'assimilation' on the other. 82 Of the former process, by which matter is carried from its gravity-bound to its gravity-free condition, we know that it takes place in three stages, 83 of which the first implies the lifting of matter from the solid to the liquid condition, the second from the liquid to the aeriform condition, and the third to the condition of pure heat. 84 There are three corresponding stages by which ether becomes susceptible to gravity. It is in their nature that they are not in the same degree manifest as are their polar opposites.

85 Still, properly guided observation is able to detect them

and enables us to describe them as follows. 86 At the first stage, ether, which in itself has a purely peripheral orientation, becomes linked to some all-relating point; 87 at the second stage, the various ether-activities, already point-related, are brought into some characteristic interrelationship so as to become the cause of a particular formative action in the material realm; 88 at the third stage, the etheric aggregate thus organised receives the impulse to link itself with some particular portion of ponderable matter.

89 In these six forms of astral activity, observation, if guided by modern spiritual science, recognises the characteristics of the six planetary spheres, known as 'Moon', 'Mercury', 'Venus', on the one hand, 'Saturn', 'Jupiter', 'Mars', on the other. 90 In the same way the dynamic sphere of the 'Sun' is found to provide the astral activity which mediates between the two groups of planetary spheres. 91 The following observations may help us to become familiar with the different modes of activity of the force-spheres.

92 Let us start with the astral forces corresponding to the three cosmic bodies nearest to the earth-- Moon, Mercury, Venus. 93 Their activity can be discerned, for example, by watching the successive stages of plant development-- the formation of the sap-bearing parts; 94 the flower-substance already partly transformed into aeriform condition; finally the propagating processes which belong essentially to the sphere of activity of the warmth-ether. 95 In the human organism we find the same sequence in the step-by-step transformation of nutriment right up to the moment when earthly form passes into chaos, as we learn't previously. 96 The so-called enzyme action, ascribed by physiology to the various digestive juices, is in reality the product of an activity of the lower part of human's astral organisation, for which the relevant juices exercise the function of physical 'carriers'. 97 In the field of macrotelluric phenomena, the metamorphosis of the atmospheric moisture extending beyond the different cloud-stages up to the stage of

pure warmth is an example of the activity of the same forces.

98 Within all three-stage transitions of this kind, the astral forces connected with the Moon preponderate during the first stage, those connected with Mercury during the second, those connected with Venus during the third. 99 We have already come across some examples of the outstanding share taken by the Moon in the events of the earth's watery sphere. 100 To these phenomena, which show by their rhythm their connexion with the Moon, we may add the fertility rhythm in the female human organism which coincides, not in phase but in duration, with the rhythm set by the Moon's course in the heavens. 101 If we consider that the formation of a new human body in the womb needs the play of formative forces from out of the whole world environment, and that for this purpose matter must be brought into a receptive condition for these forces, then we can better understand the preparatory part played by the Moon-forces. 102 In order, however, that the substance of the female germ should reach that condition of chaos suitable for embryonic development, there is still necessary the influence of the supra-lunar astral forces. 103 Entry for these is provided by the union of the germ-cell with the male sperm-cell.

104 As the three sub-solar planetary spheres are responsible for events of a 'sulphurous' (radial) character, so are the three supra-solar spheres responsible for those of a 'saline' (spherical) character. 105 For example, we meet with Saturn-activity in everything which radiates from the human head and brings about the hardening both of the head itself and of the entire skeleton. 106 Observation has shown that, even if the human being, as usually happens, stops growing in the early twenties, so that the skeleton undergoes no further lengthening, it nevertheless reaches its final shape and its final hardening only between the twenty-eighth and thirtieth years. 107 This is the time in human's life when Saturn returns for the first time to the position in which it stood relatively to the earth at your birth, or, more correctly, at your conception.

108 If the activity of the Saturn-force is most clearly manifest in the formation of the hard skull, that of Jupiter, the planet of 'Wisdom', is shown in the formation of the complicated structure of the brain, which enables it to co-ordinate the bodily and psychic functions of the entire human. 109 In the realm of physical Nature, human's brain is indeed the most perfect example of cosmic Intelligence at work in a manner resembling that activity of human intelligence which one usually understands by 'organising'.

110 In order that Form should come about, the forces of Saturn are required; for the formative process to take place in Wisdom-filled order, Jupiter's forces are necessary. 111 If form and order are to become manifest in the realm of earthly substance, both require the assistance of Mars. 112 We can best form an idea of the part which Mars contributes to the coming into being of the world of Form in Nature if we observe what takes place when we make use of speech as a medium for expressing our thoughts. 113 In order to be able to shape a thought we have to participate in the formative force of Saturn. We depend upon Jupiter to bring about logical connexion between the single thoughts. 114 To announce them to the world, we need the motive force of Mars, which enables us so to set external matter in motion that it becomes a carrier and relayer of our thoughts. 115 We here touch upon the field of the acoustic movements of the air which will occupy us more closely later on.

116 Many examples of the activity of the force-spheres represented by the three exterior planets are to be found also in Nature external to human. 117 From the realm of plant life we may take the woody and bark-like formation of the trees as representing the operation of Saturn-forces. 118 Similarly, all that goes on in the organising of the single leaf, and particularly in the organisation of the countless separate leaves which make up the foliage of a tree into a unified whole, the characteristic crown of a tree, is an example of the work of Jupiter. 119 Both activities are assisted by the force of Mars, which directs them from the

cosmic periphery toward the single physical object.

120 Between the two groups of astral force operating in this manner, the Sun acts as a mediating element through its double function of supporting the activity of the three lower planets by means of its heat and of conveying to the earth, through its light, the forces of the three higher planets. 121 In the human microcosm the Sun-forces accomplish a corresponding task by means of the influences which radiate from the heart through the body along the paths taken by the blood.

122 In what follows we shall point to a group of phenomena which show the astral inter-connexion between earth and universe; we owe our knowledge of them to Rudolf Steiner. 123 It is due to him, also, that experimental research into the relevant facts became possible. 124 They concern the reflexion of the various planetary movements, observable in the sky, in the behaviour of certain mineral substances of the earth.

125 In connexion with our discussion of electricity (Chapter-13) we spoke of the special function of the metals as bearers of the 'mercurial' quality (in the alchemical sense of the term). 126 As one of the characteristics which reveal this function we mentioned the peculiar capacity of metals to behave as 'solid fluids'. 127 This exceptional place among the mineral substances of the earth, the metals owe to their close association with the extra-terrestrial astral forces of the world. 128 In this field, too, modern spiritual investigation has recovered something which was known to people of old-- that among the metals here are seven which have a distinctive character, 129 for each stands in a special relation to one of the seven planets (that is, the planetary force-spheres) of our cosmic system. 130 This is shown in the following table:

Saturn	Lead
Jupiter	Tin
Mars	Iron
Sun	Gold
Venus	Copper
Mercury	Quicksilver
Moon	Silver

131 As compared with these seven, the other metals are products of combinations of various planetary forces. 132 A comparison of the role of Saturn as the outermost planet of our cosmic system with the role played by its metal, lead, as a final product of radioactive disintegration, 133 leads one to conceive of the radioactive sphere of the earth as being related especially to the planets outside the orbit of Saturn, namely, Uranus, Neptune, Pluto.

134 Thanks to the work of L. Kolisko who, in following Rudolf Steiner's indications, observed for many years the behaviour of the seven metals singly and in combination by submitting their salts to certain capillary effects, 135 we know to-day that the" earth bears in her womb substances whose dynamic condition follows exactly the events in the planetary realm of the universe.

136 The picture of the universe which has thus arisen before our mind's eye is a startling one only so long as we keep comparing it with its heliocentric predecessor. 137 How wrong it would be to regard it as something inconceivable for the modern mind, is shown by the fact that the modern physiologist has already been driven to form quite a similar picture of the human organism, as far as it concerns glandular action in this organism. 138 His observations have taught him to distinguish between the gland as a spatially limited physical organ and the gland as a functional sphere, and to conceive of the latter as the essential gland. 139 Seen thus, 'the spatial and temporal dimensions of each gland are equal to those of the entire organism' (A. Carrel). 140 In this way we come to see the human organism as a realm of interpenetrating spheres of distinctive physiological activities. 141 Each of these activities is anchored somewhere in the physical body by the anatomically discernible gland-body, 142 and the latter's relationship to the functional sphere is such that a gland's 'physiological individuality is far more comprehensive than its anatomical individuality'.

143 We need only translate this statement into its macro-cosmic counterpart to obtain another

statement which expresses fittingly the relationship of the visible body of a planet to the functional (astral) sphere indicated by its orbit. 144 Then we shall say that 'a planet's astral individuality is far more comprehensive than its astronomical individuality'.

145 It should be observed that the step we have here taken, by using a conception obtained through micro-cosmic observation to help us to find the answer to a question put to us by the macrocosm, 146 complies with one of the fundamentals of our method of research, namely, to allow 'the heavens to explain the earth, and the earth the heavens' (R. St.).

(b) HEARING AS DEED

147 In the introductory part of the last chapter we said that we have the right to employ results of investigation carried out by higher faculties of spiritual perception 148 without contradicting our principle of seeking to understand the phenomenal world by reading it, provided our doing so helps to enhance our own reading activity, 149 and provided it can be shown that the acquisition of the higher faculties of perception is a direct continuation of the training we have to apply to our mind and senses to make them capable of such reading. 150 As regards the forces of astral character, the first of these two conditions has been fulfilled by the observations we have already worked through in this chapter. We have still to show that the second condition is equally fulfilled.

151 The faculty of the mind which permits direct investigation of the astral realm was called (spiritual) Inspiration by Rudolf Steiner, who thereby restored to this term, also, its proper meaning. 152 We have already indicated that this faculty resides in the sense of hearing in the same way that the faculty of Imagination-- as we have found-- resides in the sense of seeing. 153 In order to understand why it is this particular sense which comes into consideration here, we have to consider that the phenomena through which the astral world manifests most directly are all of a rhythmic nature. 154 Now, the sense through which our soul penetrates with direct experience

into some outer rhythmic activity is the sense of hearing, our aural perceptions being conveyed by certain rhythmic movements of the air. 155 In what follows we shall see how the study of both the outer acoustic phenomena and our own psycho-physical make-up in the region of the acoustic sense, leads to an understanding of the nature of Inspiration and of how it can be trained.

156 Among all our sense-perceptions, sound is unique in making itself perceptible in two quite different ways-- via the ear as a direct sense experience and via the eye 157 potentially also via the senses of touch and movement-- in the form of certain mechanical movements, such as those of a string or a tuning fork. 158 Hence the world-spectator, as soon as they began to investigate acoustic phenomena scientifically, found themselves in a unique position. 159 In all other fields of perception, with the exception of the purely mechanical processes, the transition to non-stereoscopic colourless observation had the effect that the world-content of the naive consciousness simply ceased to exist, 160 leaving the ensuing hiatus to be filled in by a pattern of imagined kinematic happenings-- for example, colour by 'ether'-- vibrations, heat by molecular movements. 161 Not so in the sphere of acoustics. For here a part of the entire event, on account of its genuine kinetic character, remains a content of actual observation.

162 In consequence, the science of acoustics became for the scientific mind of human a model of the required division between the 'subjective' (that is, for scientific considerations non-existent) and the 'objective' (that is, the purely kinematic) part of observation. 163 The field of aural perception seemed to justify the procedure of collecting a mass of phenomena, stripped of all that is experienced by human's soul in meeting them, and of assembling them under a purely abstract concept, 'sound'.

164 Professor Heisenberg, in his lecture (quoted at the beginning of Chapter-2) on the way in which the scientific interrogation of Nature has deliberately limited itself, 165 draws attention to the fact that a full knowledge of the

science of optics in its present form might be acquired merely through theoretical study by one born blind, yet without one ever getting to know what light is. 166 Heisenberg could, of course, have said the same of the science of acoustics in regard to one born deaf. 167 But we can go a step further by asking how far a deaf and a blind person could get towards establishing the respective science. 168 The answer must be that, whereas the person lacking sight would not of himself be in a position to establish a science of optics, it would be well within the scope of the deaf person to establish a science of acoustics. 169 For all the processes essential to a physical acoustics are accessible to the eye and other senses.

170 In order to make our experience of hearing a finger-post pointing the way to an understanding of the faculty of Inspiration innate in human, we must first of all seek to transform acoustics from a 'deaf into a 'hearing' science, 171 just as Goethe turned the theory of colour from a colour-blind into a colour-seeing science.

172 Following our procedure in the case of optics, we select from the total field of acoustic phenomena a defined realm specially suited to our purpose. 173 As it was then the spectrum, so it will be now the so-called quality of sound, or tone-colour.

174 By this term in acoustics is understood a property possessed by sound apart from pitch and volume, and dependent on the nature of the source from which a tone is derived. 175 It is the tone-colour by which the tone of a violin, for instance, is distinguished from a tone of equal intensity and pitch produced by a flute. 176 Similarly, two musical instruments of the same kind are distinguished from each other by tone-colour.

177 Tone-colour plays a specially significant part in human and animal voices. 178 Not only has each individual voice its unique colour, but the colour varies in one and the same person or animal, according to the prevailing mood. 179 Moreover, by uttering the various vowels of own language,

human is able to impart varying colour to the sounds of own speech. 180 For the difference we experience when a tone is sung on the vowel 'a' or the vowel 'e', etc., derives from the particular colour given by the vowel to that tone.

181 Among the discoveries of the last century in the realm of acoustics, there is one which especially helped to establish a purely kinematic conception of sound. 182 Helmholtz showed that tones which to our ears seem to have a clear and definite pitch may be split up by a series of resonators into a number of different tones, each of them sounding at a different pitch. 183 The lowest of these has the pitch which our ears attach to the entire tone. Thus in any ordinary tone there may be distinguished a 'fundamental' tone and a series of 'overtones'. 184 Helmholtz further showed that the particular series of overtones into which a tone can be resolved is responsible for the colour of that tone as a whole. 185 Naturally, this meant for the prevailing mode of thinking that the experience of the colour of a tone had to be interpreted as the effect of a kind of acoustical adding together of a number of single tone perceptions 186 very much as Newton had interpreted 'white' light as the outcome of an optical adding together of a certain number of single colour perceptions.

187 The picture becomes different if we apply to the aural experience Goethe's theorem that, in so far as we are deluded, it is not by our senses but by our own reasoning. 188 For we then realise that sounds never occur of themselves without some tone-colour, whilst physically 'pure' tones-- those that represent simple harmonic motions-- exist only as an artificial laboratory product. 189 The colour of a tone, therefore, is an integral part of it, and must not be conceived of as an additional attribute resulting from a summing up of a number of colourless tone experiences.

190 Further, if we compare our experiences of the two kinds of tone, they tell us that through the quality or colour of the natural tone something of a soul-nature, pleasant or unpleasant, speaks to us, whereas 'pure' tones have a soulless character.

191 Resolving normal tones by Helmholtz's method (useful as it is for certain purposes) amounts to something like dissecting a living, ensouled organism into its members; only the parts of the corpse remain in our hands.

192 Having thus established that the psychic content of aural experience forms an integral part of the tone-phenomenon as such, 193 we must seek to understand how the kinetic process which is indispensable for its appearance comes to be the vehicle for the manifestation of 'soul' in the manner described.

194 To this end we must first of all heed the fact that the movement which mediates aural sensation is one of alternating expansion and contraction. 195 Expressed in the language of the four Elements, this means that the air thus set in vibration approaches alternately the condition of the watery element beneath it and of the element of fire (heat) above it. 196 Thus, in a regular rhythm, the air comes near the border of its ponderable existence. 197 Purely physical considerations make us realise that this entails another rhythmic occurrence in the realm of heat. 198 For with each expansion of the air heat is absorbed by it and thereby rendered space-bound, while with every contraction of the air heat is set free and returns to its indigenous condition-- that is, it becomes free from spatial limitations.

199 This picture of the complete happenings during an acoustic event enables us to understand how such a process can be the vehicle for conveying certain astral impulses in such a way that, when met by them, we grow aware of them in the form of a direct sensation. 200 Taking as a model the expression 'transparent' for the perviousness of a substance to light, we may say that the air, when in a state of acoustic vibration, becomes 'trans-audient' for astral impulses, 201 and that the nature of these vibrations determines which particular impulses are let through.

202 What we have here found to be the true role of the kinetic part of the acoustic process applies equally to sounds which are emitted by living beings, 203 and

to those that arise when lifeless material is set mechanically in motion, as in the case of ordinary noises or the musical production of tone. 204 There is only this difference: in the first instance the vibrations of the sound-producing organs have their origin in the activity of the astral part of the living being, 205 and it is this activity which comes to the recipient's direct experience in the form of aural impressions; 206 in the second instance the air, by being brought externally into a state of vibration, exerts a kind of suction on the astral realm which pervades the air, with the result that parts of this realm become physically audible. 207 For we are constantly surrounded by super-sensible sounds, and the state of motion of the air determines which of them become perceptible to us in our present state of consciousness.

208 At this point our mind turns to a happening in the macrotelluric sphere of the earth, already considered in another connexion, which now assumes the significance of an ur-phenomenon revealing the astral generation of sound. 209 This is the thunder-storm, constituted for our external perception by the two events: lightning and thunder.

210 Remembering what we have found earlier (Chapter-10) to be the nature of lightning, we are now in a position to say: 211 a supra-terrestrial astral impulse obtains control of the earth's etheric and physical spheres of force in such a way that etheric substance is thrown into the condition of space-bound physical matter. 212 This substance is converted by stages from the state of light and heat via that of air into the liquid and, in certain cases, into the solid state (hail). 213 To this we now add that, while in lightning the first effect of the etheric-physical interference of the astral impulse appears before our eyes, our ears give us direct awareness of this impulse in the form of thunder. 214 It is this fact which accounts for the awe-inspiring character of thunderstorms.

215 The picture we have thus received of the outer part of the acoustic process has a counterpart

in the processes inside the organ of hearing.

216 Hearing, like seeing, depends upon the co-operation of both poles of the human organism- nerve and blood. 217 In the case of hearing, however, they play a reversed role. 218 In the eye, the primary effect of light-impressions is on the nervous part; a secondary response to them comes from the blood organisation. 219 In the ear, the receptive organ for the astral impulses pressing in upon it is a part which belongs to the body's limb system, while it is the nervous organisation which functions as the organ of response. 220 For in the ear the sound-waves are first of all taken over by the so-called ossicles, three small bones in the middle ear which, when examined with the Goethean eye, appear to be a complete metamorphosis of an arm or a leg. 221 They are instrumental in transferring the outer acoustic movements to the fluid contained in the inner ear, whence these are communicated to the entire fluid system of the body and lastly to the muscular system. We shall speak of this in detail later on. 222 Let it be stated here that the peculiar role played by the larynx in hearing, already referred to by us in Chapter-16, is one of the symptoms which tells of the participation of the muscular system in the internal acoustic process.

223 Psychologically, the difference between ear and eye is that aural perceptions work much more directly on the human will-- that is, on the part of our astral organisation connected with the limb system. 224 Whereas eye-impressions stimulate us in the first place to think, ear-impressions stimulate us to ... dance. 225 The whole art of dancing, from its original sacred character up to its degenerate modern forms, is based upon the limb system being the recipient of acoustic impressions.

226 In order to understand how the muscles respond to the outer astral impulses which reach us through our ear, we must first understand what happens in the muscles when our will makes use of them for bodily motion. 227 In this case, too, the muscular system is the organ through which certain astral

impulses, this time arising out of the body's own astral member, come to expression. 228 Moreover, the movement of the muscles, though not outwardly perceptible, is quite similar to acoustic movements outside the body. 229 For whenever a muscle is caused to alter its length, it will perform some kind of vibration-- a vibration characterised even by a definite pitch, which differs in different people. 230 Since throughout life our body is never entirely without movement, we are thus in a constant state of inward sounding. 231 The muscular system is capable of this vibration because during the body's initial period of growth the bones increase in length to a much greater extent than do the sinews and muscles. 232 Hence the latter arrive at a condition of elastic tension not unlike that of the strings of a musical instrument.

233 In the case of bodily movement, therefore, the muscles are tone-producers, whereas in acoustic perceptions they are tone-receivers. 234 What, then, is it that prevents an acoustic perception from actually setting the limbs in motion, and, instead, enables our sentient being to take hold of the astral impulse invading our muscles?

235 This impediment comes from the contribution made by the nervous system to the auditory process. 236 In order to understand the nature of this contribution we must remember the role played by the blood in seeing. 237 It was found by us to consist in the bringing about of that state of equilibrium without which we should experience light merely as a pain-producing agent. 238 Similarly, the perception of sound requires the presence of a certain state of equilibrium between the nerve-system and the limb-system. 239 In this case, however, a lack of equilibrium would result not in pain, but in ecstasy. 240 For if acoustic impressions played directly into our limb-system, with nothing to hold them in check, every tone we encounter would compel us to an outward manifestation of astral activity. 241 We should become part of the tone-process itself, forced to transform it by the volitional part of our astral organisation into

spatial movement. 242 That this does not happen is because the participation of the nervous system serves to damp down the potential ecstasy. 243 Hence it is more or less left to the sentient part of the astral organisation-- that is, the part free from the physical body - to partake in the astral processes underlying the tone occurrences.

244 Our discussion has reached a point where we are able to answer a question which first arose in the course of our study of the four ethers, and which arises here anew.

245 In studying the chemical or sound ether we were faced with the fact that part of the etheric realm, although in itself accessible to the spiritual part of the sense of sight, offers super-sensible experience comparable to the perception of sound. 246 Conversely, we are now met by the fact that it is spiritual hearing which gives access to the immediate perception of a realm of forces which is not only the source of acoustic phenomena, 247 but the origin of all that manifests in Nature in the form of sulphurous, saline and mercurial events, such as the world of colours, electricity, magnetism, 248 the manifold rhythmic occurrences on the earth (both taken as a whole .and in single organisms), etc.-- all of which are taken hold of by quite other senses than that of hearing.

249 At our first encounter with this problem we remarked that in the super-sensible no such sharp distinctions exist between different sense-spheres as are found in body-bound sense-perception. 250 At the same time we remembered that even in physical perception we are inclined to attach acoustic attributes to colours and optical attributes to tones. 251 In fact, it was precisely an instance of this kind of experience, namely, our conception of tone-colour, which gave us our lead in discussing the acoustic sphere in general. 252 Our picture of the particular interaction of the two polar bodily systems in the acts of seeing and hearing now enables us to understand more clearly how these two spheres of perception overlap in human. 253 For we have seen how the system which in seeing is the receiving organ, works in hearing as the responding one, and vice versa. 254

As a result, optical impressions are accompanied by dim sensations of sound, and aural impressions by dim sensations of colour.

255 What we are thus dimly aware of in physical sense activity, becomes definite experience when the super-sensible part of the senses concerned an work unfettered by the bodily organ. 256 Clear testimony of this is again given to us by Traherne in a poem entitled Dumnesse. 257 This poem contains an account of Traherne's recollection of the significant fact that the transition from the cosmic to the earthly condition of his consciousness was caused by his learning to speak. 258 The following is a passage from the description of the impressions which were his before his soul was overcome by this change:

259 'Then did I dwell within a World of Light
Distinct and Seperat from all Mens Sight,
Where I did feel strange Thoughts, and such Things see
That were, or seemd, only reveald to Me ...

260 '... A Pulpit in my Mind
A Temple, and a Teacher I did find,
With a large Text to comment on. No Ear,
But Eys them selvs were all the Hearers there.
And evry Stone, and Evry Star a Tongue,
And evry Gale of Wind a Curious Song.'

261 We have obtained a sufficiently clear picture of the organisation of our sense of hearing to see where the way lies that leads from hearing with the ears of the body to hearing with the ears of the spirit, that is, to the inspirative perception of the astral world.

262 In the psycho-physical condition which is characteristic of our present day-consciousness, the participation of our astral organisation in any happenings of the outer astral world depends on our corporeal motor system 263 being stimulated by the acoustic motions of the air, or of some other suitable medium contacting our body. 264 For it is only in this way that our astral organisation is brought into the sympathetic vibrations necessary for perceiving

outer astral happenings. 265 In order that astral events other than those manifesting acoustically may become accessible to our consciousness, our own astral being must become capable of vibrating in tune with them, just as if we were hearing them-- 266 that is, we must be able to rouse our astral forces to an activity similar to that of hearing, yet without any physical stimulus. 267 The way to this consists in training ourselves to experience the deeds and sufferings of Nature as if they were the deeds and sufferings of a beloved friend.

268 It is thus that we shall learn to hear the soul of the universe directly speaking to us, as Lorenzo divined it, when his love for Jessica made him feel in love with all the world, 269 and he exclaimed:

'There's not the smallest orb
which thou behold'st
But in his motion like an angel
sings,
Still quiring to the young-eyed
cherubim, -
Such harmony is in immortal
souls.
But whilst this muddy vesture
of decay
Doth grossly close it in, we
cannot hear it.'

(c) KEPLER AND THE 'MUSIC OF THE SPHERES'

270 'One must choose one's saints .. and so I have chosen mine, and before all others, Kepler. In my ante-room he has ever a niche of his own, with his bust in it.'

271 This opinion of Goethe's must surprise us in view of the fact that Kepler was the discoverer of the three laws called after him, one of which is supposed to have laid the foundation for Newton's mechanical conception of the universe. 272 In what follows it will be shown how wrong it is to see in Kepler a forerunner of the mechanistic conception of the world; 273 how near, in reality, his world-picture is to the one to which we are led by working along Goetheanistic lines; and how right therefore Goethe was in his judgment on Kepler.

274 Goethe possessed a sensitive organ for the historical appropriateness of human ideas. 275 As an illustration of this it may

be mentioned how he reacted when someone suggested to him that Joachim Jungius-- an outstanding German thinker, contemporary of Bacon, Van Helmont, etc.-- had anticipated his idea of the metamorphosis of the plant. 276 This remark worried Goethe, not because he could not endure the thought of being anticipated (see his treatment of K. F. Wolff), but because this would have run counter to the meaning of human's historical development as he saw it. 277 'Why do I regard as essential the question whether Jungius conceived the idea of metamorphosis as we know it? 278 My answer is, that it is most significant in the history of the sciences, when a penetrating and vitalising maxim comes to be uttered. 279 Therefore it is not only of importance that Jungius has not expressed this maxim; but it is of highest significance that he was positively unable to express it-- as we boldly assert.'

280 For the same reason Goethe knew it would be historically unjustified to expect that Kepler could have conceived an aspect of the universe implicit in his own conception of Nature. 281 Hence it did not disturb him in his admiration for Kepler, that through him the Copernican aspect of the universe had become finally established in the modern mind-- 282 that is, an aspect which, as we have seen, is invalid as a means of forming a truly dynamic conception of the world.

283 In forming his picture of the universe, it is true, Copernicus was concerned with nothing but the spatial movements of the luminous entities discernible in the sky, without any regard to their actual nature and dynamic interrelationships. 284 Hence his world-picture-- as befits the spectator-form of human consciousness which was coming to birth in his own time-- is a purely kinematic one. As such it has validity for a certain sphere of human observation.

285 When Kepler, against the hopes of his forerunner and friend, Tycho Brahe, accepted the heliocentric standpoint and made it the basis of his observations, he did so out of his understanding of what was the truth for his own time. 286 Kepler's ideal was to

seek after knowledge through pure observation. In this respect Goethe took him as his model. 287 Kepler's discoveries were a proof that human's searching mind is given insight into great truths at any stage of its development, provided it keeps to the virtue of practising pure observation.

288 It has been the error of Newton and his successors up to our own day, to try to conceive the world dynamically within the limits of their spectator-consciousness 289 and thus to form a dynamic interpretation of the universe based on its heliocentric aspect. 290 This was just as repellent to Goethe as Kepler's attitude was attractive.

291 But by so sharply distinguishing between Newton and Kepler, do we not do injustice to the fact that, as the world believes, Kepler's third law is the parent of Newton's law of gravitation? 292 The following will show that this belief is founded on an illusory conception of the kind we met before. 293 As we shall see, Kepler's discovery, when treated in a Keplerian way, instead of leading to Newton, is found to be in full agreement with the very world-picture to which our own observations have led us.

294 It is an established conviction of the mathematical scientist that, once an observed regularity in Nature has been expressed as a mathematical equation, this equation may be transformed in any mathematically valid way, 295 and the resulting formula will still apply to some existing fact in the world. 296 On innumerable occasions this principle has been used in the expectation of providing further insight into the secrets of Nature. 297 We came across a typical instance of this in discussing the basic theorem of kinematics and dynamics (Chapter-8). 298 Another example is Newton's treatment of Kepler's third law, or-- more precisely-- the way in which Newton's law of gravitation has been held to confirm Kepler's observations, and vice versa,

299 It will be our task to analyse the Kepler-Newton case on the very lines of our treatment of the two parallelogram theorems. 300 This analysis will give us insight into a truth which we have to

regard as one of the basic maxims of the new science. 301 It says that whether a given formula, derived mathematically from one that was first read from Nature, still expresses some fact of Nature, cannot be decided by pure mathematical logic, but only by testing it against truly observable phenomena.

302 Through Kepler's third law a certain relation is expressed between the spatial dimensions of the different planetary spheres and the time needed by the relevant planet to circle once round the circumference of its own sphere. 303 It says: 'The squares of the periodic times of the planets are always in the same proportion as the cubes of their mean distances from the sun.' In mathematical symbols this reads: t12 / t22 = r13 / r23

304 We shall see later how Kepler arrived at this law. The point is that there is nothing in it which is not accessible to pure observation. 305 Spatial distances and lengths of time are measured and the results compared. Nothing, for instance, is said about the dynamic cause of the movements. 306 The assertion is restricted-- and this is true also of the first and second law-- to a purely kinematic content, and so precisely to what the earthly onlooker can apprehend. 307 Now it is said that Kepler's third law is a necessary consequence of Newton's law of gravitation, and that-- since it is based on pure observation-- it therefore establishes the truth of Newton's conception. 308 In this assertion we encounter a misconception exactly like the one in the statement that the theorem of the parallelogram of forces follows by logical necessity from the theorem of the parallelogram of velocities. 309 For: (a) The law of gravitation itself derives from Newton's formula for the centripetal force acting at a point which moves along a circle, 310 this formula being itself the result of an amplification of the formula for centripetal acceleration by the factor 'mass' (as if the latter were a pure number):

311 Centripetal acceleration: a = 4(Ï^2)r / t2

Centripetal force: P = am = 4(Ï^2)mr / t2

312 (b) The formula for centripetal acceleration-- and the concept of such acceleration itself-- is the result of splitting circular movement into two rectilinear movements, 313 one in the direction of the tangent, the other in the direction of the radius, and of regarding it-- by a mode of reasoning typical of spectator-thinking-- as composed of the two.

314 This procedure, however, useful as it may be for the purpose of calculation, is contrary to observation. 315 For, as we have pointed out earlier, observation tells us that all original movement-- and what can be more original than the movements of the planetary bodies-- is curvilinear. 316 No insight into the dynamic reality of cosmic movement, therefore, can ever be gained by handling it mathematically in this way.

317 (c) The transformation of Kepler's formula which is necessary in order to give it a form representing the nucleus of Newton's formula, 318 is one which, though mathematically justified, deprives Kepler's formula of any significance as expression of an observed fact. The following analysis will show this.

319 Kepler's formula- r1^3 / r2^3 = t1^2 / t2^2 may be written also r1^3 / t1^2 = r2^3 / t2^2 and this again in the generalized form: r3 / t2 = c.

320 Obviously, by each of these steps we diminish the reality-value of the formula. In its original form, we find spatial extension compared with spatial extension, and temporal extension with temporal extension. 321 Each of the two comparisons is a fully concrete one, because we compare entities of like Nature, and only then test the ratios of the two-- that is, two pure numbers against each other-- to find that they are identical. 322 To compare a spatial and a temporal magnitude, as is done by the formula in its second form, requires already a certain degree of abstraction. 323 Still, it is all spectator's work, and for the spectator time is conceivable and measurable only as a rate of spatial displacement. 324 Hence the constant number c, by representing the ratio between the spatial extension of the realm inside a

planet's orbit and the time needed by it to perform one round on this orbit-- 325 a ratio which is the same for all planets-- represents a definite structural element of our cosmic system.

326 By this last operation our equation has now achieved a form which requires only one more transformation to bring it into line with Newton's formula. 327 Instead of writing: r3 / t2 = c we write: r / t2 = c (1 / r2)

328 All that now remains to be done amounts to an amplification of this equation by the factor 4(Ï€^2)m, and a gathering of the constant product 4(Ï€^2)c under a new symbol, for which we choose the letter f. 329 In this way we arrive at: 4(Ï€^2)mr / t2 = 4(Ï€^2)cm / r2 and finally: P = ... = fm / r2 which is the expression of the gravitational pull believed to be exerted by the sun on the various planetary bodies. 330 Nothing can be said against this procedure from the point of view of mathematical logic. 331 For the latter the equation r / t2 = c (1 / r2) is still an expression of Kepler's observation. Not so for a logic which tries to keep in touch with concrete reality. 332 For what meaning, relevant to the phenomenal universe as it manifests in space and time to physical perception, is there in stating-- 333 as the equation in this form does-- that: the ratio between a planet's distance from the sun and the square of its period is always proportional to the reciprocal value of the area lying inside its orbit?

334 Once we have rid ourselves of the false conception that Kepler's law implies Newton's interpretation of the physical universe as a dynamic entity ruled by gravity, 335 and gravity alone, we are free to ask what this law can tell us about the nature of the universe if in examining it we try to remain true to Kepler's own approach.

336 To behave in a Keplerian (and thus in a Goethean) fashion regarding a mathematical formula which expresses an observed fact of Nature, does not mean that to submit such a formula to algebraic transformation is altogether impermissible. 337 All we have to make sure of is that the transformation is required by the

observed facts themselves: for instance, by the need for an even clearer manifestation of their ideal content. 338 Such is indeed the case with the equation which embodies Kepler's third law. 339 We said that in its original form this equation contains a concrete statement because it expresses comparisons between spatial extensions, on the one hand, and between temporal extensions, on the other. 340 Now, in the form in which the spatial magnitudes occur, he express something which is directly conceivable. 341 The third power of a spatial distance (r^3) represents the measure of a volume in three-dimensional space. The same cannot be said of the temporal magnitudes on the other side of the equation (t^2). 342 For our conception of time forbids us to connect any concrete idea with 'squared time'. 343 We are therefore called upon to find out what form we can give this side of the equation so as to express the time-factor in a manner which is in accord with our conception of time, that is, in linear form. 344 This form readily suggests itself if we consider that we have here to do with a ratio of squares. For such a ratio may be resolved into a ratio of two simple ratios.

345 In this way the equation-- r1^3 / r2^3 = t1^2 / t2^2 assumes the form- r1^3 / r2^3 = (t1 / t2) / (t2 / t1)

346 The right-hand side of the equation is now constituted by the double ratio of the linear values of the periods of two planets, and this is something with which we can connect a quite concrete idea.

347 To see this, let us choose the periods of two definite planets-- say, Earth and Jupiter. 348 For these the equation assumes the following form ('J' and 'E' indicating 'Jupiter' and 'Earth' respectively): rJ^3 / rE^3 = (tJ / tE) / (tE / tJ) Let us now see what meaning we can attach to the two expressions tJ / tE and tE / tJ.

349 During one rotation of Jupiter round the sun the earth circles 12 times round it. This we are wont to express by saying that Jupiter needs 12 earth-years for one rotation; in symbols: tJ / tE = 12 / 1.

350 To find the analogous expression for the reciprocal ratio:

tE / tJ = 1 / 12 we must obviously form the concept 'Jupiter-year', which covers one rotation of Jupiter, just as the concept 'earth-year' covers one rotation of the earth (always round the sun). 351 Measured in this time-scale, the earth needs for one of her rotations 1 / 12 of a Jupiter-year.

352 With the help of these concepts we are now able to express the double ratio of the planetary periods in the following simplified way. 353 If we suppose the measuring of the two planetary periods to be carried out not by the same time-scale, 354 but each by the time-scale of the other, the formula becomes: rJ3 / rE3 = (tJ / tE) / (tE / tJ) = period of Jupiter measured in Earth-years / period of Earth measured in Jupiter-years. 355 Interpreted in this manner, Kepler's third law discloses an intimate interrelatedness of each planet to all the others as co-members of the same cosmic whole. 356 For the equation now tells us that the solar times of the various planets are regulated in such a way that for any two of them the ratio of these times, measured in their mutual time-units, is the same as the ratio of the spaces swept out by their (solar) orbits.

357 Further, by having the various times of its members thus tuned to one another, our cosmic system shows itself to be ordered on a principle which is essentially musical. 358 To see this, we need only recall that the musical value of a given tone is determined by its relation to other tones, whether they sound together in a chord, or in succession as melody. 359 A 'C' alone is musically undefined. It receives its character from its interval-relation to some other tone, say, 'G', together with which it forms a Fifth. 360 As the lower tone of this interval, 'C' bears a definite character; and so does 'G' as the upper tone.

361 Now we know that each interval represents a definite ratio between the periodicities of its two tones. 362 In the case of the Fifth the ratio is 2:3 (in the natural scale). This means that the lower tone receives its character from being related to the upper tone by the ratio 2:3. 363 Similarly, the upper tone receives its character

from the ratio 3:2. 364 The specific character of an interval arising out of the merging of its two tones, therefore, is determined by the ratio of their ratios. 365 In the case of the Fifth this is 4:9. It is this ratio, therefore, which underlies our experience of a Fifth.

366 The cosmic factor corresponding to the periodicity of the single tone in music is the orbital period of the single planet. 367 To the musical interval formed by two tones corresponds the double ratio of the periods of any two planets. 368 Regarded thus, Kepler's law can be expressed as follows: The spatial ordering of our planetary system is determined by the interval-relation in which the different planets stand to each other.

369 By thus unlocking the ideal content hidden in Kepler's third law, we are at the same time enabled to do justice to the way in which he himself announced his discovery. 370 In textbooks and encyclopaedias it is usually said that the discovery of the third law was the surprising result of Kepler's fantastic attempt to prove by external observation what was once taught in the school of Pythagoras, 371 namely, that (in Wordsworth's language): 'By one pervading spirit Of tones and numbers all things are controlled.'

372 Actually, Kepler's great work, Harmonices Mundi, in the last part of which he announces his third law, is entirely devoted to proving the truth of the Pythagorean doctrine that the universe is ordered according to the laws of music. 373 This doctrine sprang from the gift of spiritual hearing still possessed by Pythagoras, by which he could perceive the harmonies of the spheres. 374 It was the aim of his school to keep this faculty alive as long as possible, and with its aid to establish a communicable world-conception. 375 The Pythagorean teaching became the foundation of all later cosmological thinking, right up to the age which was destined to bring to birth the spectator-relationship of human's consciousness with the world. 376 Thus it was left to Copernicus to give humankind the first truly non-Pythagorean picture of the universe.

MATTER

377 When Kepler declared himself in favour of the heliocentric aspect, as indicated by Copernicus, he acknowledged that the universe had grown dumb for human's inner ear. 378 Yet, besides his strong impulse to meet the true needs of his time, there were inner voices telling him of secrets that were hidden behind the veil woven by human's physical perceptions. One of these secrets was the musical order of the world. 379 Such knowledge, however, could not induce him to turn to older world-conceptions in his search for truth. 380 He had no need of them, because there was yet another voice in him which told him that the spiritual order of the world must somehow manifest itself in the body of the world as it lay open to physical perception. 381 Just as a musical instrument, if it is to be a perfect means of bringing forth music, must bear in its build the very laws of music, 382 so must the body of the universe, as the instrument on which the harmonies of the spheres play their spiritual music, bear in its proportions a reflexion of these harmonies. 383 Kepler was sure that investigation of the world's body, provided it was carried out by means of pure observation, must needs lead to a re-establishment of the ancient truth in a form appropriate to the modern mind. 384 Thus Kepler, guided by an ancient spiritual conception of the world, could devote himself to confirming its truth by the most up-to-date methods of research. 385 That his search was not in vain, our examination of the third law has shown.

386 One thing, however, remains surprising-- that Kepler announced his discovery in the form in which it has henceforth engraved itself in the modern mind, while refraining from that analysis of it which we have applied to it here. 387 Yet, in this respect also Kepler proves to have remained true to himself. There is, on the one hand, the form in which Kepler pronounced his discovery; there is, on the other, the context in which he made this pronouncement. 388 We have already pointed out that the third law forms part of Kepler's comprehensive work, Harmonices Mundi.

389 To the modern critic's understanding it appears there like an erratic block. For Kepler this was different. 390 While publishing his discovery in precisely the form in which it is conceived by a mind bent on pure observation, he gave it a setting by which he left no doubt as to his own conception of its ideal content. 391 And as a warning to the future reader not to overlook the message conveyed by this arrangement, he introduced the section of his book which contains the announcement of the law, with the mysterious words about himself: 392 'I have stolen the golden vessels of the Egyptians from which to furnish for my God a holy shrine far from Egypt's confines.'

KNOW THYSELF

Ernst Lehrs

21 Our inquiries have led us to a picture of human as a sensible-super-sensible organism composed of three dynamic aggregates--physical, etheric, astral. 2 As three rungs of a spiritual ladder they point to a fourth, which represents that particular power in human by which you distinguishes yourself from all other beings in Nature. 3 For what makes human differ from all these is that you are not only fitted, as they are, with a once-for-all given mode of spiritual-physical existence peculiar to yourself, 4 but that you are endowed with the possibility of transforming your existence by dint of your free will-- that indeed your humanhood is based on this capacity for self-willed Becoming. 5 To this fourth principle in human we can give no better name than that which every human being can apply to oneself alone and to no other, and which no other can apply to you. This is the name, I. 6 In truth, we describe human in own entirety only if we ascribe to you, in addition to a physical, etheric and astral body, the possession of an I (Ego).

7 Naturally, our previous studies have afforded many opportunities for observing the nature and mode of activity of the I. 8 Still, at the conclusion of these studies it is not redundant to form a concise picture of this part of human's being, with particular regard to

how it works within the three other principles as its sheaths. 9 For in modern psychology, not excluding the branch of it where efforts are made to penetrate into deeper regions of human's being, nothing is less well understood than the true nature of human's egoity.

10 In order to recognise the peculiar function of the I in human, we must first be clear as to how you differs from the other kingdoms of Nature, 11 and how they differ from one another with respect to the mode of action of the physical, etheric and astral forces.

12 The beings of all the kingdoms of Nature are endowed with an aggregate of physical forces in the form of a material body subject to gravity. 13 The same cannot be said of the etheric forces. Only where life is present as an inherent principle-- that is, in plant, animal and human-- 14 is ether at work in the form of an individual etheric organisation, while the mineral is formed by the universal ether from outside. 15 Where life prevails, we are met by the phenomena of birth and death. When a living organism comes to birth, an individual ether-body is formed out of the general etheric substance of the universe. 16 The death of such an organism consists in the separation of the etheric from the physical body and the dissolution of both in their respective mother-realms. 17 So long as an organism is alive, its form is maintained by the ether-body present in it.

18 Our studies have shown that the plant is not devoid of the operation of astral forces. In the plant's life-cycle this comes to clearest expression in its florescence. 19 But it is a working of the astral forces from outside, very much as the ether works on the mineral. 20 As a symptom of this fact we may recall the dependence of the plant on the various outer astronomical rhythms.

21 It is only in animal and human that we find the astral forces working in the form of separate astral bodies. This accounts for their capacity for sensation and volition. 22 Besides the alternation of birth and death, they experience the rhythm of sleeping and waking. 23 Sleep occurs when the astral body leaves the physical and etheric bodies in order to expand

into its planetary mother-sphere, whence it gathers new energy. 24 During this time its action on the physical-etheric aggregate remaining upon earth is similar to that of the astral cosmos upon the plant.

25 Again, in the animal kingdom the ego-principle works as an external force in the form of various group-soul activities which control and regulate the life of the different animal species. 26 It is in the group-ego of the species that we have to look for the source of the wisdom-filled instincts which we meet in the single animals.

27 Only in human does the ego-principle enter as an individual entity into the single physico-etheric-astral organism. 28 Here, however, the succession of stages we have outlined comes to a conclusion. 29 For with the appearance of the I as an individual principle, the preceding evolutionary process-- or, more correctly, the involutionary process-- begins to be reversed. 30 In moving up from one kingdom to the next, we find always one more dynamic principle appearing in a state of separation from its mother-sphere; 31 this continues to the point where the I, through uniting itself with a thus emancipated physico-etheric-astral organism, arrives at the stage of self-consciousness. 32 Once this stage has been reached, however, it falls to the I to reverse the process of isolation, temporarily sanctioned by the cosmos for the sake of human.

33 That it is not in the nature of the I to leave its sheaths in the condition in which it finds them when entering them at the beginning of life, can be seen from the activities it performs in them during the first period after birth. 34 Indeed, in human's early childhood we meet a number of events in which we can perceive something like ur-deeds of the I. 35 They are the acquisition of the faculties of walking, speaking and thinking. What we shall here say about them has, in essentials, already been touched upon in earlier pages. Here, however, we are putting it forward in a new light.

36 Once again we find our attention directed to the threefold structure of human's physical

organism. 37 For the faculty of upright walking is a result of the I's activity in the limb-system of the body; the acquisition of speech takes place in the rhythmic system; and thinking is a faculty based on the nerve-system. 38 Consequently, each of the three achievements comes to pass at a different level of consciousness-sleeping, dreaming, waking. 39 All through the struggle of erecting the body against the pull of gravity, the child is entirely unaware of the activities of own I. 40 In the course of acquiring speech one gains a dim awareness, as though in dream, of own efforts. Some capacity of thinking has to unfold before the first glimmer of true self-consciousness is kindled.

41 Note that the word 'I' is the only one that is not added to the child's vocabulary by way of imitation. Otherwise one would, as some mentally inhibited children do, call all other people 'I' and the self 'you'.

42 This picture of the three ur-deeds of the I can now be amplified in the following way. We know that the region of the bodily limbs is that in which physical, etheric and astral forces interpenetrate most deeply. 43 Consequently, the I can here press forward most powerfully into the physical body and on into the dynamic sphere to which the body is subject. 44 Here the I is active in a way that is 'magic' in the highest degree. Moreover, there is no other action for which the I receives so little stimulus from outside. 45 For, in comparison, the activity that leads to the acquisition of speech is much more of the nature of a reaction to stimuli coming from outside-- the sounds reaching the child from own environment. 46 And it is also with the first words of the language that the first thoughts enter the child's mind. 47 Nothing of the kind happens at the first stage. On the contrary: everything that confronts the I here is of the nature of an obstacle that is to be overcome.

48 There is no learning to speak without the hearing of uttered sounds. As these sounds approach the human being they set the astral body in movement, as we have seen. 49 The movements of the astral body flow towards the larynx, where they are seized by

the I; through they help the I imbues the larynx with the faculty of producing these sounds itself. 50 Here, therefore, the I is active essentially within the astral body which has received its stimulus from outside. 51 In order to understand what impels the I to such action, we must remember the role played by speech in human life: without speech there would be no community among human individuals on earth.

52 An illustration of what the I accomplishes as it enters upon the third stage is provided by the following episode, actually observed. 53 Whilst all the members of a family were sitting at table taking their soup, the youngest member suddenly cried out: 'Daddy spoon ... mummy spoon. ... ' (everyone in turn spoon) ' ... all spoon!' 54 At this moment, from merely designating single objects by names learn't through imitation, the child's consciousness had awakened to connective thinking. 55 That this achievement was a cause of inner satisfaction could be heard in the joyful crescendo with which these ejaculations were made.

56 We know that the presence of waking consciousness within the nerves-and-senses organism rests upon the fact that the connexion between physical body and etheric body is there the most external of all. 57 But precisely because this is so, the etheric body is dominated very strongly by the forces to which the physical head owes its formation. 58 This, too, is not fundamentally new to us. What can now be added is that, in consequence, the physical brain and the part of the etheric body belonging to it-- the etheric brain-- assume a function comparable with that of a mirror, 59 the physical organ representing the reflecting mass and the etheric organ its metallic gloss. 60 When, within the head, the etheric body reflects back the impressions received from the astral body, the I becomes aware of them in the form of mental images (the 'ideas' of the onlooker-philosopher). 61 It is also by way of such reflexion that the I first grows aware of itself-- but as nothing more than an image among images. Here, therefore, it is itself least active.

MATTER

62 If, once again, we compare the three happenings of learning to walk, to speak and to think, we find ourselves faced with the remarkable fact that the progressive lighting up of consciousness from one stage to the next, goes hand in hand with a retrogression in the activity of the I itself. 63 At the first stage, where the I knows least of itself, it is alive in the most direct sense out of its own being; 64 at the second stage, where it is in the dreaming state, it receives the impetus of action through the astral body; 65 at the third stage, where the I wakens to clear self-consciousness, it assumes merely the role of onlooker at the pictures moving within the etheric body.

66 Compare with this the paths to higher faculties of knowledge, Imagination and Inspiration, as we learn't to know them in our previous studies. 67 The comparison shows that exactly the same forces come into play at the beginning of life, when the I endeavours to descend from its pre-earthly, cosmic environment to its earthly existence, 68 as have to be made use of for the ascending of the I from earthly to cosmic consciousness. Only, as is natural, the sequence of steps is reversed.

69 For on the upward way the first deed of the I is that which leads to a wakening in the etheric world: it is a learning to set in motion the etheric forces in the region of the head in such a way that the usual isolation of this part of the etheric body is overcome. 70 Regarded thus, the activity of the I at this stage reveals a striking similarity to the activity applied in the earliest period of childhood at the opposite pole of the organism. 71 To be capable of imaginative sight actually means to be able to move about in etheric space by means of the etheric limbs of the eyes just as one moves about in physical space by means of the physical limbs.

72 Similarly, the acquisition of Inspiration is a resuming on a higher level of the activity exercised by the I with the help of the astral body when learning to speak. And here, too, the functions are reversed.

73 For while the child is stimulated by the spoken sounds one hears to bring own organ of speech into corresponding movements, and so

gradually learns to produce speech, 74 the acquisition of Inspiration, as we have seen, depends on learning to bring the super-sensible forces of the speech-organ into movement in such a way that these forces become the organ for hearing the super-sensible language of the universe.

75 Our knowledge of the threefold structure of human's organism leads us to seek, besides the stages of Imagination and Inspiration, a third stage which is as much germinally present in the body's region of movement, as the two others are in the regions of thought and speech. 76 After what we have learn't in regard to these three, we may assume that the path leading to this third stage consists in producing a condition of wide-awake, 77 tranquil contemplation in the very region where the I is wont to unfold its highest degree of initiative on the lowest level of consciousness.

78 In an elementary manner this attitude of soul was practised by us when, in our earlier studies, we endeavoured to become inner observers of the activity of our own limbs, with the aim of discovering the origin of our concept of mass. 79 It was in this way that a line of observation opened up to us which led to the recognition of the physical substances of the earth as congealed spiritual functions or, we may say, congealed utterances of cosmic will.

80 Cosmic Will, however, does not work into our existence only in such a way that, in the form of old and therefore rigid Will, it puts up resistance against the young will-power of the I, so that in overcoming this resistance the I may waken to self-activity. 81 Cosmic Will is also present in us in an active form. We point here to the penetration by the higher powers of the universe into the forming of the destiny of humanity and of individual human. 82 And here Rudolf Steiner has shown that to a person who succeeds in becoming a completely objective observer of own existence while actively functioning within it 83 as in an elementary way we endeavoured to become observers of our limb actions while engaged in performing them 84 the world

begins to reveal itself as an arena of the activities of divine-spiritual Beings, whose reality and acts he is now able to apprehend through inner awareness. 85 Herewith a third stage of human's faculty of cognition is added to the stages of Imagination and Inspiration. 86 When Rudolf Steiner chose for it the word Intuition he applied this word, also, in its truest meaning. 87 While through Imagination human comes to know of own ether-body as part of own make-up, and correspondingly through Inspiration of own astral body, and thereby recognises the self as participant in the super-sensible forces of the universe, 88 it is through Intuition that you grows into full awareness of your I as a spirit-being among spirit-beings--God-begotten, God-companioned, forever God-ward striving.

The Sixth Book of Divine Panagogue called

ETHICS

THE ETHICS
Benedict de Spinoza

CONCERNING GOD

DEFINITIONS

1 (I.) By that which is 'self-c*aused*' I mean that of which the essence involves existence, or that of which the nature is only conceivable as existent.

2 (II.) A thing is called 'finite *after its kind*' when it can be limited by another thing of the same nature; for instance, a body is called finite because we always conceive another greater body. 3 So, also, a thought is limited by another thought, but a body is not limited by thought, nor a thought by body.

4 (III.) By 'substance' I mean that which is in itself, and is conceived through itself: in other words, that of which a conception can be formed independently of any other conception.

5 (IV.) By 'attribute' I mean that which the intellect perceives *as* constituting the essence of substance.

6 (V.) By 'mode' I mean the modifications *("affectiones") of* substance, or that which exist*s* in, and is conceived through, something other than itself.

7 (VI.) By 'God' I mean a being absolutely infinite-- that is, a substance consisting in infinite attributes, of which each expresses eternal and infinite essentiality.

EXPLANATION

8 I say absolutely infinite, not infinite after its kind: for, of a thing infinite only after its kind, infinite attributes may be denied; 9 but that which is absolutely infinite, contains in its essence whatever expresses reality, and involves no negation.

10 (VII.) That thing is called 'free,' which exists solely by the necessity of its own nature, and of which the action is determined by itself alone. 11 On the other hand, that thing is necessary, or rather constrained, which is determined by something external to itself to a fixed and definite method of existence or action.

12 (VIII.) By 'eternity' I mean existence itself, in so far as it is conceived necessarily to follow

solely from the definition of that which is eternal.

EXPLANATION

13 Existence of this kind is conceived as an eternal truth, like the essence of a thing and, therefore, cannot be explained by means of continuance or time, though continuance may be conceived without a beginning or end.

AXIOMS

14 (I.) Everything which exists, exists either in itself or in something else.

15 (II.) That which cannot be conceived through anything else must be conceived through itself.

16 (III.) From a given definite cause an effect necessarily follows; and, on the other hand, if no definite cause be granted, it is impossible that an effect can follow.

17 (IV.) The knowledge of an effect depends on and involves the knowledge of a cause.

18 (V.) Things which have nothing in common cannot be understood, the one by means of the other; the conception of one does not involve the conception of the other.

19 (VI.) A true idea must correspond with its ideate or object.

20 (VII.) If a thing can be conceived as non-existing, its essence does not involve existence.

PROPOSITIONS

21 (I.) Substance is by nature prior to its modifications.

22 (II.) Two substances, whose attributes are different, have nothing in common.

23 For each must exist in itself, and be conceived through itself; in other words, the conception of one does not imply the conception of the other.

24 (III.) Things which have nothing in common cannot be one the cause of the other.

25 If they have nothing in common, it follows that one cannot be apprehended by means of the other, and, therefore, one cannot be the cause of the other.

26 (IV.) Two or more distinct things are distinguished one from the other, either by the difference of the attributes of the substances, or by the difference of their modifications.

27 Everything which exists, exists either in itself or in something else-- that is, nothing is granted in addition to the understanding, except substance and its modifications. 28 Nothing is, therefore, given besides the understanding, by which several things may be distinguished one from the other, except the substances, or, in other words, their attributes and modifications.

29 (V.) There cannot exist in the universe two or more substances having the same nature or attribute.

30 If several distinct substances be granted, they must be distinguished one from the other, either by the difference of their attributes, or by the difference of their modifications

31 If only by the difference of their attributes, it will be granted that there cannot be more than one with an identical attribute. 32 If by the difference of their modifications-- as substance is naturally prior to its modifications-- it follows that setting the modifications aside, and considering substance in itself, that is truly, 33 there cannot be conceived one substance different from another-- that is, there cannot be granted several substances, but one substance only.

34 (VI.) One substance cannot be produced by another substance.

35 It is impossible that there should be in the universe two substances with an identical attribute, i.e. which have anything common to them both, and, therefore, one cannot be the cause of the other, neither can one be produced by the other.

COROLLARY

36 (VI.) Hence it follows that a substance cannot be produced by anything external to itself. 37 For in the universe nothing is granted, save substances and their modifications. 38 Now substance cannot be produced by another substance, therefore it cannot be produced by anything external to itself. 39 This is shown still more readily by the absurdity of the contradictory. For, if substance be produced by an external cause, the knowledge of it would depend on the knowledge of its cause, and it would itself not be substance.

40 (VII.) Existence belongs to the nature of substances.

41 Substance cannot be produced by anything external, it must, therefore, be its own cause-- that is, its essence necessarily involves existence, or existence belongs to its nature.

42 (VIII.) Every substance is necessarily infinite.

43 There can only be one substance with an identical attribute, and existence follows from its nature; 44 its nature, therefore, involves existence, either as finite or infinite. 45 It does not exist as finite, for it would then be limited by something else of the same kind, which would also necessarily exist; 46 and there would be two substances with an identical attribute, which is absurd. It therefore exists as infinite.

Note-I

47 As finite existence involves a partial negation, and infinite existence is the absolute affirmation of the given nature, it follows that every substance is necessarily infinite.

Note-II

48 No doubt it will be difficult for those who think about things loosely, and have not been accustomed to know them by their primary causes, 49 for such persons make no distinction between the modifications of substances and the substances themselves, and are ignorant of the manner in which things are produced; 50 hence they may attribute to substances the beginning which they observe in natural objects. 51 Those who are ignorant of true causes make complete confusion-- think that trees might talk just as well as humans-- that people might be formed from stones as well as from seed; and imagine that any form might be changed into any other. 52 So, also, those who confuse the two natures, divine and human, readily attribute human passions to the deity, especially so long as they do not know how passions originate in the mind.

53 But, if people would consider the nature of substance, they would have no doubt about the truth of-- *existence*. In fact, this proposition would be a universal axiom, and accounted a truism.

54 For, by substance, would be understood that which is in itself,

and is conceived through itself--that is, something of which the conception requires not the conception of anything else; 55 whereas modifications exist in something external to themselves, and a conception of them is formed by means of a conception of the things in which they exist. 56 Therefore, we may have true ideas of non-existent modifications; for, although they may have no actual existence apart from the conceiving intellect, yet their essence is so involved in something external to themselves that they may through it be conceived. 57 Whereas the only truth substances can have, external to the intellect, must consist in their existence, because they are conceived through themselves.

58 Therefore, for a person to say that one has a clear and distinct--that is, a true-- idea of a substance, but that one is not sure whether such substance exists, 59 would be the same as if you said that you had a true idea, but was not sure whether or no it was false (a little consideration will make this plain); 60 or if anyone affirmed that substance is created, it would be the same as saying that a false idea was true-- in short, the height of absurdity. 61 It must, then, necessarily be admitted that the existence of substance as its essence is an eternal truth. 62 And we can hence conclude by another process of reasoning-- that there is but one such substance. 63 I think that this may profitably be done at once; and, in order to proceed regularly with the demonstration, we must premise:--

64 (1.) The true definition of a thing neither involves nor expresses anything beyond the nature of the thing defined. 65 From this it follows that-- (2.) No definition implies or expresses a certain number of individuals, inasmuch as it expresses nothing beyond the nature of the thing defined. 66 For instance, the definition of a triangle expresses nothing beyond the actual nature of a triangle: it does not imply any fixed number of triangles.

67 (3.) There is necessarily for each individual existent thing a cause why it should exist.

68 (4.) This cause of existence must either be contained in the nature and definition of the thing defined,

or must be postulated apart from such definition.

69 It therefore follows that, if a given number of individual things exist in Nature, there must be some cause for the existence of exactly that number, neither more nor less. 70 For example, if twenty people exist in the universe-- for simplicity's sake, I will suppose them existing simultaneously, and to have had no predecessors--, 71 and we want to account for the existence of these twenty people, it will not be enough to show the cause of human existence in general; 72 we must also show why there are exactly twenty people, neither more nor less: for a cause must be assigned for the existence of each individual. 73 Now this cause cannot be contained in the actual nature of human, for the true definition of human does not involve any consideration of the number twenty.

74 Consequently, the cause for the existence of these twenty people, and, consequently, of each of them, must necessarily be sought externally to each individual. 75 Hence we may lay down the absolute rule, that everything which may consist of several individuals must have an external cause. 76 And, as it has been shown already that existence appertains to the nature of substance, existence must necessarily be included in its definition; and from its definition alone existence must be deducible. 77 But from its definition, we cannot infer the existence of several substances; therefore it follows that there is only one substance of the same nature.

78 (IX.) The more reality or being a thing has, the greater the number of its attributes.

79 (X.) Each particular attribute of the one substance must be conceived through itself.

80 An attribute is that which the intellect perceives of substance, as constituting its essence, and, therefore, must be conceived through itself.

81 It is thus evident that, though two attributes are, in fact, conceived as distinct-- that is, one without the help of the other-- yet we cannot, therefore, conclude that they constitute two entities, or two different substances. 82 For it

is the nature of substance that each of its attributes is conceived through itself, inasmuch as all the attributes it has have always existed simultaneously in it, 83 and none could be produced by any other; but each expresses the reality or being of substance. 84 It is, then, far from an absurdity to ascribe several attributes to one substance: for nothing in Nature is more clear than that each and every entity must be conceived under some attribute, 85 and that its reality or being is in proportion to the number of its attributes expressing necessity or eternity and infinity.

86 Consequently it is abundantly clear, that an absolutely infinite being must necessarily be defined as consisting in infinite attributes, each of which expresses a certain eternal and infinite essence.

87 If anyone now ask, by what sign shall you be able to distinguish different substances, let you read the following propositions, which show that there is but one substance in the universe, 88 and that it is absolutely infinite, wherefore such a sign would be sought in vain.

89 (XI.) God, or substance, consisting of infinite attributes, of which each expresses eternal and infinite essentiality, necessarily exists.

90 If this be denied, conceive, if possible, that God does not exist: then His essence does not involve existence. But this is absurd. Therefore God necessarily exists.

PROOF

91 Of everything whatsoever a cause or reason must be assigned, either for its existence, or for its non-existence-- e.g. 92 if a triangle exist, a reason or cause must be granted for its existence; if, on the contrary, it does not exist, a cause must also be granted, which prevents it from existing, or annuls its existence. 93 This reason or cause must either be contained in the nature of the thing in question, or be external to it. 94 For instance, the reason for the non-existence of a square circle is indicated in its nature, namely, because it would involve a contradiction. 95 On the other hand, the existence of substance follows also solely from its nature, inasmuch as its nature involves existence.

96 But the reason for the existence of a triangle or a circle does not follow from the nature of those figures, but from the order of universal nature in extension. 97 From the latter it must follow, either that a triangle necessarily exists, or that it is impossible that it should exist. 98 So much is self-evident. It follows therefrom that a thing necessarily exists, if no cause or reason be granted which prevents its existence.

99 If, then, no cause or reason can be given, which prevents the existence of God, or which destroys His existence, we must certainly conclude that He necessarily does exist. 100 If such a reason or cause should be given, it must either be drawn from the very nature of God, or be external to Him-- that is, drawn from another substance of another nature. 101 For if it were of the same nature, God, by that very fact, would be admitted to exist. 102 But substance of another nature could have nothing in common with God, and therefore would be unable either to cause or to destroy His existence.

103 As, then, a reason or cause which would annul the divine existence cannot be drawn from anything external to the divine Nature, 104 such cause must perforce, if God does not exist, be drawn from God's own nature, which would involve a contradiction. 105 To make such an affirmation about a being absolutely infinite and supremely perfect is absurd; therefore, neither in the nature of God, nor externally to His nature, can a cause or reason be assigned which would annul His existence. 106 Therefore, God necessarily exists.

PROOF

107 The potentiality of non-existence is a negation of power, and contrariwise the potentiality of existence is a power, as is obvious. 108 If, then, that which necessarily exists is nothing but finite beings, such finite beings are more powerful than a being absolutely infinite, which is obviously absurd; 109 therefore, either nothing exists, or else a being absolutely infinite necessarily exists also. 110 Now we exist either in ourselves, or in something else which necessarily

exists. Therefore a being absolutely infinite-- in other words, God – necessarily exists.

Note

111 In this last proof, I have purposely shown God's existence 'a-posteriori,' so that the proof might be more easily followed, not because, from the same premises, God's existence does not follow 'a priori.' 112 For, as the potentiality of existence is a power, it follows that, in proportion as reality increases in the nature of a thing, so also will it increase its strength for existence. 113 Therefore a being absolutely infinite, such as God, has from Himself an absolutely infinite power of existence, and hence He does absolutely exist. 114 Perhaps there will be many who will be unable to see the force of this proof, inasmuch as they are accustomed only to consider those things which flow from external causes. 115 Of such things, they see that those which quickly come to pass-- that is, quickly come into existence-- quickly also disappear; 116 whereas they regard as more difficult of accomplishment-- that is, not so easily brought into existence-- those things which they conceive as more complicated.

117 However, to do away with this misconception, I need not here show the measure of truth in the proverb, "What comes quickly, goes quickly," 118 nor discuss whether, from the point of view of universal Nature, all things are equally easy, or otherwise: 119 I need only remark that I am not here speaking of things, which come to pass through causes external to themselves, but only of substances which cannot be produced by any external cause. 120 Things which are produced by external causes, whether they consist of many parts or few, owe whatsoever perfection or reality they possess solely to the efficacy of their external cause; 121 wherefore the existence of substance must arise solely from its own nature, which is nothing else but its essence. 122 Thus, the perfection of a thing does not annul its existence, but, on the contrary, asserts it. 123 Imperfection, on the other hand, does annul it; therefore we cannot be more certain of the existence of

anything, than of the existence of a being absolutely infinite or perfect-- that is, of God. 124 For inasmuch as His essence excludes all imperfection, and involves absolute perfection, all cause for doubt concerning His existence is done away, and the utmost certainty on the question is given. 125 This, I think, will be evident to every moderately attentive reader.

126 (XII.) No attribute of substance can be conceived from which it would follow that substance can be divided.

PROOF

127 The parts into which substance as thus conceived would be divided either will retain the nature of substance, or they will not. 128 If the former, then each part will necessarily be infinite, and self-caused, and will perforce consist of a different attribute, so that, in that case, several substances could be formed out of one substance, which is absurd. 129 Moreover, the parts would have nothing in common with their whole, and the whole could both exist and be conceived without its parts, which everyone will admit to be absurd. 130 If we adopt the second alternative-- namely, that the parts will not retain the nature of substance-- then, if the whole substance were divided into equal parts, it would lose the nature of substance, and would cease to exist, which is absurd.

131 (XIII.) Substance absolutely infinite is indivisible.

PROOF

132 If it could be divided, the parts into which it was divided would either retain the nature of absolutely infinite substance, or they would not. 133 If the former, we should have several substances of the same nature, which is absurd. 134 If the latter, then substance absolutely infinite could cease to exist, which is also absurd.

COROLLARY

135 It follows that no substance, and consequently no extended substance, in so far as it is substance, is divisible.

Note

136 The indivisibility of substance may be more easily understood as follows. The nature of substance can only be conceived as infinite, and by a part of substance, nothing else can be understood than finite

substance, which involves a manifest contradiction.

137 (XIV.) Besides God no substance can be granted or conceived.

PROOF

138 As God is a being absolutely infinite, of whom no attribute that expresses the essence of substance can be denied, and He necessarily exists; 139 if any substance besides God were granted, it would have to be explained by some attribute of God, and thus two substances with the same attribute would exist, which is absurd; 140 therefore, besides God no substance can be granted, or consequently be conceived. If it could be conceived, it would necessarily have to be conceived as existent; but this is absurd. 141 Therefore, besides God no substance can be granted or conceived.

COROLLARY-I

142 Clearly, therefore: 1. God is one, that is only one substance can be granted in the universe, and that substance is absolutely infinite, as we have already indicated.

COROLLARY II

143 It follows: 2. That extension and thought are either attributes of God or accidents ("*affectiones*") of the attributes of God.

144 (XV.) Whatsoever is, is in God, and without God nothing can be, or be conceived.

PROOF

145 Besides God, no substance is granted or can be conceived, that is, nothing which is in itself and is conceived through itself. 146 But modes can neither be, nor be conceived without substance; wherefore they can only be in the divine Nature, and can only through it be conceived. 147 But substances and modes form the sum total of existence, therefore, without God nothing can be, or be conceived.

Note

148 Some assert that God, like a human, consists of body and mind, and is susceptible of passions. 149 How far such persons have strayed from the truth is sufficiently evident from what has been said. But these I pass over. 150 For all who have in anywise reflected on the divine Nature deny that God has a body. 151 Of this they find excellent proof in the fact that we understand by body a definite quantity, so long, so broad, so deep, bounded by a certain shape,

and it is the height of absurdity to predicate such a thing of God, a being absolutely infinite. 152 But meanwhile by other reasons with which they try to prove their point, they show that they think corporeal or extended substance wholly apart from the divine Nature, and say it was created by God. 153 Where from the divine Nature can have been created, they are wholly ignorant; thus they clearly show that they do not know the meaning of their own words. 154 I myself have proved sufficiently clearly, at any rate in my own judgment, that no substance can be produced or created by anything other than itself. 155 Further, I showed that besides God no substance can be granted or conceived. Hence we drew the conclusion that extended substance is one of the infinite attributes of God. 156 However, in order to explain more fully, I will refute the arguments of my adversaries, which all start from the following points:--

157 Extended substance, in so far as it is substance, consists, as they think, in parts, wherefore they deny that it can be infinite, or consequently, that it can appertain to God. 158 This they illustrate with many examples, of which I will take one or two. If extended substance, they say, is infinite, let it be conceived to be divided into two parts; each part will then be either finite or infinite. 159 If the former, then infinite substance is composed of two finite parts, which is absurd. If the latter, then one infinite will be twice as large as another infinite, which is also absurd.

160 Further, if an infinite line be measured out in foot lengths, it will consist of an infinite number of such parts; 161 it would equally consist of an infinite number of parts, if each part measured only an inch: therefore, one infinity would be twelve times as great as the other.

162 Lastly, if from a single point there be conceived to be drawn two diverging lines which at first are at a definite distance apart, but are produced to infinity, 163 it is certain that the distance between the two lines will be continually increased, until at length it changes from definite to indefinable. 164 As these

absurdities follow, it is said, from considering quantity as infinite, the conclusion is drawn that extended substance must necessarily be finite, and, consequently, cannot appertain to the nature of God.

165 The second argument is also drawn from God's supreme perfection. God, it is said, inasmuch as He is a supremely perfect being, cannot be passive; but extended substance, insofar as it is divisible, is passive. 166 It follows, therefore, that extended substance does not appertain to the essence of God.

167 Such are the arguments I find on the subject in writers, who by them try to prove that extended substance is unworthy of the divine Nature, and cannot possibly appertain thereto. 168 However, I think an attentive reader will see that I have already answered their propositions; for all their arguments are founded on the hypothesis that extended substance is composed of parts, and such a hypothesis I have shown to be absurd. 169 Moreover, anyone who reflects will see that all these absurdities (if absurdities they be, which I am not now discussing), from which it is sought to extract the conclusion that extended substance is finite, 170 do not at all follow from the notion of an infinite quantity, but merely from the notion that an infinite quantity is measurable, and composed of finite parts: 171 therefore, the only fair conclusion to be drawn is that infinite quantity is not measurable, and cannot be composed of finite parts. 172 This is exactly what we have already proved. Wherefore the weapon which they aimed at us has in reality recoiled upon themselves. 173 If, from this absurdity of theirs, they persist in drawing the conclusion that extended substance must be finite, they will in good sooth be acting like a person who asserts that circles have the properties of squares, 174 and, finding oneself thereby landed in absurdities, proceeds to deny that circles have any center, from which all lines drawn to the circumference are equal. 175 For, taking extended substance, which can only be conceived as infinite, one, and indivisible they assert, in order to prove that it is finite, that it is

composed of finite parts, and that it can be multiplied and divided.

176 So, also, others, after asserting that a line is composed of points, can produce many arguments to prove that a line cannot be infinitely divided. 177 Assuredly it is not less absurd to assert that extended substance is made up of bodies or parts, than it would be to assert that a solid is made up of surfaces, a surface of lines, and a line of points. 178 This must be admitted by all who know clear reason to be infallible, and most of all by those who deny the possibility of a vacuum. 179 For if extended substance could be so divided that its parts were really separate, why should not one part admit of being destroyed, the others remaining joined together as before? 180 And why should all be so fitted into one another as to leave no vacuum? 181 Surely in the case of things, which are really distinct one from the other, one can exist without the other, and can remain in its original condition. 182 As, then, there does not exist a vacuum in Nature (of which anon), but all parts are bound to come together to prevent it, 183 it follows from this that the parts cannot really be distinguished, and that extended substance in so far as it is substance cannot be divided.

184 If anyone asks me the further question, Why are we naturally so prone to divide quantity? I answer, that quantity is conceived by us in two ways; in the abstract and superficially, as we imagine it; or as substance, as we conceive it solely by the intellect.

185 If, then, we regard quantity as it is represented in our imagination, which we often and more easily do, we shall find that it is finite, divisible, and compounded of parts; 186 but if we regard it as it is represented in our intellect, and conceive it as substance, which it is very difficult to do, we shall then, as I have sufficiently proved, find that it is infinite, one, and indivisible. 187 This will be plain enough to all who make a distinction between the intellect and the imagination, especially if it be remembered that matter is everywhere the same, 188 that its parts are not distinguishable, except in so far as we conceive matter as diversely

modified, whence its parts are distinguished, not really, but modally. 189 For instance, water, in so far as it is water, we conceive to be divided, and its parts to be separated one from the other; 190 but not in so far as it is extended substance; from this point of view it is neither separated nor divisible. 191 Further, water, in so far as it is water, is produced and corrupted; but, in so far as it is substance, it is neither produced nor corrupted.

192 I think I have now answered the second argument; it is, in fact, founded on the same assumption as the first-- namely, that matter, in so far as it is substance, is divisible, and composed of parts. 193 Even if it were so, I do not know why it should be considered unworthy of the divine Nature, inasmuch as besides God no substance can be granted, wherefrom it could receive its modifications. 194 All things, I repeat, are in God, and all things which come to pass, come to pass solely through the laws of the infinite nature of God, and follow (as I will shortly show) from the necessity of His essence. 195 Wherefore it can in nowise be said that God is passive in respect to anything other than Himself, 196 or that extended substance is unworthy of the divine Nature, even if it be supposed divisible, so long as it is granted to be infinite and eternal. But enough of this for the present.

197 (XVI.) From the necessity of the divine Nature must follow an infinite number of things in infinite ways-- that is, all things which can fall within the sphere of infinite intellect.

PROOF

198 This proposition will be clear to everyone, who remembers that from the given definition of any thing the intellect infers several properties, which really necessarily follow therefrom (that is, from the actual essence of the thing defined); 199 and it infers more properties in proportion as the definition of the thing expresses more reality, that is, in proportion as the essence of the thing defined involves more reality. 200 Now, as the divine Nature has absolutely infinite attributes, of which each expresses infinite essence after its kind, 201 it

follows that from the necessity of its Nature an infinite number of things (that is, everything which can fall within the sphere of an infinite intellect) must necessarily follow.

COROLLARY-I

202 Hence it follows, that God is the efficient cause of all that can fall within the sphere of an infinite intellect.

COROLLARY-II

203 It also follows that God is a cause in Himself, and not through an accident of His nature.

COROLLARY-III

204 It follows, thirdly, that God is the absolutely first-cause.

205 (XVII.) God acts solely by the laws of His own nature, and is not constrained by anyone.

PROOF

206 We have just shown, that solely from the necessity of the divine Nature, or, what is the same thing, solely from the laws of His nature, an infinite number of things absolutely follow in an infinite number of ways; 207 and we proved, that without God nothing can be nor be conceived; but that all things are in God. 208 Wherefore nothing can exist outside Himself, whereby He can be conditioned or constrained to act. 209 Wherefore God acts solely by the laws of His own nature, and is not constrained by anyone.

COROLLARY-I

210 It follows: 1. That there can be no cause which, either extrinsically or intrinsically, besides the perfection of His own nature, moves God to act.

COROLLARY-II

211 It follows: 2. That God is the sole free cause. For God alone exists by the sole necessity of His nature, and acts by the sole necessity of His own nature, wherefore God is the sole free cause.

Note

212 Others think that God is a free cause, because He can, as they think, bring it about, that those things which we have said follow from His nature-- that is, which are in His power, should not come to pass, or should not be produced by Him. 213 But this is the same as if they said, that God could bring it about, that it should follow from the nature of a triangle that its three interior angles should not be equal to two right angles; or that from a given cause no effect should follow, which is absurd.

214 Moreover, I will show below, without the aid of this proposition, that neither intellect nor will appertain to God's nature. 215 I know that there are many who think that they can show, that supreme intellect and free-will do appertain to God's nature; 216 for they say they know of nothing more perfect, which they can attribute to God, than that which is the highest perfection in ourselves. 217 Further, although they conceive God as actually supremely intelligent, they yet do not believe that He can bring into existence everything which He actually understands, for they think that they would thus destroy God's power. 218 If, they contend, God had created everything which is in His intellect, He would not be able to create anything more, and this, they think, would clash with God's omnipotence; 219 therefore, they prefer to asset that God is indifferent to all things, and that He creates nothing except that which He has decided, by some absolute exercise of will, to create. 220 However, I think I have shown sufficiently clearly that from God's supreme power, or infinite nature, an infinite number of things-- 221 that is, all things have necessarily flowed forth in an infinite number of ways, or always flow from the same necessity; 222 in the same way as from the nature of a triangle it follows from eternity and for eternity, that its three interior angles are equal to two right angles. 223 Wherefore the omnipotence of God has been displayed from all eternity, and will for all eternity remain in the same state of activity. 224 This manner of treating the question attributes to God an omnipotence, in my opinion, far more perfect. 225 For, otherwise, we are compelled to confess that God understands an infinite number of creatable things, which He will never be able to create, 226 for, if He created all that He understands, He would, according to this showing, exhaust His omnipotence, and render Himself imperfect. 227 Wherefore, in order to establish that God is perfect, we should be reduced to establishing at the same time, that He cannot bring to pass everything over which His power extends; 228 this seems to be a hypothesis most

absurd, and most repugnant to God's omnipotence.

229 Further-- to say a word concerning the intellect and the will which we attribute to God--, if intellect and will appertain to the eternal essence of God, we must take these words in some significance quite different from those they usually bear. 230 For intellect and will, which should constitute the essence of God, would perforce be as far apart as the poles from the human intellect and will, in fact, would have nothing in common with them but the name; 231 there would be about as much correspondence between the two as there is between the Dog, the heavenly constellation, and a dog, an animal that barks. 232 This I will prove as follows. If intellect belongs to the divine Nature, it cannot be in Nature, as ours is generally thought to be, posterior to, or simultaneous with the things understood, inasmuch as God is prior to all things by reason of His causality. 233 On the contrary, the truth and formal essence of things is as it is, because it exists by representation as such in the intellect of God. 234 Wherefore the intellect of God, in so far as it is conceived to constitute God's essence, is, in reality, the cause of things, both of their essence and of their existence. 235 This seems to have been recognised by those who have asserted, that God's intellect, God's will, and God's power, are one and the same. 236 As, therefore, God's intellect is the sole cause of things, namely, both of their essence and existence, it must necessarily differ from them in respect to its essence, and in respect to its existence. 237 For a cause differs from a thing it causes, precisely in the quality which the latter gains from the former.

238 For example, a human is the cause of another human's existence, but not of your essence (for the latter is an eternal truth), and, therefore, the two people may be entirely similar in essence, but must be different in existence; 239 and hence if the existence of one of them cease, the existence of the other will not necessarily cease also; 240 but if the essence of one could be destroyed, and be made false, the essence of the other

would be destroyed also. 241 Wherefore, a thing which is the cause both of the essence and of the existence of a given effect, must differ from such effect both in respect to its essence, and also in respect to its existence. 242 Now the intellect of God is the cause both of the essence and the existence of our intellect; 243 therefore, the intellect of God in so far as it is conceived to constitute the divine essence, differs from our intellect both in respect to essence and in respect to existence, nor can it in anywise agree therewith save in name, as we said before. 244 The reasoning would be identical in the case of the will, as anyone can easily see.

245 (XVIII.) God is the indwelling and not the transient cause of all things.

PROOF

246 All things which are, are in God, and must be conceived through God, therefore God is the cause of those things which are in Him.

247 This is our first point. Further, besides God there can be no substance, that is nothing in itself external to God. 248 This is our second point. God, therefore, is the indwelling and not the transient cause of all things.

249 (XIX.) God, and all the attributes of God, are eternal.

PROOF

250 God is substance, which necessarily exists, that is existence appertains to its nature, or (what is the same thing) follows from its definition; therefore, God is eternal. 251 Further, by the attributes of God we must understand that which expresses the essence of the divine substance-- 252 in other words, that which appertains to substance: that, I say, should be involved in the attributes of substance. 253 Now eternity appertains to the nature of substance; therefore, eternity must appertain to each of the attributes, and thus all are eternal.

Note

254 This proposition is also evident from the manner in which I demonstrated the existence of God; it is evident, I repeat, from that proof, that the existence of God, like His essence, is an eternal truth. 255 Further, I have proved the eternity of God, in another

manner, which I need not here repeat.

256 (XX.) The existence of God and His essence are one and the same.

PROOF

257 God and all His attributes are eternal, that is each of His attributes expresses existence. 258 Therefore the same attributes of God which explain His eternal essence, explain at the same time His eternal existence-- in other words, that which constitutes God's essence constitutes at the same time His existence. 259 Wherefore God's existence and God's essence are one and the same.

COROLLARY-I

260 Hence it follows that God's existence, like His essence, is an eternal truth.

COROLLARY-II

261 Secondly, it follows that God, and all the attributes of God, are unchangeable. 262 For if they could be changed in respect to existence, they must also be able to be changed in respect to essence-- that is, obviously, be changed from true to false, which is absurd.

263 (XXI.) All things which follow from the absolute nature of any attribute of God must always exist and be infinite, or, in other words, are eternal and infinite through the said attribute.

PROOF

264 Conceive, if it be possible (supposing the proposition to be denied), that something in some attribute of God can follow from the absolute nature of the said attribute, 265 and that at the same time it is finite, and has a conditioned existence or duration; for instance, the idea of God expressed in the attribute thought. 266 Now thought, in so far as it is supposed to be an attribute of God, is necessarily in its nature infinite. 267 But, in so far as it possesses the idea of God, it is supposed finite. It cannot, however, be conceived as finite, unless it be limited by thought; 268 but it is not limited by thought itself, in so far as it has constituted the idea of God (for so far it is supposed to be finite); 269 therefore, it is limited by thought, in so far as it has not constituted the idea of God, which nevertheless must necessarily exist.

270 We have now granted, therefore, thought not constituting the idea of God, and, accordingly, the idea of God does not naturally follow from its nature in so far as it is absolute thought-- 271 for it is conceived as constituting, and also as not constituting, the idea of God--, which is against our hypothesis. 272 Wherefore, if the idea of God expressed in the attribute thought, or, indeed, anything else in any attribute of God-- for we may take any example, as the proof is of universal application-- 273 follows from the necessity of the absolute nature of the said attribute, the said thing must necessarily be infinite, which was our first point.

274 Furthermore, a thing which thus follows from the necessity of the nature of any attribute cannot have a limited duration. 275 For if it can, suppose a thing, which follows from the necessity of the nature of some attribute, to exist in some attribute of God, 276 for instance, the idea of God expressed in the attribute thought, and let it be supposed at some time not to have existed, or to be about not to exist.

277 Now thought being an attribute of God must necessarily exist unchanged; and beyond the limits of the duration of the idea of God-- 278 supposing the latter at some time not to have existed, or not to be going to exist-- thought would perforce have existed without the idea of God, 279 which is contrary to our hypothesis, for we supposed that, thought being given, the idea of God necessarily flowed therefrom. 280 Therefore the idea of God expressed in thought, or anything which necessarily follows from the absolute nature of some attribute of God, cannot have a limited duration, but through the said attribute is eternal, which is our second point.

281 Bear in mind that the same proposition may be affirmed of anything, which in any attribute necessarily follows from God's absolute nature.

282 (XXII.) Whatsoever follows from any attribute of God, in so far as it is modified by a modification, which exists necessarily and as infinite, through the said attribute, must also exist necessarily and as infinite.

PROOF

283 The proof of this proposition is similar to that of the preceding one.

284 (XXIII.) Every mode, which exists both necessarily and as infinite, must necessarily follow either from the absolute nature of some attribute of God, 285 or from an attribute modified by a modification which exists necessarily, and as infinite.

PROOF

286 A mode exists in something else, through which it must be conceived, that is, it exists solely in God, and solely through God can be conceived. 287 If therefore a mode is conceived as necessarily existing and infinite, it must necessarily be inferred or perceived through some attribute of God, 288 in so far as such attribute is conceived as expressing the infinity and necessity of existence, in other words eternity; that is, in so far as it is considered absolutely. 289 A mode, therefore, which necessarily exists as infinite, must follow from the absolute nature of some attribute of God, 290 either immediately or through the means of some modification, which follows from the absolute nature of the said attribute; that is, which exists necessarily and as infinite.

291 (XXIV.) The essence of things produced by God does not involve existence.

PROOF

292 This proposition is evident. For that of which the nature (considered in itself) involves existence is self-caused, and exists by the sole necessity of its own nature.

COROLLARY

293 Hence it follows that God is not only the cause of things coming into existence, but also of their continuing in existence, that is, in scholastic phraseology, God is cause of the being of things (essendi rerum). 294 For whether things exist, or do not exist, whenever we contemplate their essence, we see that it involves neither existence nor duration; 295 consequently, it cannot be the cause of either the one or the other. God must be the sole cause, inasmuch as to Him alone does existence appertain.

296 (XXV.) God is the efficient cause not only of the existence of things, but also of their essence.

PROOF

297 If this be denied, then God is not the cause of the essence of things; and therefore the essence of things can be conceived without God. This is absurd. Therefore, God is the cause of the essence of things.

Note

298 This proposition follows more clearly. For it is evident thereby that, given the divine Nature, the essence of things must be inferred from it, no less than their existence-- 299 in a word, God must be called the cause of all things, in the same sense as He is called the cause of Himself. This will be made still clearer by the following corollary.

COROLLARY

300 Individual things are nothing but modifications of the attributes of God, or modes by which the attributes of God are expressed in a fixed and definite manner.

301 (XXVI.) A thing which is conditioned to act in a particular manner, has necessarily been thus conditioned by God; and that which has not been conditioned by God cannot condition itself to act.

PROOF

302 That by which things are said to be conditioned to act in a particular manner is necessarily something positive-- this is obvious--; 303 therefore both of its essence and of its existence God by the necessity of His nature is the efficient cause; this is our first point. 304 Our second point is plainly to be inferred therefrom. For if a thing, which has not been conditioned by God, could condition itself, the first part of our proof would be false, and this, as we have shown is absurd.

305 (XXVII.) A thing, which has been conditioned by God to act in a particular way, cannot render itself unconditioned.

306 (XXVIII.) Every individual thing, or everything which is finite and has a conditioned existence, cannot exist or be conditioned to act, unless it be conditioned for existence and action by a cause other than itself, 307 which also is finite, and has a conditioned existence; and likewise this cause cannot in its turn exist, or be conditioned to act, unless it be conditioned for existence and action by another cause, 308 which

also is finite, and has a conditioned existence, and so on to infinity.

PROOF

309 Whatsoever is conditioned to exist and act, has been thus conditioned by God.

310 But that which is finite, and has a conditioned existence, cannot be produced by the absolute nature of any attribute of God; for whatsoever follows from the absolute nature of any attribute of God is infinite and eternal. 311 It must, therefore, follow from some attribute of God, in so far as the said attribute is considered as in some way modified; 312 for substance and modes make up the sum total of existence, while modes are merely modifications of the attributes of God. 313 But from God, or from any of His attributes, in so far as the latter is modified by a modification infinite and eternal, a conditioned thing cannot follow. 314 Wherefore it must follow from, or be conditioned for, existence and action by God or one of His attributes, in so far as the latter are modified by some modification which is finite, and has a conditioned existence. This is our first point. 315 Again, this cause or this modification (for the reason by which we established the first part of this proof) must in its turn be conditioned by another cause, which also is finite, and has a conditioned existence, 316 and, again, this last by another (for the same reason); and so on (for the same reason) to infinity.

Note

317 As certain things must be produced immediately by God, namely those things which necessarily follow from His absolute nature, 318 through the means of these primary attributes, which, nevertheless, can neither exist nor be conceived without God, it follows: (1.) That God is absolutely the proximate cause of those things immediately produced by him. 319 I say absolutely, not after His kind, as is usually stated. For the effects of God cannot either exist or be conceived without a cause. 320 (2.) That God cannot properly be styled the remote cause of individual things, except for the sake of distinguishing these from what He immediately produces, or rather from what follows from His absolute nature. 321 For, by a

remote cause, we understand a cause which is in no way conjoined to the effect. 322 But all things which are, are in God, and so depend on God, that without Him they can neither be nor be conceived.

323 (XXIX.) Nothing in the universe is contingent, but all things are conditioned to exist and operate in a particular manner by the necessity of the divine Nature.

PROOF

324 Whatsoever is, is in God. But God cannot be called a thing contingent. For He exists necessarily, and not contingently. 325 Further, the modes of the divine Nature follow therefrom necessarily, and not contingently; and they thus follow, whether we consider the divine Nature absolutely, or whether we consider it as in any way conditioned to act. 326 Further, God is not only the cause of these modes, in so far as they simply exist, but also in so far as they are considered as conditioned for operating in a particular manner.

327 If they be not conditioned by God, it is impossible, and not contingent, that they should condition themselves; 328 contrariwise, if they be conditioned by God, it is impossible, and not contingent, that they should render themselves unconditioned. 329 Wherefore all things are conditioned by the necessity of the divine Nature, not only to exist, but also to exist and operate in a particular manner, and there is nothing that is contingent.

Note

330 Before going any further, I wish here to explain, what we should understand by Nature viewed as active (Natura naturans), and Nature viewed as passive (Natura naturata). 331 I say to explain, or rather call attention to it, for I think that, from what has been said, it is sufficiently clear, that by Nature viewed as active we should understand that which is in itself, and is conceived through itself, 332 or those attributes of substance, which express eternal and infinite essence, in other words God, in so far as He is considered as a free cause.

333 By Nature viewed as passive I understand all that which follows from the necessity of the nature of

God, or of any of the attributes of God, 334 that is, all the modes of the attributes of God, in so far as they are considered as things which are in God, and which without God cannot exist or be conceived.

335 (XXX.) Intellect, in function (actu) finite, or in function infinite, must comprehend the attributes of God and the modifications of God, and nothing else.

PROOF

336 A true idea must agree with its object; in other words (obviously) that which is contained in the intellect in representation must necessarily be granted in Nature. 337 But in Nature there is no substance save God, nor any modifications save those which are in God, and cannot without God either be or be conceived. 338 Therefore the intellect, in function finite, or in function infinite, must comprehend the attributes of God and the modifications of God, and nothing else.

339 (XXXI.) The intellect in function, whether finite or infinite, as will, desire, love, should be referred to passive Nature and not to active Nature.

PROOF

340 By the intellect we do not (obviously) mean absolute thought, but only a certain mode of thinking, differing from other modes, such as love, desire, and therefore requiring to be conceived through absolute thought. 341 It must, through some attribute of God which expresses the eternal and infinite essence of thought, be so conceived, that without such attribute it could neither be nor be conceived. 342 It must therefore be referred to Nature passive rather than to Nature active, as must also the other modes of thinking.

Note

343 I do not here, by speaking of intellect in function, admit that there is such a thing as intellect in potentiality: 344 but, wishing to avoid all confusion, I desire to speak only of what is most clearly perceived by us, namely, of the very act of understanding, than which nothing is more clearly perceived. 345 For we cannot perceive anything without adding to our knowledge of the act of understanding.

346 (XXXII.) will cannot be called a free cause, but only a necessary cause.

PROOF

347 will is only a particular mode of thinking, like intellect; therefore no volition can exist, nor be conditioned to act, unless it be conditioned by some cause other than itself, which cause is conditioned by a third cause, and so on to infinity. 348 But if will be supposed infinite, it must also be conditioned to exist and act by God, 349 not by virtue of His being substance absolutely infinite, but by virtue of His possessing an attribute which expresses the infinite and eternal essence of thought. 350 Thus, however it be conceived, whether as finite or infinite, it requires a cause by which it should be conditioned to exist and act. 351 Thus it cannot be called a free cause, but only a necessary or constrained cause.

COROLLARY-I

352 Hence it follows, first, that God does not act according to freedom of the will.

COROLLARY-II

353 It follows, secondly, that will and intellect stand in the same relation to the nature of God as do motion, and rest, and absolutely all natural phenomena, which must be conditioned by God to exist and act in a particular manner. 354 For will, like the rest, stands in need of a cause, by which it is conditioned to exist and act in a particular manner.

355 And although, when will or intellect be granted, an infinite number of results may follow, yet God cannot on that account be said to act from freedom of the will, 356 any more than the infinite number of results from motion and rest would justify us in saying that motion and rest act by free-will. 357 Wherefore will no more appertains to God than does anything else in Nature, but stands in the same relation to Him as motion, rest, and the like, 358 which we have shown to follow from the necessity of the divine Nature, and to be conditioned by it to exist and act in a particular manner.

359 (XXXIII.) Things could not have been brought into being by God in any manner or in any order different from that which has in fact obtained.

PROOF

360 All things necessarily follow from the nature of God, and by the nature of God are conditioned to

exist and act in a particular way. 361 If things, therefore, could have been of a different nature, or have been conditioned to act in a different way, so that the order of Nature would have been different, God's nature would also have been able to be different from what it now is; 362 and therefore that different nature also would have perforce existed, and consequently there would have been able to be two or more Gods. This is absurd. 363 Therefore, things could not have been brought into being by God in any other manner.

Note-I

364 As I have thus shown, more clearly than the sun at noonday, that there is nothing to justify us in calling things contingent, 365 I wish to explain briefly what meaning we shall attach to the word contingent; but I will first explain the words necessary and impossible.

366 A thing is called necessary either in respect to its essence or in respect to its cause; for the existence of a thing necessarily follows, either from its essence and definition, or from a given efficient cause. 367 For similar reasons a thing is said to be impossible; namely, inasmuch as its essence or definition involves a contradiction, or because no external cause is granted, which is conditioned to produce such an effect; 368 but a thing can in no respect be called contingent, save in relation to the imperfection of our knowledge.

369 A thing of which we do not know whether the essence does or does not involve a contradiction, or of which, knowing that it does not involve a contradiction, we are still in doubt concerning the existence, because the order of causes escapes us,-- 370 such a thing, I say, cannot appear to us either necessary or impossible. Wherefore we call it contingent or possible.

Note-II

371 It clearly follows from what we have said, that things have been brought into being by God in the highest perfection, inasmuch as they have necessarily followed from a most perfect nature. 372 Nor does this prove any imperfection in God, for it has compelled us to affirm His

perfection. 373 From its contrary proposition, we should clearly gather-- as I have just shown--, that God is not supremely perfect, 374 for if things had been brought into being in any other way, we should have to assign to God a nature different from that, which we are bound to attribute to Him from the consideration of an absolutely perfect being.

375 I do not doubt, that many will scout this idea as absurd, and will refuse to give their minds up to contemplating it, 376 simply because they are accustomed to assign to God a freedom very different from that which we have deduced. They assign to Him, in short, absolute free-will. 377 However, I am also convinced that if such persons reflect on the matter, and duly weigh in their minds our series of propositions, they will reject such freedom as they now attribute to God, 378 not only as nugatory, but also as a great impediment to organised knowledge. 379 There is no need for me to repeat what I have said. But, for the sake of my opponents, I will show further, that although it be granted that will pertains to the essence of God, 380 it nevertheless follows from His perfection, that things could not have been by Him created other than they are, or in a different order; 381 this is easily proved, if we reflect on what our opponents themselves concede, namely, that it depends solely on the decree and will of God, that each thing is what it is. If it were otherwise, God would not be the cause of all things.

382 Further, that all the decrees of God have been ratified from all eternity by God Himself. If it were otherwise, God would be convicted of imperfection or change. 383 But in eternity there is no such thing as when, before, or after; hence it follows solely from the perfection of God, that God never can decree, or never would have decreed anything but what is; 384 that God did not exist before His decrees, and would not exist without them. 385 But, it is said, supposing that God had made a different universe, or had ordained other decrees from all eternity concerning Nature and Her order, we could not therefore conclude any imperfection in God. 386 But persons who say this must admit

that God can change His decrees. For if God had ordained any decrees concerning Nature and Her order, different from those which He has ordained-- 387 in other words, if He had willed and conceived something different concerning Nature-- He would perforce have had a different intellect from that which He has, and also a different will. 388 But if it were allowable to assign to God a different intellect and a different will, without any change in His essence or His perfection, 389 what would there be to prevent Him changing the decrees which He has made concerning created things, and nevertheless remaining perfect? 390 For His intellect and will concerning things created and their order are the same, in respect to His essence and perfection, however they be conceived.

391 Further, all the philosophers whom I have read admit that God's intellect is entirely actual, and not at all potential; as they also admit that God's intellect, and God's will, and God's essence are identical, 392 it follows that, if God had had a different actual intellect and a different will, his essence would also have been different; 393 and thus, as I concluded at first, if things had been brought into being by God in a different way from that which has obtained, God's intellect and will, that is (as is admitted) His essence would perforce have been different, which is absurd.

394 As these things could not have been brought into being by God in any but the actual way and order which has obtained; and as the truth of this proposition follows from the supreme perfection of God; 395 we can have no sound reason for persuading ourselves to believe that God did not wish to create all the things which were in His intellect, and to create them in the same perfection as He had understood them.

396 But, it will be said, there is in things no perfection nor imperfection; that which is in them, and which causes them to be called perfect or imperfect, good or bad, depends solely on the will of God. 397 If God had so willed, he might have brought it about that what is now perfection should be extreme imperfection, and vice versa. 398 What is such an

assertion, but an open declaration that God, who necessarily understands that which He wishes, might bring it about by His will, that He should understand things differently from the way in which He does understand them? 399 This-- as we have just shown-- is the height of absurdity. Wherefore, I may turn the argument against its employers, as follows:-- All things depend on the power of God.

400 In order that things should be different from what they are, God's will would necessarily have to be different. 401 But God's will cannot be different-- as we have just most clearly demonstrated-- from God's perfection. Therefore neither can things be different. 402 I confess, that the theory which subjects all things to the will of an indifferent deity, and asserts that they are all dependent on His fiat, is less far from the truth than the theory of those, who maintain that God acts in all things with a view of promoting what is good. 403 For these latter persons seem to set up something beyond God, which does not depend on God, but which God in acting looks to as an exemplar, or which He aims at as a definite goal. 404 This is only another name for subjecting God to the dominion of destiny, an utter absurdity in respect to God, whom we have shown to be the first and only free cause of the essence of all things and also of their existence. 405 I need, therefore, spend no time in refuting such wild theories.

406 (XXXIV.) God's power is identical with His essence.

PROOF

407 From the sole necessity of the essence of God it follows that God is the cause of Himself and of all things. 408 Wherefore the power of God, by which He and all things are and act, is identical with His essence.

408 (XXXV.) Whatsoever we conceive to be in the power of God, necessarily exists.

PROOF

409 Whatsoever is in God's power, must be comprehended in His essence in such a manner, that it necessarily follows therefrom, and therefore necessarily exists.

410 (XXXVI.) There is no cause from whose nature some effect does not follow.

PROOF

411 Whatsoever exists expresses God's nature or essence in a given conditioned manner; 412 that is, whatsoever exists, expresses in a given conditioned manner God's power, which is the cause of all things, therefore an effect must necessarily follow.

IN CONCLUSION

413 In the foregoing I have explained the nature and properties of God. I have shown that He necessarily exists, that He is one: 414 that He is, and acts solely by the necessity of His own nature; that He is the free cause of all things, and how He is so; that all things are in God, and so depend on Him, that without Him they could neither exist nor be conceived; 415 lastly, that all things are predetermined by God, not through His free-will or absolute fiat, but from the very nature of God or infinite power. 416 I have further, where occasion afforded, taken care to remove the prejudices, which might impede the comprehension of my demonstrations. 417 Yet there still remain misconceptions not a few, which might and may prove very grave hindrances to the understanding of the concatenation of things, as I have explained it above. 418 I have therefore thought it worthwhile to bring these misconceptions before the bar of reason.

419 All such opinions spring from the notion commonly entertained, that all things in nature act as humans themselves act, namely, with an end in view. 420 It is accepted as certain, that God Himself directs all things to a definite goal-- for it is said that God made all things for human, and human that you might worship Him. 421 I will, therefore, consider this opinion, asking first, why it obtains general credence, and why all humans are naturally so prone to adopt it?; 422 secondly, I will point out its falsity; and, lastly, I will show how it has given rise to prejudices about good and bad, right and wrong, praise and blame, order and confusion, beauty and ugliness, and the like. 423 However, this is not the place to deduce these misconceptions from the nature of the human mind: it will be sufficient here, if I assume as a starting point, what ought to be universally admitted, 424

namely, that all humans are born ignorant of the causes of things, that all have the desire to seek for what is useful to them, and that they are conscious of such desire. 425 Herefrom it follows, first, that humans think themselves free inasmuch as they are conscious of their volitions and desires, and never even dream, in their ignorance, of the causes which have disposed them so to wish and desire. 426 Secondly, that humans do all things for an end, namely, for that which is useful to them, and which they seek. 427 Thus it comes to pass that they only look for a knowledge of the final causes of events, and when these are learned, they are content, as having no cause for further doubt. 428 If they cannot learn such causes from external sources, they are compelled to turn to considering themselves, 429 and reflecting what end would have induced them personally to bring about the given event, and thus they necessarily judge other natures by their own. 430 Further, as they find in themselves and outside themselves many means which assist them not a little in the search for what is useful, 431 for instance, eyes for seeing, teeth for chewing, herbs and animals for yielding food, the sun for giving light, the sea for breeding fish, etc, they come to look on the whole of Nature as a means for obtaining such conveniences. 432 Now as they are aware, that they found these conveniences and did not make them, they think they have cause for believing, that some other being has made them for their use. 433 As they look upon things as means, they cannot believe them to be self-created; 434 but, judging from the means which they are accustomed to prepare for themselves, they are bound to believe in some ruler or rulers of the universe endowed with human freedom, who have arranged and adapted everything for human use. 435 They are bound to estimate the nature of such rulers-- having no information on the subject-- in accordance with their own nature, 436 and therefore they assert that the gods ordained everything for the use of human, in order to bind human to themselves and obtain from Him the highest honour.

437 Hence also it follows, that everyone thought out for the self, according to own abilities, a different way of worshipping God, 438 so that God might love you more than your fellows, and direct the whole course of Nature for the satisfaction of your blind cupidity and insatiable avarice. 439 Thus the prejudice developed into superstition, and took deep root in the human mind; and for this reason everyone strove most zealously to understand and explain the final causes of things; 440 but in their endeavour to show that Nature does nothing in vain, i.e. nothing which is useless to human, they only seem to have demonstrated that Nature, the gods, and humans are all mad together. 441 Consider, I pray you, the result: among the many helps of Nature they were bound to find some hindrances, such as storms, earthquakes, diseases, etc: 442 so they declared that such things happen, because the gods are angry at some wrong done to them by humans, or at some fault committed in their worship. 443 Experience day by day protested and showed by infinite examples, that good and evil fortunes fall to the lot of pious and impious alike; 444 still they would not abandon their inveterate prejudice, for it was more easy for them to class such contradictions among other unknown things of whose use they were ignorant, 445 and thus to retain their actual and innate condition of ignorance, than to destroy the whole fabric of their reasoning and start afresh. 446 They therefore laid down as an axiom, that God's judgments far transcend human understanding. 447 Such a doctrine might well have sufficed to conceal the truth from the human race for all eternity, if mathematics had not furnished another standard of verity in considering solely the essence and properties of figures without regard to their final causes. 448 There are other reasons-- which I need not mention here-- besides mathematics, which might have caused humans' minds to be directed to these general prejudices, and have led them to the knowledge of the truth.

449 I have now sufficiently explained my first point. There is

no need to show at length, that Nature has no particular goal in view, and that final causes are mere human figments. 450 This, I think, is already evident enough, both from the causes and foundations on which I have shown such prejudice to be based, 451 and, in fact, all those propositions in which I have shown, that everything in Nature proceeds from a sort of necessity, and with the utmost perfection. 452 However, I will add a few remarks in order to overthrow this doctrine of a final cause utterly. That which is really a cause it considers as an effect, and vice versa: 453 it makes that which is by nature first to be last, and that which is highest and most perfect to be most imperfect.

454 Passing over the questions of cause and priority as self-evident, it is plain that the effect is most perfect which is produced immediately by God; 455 the effect which requires for its production several intermediate causes is, in that respect, more imperfect. 456 But if those things which were made immediately by God were made to enable Him to attain His end, then the things which come after, for the sake of which the first were made, are necessarily the most excellent of all.

457 Further, this doctrine does away with the perfection of God: for, if God acts for an object, He necessarily desires something which He lacks. 458 Certainly, theologians and metaphysicians draw a distinction between the object of want and the object of assimilation; still they confess that God made all things for the sake of Himself, not for the sake of creation. 459 They are unable to point to anything prior to creation, except God Himself, as an object for which God should act, 460 and are therefore driven to admit-- as they clearly must--, that God lacked those things for whose attainment He created means, and further that He desired them.

461 We must not omit to notice that the followers of this doctrine, anxious to display their talent in assigning final causes, have imported a new method of argument in proof of their theory-- 462 namely, a reduction, not to the impossible, but to ignorance; thus showing that they have no other

method of exhibiting their doctrine. 463 For example, if a stone falls from a roof onto someone's head, and kills him, they will demonstrate by their new method, that the stone fell in order to kill the human; 464 for, if it had not by God's will fallen with that object, how could so many circumstances-- and there are often many concurrent circumstances-- have all happened together by chance?

465 Perhaps you will answer that the event is due to the facts that the wind was blowing, and the human was walking that way. 466 "But why," they will insist, "was the wind blowing, and why was the human at that very time walking that way?" 467 If you again answer that the wind had then sprung up because the sea had begun to be agitated the day before, the weather being previously calm, and that the human had been invited by a friend, 468 they will again insist: "But why was the sea agitated, and why was the human invited at that time?" So they will pursue their questions from cause to cause, till at last you take refuge in the will of God-- in other words, the sanctuary of ignorance. 469 So, again, when they survey the frame of the human body, they are amazed; and being ignorant of the causes of so great a work of art, 470 conclude that it has been fashioned, not mechanically, but by divine and supernatural skill, and has been so put together that one part shall not hurt another.

471 Hence anyone who seeks for the true causes of miracles, and strives to understand natural phenomena as an intelligent being, and not to gaze at them like a fool, 472 is set down and denounced as an impious heretic by those, whom the masses adore as the interpreters of Nature and the gods. 473 Such persons know that, with the removal of ignorance, the wonder which forms their only available means for proving and preserving their authority would vanish also. 474 But I now quit this subject, and pass on to my third point.

475 After humans persuaded themselves, that everything which is created is created for their sake, they were bound to consider as the chief quality in everything that

which is most useful to themselves, 476 and to account those things the best of all which have the most beneficial effect on humankind. 477 Further, they were bound to form abstract notions for the explanation of the nature of things, such as goodness, badness, order, confusion, warmth, cold, beauty, deformity, and so on; 478 and from the belief that they are free agents arose the further notions of praise and blame, sin and merit.

479 I will speak of these latter hereafter, when I treat of human nature; the former I will briefly explain here.

480 Everything which conduces to health and the worship of God they have called good, everything which hinders these objects they have styled bad; 481 and inasmuch as those who do not understand the nature of things do not verify phenomena in any way, but merely imagine them after a fashion, and mistake their imagination for understanding, 482 such persons firmly believe that there is an order in things, being really ignorant both of things and their own nature. 483 When phenomena are of such a kind, that the impression they make on our senses requires little effort of imagination, and can consequently be easily remembered, we say that they are well-ordered; 484 if the contrary, that they are ill-ordered or confused.

485 Further, as things which are easily imagined are more pleasing to us, humans prefer order to confusion-- as though there were any order in Nature, except in relation to our imagination-- and say that God has created all things in order; 486 thus, without knowing it, attributing imagination to God, unless, indeed, they would have it that God foresaw human imagination, and arranged everything, so that it should be most easily imagined. 487 If this be their theory, they would not, perhaps, be daunted by the fact that we find an infinite number of phenomena, far surpassing our imagination, and very many others which confound its weakness. But enough has been said on this subject. 488 The other abstract notions are nothing but modes of imagining, in which the imagination is differently

affected: 489 though they are considered by the ignorant as the chief attributes of things, inasmuch as they believe that everything was created for the sake of themselves; 490 and, according as they are affected by it, style it good or bad, healthy or rotten or corrupt. 491 For instance, if the motion which objects we see communicate to our nerves be conducive to health, the objects causing it are styled beautiful; if a contrary motion be excited, they are styled ugly.

492 Things which are perceived through our sense of smell are styled fragrant or fetid; if through our taste, sweet or bitter, full-flavoured or insipid; if through our touch, hard or soft, rough or smooth, etc.

493 Whatsoever affects our ears is said to give rise to noise, sound, or harmony. In this last case, there are people lunatic enough to believe, that even God Himself takes pleasure in harmony; 494 and philosophers are not lacking who have persuaded themselves, that the motion of the heavenly bodies gives rise to harmony-- 495 all of which instances sufficiently show that everyone judges of things according to the state of own brain, or rather mistakes for things the forms of own imagination. 496 We need no longer wonder that there have arisen all the controversies we have witnessed, and finally scepticism: for, although human bodies in many respects agree, yet in very many others they differ; 497 so that what seems good to one seems confused to another; what is pleasing to one displeases another, and so on. 498 I need not further enumerate, because this is not the place to treat the subject at length, and also because the fact is sufficiently well known.

499 It is commonly said: "So many people, so many minds; everyone is wise in own way; brains differ as completely as palates."

500 All of which proverbs show, that humans judge of things according to their mental disposition, and rather imagine than understand: 501 for, if they understood phenomena, they would, as mathematicians attest, be convinced, if not attracted, by what I have urged.

ETHICS

502 We have now perceived, that all the explanations commonly given of Nature are mere modes of imagining, and do not indicate the true nature of anything, but only the constitution of the imagination; 503 and, although they have names, as though they were entities, existing externally to the imagination, I call them entities imaginary rather than real; 504 and, therefore, all arguments against us drawn from such abstractions are easily rebutted.

505 Many argue in this way. If all things follow from a necessity of the absolutely perfect nature of God, why are there so many imperfections in Nature? 506 such, for instance, as things corrupt to the point of putridity, loathsome deformity, confusion, evil, sin, etc. 507 But these reasoners are, as I have said, easily confuted, for the perfection of things is to be reckoned only from their own nature and power; 508 things are not more or less perfect, according as they are serviceable or repugnant to humankind. 509 To those who ask why God did not so create all humans, that they should be governed only by reason, I give no answer but this: because matter was not lacking to humans for the creation of every degree of perfection from highest to lowest; 510 or, more strictly, because the laws of human nature are so vast, as to suffice for the production of everything conceivable by an infinite intelligence.

511 Such are the misconceptions I have undertaken to note; if there are any more of the same sort, everyone may easily dissipate them for the self with the aid of a little reflection.

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ETHICS AND AESTHETICS
George Stuart Fullerton

COMMON SENSE ETHICS

2 We may, if we choose, study the actions of people merely with a view to ascertaining what they are and describing them accurately. 2 Something like this is done by the anthropologist, who gives us an account of the manners and customs of the various races of humankind; 3 he tells us ‘what is’; he may not regard it as within his

province at all to inform us regarding ‘what ought to be’.

4 But humans do not merely act; they judge their actions in the light of some norm or standard, and they distinguish between them as right and wrong. 5 The systematic study of actions as right and wrong yields us the science of ethics.

6 Like psychology, ethics is a special science. It is concerned with a somewhat limited field of investigation, and is not to be confounded with other sciences. It has a definite aim distinct from theirs. 7 And, also like psychology, ethics is classed as one of the philosophical sciences, and its relation to philosophy is supposed to be closer than that of such sciences as physics and mathematics. 8 It is fair to ask why this is so. Why cannot ethics proceed on the basis of certain assumptions independently, and leave to some other discipline the whole question of an inquiry into the nature and validity of those assumptions?

9 About half a century ago Dr. william Whewell, one of the most learned of English scholars, wrote a work entitled "*The Elements of Morality*," 10 in which he attempted to treat the science of ethics as it is generally admitted that one may treat the science of geometry. 11 The book was rather widely read a generation since, but we meet with few references to it in our time.

12 "Morality and the philosophy of morality," argues the author, "differ in the same manner and in the same degree as geometry and the philosophy of geometry. 13 Of these two subjects, geometry consists of a series of positive and definite propositions, deduced one from another, in succession, by rigourous reasoning, and all resting upon certain definitions and self-evident axioms. 14 The philosophy of geometry is quite a different subject; it includes such inquiries as these: Whence is the cogency of geometrical proof? 15 What is the evidence of the axioms and definitions? What are the faculties by which we become aware of their truth? and the like. 16 The two kinds of speculation have been pursued, for the most part, by two different classes of persons,-- the geometers and the metaphysicians; 17 for it has been

far more the occupation of metaphysicians than of geometers to discuss such questions as I have stated, the nature of geometrical proofs, geometrical axioms, the geometrical faculty, and the like. 18 And if we construct a complete system of geometry, it will be almost exactly the same, whatever be the views which we take on these metaphysical questions."

19 Such a system Dr. Whewell wishes to construct in the field of ethics. His aim is to give us a view of morality in which moral propositions are "deduced from axioms, by successive steps of reasoning, so far as to form a connected system of moral truth." 20 Such a "sure and connected knowledge of the duties of human" would, he thinks, be of the greatest importance.

21 In accordance with this purpose, Dr. Whewell assumes that humanity, justice, truth, purity, order, earnestness, and moral purpose are fundamental principles of human action; 22 and he thinks that all who admit as much as this will be able to go on with him in his development of a system of moral rules to govern the life of human.

23 It would hardly be worthwhile for me to speak at length of a way of treating ethics so little likely to be urged upon the attention of the reader who busies the self with the books which are appearing in our own day, 24 were it not that we have here an admirable illustration of the attempt to teach ethics as though it were such a science as geometry. 25 The shortcomings of the method become very evident to one who reads the work attentively.

26 Thus, we are forced to ask ourselves, have we really a collection of ultimate moral principles which are analogous to the axioms of geometry? 27 For example, to take but a single instance, Dr. Whewell formulates the Principle of Truth as follows: "We must conform to the universal understanding among people which the use of language implies"; 28 and he remarks later; "The rules: Lie not, Perform your promise, are of universal validity; and the conceptions of lie and of promise are so simple and distinct

that, in general, the rules may be directly and easily applied."

29 Now, we are struck by the fact that this affirmation of the universal validity of the principle of truth is made in a chapter on "*Cases of Conscience*," in a chapter concerned with what seem to be conflicts between duties; 30 and this chapter is followed by one which treats of "*Cases of Necessity*," i.e. cases in which a person is to be regarded as justified in violating common rules when there seems to be urgent reason for so doing. 31 We are told that the moralist cannot say: Lie not, except in great emergencies; but must say: Lie not at all. 32 But we are also told that he must grant that there are cases of necessity in which transgressions of moral rules are excusable; and this looks very much as if he said: Go on and do the thing while I close my eyes.

33 This hardly seems to give us a "sure and connected knowledge of the duties of human" deduced from axiomatic principles. 34 On what authority shall we suspend for the time being this axiomatic principle or that? 35 Is there some deeper principle which lends to each of them its authority, and which may, for cause, withdraw it? 36 There is no hint of such in the treatment of ethics which we are considering, and we seem to have on our hands, not so much a science, as a collection of practical rules, of the scope of which we are more or less in the dark.

37 The interesting thing to notice is that this view of ethics is very closely akin to that adapted unconsciously by the majority of the persons we meet who have not interested themselves much in ethics as a science.

38 By the time that we have reached years of discretion we are all in possession of a considerable number of moral maxims. 39 We consider it wrong to steal, to lie, to injure our neighbour. Such maxims lie in our minds side by side, and we do not commonly think of criticising them.

40 But now and then we face a situation in which one maxim seems to urge one course of action and another maxim a contrary one. 41 Shall we tell the truth and the whole truth, when so doing will

bring grave misfortune upon an innocent person? 42 And now and then we are brought to the realisation that all people do not admit the validity of all our maxims. 43 Judgments differ as to what is right and what is wrong. Who shall be the arbiter? 44 Not infrequently a rough decision is arrived at in the assumption that we have only to interrogate "conscience", 45 in the assumption, in other words, that we carry a watch which can be counted upon to give the correct time, even if the timepieces of our neighbours are not to be depended upon.

46 The common sense ethics cannot be regarded as very systematic and consistent, or as very profound. 47 It is a collection of working rules, of practical maxims; and, although it is impossible to overestimate its value as a guide to life, its deficiencies, when it is looked at critically, become evident, I think, even to thoughtful persons who are not scientific at all.

48 Many writers on ethics have simply tried to turn this collection of working rules into a science, somewhat as Dr. Whewell has done. 49 This is the peculiar weakness of those who have been called the "intuitionalists"-- 50 though I must warn the reader against assuming that this term has but the one meaning, and that all those to whom it has been applied should be placed in the same class. 51 Here it is used to indicate those who maintain that we are directly aware of the validity of certain moral principles, must accept them as ultimate, and need only concern ourselves with the problem of their application.

ETHICS AND PHILOSOPHY

52 When John Locke maintained that there are no "innate practical principles," or innate moral maxims, he pointed in evidence to the "enormities practiced without remorse" in different ages and by different peoples. The list he draws up is a curious and an interesting one.

53 In our day it has pretty generally come to be recognised by thoughtful people that a person's judgments as to right and wrong reflect the phase of civilisation, or the lack of it, which one

represents, 54 and that their significance cannot be understood when we consider them apart from their historic setting. 55 This means that no human's conscience is set up as an ultimate standard, but that every human's conscience is regarded as furnishing material which the science of ethics must take into account.

56 May we, broadening the basis upon which we are to build, and studying the manners, customs, and moral judgments of all sorts and conditions of people, develop an empirical science of ethics which will be independent of philosophy?

57 It does not seem that we can do this. We are concerned with psychological phenomena, and their nature and significance are by no means beyond dispute. 58 For example, there is the feeling of moral obligation, of which ethics has so much to say. What is this feeling, and what is its authority? Is it a thing to be explained? Can it impel a person, let us say, a bigot, to do wrong? 59 And what can we mean by credit and discredit, by responsibility and free choice, and other concepts of the sort? 60 All this must remain very vague to one who has not submitted own ethical concepts to reflective analysis of the sort that we have a right to call philosophical.

61 Furthermore, it does not seem possible to decide what a person should or should not do, without taking into consideration the circumstances in which you are placed. 62 The same act may be regarded as benevolent or the reverse according to its context. 63 If we will but grant the validity of the premises from which the medieval churchman reasoned, 64 we may well ask whether, in laying hands violently upon those who dared to form independent judgments in matters of religion, one was not conscientiously doing own best for own fellow-people. 65 He tried by all means to save some, and to what he regarded as a most dangerous malady he applied a drastic remedy. By what standard shall we judge him?

66 There can be no doubt that our doctrine of the whole duty of human must be conditioned by our view of the nature of the world in which human lives and of human's

place in the world. 67 Has ethics nothing to do with religion? If we do not believe in God, and if we think that human's life ends with the death of the body, it is quite possible that we shall set for you an ethical standard which we should have to modify if we adopted other beliefs. 68 The relation of ethics to religion is a problem that the student of ethics can scarcely set aside. 69 It seems, then, that the study of ethics necessarily carries us back to world problems which cannot be approached except by the path of philosophical reflection. 70 We shall see in Chapter-24 that the theistic problem certainly belongs to this class.

71 It is worthy of our consideration that the vast majority of writers on ethics have felt strongly that their science runs out into metaphysics. We can scarcely afford to treat their testimony lightly. 72 Certainly it is not possible for one who has no knowledge of philosophy to understand the significance of the ethical systems which have appeared in the past. 73 The history of ethics may be looked upon as a part of the history of philosophy. Only on the basis of some general view as to Nature and human have people decided what human ought to do. 74 As we have seen above, this appears sufficiently reasonable.

AESTHETICS

75 Of aesthetics, or the science of the beautiful, I shall say little. There is somewhat the same reason for including it among the philosophical sciences that there is for including ethics.

76 Those who have paid little attention to science or to philosophy are apt to dogmatise about what is and what is not beautiful just as they dogmatise about what is and what is not right. 77 They say unhesitatingly; This object is beautiful, and that one is ugly. It is as if they said: This one is round, and that one square.

78 Often it quite escapes their attention that what they now regard as beautiful struck them as unattractive a short time before; 79 and will, perhaps, when the ceaseless change of the fashions has driven it out of vogue, seem strange and unattractive once

more. 80 Nor do they reflect upon the fact that others, who seem to have as good a right to an opinion as they, do not agree with them in their judgments; 81 nor upon the further fact that the standard of beauty is a thing that has varied from age to age, differs widely in different countries, and presents minor variations in different classes even in the same community.

82 The dogmatic utterances of those who are keenly susceptible to the aesthetic aspects of things but are not given to reflection 83 stand in striking contrast to the epitome of the popular wisdom expressed in the skeptical adage that there is no disputing about tastes.

84 We cannot interpret this adage broadly and take it literally, for then we should have to admit that humans' judgments as to the beautiful cannot constitute the material of a science at all, and that there can be no such thing as progress in the fine arts. 85 The notion of progress implies a standard, and an approximation to an ideal. 86 Few would dare to deny that there has been progress in such arts as painting and music; and when one has admitted so much as this, one has virtually admitted that a science of aesthetics is, at least, possible.

87 The science studies the facts of the aesthetic life as ethics studies the facts of the moral life. It can take no human's taste as furnishing a standard: it must take every human's taste as a fact of significance.

88 It is driven to reflective analysis-- to such questions as, what is beauty? and what is meant by aesthetic progress? 89 It deals with elusive psychological facts the significance of which is not easily grasped.

90 It is a philosophical science, and is by no means in a position to follow a beaten path, dispensing with a reflective analysis of its materials.

ETHICS

ÆSTHETICS DEALS WITH THE MOST GENERAL CONDITIONS OF BEAUTY. SUBJECTIVISTIC AND FORMALISTIC TENDENCIES

Ralph Barton Perry

3 Æsthetics is the formulation, as independently as possible of special subject-matter, of that which conditions beauty. 2 As logic commonly refers to a judgment of truth, so æsthetics at any rate refers to a judgment implied in appreciation. 3 But while it is generally admitted that truth itself is by no means limited to the form of the judgment, the contrary is frequently maintained with reference to beauty. 4 The aphorism, *De gustibus non est disputandum*, expresses a common opinion to the effect that beauty is not a property belonging to the object of which it is predicated, but a property generated by the appreciative consciousness. 5 According to this opinion there can be no beauty except in the case of an object's presence in an individual experience. 6 Investigators must of necessity refuse to leave individual caprice in complete possession of the field, but they have in many cases occupied themselves entirely with the ‘state of æsthetic enjoyment’ in the hope of discovering its constant factors. 7 The opposing tendency defines certain formal characters which the beautiful object must possess. 8 Evidently the latter school will attribute a more profound philosophical importance to the conception of beauty, since for them it is a principle that obtains in the world of being. 9 This was the first notable contention, that of Plato. But even with the emphasis laid upon the subjective aspect of the æsthetic experience, great metaphysical importance may be attached to it, 10 where, as in the case of the German Romanticists, reality is deliberately construed as a spiritual life which is to be appreciated rather than understood.

11 As in the case of logic, a strong impulse has manifested itself in æsthetics to deal with groups of objects that lie within its province, rather than directly with its concepts and principles. 12 The first special treatise on æsthetics, the "Poetics" of Aristotle, belongs

to this type of inquiry, as does all criticism of art in so far as it aims at the formulation of general principles.

13 Ethics, the oldest and most popular of the normative sciences, is the formulation, as independently as possible of special subject-matter, of that which conditions goodness of conduct. 14 Ethics is commonly concerned with goodness only in so far as it is predicated of conduct, or of character, which is a more or less permanent disposition to conduct. 15 Since conduct, in so far as good, is said to constitute moral goodness, ethics may be defined as the formulation of the general principles of morality. 16 The principles so formulated would be those virtually employed to justify conduct, or to disprove the imputation of immorality.

17 The student of this science is confronted with a very considerable diversity of method and differentiation of problems. 18 The earliest and most profound opposition of doctrine in ethics arose from the differences of interpretation of which the teaching of Socrates is capable. 19 His doctrine is, as we have seen, verbally expressed in the proposition, virtue is knowledge. Socrates was primarily concerned to show that there is no real living without an understanding of the significance of life. 20 To live well is to know the end of life, the good of it all, and to govern action with reference to that end. 21 Virtue is therefore the practical wisdom that enables you to live consistently with your real intention. But what is the real intention, the end or good of life? 22 In the "Protagoras," where Plato represents Socrates as expounding his position, virtue is interpreted to mean prudence, or foresight of pleasurable and painful consequences. 23 You who knows, possesses all virtue in that you are qualified to adapt yourself to the real situation and to gain the end of pleasure. 24 All humans, indeed, seek pleasure, but only virtuous humans seek it wisely and well.

25 "And do you, Protagoras, like the rest of the world, call some pleasant things evil and some painful things good?-- 26 for I am rather disposed to say that things are good in as far as they are

pleasant, if they have no consequences of another sort, and in as far as they are painful they are bad."

27 According to this view painful things are good only when they lead eventually to pleasure, and pleasant things evil only when their painful consequences outweigh their pleasantness. 28 Hence moral differences reduce to differences of skill in the universal quest for pleasure, and ‘sensible gratification is the ultimate standard of moral value’. 29 This ancient doctrine, known as hedonism, expressing as it does a part of life that will not suffer itself for long to be denied, is one of the great perennial tendencies of ethical thought. 30 In the course of many centuries it has passed through a number of phases, varying its conception of pleasure from the tranquility of the wise person to the sensuous titillation of the sybarite, and from the individualism of the latter to the universalism of the humanitarian. 31 But in every case it shows a respect for the natural human, praising morality for its disciplinary and instrumental value in the service of such human wants as are the outgrowth of the animal instinct of self-preservation.

RATIONALISM

32 But if a human's life be regarded as a truer representation of own ideals than is own spoken theory, there is little to identify Socrates with the hedonists. 33 At the conclusion of the defence of his own life, which Plato puts into his mouth in the well-known "Apology," he speaks thus:

34 "When my sons are grown up, I would ask you, O my friends, to punish them; and I would have you trouble them, as I have troubled you, if they seem to care about riches, or anything, more than about virtue; 35 or if they pretend to be something when they are really nothing,-- then reprove them, as I have reproved you, for not caring about that for which they ought to care, and thinking that they are something when they are really nothing."

36 It is plain that the man Socrates cared little for the pleasurable or painful consequences of his acts,

provided they were worthy of the high calling of human nature. A human's virtue would now seem to possess an intrinsic nobility. 37 If knowledge be virtue, then on this basis it must be because knowledge is itself excellent. Virtue as knowledge contributes to the good by constituting it. 38 We meet here with the rationalistic strain in ethics. It praises conduct for the inherent worth which it may possess if it express that ‘reason’ which the Stoics called "the ruling part." 39 The riches of wisdom consist for the hedonist in their purchase of pleasure. For the rationalist, on the other hand, wisdom is not coin, but itself the very substance of value.

40 Rationalism has undergone modifications even more significant than those of hedonism, and involving at least one radically new group of conceptions. 41 Among the Greeks rationalism and hedonism alike are eudæmonistic. They aim to portray the fullness of life that makes "the happy human." 42 In the ethics of Aristotle, whose synthetic mind weaves together these different strands, the Greek ideal finds its most complete expression as "the high-minded human," with all own powers and trappings. 43 But the great spiritual transformation which accompanied the decline of Greek culture and the rise of Christianity, brought with it a new moral sensibility, which finds in human no virtue of the self, but only through the grace of God.

44 "And the virtues themselves," says St. Augustine, "if they bear no relation to God, are in truth vices rather than virtues; 45 for although they are regarded by many as truly moral when they are desired as ends in themselves and not for the sake of something else, they are, nevertheless, inflated and arrogant, and therefore not to be viewed as virtues but as vices."

46 The new ideal is that of renunciation, obedience, and resignation. Ethically this expresses itself in ‘pietism’. 47 Virtue is good neither in itself nor on account of its consequences, but because it is conformable to the will of God. 48 The extreme inwardness of this ideal is characteristic of an age that despaired of attainment, whether of pleasure or knowledge. 49 To

all, even the persecuted, it is permitted to obey, and so gain entrance into the kingdom of the children of God. 50 But as every special study tends to rely upon its own conceptions, pietism, involving as it does a relation to God, is replaced by rigourism and intuitionism. 51 The former doctrine defines virtue in terms of the inner attitude which it expresses. It must be done in the spirit of dutifullness, because one ought, and through sheer respect for the law which one's moral nature affirms. 52 Intuitionism has attempted to deal with the source of the moral law by defining conscience as a special faculty or sense, qualified to pass directly upon moral questions, and deserving of implicit obediences. 53 It is characteristic of this whole tendency to look for the spring of virtuous living, not in a good which such living obtains, but in a law to which it owes obedience.

54 This third general ethical tendency has thus been of the greatest importance in emphasising the consciousness of duty, and has brought both hedonism and rationalism to a recognition of its fundamental importance. 55 Ethics must deal not only with the moral ideal, but also with the ground of its appeal to the individual, and your obligation to pursue it. 56 In connection with this recognition of moral responsibility, the problem of human freedom has come to be regarded in the light of an inevitable point of contact between ethics and metaphysics. 57 That which is absolutely binding upon the human will can be determined only in view of some theory of its ultimate nature. 58 On this account the rationalistic and hedonistic motives are no longer abstractly sundered, as in the days of the Stoics and Epicureans, but tend to be absorbed in broader philosophical tendencies. 59 Hedonism appears as the sequel to naturalism; or, more rarely, as part of a theistic system whose morality is divine legislation enforced by an appeal to motives of pleasure and pain. 60 Rationalism, on the other hand, tends to be absorbed in rationalistic or idealistic philosophies, where human's rational nature is construed as

own bond of kinship with the universe.

61 Ethics has exhibited from the beginning a tendency to universalise its conceptions and take the central place in metaphysics. 62 Thus with Plato good conduct was but a special case of goodness, the good being the most general principle of reality. 63 In modern times Fichte and his school have founded an ethical metaphysics upon the conception of duty. 64 In these cases ethics can be distinguished from metaphysics only by adding to the study of the good or of duty, a study of the special physical, psychological, and social conditions under which goodness and dutifullness may obtain in human life. 65 It is possible to attach the name of ethics, and we have seen the same to be true of logic, either to a realm of ideal truth or to that realm wherein the ideal is realised in humanity.

THE VIRTUES, CUSTOMS, AND INSTITUTIONS

66 A systematic study of ethics requires that the virtues, or types of moral practice, shall be interpreted in the light of the central conception of good, or of conscience. 67 Justice, temperance, wisdom, and courage were praised by the Greeks. Christianity added self-sacrifice, humility, purity, and benevolence. 68 These and other virtues have been defined, justified, and co-ordinated with the aid of a standard of moral value or a canon of duty.

69 There is in modern ethics a pronounced tendency, parallel to those already noted in logic and æsthetics, to study such phenomena belonging to its field as have become historically established. 70 A very considerable investigation of custom, institutions, and other social forces has led to a contact of ethics with anthropology and sociology scarcely less significant than that with metaphysics.

ETHICS

ABSOLUTE REALISM
Ralph Barton Perry

THE PHILOSOPHER'S TASK, AND THE PHILOSOPHER'S OBJECT, OR THE ABSOLUTE

4 No one has understood better than the philosophers that they cannot hope to be popular with people of practical common-sense. 2 Indeed, it has commonly been a matter of pride with them. The classic representation of the philosopher's faith in the self is to be found in Plato's "Republic." 3 The philosopher is there portrayed in the famous cave simile as one who having seen the light itself can no longer distinguish the shadows which are apparent to those who sit perpetually in the twilight.

4 Within the cave of shadows they are indeed less at their ease than those who have never seen the sun. 5 But since they knows the source of the shadows, their knowledge surrounds that of the shadow connoisseurs. 6 And their equanimity need not suffer from the contempt of those whom they understands better than they understand themselves. 7 The history of philosophy is due to the dogged persistence with which the philosophers has taken themselves seriously and endured the poor opinion of the world.

8 But the pride of the philosopher has done more than perpetuate the philosophical outlook and problem; it has led to the formulation of a definite philosophical conception, and of two great philosophical doctrines. 9 The conception is that of the absolute; and the doctrines are that of the absolute being, and that of the absolute self or mind. The former of these doctrines is the topic of the present chapter.

10 Among the early Greeks the rôle of the philosopher was one of superlative dignity. In point of knowledge they was less easily satisfied than other people. 11 They thought beyond immediate practical problems, devoting the self to a profounder reflection, that could not but induce in one a sense of superior intellectual worth. 12 The familiar was not binding upon them, for their thought was emancipated from routine and superficiality.

13 Furthermore their intellectual courage and resolution did not permit them to indulge in triviality, doubt, or paradox. They sought their own with a faith that could not be denied. 14 Even Heraclitus the Dark, who was also called "the Weeping Philosopher," because he found at the very heart of Nature that transiency which the philosophical mind seeks to escape, felt himself to be exalted as well as isolated by that insight. 15 But this sentiment of personal aloofness led at once to a division of experience. One who knows truly belongs to another and more abiding world. 16 As there is a philosophical way of thought, there is a philosophical way of life, and a philosophical object. 17 Since the philosopher and the common person do not see alike, the terms of their experience are incommensurable. In Parmenides the Eleatic this motive is most strikingly exhibited. 18 There is a ‘Way of Truth’ which diverges from the ‘Way of Opinion’. The philosopher walks the former way alone. 19 And there is an object of truth, accessible only to one who takes this way of truth. Parmenides finds this object to be the content of pure affirmation.

20 "One path only is left for us to speak of, namely, that ‘It is’. In it are very many tokens that what is, is uncreated and indestructible, alone, complete, immovable, and without end. Nor was it ever, nor will it be; for now it is, all at once, a continuous one."

21 The philosophy of Parmenides, commonly called the Eleatic Philosophy, is notable for this emergence of the pure concept of absolute being as the final object of knowledge. 22 The philosopher aims to discover that which is, and so turns away from that which is not or that which ceases to be. 23 The negative and transient aspects of experience only hinder them in their search for the eternal. 24 It was the great Eleatic insight to realise that the outcome of thought is thus predetermined; that the answer to philosophy is contained in the question of philosophy. 25 The philosopher, in that they resolutely avoids all partiality, relativity, and superficiality, must affirm a complete, universal, and ultimate being as the very object of that perfect knowledge which

they means to possess. 26 This object is known in the history of these philosophies as the ‘infinite’ or ‘absolute’.

27 The Eleatic reasons somewhat as follows. The philosopher seeks to know ‘what is’. 28 The object of their knowledge will then contain as its primary and essential predicate, that of being. It is a step further to define being in terms of this essential predicate.

29 Parmenides thinks of being as a power or strength, a positive self-maintenance to which all affirmations refer. 30 The remainder of the Eleatic philosophy is the analysis of this concept and the proof of its implications. Being must persist through all change, and span all chasms. 31 Before being there can be only nothing, which is the same as to say that so far as being is concerned there is no before. 32 Similarly there can be no after or beyond. There can be no motion, change, or division of being, because being will be in all parts of every division, and in all stages of every process. 33 Hence being is "uncreated and indestructible, alone, complete, immovable, and without end."

34 The argument turns upon the application to ‘being’ as a whole of the meaning and the implications of only being. Being is the affirmative or positive. From that alone, one can derive only such properties as eternity or unity. 35 For generation and decay and plurality may belong to that which is also affirmative and positive, but not to that which is affirmative and positive only. 36 The Eleatic philosophy is due, then, to the determination to derive the whole of reality from the bare necessity of being, to cut down reality to what flows entirely from the assertion of its only known necessary aspect, that of being. 37 We meet here in its simplest form a persistent rationalistic motive, the attempt to derive the universe from the isolation and analysis of its most universal character. 38 As in the case of every well-defined philosophy, this motive is always attended by a "besetting" problem. Here it is the accounting for what, empirically at least, is alien to that universal character. 39 And this difficulty is emphasised rather

than resolved by Parmenides in his designation of a limbo of opinion, "in which is no true belief at all," to which the manifold of common experience with all its irrelevancies can be relegated.

40 The Eleatic philosophy, enriched and supplemented, appears many centuries later in the rigourous rationalism of Spinoza. With Spinoza philosophy is a demonstration of necessities after the manner of geometry. 41 Reality is to be set forth in theorems derived from fundamental axioms and definitions. 42 As in the case of Parmenides, these necessities are the implications of the very problem of being. The philosopher's problem is made to solve itself. 43 But for Spinoza that problem is more definite and more pregnant. The problematic being must not only be, but must be sufficient to itself. 44 What the philosopher seeks to know is primarily an intrinsic entity. Its nature must be independent of other natures, and my knowledge of it independent of my knowledge of anything else. 45 Reality is something which need not be sought further. So construed, being is in Spinoza's philosophy termed substance. 46 It will be seen that to define substance is to affirm the existence of it, for substance is so defined as to embody the very qualification for existence. 47 Whatever exists exists under the form of substance, as that "which is in itself, and is conceived through itself: in other words, that of which a conception can be formed independently of any other conception."

48 There remains but one further fundamental thesis for the establishment of the Spinozistic philosophy, the thesis which maintains the exclusive existence of the one "absolutely infinite being," or God. 49 The exclusive existence of God follows from His existence, because of the exhaustiveness of His nature. 50 His is the nature "consisting in infinite attributes, of which each expresses eternal and infinite essentiality." 51 He will contain all meaning, and all possible meaning, within His fixed and necessary constitution. 52 It is evident that if such a God exist, nothing can fall outside of Him. One such substance must be the

only substance. But upon what grounds are we to assert God's existence?

53 To proceed further with Spinoza's philosophy we must introduce two terms which are scarcely less fundamental in his system than that of substance. 54 The one of these is "attribute," by which he means ‘kind’ or general property; the other is "mode," by which he means ‘case’ or individual thing. 55 Spinoza's proof of God consists in showing that no single mode, single attribute, or finite group of modes or attributes, can be a substance; but only an infinite system of all modes of all attributes. 56 Translated into common speech this means that neither kinds nor cases, nor special groups of either, can stand alone and be of themselves, but only the unity of all possible cases of all possible kinds.

57 The argument concerning the possible substantiality of the case or individual thing is relatively simple. Suppose an attribute or kind, ‘A’, of which there are cases ‘am’{1}, ‘am’{2}, ‘am’{3}, etc. 58 The number of cases is never involved in the nature of the kind, as is seen for example in the fact that the definition of triangle prescribes no special number of individual triangles. 59 Hence ‘am’{1}, ‘am’{2}, ‘am’{3}, etc., must be explained by something outside of their nature. Their being cases of ‘A’ does not account for their existing severally. 60 This is Spinoza's statement of the argument that individual events, such as motions or sensations, are not self-dependent, but belong to a context of like events which are mutually dependent.

61 The question of the attribute is more difficult. Why may not an attribute as a complete domain of interdependent events, itself be independent or substantial? 62 Spinoza's predecessor, Descartes, had maintained precisely that thesis in behalf of the domain of thought and the domain of space. 63 Spinoza's answer rests upon the famous ontological argument, inherited from scholasticism and generally accepted in the first period of modern philosophy. The evidence of existence, he declares, is clear and distinct conceivability.

64 "For a person to say that he has a clear and distinct-- that is, a true-- idea of a substance, but that he is not sure whether such substance exists, would be the same as if he said that he had a true idea, but was not sure whether or no it was false."

65 Now we can form a clear and distinct idea of an absolutely infinite being that shall have all possible attributes. 66 This idea is a well-recognised standard and object of reference for thought. But it is a conception which is highly qualified, not only through its clearness and distinctness, but also through its abundance of content. 67 It affirms itself therefore with a certainty that surpasses any other certainty, because it is supported by each and every other certainty, and even by the residuum of possibility. 68 If any intelligible meaning be permitted to affirm itself, so much the more irresistible is the claim of this infinitely rich meaning. 69 Since every attribute contributes to its validity, the being with infinite attributes is infinitely or absolutely valid. 70 The conclusion of the argument is now obvious. If the being constituted by the infinite attributes exists, it swallows up all possibilities and exists exclusively. 71 The vulnerable point in Spinoza's argument can thus be expressed: that which is important is questionable, and that which is unquestionable is of doubtful importance. 72 Have I indeed a clear and distinct idea of an absolutely infinite being? The answer turns upon the meaning of the phrase "idea of." 73 It is true I can add to such meaning as I apprehend the thought of possible other meaning, and suppose the whole to have a definiteness and systematic unity like that of the triangle. 74 But such an idea is problematic. I am compelled to use the term "possible," and so to confess the failure of definite content to measure up to my idea. 75 My idea of an absolutely infinite being is like my idea of a universal language: I can think of it, but I cannot think it out, for lack of data or because of the conflicting testimony of other data. 76 If I mean the infinity of my being to be a term of inclusiveness, and to insist that the all must be, and that there can be

nothing not included in the all, I can scarcely be denied. But it is reasonable to doubt the importance of such a truth. 77 If, on the other hand, I mean that my infinite being shall have the compactness and organic unity of a triangle, I must admit that such a being is indeed problematic. 78 The degree to which the meaning of the part is dependent upon the meaning of the whole, or the degree to which the geometrical analogy is to be preferred to the analogy of aggregates, like the events within a year, is a problem that falls quite outside Spinoza's fundamental arguments.

79 But the advance of Spinoza over the Eleatics must not be lost sight of. The modern philosopher has so conceived being as to provide for parts within an individual unity. 80 The geometrical analogy is a most illuminating one, for it enables us to understand how manyness may be indispensable to a being that is essentially unitary. 81 The triangle as triangle is one. But it could not be such without sides and angles. The unity is equally necessary to the parts, for sides and angles of a triangle could not be such without an arrangement governed by the nature triangle. 82 The whole of nature may be similarly conceived: as the reciprocal necessity of 'Natura naturans', or Nature defined in respect of its unity, and 'Natura naturata', or Nature specified in detail.

83 There is some promise here of a reconciliation of the 'Way of Opinion' with the 'Way of Truth'. Opinion would be a gathering of detail, truth a comprehension of the intelligible unity. 84 Both would be provided for through the consideration that whatever is complete and necessary must be made up of incompletenesses that are necessary to it.

85 This consideration, however, does not receive its most effective formulation in Spinoza. The isolation of the parts, the actual severalty and irrelevance of the modes, still presents a grave problem. 86 Is there a kind of whole to which not only parts but fragments, or parts in their very incompleteness, are indispensable? 87 This would seem to be true of a 'progression' or 'development', since that would require both perfection as its end, and degrees

of imperfection as its stages. 88 Spinoza was prevented from making much of this idea by his rejection of the principle of ‘teleology’. 89 He regarded appreciation or valuation as a projection of personal bias. "Nature has no particular goal in view," and "final causes are mere human figments." 90 "The perfection of things is to be reckoned only from their own nature and power." 91 The philosophical method which Spinoza here repudiates, the interpretation of the world in moral terms, is ‘Platonism’, 92 an independent and profoundly important movement, belonging to the same general realistic type with Eleaticism and Spinozism. 93 Absolute being is again the fundamental conception. Here, however, it is conceived that being is primarily not affirmation or self-sufficiency, but the ‘good’ or ‘ideal’. 94 There are few great metaphysical systems that have not been deeply influenced by Platonism; hence the importance of understanding it in its purity. 95 To this end we must return again to the early Greek conception of the philosopher; for Platonism, like Eleaticism, is a sequel to the philosopher's self-consciousness.

96 Although the first Greek philosophers, such men as Thales, Heraclitus, Parmenides, and Empedocles, were clearly aware of their distinction and high calling, it by no means follows that they were good judges of themselves. 97 Their sense of intellectual power was unsuspecting; and they praised philosophy without definitely raising the question of its meaning. 98 They were like unskilled players who try all the stops and scales of an organ, and know that somehow they can make a music that exceeds the noises, monotones or simple melodies of those who play upon lesser instruments. 99 They knew their power rather than their instrument or their art. The first philosophers, in short, were self-conscious but not self-critical.

100 The immediately succeeding phase in the history of Greek philosophy was a curtailment, but only in the most superficial sense a criticism, of the activity of the philosopher. 101 In the Periclean Age philosophy suffered more

from inattention than from refutation. The scepticism of the sophists, who were the knowing people of this age, was not so much conviction as indisposition. 102 They failed to recognise the old philosophical problem; it did not appeal to them as a genuine problem. 103 The sophists were the intellectual people of an age of ‘humanism’, ‘individualism’, and ‘secularism’. 104 These were years in which the circle of human society, the state with its institutions, citizenship with its manifold activities and interests, bounded the horizon of thought. 105 What need to look beyond? Life was not a problem, but an abundant opportunity and a sense of capacity. 106 The world was not a mystery, but a place of entertainment and a sphere of action. 107 Of this the sophists were faithful witnesses. In their love of novelty, irreverence, impressionism, elegance of speech, and above all in their praise of individual efficiency, they preached and pandered to their age. 108 Their public, though it loved to abuse them, was the greatest sophist of them all--brilliant and capricious, incomparably rich in all but wisdom. 109 The majority belonged to what Plato called "the sight-loving, art-loving, busy class." 110 This is an age, then, when the human of practical common-sense is preëminent, and the philosopher with own dark sayings has passed away. 111 The pride of wisdom has given way to the pride of power and the pride of cleverness. 112 The many people pursue the many goods of life, and there is no spirit among them all who, sitting apart in contemplation, wonders at the meaning of the whole.

113 But in their midst there moved a strange prophet, whom they mistook for one of themselves. 114 Socrates was not one who prayed in the wilderness, but a man of the streets and the market-place, who talked rather more incessantly than the rest, and apparently with less right. 115 He did not testify to the truth, but pleaded ignorance in extenuation of an exasperating habit of asking questions. 116 There was, however, a humour and a method in his innocence that arrested attention. He was a

formidable adversary in discussion from his very irresponsibility; 117 and he was especially successful with the more rhetorical sophists because he chose his own weapons, and substituted critical analysis, question and answer, for the long speeches to which these teachers were habituated by their profession. 118 He appeared to be governed by an insatiable inquisitiveness, and a somewhat malicious desire to discredit those who spoke with authority.

119 But to those who knew him better, and especially to Plato, who knew him best, Socrates was at once the sweetest and most compelling spirit of his age. 120 There was a kind of truth in the quality of his character. He was perhaps the first of all reverent men. 121 In the presence of conceit his self-depreciation was ironical, but in another presence it was most genuine, and his deepest spring of thought and action. 122 This other presence was his own ideal. Socrates was sincerely humble because, expecting so much of philosophy, he saw his own deficiency. 123 Unlike the unskilled player, he did not seek to make music; but he loved music, and knew that such music as is indeed music was beyond his power. 124 On the other hand he was well aware of his superiority to those in whom self-satisfaction was possible because they had no conception of the ideal. 125 Of such he could say in truth that they did not know enough even to realise the extent of their ignorance. 126 The world has long been familiar with the vivid portrayal of the Socratic consciousness which is contained in Plato's "Apology." 127 Socrates had set out in life with the opinion that his was an age of exceptional enlightenment. 128 But as he came to know people he found that after all no one of them really knew what he was about. Each "sight-loving, art-loving, busy" man was quite blind to the meaning of life. 129 While he was capable of practical achievement, his judgments concerning the real virtue of his achievements were conventional and ungrounded, a mere reflection of tradition and opinion.

130 When asked concerning the meaning of life, or the ground of

his opinions, he was thrown into confusion or aggravated to meaningless reiteration. 131 Such people, Socrates reflected, were both unwise and confirmed in their folly through being unconscious of it. 132 Because he knew that vanity is vanity, that opinion is indeed mere opinion, Socrates felt himself to be the wisest man in a generation of dogged unwisdom.

133 It is scarcely necessary to point out that this insight, however negatively it be used, is a revelation of positive knowledge. 134 Heraclitus and Parmenides claimed to know; Socrates disclaimed knowledge for reasons. Like all real criticism this is at once a confounding of error and a prophecy of truth. 135 The truth so discovered is indeed not ordinary truth concerning historical or physical things, but not on that account less significant and necessary. 136 This truth, it will also be admitted, is virtually rather than actually set forth by Socrates himself. 137 He knew that life has some meaning which those who live with conviction desire at heart to realise, and that knowledge has principles with which those who speak with conviction intend to be consistent. 138 There is, in short, a rational life and a rational discourse. 139 Furthermore, a rational life will be a life wisely directed to the end of the good; and a rational discourse one constructed with reference to the real natures of things, and the necessities which flow from these natures. 140 But Socrates did not conclusively define either the meaning of life or the form of perfect knowledge. 141 He testified to the necessity of some such truths, and his testimony demonstrated both the blindness of his contemporaries and also his own deficiency.

142 The character and method of Socrates have their best foil in the sophists, but their bearing on the earlier philosophers is for our purposes even more instructive. 143 Unlike Socrates these philosophers had not made a study of the task of the philosopher. They were philosophers--" spectators of all time and all existence"; 144 but they were precritical or dogmatic philosophers, to whom it had not occurred to define the

requirements of philosophy. 145 They knew no perfect knowledge other than their own actual knowledge. They defined being and interpreted life without reflecting upon the quality of the knowledge whose object is being, or the quality of insight that would indeed be practical wisdom. 146 But when through Socrates the whole philosophical prospect is again revealed after the period of humanistic concentration, it is as an ideal whose possibilities, whose necessities, are conceived before they are realised. 147 Socrates celebrates the rôle of the philosopher without assigning it to himself. The new philosophical object is the philosopher himself; and the new insight a knowledge of knowledge itself. 148 These three types of intellectual procedure, dogmatic speculation concerning being, humanistic interest in life, and the self-criticism of thought, form the historical preparation for Plato, 149 the philosopher who defined being as the ideal of thought, and upon this ground interpreted life.

150 There is no more striking case in history of the subtle continuity of thought than the relation between Plato and his master Socrates. 151 The wonder of it is due to the absence of any formulation of doctrine on the part of Socrates himself. He only lived and talked; and yet Plato created a system of philosophy in which he is faithfully embodied. 152 The form of embodiment is the dialogue, in which the talking of Socrates is perpetuated and conducted to profounder issues, and in which his life is both rendered and interpreted. 153 But as the vehicle of Plato's thought preserves and makes perfect the Socratic method, so the thought itself begins with the Socratic motive and remains to the end an expression of it. 154 The presentiment of perfect knowledge which distinguished Socrates from his contemporaries becomes in Plato the clear vision of a realm of ideal truth.

155 Plato begins his philosophy with the philosopher and the philosopher's interest. 156 The philosopher is a lover, who like all lovers longs for the beautiful. But he is the supreme lover, for he loves not the individual beautiful

object but the Absolute Beauty itself. 157 He is a lover too in that he does not possess, but somehow apprehends his object from afar. Though imperfect, he seeks perfection; though standing like all his fellows in the twilight of half-reality, he faces toward the sun. 158 Now it is the fundamental proposition of the Platonic philosophy that reality is the sun itself, or the perfection whose possession every wise thinker covets, whose presence would satisfy every longing of experience. 159 The real is that beloved object which is "truly beautiful, delicate, perfect, and blessed." There is both a serious ground for such an affirmation and an important truth in its meaning. 160 The ground is the evident incompleteness of every special judgment concerning experience. We understand only in part, and we know that we understand only in part. 161 What we discover is real enough for practical purposes, but even common-sense questions the true reality of its objects. 162 Special judgments seem to terminate our thought abruptly and arbitrarily. We give "the best answer we can," but such answers do not come as the completion of our thinking. 163 Our thought is in some sense surely a seeking, and it would appear that we are not permitted to rest and be satisfied at any stage of it. 164 If we do so we are like the sophists-- blind to our own ignorance. But it is equally true that our thought is straightforward and progressive. 165 We are not permitted to return to earlier stages, but must push on to that which is not less, but more, than what we have as yet found. 166 There is good hope, then, of understanding what the ideal may be from our knowledge of the direction which it impels us to follow.

167 But to understand Plato's conception of the progression of experience we must again catch up the Socratic strain which he weaves into every theme. 168 For Socrates, student of life and humankind, all objects were objects of interest, and all interests practical interests. 169 One is ignorant when one does not know the good of things; opinionative when one rates things by conventional standards; wise when

one knows their real good. 170 In Platonism this practical interpretation of experience appears in the principle that the object of perfect knowledge is ‘the good’. 171 The nature of things which one seeks to know better is the good of things, the absolute being which is the goal of all thinking is the very good itself. 172 Plato does not use the term good in any merely utilitarian sense. Indeed it is very significant that for Plato there is no cleavage between theoretical and practical interests. 173 To be morally good is to know the good, to set one's heart on the true object of affection; and to be theoretically sound is to understand perfection. 174 The good itself is the end of every aim, that in which all interests converge. 175 Hence it cannot be defined, as might a special good, in terms of the fulfillment of a set of concrete conditions, but only in terms of the sense or direction of all purposes. 176 The following passage occurs in the "Symposium": "The true order of going or being led by others to the things of love, is to use the beauties of earth as steps along which you mounts upward for the sake of that other beauty, 177 going from one to two, and from two to all fair forms, and from fair forms to fair actions, and from fair actions to fair notions, until from fair notions you arrives at the notion of absolute beauty, and at last knows what the essence of beauty is."

178 There is, then, a "true order of going," and an order that leads from one to many, from thence to forms, from thence to morality, and from thence to the general objects of thought or ‘the ideas’. 179 In the "Republic," where the proper education of the philosopher is in question, it is proposed that one shall study arithmetic, geometry, astronomy, and dialectic. 180 Thus in each case mathematics is the first advance in knowledge, and dialectic the nearest to perfection. Most of Plato's examples are drawn from mathematics. 181 This science replaces the variety and vagueness of the forms of experience with clear, unitary, definite, and eternal natures, such as the number and the geometrical figure. 182 Thus certain individual

things are approximately triangular, but subject to alteration, and indefinitely many. 183 On the other hand the triangle as defined by geometry is the fixed and unequivocal nature or idea which such experiences suggest; and the philosophical mind will at once pass to it from these. 184 But the mathematical objects are themselves not thoroughly understood when understood only in mathematical terms, for the foundations of mathematics are arbitrary. 185 And the same is true of all the so-called special sciences. Even the scientists themselves, says Plato, "only dream about being, but never can behold the waking reality so long as they leave the hypotheses they use unexamined, and are unable to give an account of them. 186 For when a person knows not own first principle, and when the conclusion and intermediate steps are also constructed out of one knows not what, how can you imagine that such a conventional statement will ever become science?"

187 Within the science of dialectics we are to understand the connection and sequences of ideas themselves, in the hope of eliminating every arbitrariness and conventionality within a system of truth that is pure and self-luminous rationality. 188 To this science, which is the great interest of his later years, Plato contributes only incomplete studies and experiments. 189 We must be satisfied with the playful answer with which, in the "Republic," he replies to Glaucon's entreaty 190 that "he proceed at once from the prelude or preamble to the chief strain, and describe that in like manner": "Dear Glaucon, you will not be able to follow me here, though I would do my best."

191 But a philosophical system has been projected. The real is that perfect significance or meaning which thought and every interest suggests, and toward which there is in experience an appreciable movement. 192 It is this significance which makes things what they really are, and which constitutes our understanding of them. 193 In itself it transcends the steps which lead to it; "for God," says Plato, "mingles not with humans." But it is nevertheless the meaning of human life. And this

we can readily conceive. 194 The last word may transform the sentence from nonsense into sense, and it would be true to say that its sense mingles not with nonsense. 195 Similarly the last touch of the brush may transform an inchoate mass of colour into a picture, disarray into an object of beauty; and its beauty mingles not with ugliness. 196 So life, when it finally realises itself, obtains a new and incommensurable quality of perfection in which humanity is transformed into deity. There is frankly no provision for imperfection in such a world. 197 In his later writings Plato sounds his characteristic note less frequently, and permits the ideal to create a cosmos through the admixture of matter. 198 But in his moment of inspiration, the Platonist will have no sense for the imperfect. It is the darkness behind his back, or the twilight through which he passes on his way to the light. 199 He will use even the beauties of earth only "as steps along which he mounts upward for the sake of that other beauty."

200 We have met, then, with two distinct philosophical doctrines which arise from the conception of the ‘absolute’, or the philosopher's peculiar object: 201 the doctrine of the ‘absolute being or substance’, and that of the ‘absolute ideal or good’. Both doctrines are realistic in that they assume reality to be demonstrated or revealed, rather than created, by knowledge. 202 Both are rationalistic in that they develop a system of philosophy from the problem of philosophy, or deduce a definition of reality from the conception, of reality. 203 There remains a third doctrine of the same type-- the philosophy of Aristotle, the most elabourately constructed system of Greek antiquity, and the most potent influence exerted upon the Scholastic Philosophy of the long mediæval period. 204 This philosophy was rehabilitated in the eighteenth century by Leibniz, the brilliant librarian of the court of Hanover. 205 The extraordinary comprehensiveness of Aristotle's philosophy makes it quite impossible to render here even a general account of it. There is scarcely any human discipline that does not to some extent draw upon it. 206 We are concerned only with

the central principles of the metaphysics.

207 Upon the common ground of rationalism and realism, Plato and Aristotle are complementary in temper, method, and principle. 208 Plato's is the genius of inspiration and fertility, Aristotle's the genius of erudition, mastery, and synthesis. 209 In form, Plato's is the gift of expression, Aristotle's the gift of arrangement. Plato was born and bred an aristocrat, and became the lover of the best-- the uncompromising purist; Aristotle is middle-class, and limitlessly wide, hospitable, and patient in his interests. 210 Thus while both are speculative and acute, Plato's mind is intensive and profound, Aristotle's extensive and orderly. 211 It was inevitable, then, that Aristotle should find Plato one-sided. The philosophy of the ideal is not worldly enough to be true.

212 It is a religion rather than a theory of reality. Aristotle, however, would not renounce it, but construe it that it may better provide for Nature and history. This is the significance of his new terminology.

213 Matter, to which Plato reluctantly concedes some room as a principle of degradation in the universe, is now admitted to good standing. 214 Matter or material is indispensable to being as its potentiality or that out of which it is constituted. 215 The ideal, on the other hand, loses its exclusive title to the predicate of reality, and becomes the form, or the determinate nature which exists only in its particular embodiment. 216 The being or substance is the concrete individual, of which these are the abstracted aspects. Aristotle's "form," like Plato's "idea," is a teleological principle. The essential nature of the object is its perfection. 217 It is furthermore essential to the object that it should strive after a higher perfection. With Aristotle, however, the reality is not the consummation of the process, the highest perfection in and for itself, but the very hierarchy of objects that ascends toward it.

218 The highest perfection, or God, is not itself coextensive with being, but the final cause of being-- that on account of which the whole progression of events

takes place. 219 Reality is the development with all of its ascending stages from the maximum of potentiality, or matter, to the maximum of actuality, or God the pure form.

220 To understand the virtue of this philosophy as a basis for the reconciliation of different interests, we must recall the relation between Plato and Spinoza. 221 Their characteristic difference appears to the best advantage in connection with mathematical truth. Both regarded geometry as the best model for philosophical thinking, but for different reasons. 222 Spinoza prized geometry for its necessity, and proposed to extend it. His philosophy is the attempt to formulate a geometry of being, which shall set forth the inevitable certainties of the universe.

223 Plato, on the other hand, prized geometry rather for its definition of types, for its knowledge of pure or perfect natures such as the circle and triangle, which in immediate experience are only approximated. 224 His philosophy defines reality similarly as the absolute perfection.

225 Applied to nature Spinozism is mechanical, and looks for necessary laws, while Platonism is teleological, and looks for adaptation and significance. 226 Aristotle's position is intermediate. With Plato he affirms that the good is the ultimate principle. 227 But this very principle is conceived to govern a universe of substances, each of which maintains its own proper being, and all of which are reciprocally determined in their changes. 228 Final causes dominate Nature, but work through efficient causes. 229 Reality is not pure perfection, as in Platonism, nor the indifferent necessity, as in Spinozism, but the system of beings necessary to the complete progression toward the highest perfection. 230 The Aristotelian philosophy promises, then, to overcome both the hard realism of Parmenides and Spinoza, and also the supernaturalism of Plato.

231 But it promises, furthermore, to remedy the defect common to these two doctrines, the very besetting problem of this whole type of philosophy. 232 That problem, as has been seen, is to

provide for the imperfect within the perfect, for the temporal incidents of Nature and history within the eternal being. 233 Many absolutist philosophers have declared the explanation of this realm to be impossible, and have contented themselves with calling it the realm of opinion or appearance. 234 And this realm of opinion or appearance has been used as a proof of the absolute. 235 Zeno, the pupil of Parmenides, was the first to elabourate what have since come to be known as the paradoxes of the empirical world.

236 Most of these paradoxes turn upon the infinite extension and divisibility of space and time. 237 Zeno was especially interested in the difficulty of conceiving motion, which involves both space and time, and thought himself to have demonstrated its absurdity and impossibility. 238 His argument is thus the complement of Parmenides's argument for the indivisible and unchanging substance. Now the method which Zeno here adopts may be extended to cover the whole realm of Nature and history. 239 We should then be dialectically driven from this realm to take refuge in absolute being. But the empirical world is not destroyed by disparagement, and cannot long lack champions even among the absolutists themselves. 240 The reconciliation of Nature and history with the absolute being became the special interest of Leibniz, the great modern Aristotelian. 241 As a scientist and man of affairs, he was profoundly dissatisfied with Spinoza's resolution of Nature, the human individual, and the human society into the universal being. 242 He became an advocate of individualism while retaining the general aim and method of rationalism.

243 Like Aristotle, Leibniz attributes reality to individual substances, which he calls "monads"; 244 and like Aristotle he conceives these monads to compose an ascending order, with God, the monad of monads, as its dominating goal.

245 "Furthermore, every substance is like an entire world and like a mirror of God, or indeed of the whole world which it portrays, each one in its own fashion; 246

almost as the same city is variously represented according to the various situations of one who is regarding it. 247 Thus the universe is multiplied in some sort as many times as there are substances, and the glory of God is multiplied in the same way by as many wholly different representations of his works."

248 The very "glory of God," then, requires the innumerable finite individuals with all their characteristic imperfections, that the universe may lack no possible shade or quality of perspective.

249 But the besetting problem is in fact not solved, and is one of the chief incentives to that other philosophy of absolutism which defines an absolute spirit or mind. 250 Both Aristotle and Leibniz undertake to make the perfection which determines the order of the hierarchy of substances, at the same time the responsible author of the whole hierarchy. 251 In this case the dilemma is plain. If the divine form or the divine monad be other than the stages that lead up to it, these latter cannot be essential to it, for God is by definition absolutely self-sufficient. 252 If, on the other hand, God is identical with the development in its entirety, then two quite incommensurable standards of perfection determine the supremacy of the divine Nature, that of the whole and that of the highest parts of the whole. 253 The union of these two and the definition of a perfection which may be at once the development and its goal, is the task of absolute idealism.

254 Of the two fundamental questions of epistemology, absolute realism answers the one explicitly, the other implicitly. 255 As respects the source of the most valid knowledge, Parmenides, Plato, Aristotle, Spinoza are all agreed: true knowledge is the work of reason, of pure intellection. 256 Plato is the great exponent of dialectic, or the reciprocal affinities and necessities of ideas. Aristotle is the founder of deductive logic. 257 Spinoza proposes to consider even "human actions and desires" as though he were "concerned with lines, planes, and solids." 258 Empirical data may be the occasion, but cannot be the ground of the

highest knowledge. 259 According to Leibniz, "it seems that necessary truths, such as we find in pure mathematics, and especially in arithmetic and geometry, must have principles whose proof does not depend upon instances, 260 nor, consequently, upon the witness of the senses, although without the senses it would never have come into our heads to think of them."

261 The answers which these philosophies give to the question of the relation between the state of knowledge and its object, divide them into two groups. 262 Among the ancients reason is regarded as the means of emancipation from the limitations of the private mind. "The sleeping turn aside each into a world of one's own," but "the waking"-- the wise people-- "have one and the same world." 263 What the individual knows belongs to the self only in so far as it is inadequate. 264 Hence for Plato the ideas are not the attributes of a mind, but that self-subsistent truth to which, in its moments of insight, a mind may have access. 265 Opinion is "my own," the truth is being. The position of Aristotle is equally clear. "Actual knowledge," he maintains, "is identical with its object."

266 Spinoza and Leibniz belong to another age. Modern philosophy began with a new emphasis upon self-consciousness. 267 In his celebrated argument--"I think, hence I am" (cogito ergo sum)-- Descartes established the independent and substantial reality of the thinking activity. 268 The "I think" is recognised as in itself a fundamental being, known intuitively to the thinker. 269 Now although Spinoza and Leibniz are finally determined by the same motives that obtain in the cases of Plato and Aristotle, they must reckon with this new distinction between the thinker and own object. 270 The result in the case of Spinoza is the doctrine of "parallelism," in which mind is defined as an "infinite attribute" of substance, an aspect or phase coextensive with the whole of being. 271 The result in the case of Leibniz is his doctrine of "representation" and "preëstablished harmony," 272 whereby each monadic substance is in itself an active spiritual entity,

and belongs to the universe through its knowledge of a specific stage of the development of the universe. 273 But both Spinoza and Leibniz subordinate such conceptions as these to the fundamental identity that pervades the whole. 274 With Spinoza the attributes belong to the same absolute substance, and with Leibniz the monads represent the one universe. 275 And with both, finally, the perfection of knowledge, or the knowledge of God, is indistinguishable from its object, God himself. 276 The epistemological subtleties peculiar to these philosophers are not stable doctrines, but render inevitable either a return to the simpler and bolder realism of the Greeks, or a passing over into the more radical and systematic doctrine of absolute idealism.

277 We have met with two general motives, both of which are subordinated to the doctrine of an absolute being postulated and sought by philosophy. 278 The one of these motives leads to the conception of the absolutely necessary and immutable substance, the other to the conception of a consummate perfection. 279 There is an interpretation of life appropriate to each of these conceptions. Both agree in regarding life seriously, in defining reason or philosophy as the highest human activity, 280 and in emphasising the identity of the individual's good with the good of the universe. But there are striking differences of tone and spirit.

281 Although the metaphysics of the Stoics have various affiliations, the Stoic code of morality is the true practical sequel to the Eleatic-Spinozistic view of the world. 282 The Stoic is one who has set own affections on the eternal being. They asks nothing of it for themselves, but identifies the self with it. 283 The saving grace is a sense of reality. The virtuous human is not one who remakes the world, or draws upon it for own private uses; even less one who rails against it, or complains that it has used one ill. 284 You are rather one who recognises that there is but one really valid claim, that of the universe itself. But you not only submits to this claim on account of its superiority; you makes it your own. 285 The

discipline of Stoicism is the regulation of the individual will to the end that it may coincide with the universal will. 286 There is a part of human by virtue of which one is satisfied with what things are, whatever they be. That part, designated by the Stoics as "the ruling part," is the reason. 287 In so far as human seeks to understand the laws and natures which actually prevail, you cannot be discontented with anything whatsoever that may be known to you.

288 "For, in so far as we are intelligent beings, we cannot desire anything save that which is necessary, nor yield absolute acquiescence to anything, save to that which is true: 289 wherefore, in so far as we have a right understanding of these things, the endeavour of the better part of ourselves is in harmony with the order of Nature as a whole."

290 In agreement with this teaching of Spinoza's is the famous Stoic formula to the effect that "nothing can happen contrary to the will of the wise person," who is free through own very acquiescence. 291 If reason be the proper "ruling part," the first step in the moral life is the subordination of the appetitive nature and the enthronement of reason. 292 One who is the self rational-will then recognise the fellowship of all rational beings, and the unitary and beneficent rationality of the entire universe. 293 The highest morality is thus already upon the plane of religion.

294 With Spinoza and the Stoics, the perfection of the individual is reduced to what the universe requires of you. 295 The good person is willing to be whatever you must be, for the sake of the whole with which through reason you are enabled to identify yourself. 296 With Plato and Aristotle the perfection of the individual is commended, that the universe may abound in perfection. 297 The good person is the ideal human-- the expression of the type. And how different the quality of a morality in keeping with this principle! 298 The virtues which Plato enumerates-- temperance, courage, wisdom, and justice-- compose a consummate human nature. He is thinking not of the necessities but of the

possibilities of life. 299 Knowledge of the truth will indeed be the best of human living, but knowledge is not prized because it can reconcile human to own limitations; it is the very overflowing of own cup of life. 300 The youth are to "dwell in the land of health, amid fair sights and sounds; and beauty, the effluence of fair works, will visit the eye and ear, like a healthful breeze from a purer region, and insensibly draw the soul even in childhood into harmony with the beauty of reason."

301 Aristotle's account of human perfection is more circumstantial and more prosaic. "The function of human is an activity of soul in accordance with reason," and his happiness or well-being will consist in the fullness of rational living. 302 But such fullness requires a sphere of life that will call forth and exercise the highest human capacities. 303 Aristotle frankly pronounces "external goods" to be indispensable, and happiness to be therefore "a gift of the gods." 304 The rational human will acquire a certain exquisiteness or finesse of action, a "mean" of conduct; and this virtue will be diversified through the various relations into which you must enter, and the different situations which you must meet. 305 You will be not merely brave, temperate, and just, as Plato would have you, but liberal magnificent, gentle, truthful, witty, friendly, and in all self-respecting or high-minded. 306 In addition to these strictly moral virtues, you will possess the intellectual virtues of prudence and wisdom, the resources of art and science; and will finally possess the gift of insight, or intuitive reason. 307 Speculation will be your highest activity, and the mark of your kinship with the gods who dwell in the perpetual contemplation of the truth.

308 Aristotle's ethics expresses the buoyancy of the ancient world, when the individual does not feel the self oppressed by the eternal reality, but rejoices in it. 309 He is not too conscious of his sufferings to be disinterested in his admiration and wonder. It is this which distinguishes the religion of Plato and Aristotle from that of the Stoics and Spinoza. 310 With both alike, religion consists not in

making the world, but in contemplating it; not in coöperating with God, but in worshipping Him. 311 Plato and Aristotle, however, do not find any antagonism between the ways of God and the natural interests of humans. 312 God does not differ from humans save in His exalted perfection. The contemplation and worship of Him comes as the final and highest stage of a life which is organic and continuous throughout. 313 The love of God is the natural love when it has found its true object.

314 "For you who has been instructed thus far in the things of love, and who has learned to see the beautiful in due order and succession, when you comes toward the end will suddenly perceive a nature of wondrous beauty-- 315 and this, Socrates, is that final cause of all our former toils, which in the first place is everlasting-- 316 not growing and decaying, or waxing and waning; in the next place not fair in one point of view and foul in another, 317 or in the likeness of a face or hands or any other part of the bodily frame, or in any form of speech or knowledge, nor existing in any other being; 318 but beauty only, absolute, separate, simple, and everlasting, which without diminution and without increase, or any change, is imparted to the ever-growing and perishing beauties of all other things."

319 The religion of Spinoza is the religion of one who has renounced the favour of the universe. 320 He was deprived early in life of every benefit of fortune, and set out to find the good which required no special dispensation but only the common lot and the common human endowment. 321 He found that good to consist in the conviction of the necessity, made acceptable through the supremacy of the understanding. 322 The like faith of the Stoics makes of no account the difference of fortune between Marcus the emperor and Epictetus the slave.

323 "For two reasons, then, it is right to be content with that which happens to thee; the one because it was done for thee and prescribed for thee, and in a manner had reference to thee, originally from the most ancient causes spun with thy destiny; 324 and the other

because even that which comes severally to every human is to the power which administers the universe a cause of felicity and perfection, nay even of its very continuance. 325 For the integrity of the whole is mutilated, if thou cuttest off anything whatever from the conjunction and the continuity either of the parts or of the causes. 326 And thou dost cut off, as far as it is in thy power, when thou art dissatisfied, and in a manner triest to put anything out of the way."

THE ACCEPTED CONTENT OF MORALS

George Stuart Fullerton

5 Is there an accepted content of morals? Can we use the expression without going on to ask: Accepted where, when, and by whom?

2 To be sure, certain eminent moralists have inclined to maintain that humans are in substantial agreement in regard to their moral judgments. 3 Joseph Butler, writing in the first half of the eighteenth century, came to the conclusion that, however humans may dispute about particulars, there is an universally acknowledged standard of virtue, 4 professed in public in all ages and all countries, made a show of by all humans, enforced by the primary and fundamental laws of all civil constitutions: namely, justice, veracity, and regard to common good.

5 Sir Leslie Stephen, writing in the latter half of the nineteenth, tells us that "in one sense moralists are almost unanimous; in another they are hopelessly discordant. 6 They are unanimous in pronouncing certain classes of conduct to be right and the opposite wrong. No moralist denies that cruelty, falsity and intemperance are vicious, or that mercy, truth and temperance are virtuous."

7 In other words, these writers would teach us that people are, on the whole, agreed in approving, explicitly or implicitly, some standard of conduct sufficiently definite to serve as a code of morals. 8 But that there is such a substantial agreement among people has not impressed all observers to the same degree. 9 Locke, who wrote before Butler, based his arguments against the

existence of innate moral maxims upon the wide divergencies found among various classes of people touching what is right and what is wrong.

10 The historian, the anthropologist and the sociologist reinforce his reasonings with a wealth of illustration not open to the people of an earlier time. 11 They present us with codes, not a code; with multitudinous standards, not a single standard; with what has been accepted here or there, at this time or at that; and we may well ask ourselves where, amid this profusion, we are to find the one and acceptable code.

WHAT CONSTITUTES SUBSTANTIAL AGREEMENT?

12 To be sure, we may be very generous in our interpretation of what constitutes substantial agreement; 14 we may deny significance to all sorts of discrepancies by relegating them to the unimpressive class of "disputes about particulars." 15 Such an impressionistic indifference to detail may leave us with something on our hands as little serviceable as a composite photograph made from individual objects which have little in common, a blur lacking all definite outline and not recognisable as any object at all. 16 No human can guide own conduct by the common core of many or of all moral codes. Taken in its bald abstraction, it is not a code or anything like a code. 17 Who can walk, without walking in some particular way, in some direction, at some time? Who can mind own manners without being mannerly in accordance with the usages of some race or people?

18 Those who content themselves with enunciating very general moral principles may, it is true, be of no little service to their fellow-humans; but that is only because their fellow-humans are able to supply the details that convert the blur into a picture. 19 Some twenty-four hundred years ago Heraclitus told his contemporaries "to act according to Nature with understanding"; we are often told today that the rule of our lives should be "to do good." 20 Had the ancient Greek not possessed their own notions of what might properly be meant by Nature and

by understanding, did we not ourselves have some rather definite conception 21 of what actions may properly fall under the caption of doing good, such admonitions could not lead to the stirring of a finger. 22 Who would appeal to own physician for advice as to diet, if you expected from no more than the counsel to eat, at the proper hours, enough, but not too much, of suitable food?

23 If, then, we confine our admonitions to the group of abstractions which constitute the universally acknowledged standard of virtue when all the individual differences which characterise different codes have been ignored, 24 we preach what, taken alone, no person can live by, and no community of people has ever attempted to live by. 25 If we leave it to our hearers to drape our naked abstractions with concrete details, each will set to work in a different way. 26 The method of the composite photograph seems unprofitable in attempting to solve the problem of morals.

DOGMATIC ASSUMPTION

27 There is, however, a second way by which the variations which characterise different codes may come to be relegated to a position of relative insignificance. 28 We may assume that our own code is the ultimate standard by which all others are to be judged, and we may set down deviations from it to the account of the ignorance or the perversity of our fellow-people. 29 So regarded, they are aberrations from the normal, and only true code of conduct; interesting, perhaps, but little enlightening, for they can have little bearing upon our conception of what we ought to do.

30 A presumption against this arbitrary assumption that we have the one and only desirable code is suggested the unthinking acceptance of the traditional by those who are lacking in enlightenment and in the capacity reflection. 31 Is it not significant that a contact with new ways of thinking has a tendency, at least, to make people broaden their horizon and to revise some of their views?

32 In other fields, we hope to attain to a capacity for self-criticism. We expect to learn from other people. 33 Why should we, in the sphere of morals, lay claim to the possession of the truth, the whole truth, and nothing but the truth? 34 Why should we refuse to learn from anyone? Such a position seems unreasoning. It puts moral judgments beyond the pale of argument and intelligent discussion. 35 It is an assumption of infallibility little in harmony with the spirit of science. 36 The fact that a given standard of conduct is in harmony with our traditions, habits of thought, and emotional responses, does not prove to other people that it is, not one of a number of accepted codes, 37 but in a quite peculiar sense acceptable, a thing to put in a class by itself-- the class into which each mother puts her own child, as over against other children.

38 Moreover, such an unreasoned assumption of superiority must make one little sympathetic in one's attitude toward the moral life of other peoples. 39 Into the significance of their social organisation, of their customs, their laws, one can gain no insight. 40 Their hopes, their fears, their strivings, their successes and their failures, their approval and disapproval of their fellows, their peace of conscience and their remorse, must leave us cold and aloof.

41 It is not profitable for us to assume at the outset that the differences exhibited in the moral judgments of individuals or of peoples are of minor significance. 42 They are facts to be dealt with in the light of some theory. An ethical theory which ignores them must rest upon a narrow and insecure foundation. 43 It is exposed to assault from many quarters. It may, in default of better means of defence, be compelled to take refuge behind the blind wall of dogmatic assertion. 44 On the other hand, a theory which gives them frank recognition, and strives to exhibit their real significance in the life of the individual and of the race, may be able to show lying among them the golden cord of reason which saves them from the charge of being incoherent facts. 45 It may

even lead us back to a conservatism no longer unreasoning, but rationally defensible and conscious of its proper limits. 46 The blindly conservative person seems to be faced with the alternative of stagnation or revolution. 47 The rationally conservative may regard the development of the moral life as a Pilgrim's Progress, not without its untoward accidents, but, in spite of them, a gradual advance toward a desirable goal.

THE CODES OF COMMUNITIES: JUSTICE

George Stuart Fullerton

6 In view of the existing tendency in the average person, and even in some philosophers, to pass lightly over the diversities exhibited by different codes, 2 it is well to cast a brief preliminary glance at the content of morals as accepted, both by communities of people, and by their more reflective spokes-person, the moralists. Let us first take a look at the codes of communities.

3 We have seen that Butler viewed justice, veracity and regard to common good as virtues accepted among people everywhere. 4 But we may also see, if we look into his pages, that he neglected to point out that there may be the widest divergencies in human's notions of what constitutes justice, veracity and common good. 5 And people differ widely on the score of the degree of emphasis to be laid upon their observance.

6 Take justice. Where people possess a code, written or unwritten, that may properly be called moral, we expect of them the judgment that guilt should be punished. 7 But what shall be accounted guilt? What shall be the measure of retribution? Who shall be fixed upon as guilty?

8 As to what constitutes guilt. We have only to remind ourselves that the Dyak head-hunter is not condemned by his fellows, but is admired; 9 that the fattening and eating of a slave may, in a given primitive community, be accounted no crime; 10 that infanticide has been most widely approved, and that not merely in primitive communities, for Greece and Rome, when they were far from primitive, practiced certain

forms of it with a view to the good of the state; 11 that the holding of a fellow-creature in bondage, and exploiting them for one's own advantage, even under the lash, is no longer a crime in the eye of the law even in the most civilised states. 12 On the other hand, it may be a crime to eat a female opossum. The impressive imperative: Thou shalt not! appears to bear unmistakable reference to time and circumstance.

13 And what is the natural and proper measure of punishment? The ancient and primitive rule of an eye for an eye and a tooth for a tooth suggests the figure of the scales, the impartially meting out to each person of own due.

14 It is obviously a rule that cannot be applied in all cases. One cannot take the tooth of a toothless person, or compel a thievish beggar to restore fruit which has been eaten. 15 We should be horrified were any serious attempt made to make the rule the basis of legislation in any civilised state today, but humans have not always been so fastidious. Approximations to it have been incorporated into the laws of various peoples.

16 But all have modified it to some degree, and the modifications have taken many forms-- the punishment of someone not the criminal, compensation in money or in goods, incarceration, and whatnot. 17 Nor have the modifications been made solely on account of the difficulty of applying the rule baldly stated. Other influences have been at work.

18 Thus, in the famous Babylonian code, the person who struck out the eye of a patrician lost own eye in return, and own tooth answered for the tooth of an equal-- but the rule was not made general. 19 In state after state it has been found just to treat differently the patrician, the plebeian, the slave, the man, the woman, the priest. 20 In the very state to which Butler belonged, benefit of clergy could be claimed, up to relatively recent times, by those who could read. 21 The educated criminal escaped hanging for offences for which own illiterate neighbour had to swing.

22 Nor is there any clear consensus of opinion touching the question of who shall be selected as the bearer of punishment. 23 If a person has injured another unintentionally, shall one be held to make amends? It has seemed just to people that one should. 24 That one person should be made responsible for the misdeeds of another, under the principle of collective responsibility, has commended itself as just to a multitude of minds. 25 Not merely the sins of the fathers, but those of the most distant relations, those of neighbours, of fellow-tribes-people, of fellow-citizens, have been visited upon those whose sole guilt lay in such a connection with the directly guilty parties. 26 This is not a sporadic phenomenon. Among the ancient Hebrews, in Babylonia, in Greece, in the later legislation of Rome, in medieval and even in modern Europe, the principle of collective responsibility has been accepted and has seemed acceptable. 27 Asia, Africa and Oceania have cast votes for it. So have the Americas.

THE CODES OF COMMUNITIES: VERACITY

28 As to veracity: It has undoubtedly been valued to some degree, and with certain limitations, by tribes and nations the most diverse in their degrees of culture. 29 Did people never speak the truth they might well never speak at all. But to maintain that absolute veracity has at all times been greatly valued would be an exaggeration. 30 The lie of courtesy, the clever lie, the lie to the stranger, have been and still are, in many communities both uncivilised and more advanced, not merely condoned, but approved. 31 With the defence which has been made of the doctrines of mental reservation and pious fraud students of church history are familiar. 32 In diplomacy and in war today highly civilised nations find deceptions of many sorts profitable to them, nor are such generally condemned.

33 What modern government does not employ secret service agents, and value them in proportion to the degree of skill with which they manage to deceive their fellows, 34 while limiting the exercise of

professional good faith to their intercourse with their paymaster? 35 The secret service agent of transparent frankness, who could not bear to deceive own neighbour, would not hold the post for a day. You would be a subject for Homeric laughter.

36 Moreover, if the question may be raised: what constitutes justice? May one not equally well ask: what constitutes veracity or its opposite? 37 Where does the silence of indifference shade into purposed concealment, and the latter into what is unequivocally deception? 38 At what point does deception blossom out into the unmistakable lie? One may take advantage of an accidental misunderstanding of what one has said; one may use ambiguous language; one may point instead of speaking. 39 Between going about with a head of glass, with all one's thoughts displayed as in a show-case to every comer, and the settled purpose to deceive by the direct verbal falsification, there is a long series of intermediate positions. 40 The commercial maxim that one is not bound to teach the person with whom one is dealing how to conduct own business, and the lawyer's dictum that the advocate is under no obligation to put the self in the position of the judge, obviously, will bear much stretching.

THE CODES OF COMMUNITIES: THE COMMON GOOD

41 Nor are the facts which confront us less perplexing when we turn to that "regard to the common good" which Butler finds to be acknowledged and enforced by the primary and fundamental laws of all civil constitutions. 42 Whether we look at the past or view the present, whether we study primitive communities or confine ourselves to civilised nations, we see that common good is not, apparently, conceived as the good of all human, however much the words "justice" and "humanity" may be upon people's lips.

43 Has any modern state as yet succeeded in incorporating in its civil constitution such provisions as will ensure to all classes of its subjects any considerable share in the common good? 44 Slaves and animals, said Aristotle, have no

share in happiness, nor do they live after their own choice. 45 The pervading unrest of the modern economic community is due to the widespread conviction that the existing organisation of society does not sufficiently make for the happiness of all. 46 Some states with a high degree of culture have not even made a pretense of having any such aim. They have deliberately legislated for the few.

47 Even where the avowed aim is the common good of all, states have assumed that some must be sacrificed for others. 48 Certain individuals are selected to die in the trenches in the face of the enemy, that others may be guaranteed liberty and the pursuit of happiness. 49 Grotius, the famous jurist of the seventeenth century, has been criticised for holding that a beleaguered town might justly deliver up to the enemy a small number of its citizens in order to purchase immunity for the rest. 50 How far do the cases differ in principle? "Among persons variously endowed," wrote Hegel, "inequality must occur, and equality would be wrong." 51 Commonwealths of many degrees of development have recognised inequalities of many sorts, and have treated their subjects accordingly.

52 "For diet," said Bentham with repellent frankness, "nothing but self-regarding affection will serve." Benevolence he considered a valuable addition "for a dessert." 53 He had in mind the individual, and he did injustice to individuals in certain of their relations. But how do things look when we turn our attention to the relations between states? 54 Does any state actually make it a practice to treat its neighbour as itself? Would its citizens approve of its doing so?

55 The Roman was compelled to formulate a *jus gentium*, a law of nations, to deal with those who held, to him, a place beyond the pale of law as he knew it. 56 Many centuries have elapsed since pagan philosophers taught the brotherhood of man, and since Christian divines began to preach it with passionate fervour. 57 Yet civilised nations today are still seeking to find a *modus-vivendi*, which may put an end to strife and enable them to live together. The

jus-gentium, or its modern equivalent, is, alas! still in its rudiments.

58 To obviate misunderstanding at this point, it is well to state that, in adducing all the above facts, I do not mean to argue that it is abnormal and an undesirable thing that the scales of justice should, at times, be weighted in divers ways. 59 I am not maintaining that the distribution of common good should proceed upon the principle of strict impartiality.

60 What is possible and is desirable in this field is not something to be decided off-hand. 61 But the facts suffice to illustrate the truth that the discrepancies to be found in the codes of different communities can scarcely be dismissed as unimportant details. They are something far too significant for that.

THE CODES OF THE MORALISTS

George Stuart Fullerton

7 If, from the codes, or the more or less vague bodies of opinion, which have characterised different communities, we turn to the moralists, we find similar food for thought.

2 But who are the moralists? Can we put into one class those who preach a short-sighted selfishness or a calculating egoism and those who urge upon us the law of love? 3 Those who recommend a contempt of humankind, and those who inculcate a reverence for humanity? 4 Those who incline to leave us to our own devices, telling us to listen to conscience, and those who draw up for us elabourate sets of rules to guide conduct? 5 The histories of ethics are rather tolerant in herding together sheep and goats. And not without reason. 6 Those whom they include have been in a sense the spokes-person of their fellows. Their words have found an echo in the souls of many. 7 They are concerned with a rule of life, and their rule of life, such as it is, rests upon some principle which has impressed people as being not wholly unreasonable.

8 In taking a glance at what they have to offer us, I shall not go far afield, and shall exercise a brevity compatible with the purpose of mere illustration. 9 To the

moralists of ancient Greece, and, to a lesser degree, to those of the Roman Empire, to the Christian teachers who succeeded to their heritage in the centuries which followed, 10 and to the more or less independent thinkers who made their appearance after the Reformation, we can trace our ethical pedigree. 11 For our purpose we need seek no wider field. Here we may find sufficiently notable contrasts of opinion to disturb the dogmatic slumber of even an inert mind. 12 The most cursory glance makes us inclined to accept with some reserve Stephen's claim that "the difference between different systems is chiefly in the details and special application of generally admitted principles."

EPICUREAN AND STOIC

13 Thus, Aristippus of Cyrene advised people to grasp the pleasure of the moment rather than to await the more uncertain pleasure of the future; 14 but he also counselled, for prudential reasons the avoidance of a conflict with the laws. 15 Such advice takes cognisance of the self-love of the individual, and is not self-love reasonable?

16 Nevertheless, such advice might be given by a discouraged criminal of a reflective turn of mind, on release from prison, to a comrade not yet chastened by incarceration. 17 Epicurus praises temperance and fortitude, but only as measures of prudence. 18 He praises justice, but only in so far as it enables us to escape harm, and frees us from that dread of discovery that haunts the steps of the evil-doer. 19 His more specific maxims, do not fall in love with a woman, become the father of a family, or, generally, go into politics, smack strongly of the rule of life recommended to Feuillet's hero, Monsieur de Camors, by his worldly-wise and cynical father.

20 Contrast with these men the Stoics, whose rule of life was to follow Nature, and to eschew the pursuit of pleasure. Human's nature, said Epictetus, is social; wrongdoing is antisocial; affection is natural.

21 Said Marcus Aurelius, it is characteristic of the rational soul for a person to love own

neighbour. 22 The cautious bachelor imbued with Epicurean principles would find strange and disconcerting the Stoic position touching citizenship: 23 "My nature is rational and social; and my city and country, so far as I am Antoninus, is Rome, but so far as I am a man, it is the world. The things then which are useful to these cities are alone useful to me."

PLATO; ARISTOTLE; THE CHURCH

24 No more famous classification of the virtues-- those qualities of character which it is desirable for a human to have, and which determine your doing what it is desirable that you should do-- 25 has ever been drawn up than that offered us by Plato: Wisdom, Courage, Temperance and Justice. 26 It is interesting to lay beside it the longer list drawn up by Aristotle, and to compare both with that which commended itself to the mind of the mediaeval church-person.

27 With Aristotle, the virtues are made to include:

Wisdom
High-mindedness
Justice
Ambition
Courage
Gentleness
Temperance
Friendliness
Liberality
Truthfullness
Magnificence
Decorous Wit

28 and it is suggested that, although scarcely a virtue, a sense of shame is becoming in youth.

29 We find the Christian teachers especially recommending:

Obedience
Patience
Benevolence
Purity
Humility
Alienation from the "World"
Alienation from the "Flesh"

30 and their lists of the "deadly sins" they select from the following:

Pride
Arrogance
Anger
Gluttony
Unchastity
Envy
Vain-Glory
Gloominess
Languid Indifference.

31 Could there be a more striking contrast than that between the mediaeval code and those of the great Greek thinkers? 32 Plato recommended as virtues certain general characteristics of character much admired by the Greek of his day. 33 Aristotle accepted them and added to them. He has painted much more in detail the gifts and graces of a well-born and well-situated Greek gentleman as he conceived him. 34 The personage would cut a sorry figure in the role of a mediaeval saint; the mediaeval saint would wear a tarnished halo if endowed with the Aristotelian virtues.

35 The one ideal, the Greek, breathes an air of self-assertion; the other one of self-abnegation. 36 Benevolence, Purity, Humility and Unworldliness are not to be found in the former; Justice, Courage and Veracity appear to be missing in the latter. 37 Wisdom, insight, has given place to the Obedience appropriate to a person clearly conscious of a Law, not human-made, to which human feels the self to be subject.

38 Indeed, the discrepancy between the ideals is such that Aristotle's virtuously high-minded human would have been conceived by the mediaeval churchman to be living in deadly sin, as the very embodiment of pride and arrogance. 39 We find them portrayed as neither seeking nor avoiding danger, for there are few things about which they cares; as ashamed to accept favours, since that implies inferiority; 40 as sluggish and indifferent except when stimulated by some great honour to be gained or some great work to be performed; 41 as frank, for this is characteristic of the person who despises others; as admiring little, for nothing is great to them. 42 Their pride prevents them from harbouring resentment, from seeking praise, and from praising others. This Nietzschean hero would attract attention upon any stage: 43 "The step of the high-minded human is slow, their voice deep, and their language stately, for you who feels anxiety about few things is not apt to be in a hurry; and you who thinks highly of nothing is not vehement."

44 To be sure, virtues not on a given list may be found in, or read into, some of the writings of the

human who presents it. 45 It would be absurd to maintain that the mediaeval churchman had no regard for justice, courage and veracity, as they would define them, or that Plato and Aristotle were wholly deaf to the claims of benevolence. 46 Nevertheless, the variations in the emphasis laid on this virtue or on that, or in the conception of what constitutes this virtue or that, may yield ideals of character and of conduct which bear but a slight family resemblance. 47 Imagine St. Francis of Assisi lowering his voice, slowing his step, and cultivating "high- mindedness," or striving to make himself a pattern of decorous wit.

LATER LISTS OF THE VIRTUES

48 The codes proposed by the moralists of a later time are numerous and widely scattering. It is impossible to do justice to them in any brief compass. 49 A very few instances, selected from among those most familiar to English readers, must suffice to indicate the diversity of their nature.

50 Hobbes deeply concerned to discover some *modus vivendi* which should put a check upon strife between human and own fellow-human, 51 and save us from a life "solitary, poor, nasty, brutish and short," recommends among other virtues:

Justice
Equity
Requital of benefits
Sociability

52 A moderate degree of forgiveness.

The avoidance of pride and arrogance.

53 Locke, who believes that moral principles must be intuitively evident to one who contemplates the nature of God and the relations of humans to Him and to each other, thinks it worthwhile to set down such random maxims as:

54 No government allows absolute liberty.

Where there is no property there is no injustice.

All humans are originally equal.

Humans ought not to harm one another.

Parents have a right to control their children.

55 Hume, whose two classes of virtues comprise the qualities immediately agreeable or useful to ourselves and those immediately agreeable or useful to others, offers us an extended list. 56 He puts into the first class:

Discretion
Caution
Enterprise
Industry
Frugality
Economy
Good Sense, etc.
Temperance
Sobriety
Patience
Perseverance
Considerateness
Secrecy
Order, etc.

57 In the second class he includes:

Benevolence
Justice
Veracity
Fidelity
Politeness
Wit
Modesty
Cleanliness.

58 Manifestly, the lists may be indefinitely prolonged. Why not add to the first-class the pachydermatous indifference to rebuffs which is of such service to the social climber, and, to the second, taste in dress and the habit of not repeating stories?

59 Thomas Reid lays stress upon the deliverances of the individual conscience, when consulted in a quiet hour. 60 Nevertheless he proposes five fundamental maxims:

We ought to exercise a rational self-love, and prefer a greater to a lesser good.

We should follow Nature, as revealed in the constitution of human.

We should exercise benevolence.

Right and wrong are the same for all in the same circumstances.

We should venerate and obey God.

61 With such writers we may contrast the Utilitarians and the adherents of the doctrine of Self-realisation, who lay little stress upon lists of virtues or duties, but aim, respectively, at the greatest happiness of the greatest number, 62 and at the harmonious development of the faculties of human, regarding as virtues such qualities of character as make for the attainment, in the long run, of the one or the other of these ends.

THE STRETCHING OF MORAL CONCEPTS

63 The instances given suffice to show that the moralists speak with a variety of tongues. The code of one age is apt to seem strange and foreign to the people of another. 64 Even where there is apparent agreement, a closer scrutiny often reveals that it has been attained by a process of stretching conceptions. 65 Take for example the so-called "cardinal" virtues dwelt upon by Plato. The Stoics, who made use of his list, changed its spirit. 66 Cicero stretches justice so as to make it cover a watery benevolence. St. Augustine finds the cardinal virtues to be different aspects of Love to God. 67 The great scholastic philosopher of the thirteenth century, St. Thomas, places in the first rank the Christian graces of Faith, Hope and Charity, 68 but still finds it convenient to use the Platonic scheme in ordering a list of the self-regarding virtues taken from Aristotle. 69 Thus may the pillars of a pagan temple be utilised as structural units in, or embellishments of, a Christian church.

70 Our own age reveals the same tendency. Thomas Hill Green, the Oxford professor, follows Plato. But with him we find wisdom stretched to cover artistic creation; 71 we see that courage and temperance have taken on new faces; and justice appears to be able to gather under its wings both benevolence and veracity. 72 A still wider divergence from the original understanding of the cardinal virtues is that of Dewey, who conceives of them as "traits essential to all morality." 73 He treats, under temperance, of purity and reverence; he makes courage synonymous with persistent vigour; he extends justice so as to include love and sympathy; he transforms wisdom into conscientiousness.

74 This variation in the content of moral concepts may be illustrated from any quarter in the field of ethics. 75 Cicero's circumspect "benevolence" advances the doctrine that "whatever one can give without suffering loss should be given even to an entire stranger." 76 Among such obligations he reckons: to prohibit no one from drinking at a stream

of running water; to permit anyone who wishes to light fire from fire; to give faithful advice to one who is in doubt; 77 which things, as he naively remarks, "are useful to the receiver and do no harm to the giver."

78 Compare with this the admonition to love one's neighbour as oneself; Sidgwick's "self-evident" proposition that "I ought not to prefer my own lesser good to the greater good of another;" 79 Bentham's utilitarian formula, "everybody to count for one, and nobody for more than one." The admonition, "be benevolent," may mean many things.

THE REFLECTIVE MIND AND THE MORAL CODES

80 Even the cursory glance we have given above to the moral codes of different communities and those proposed by individual moralists must suffice to bring any thoughtful human to the consciousness that they differ widely among themselves, 81 and that the differences can scarcely be dismissed as insignificant. 82 A little reflection will suffice to convince him, furthermore, that to treat all other codes as if they were mere pathological variations from his own is indefensibly dogmatic.

83 On the other hand, the differences between codes should not be unduly emphasised. The core of identity is there, and, although in its bald abstractness it is not enough to live by, it is vastly significant, nevertheless. 84 If there were not some congruity in the materials, they would never be brought together as the subject of one science. 85 Unless "good," "right," "obligation," "approval," etc., or the rudimentary conceptions which foreshadow them in the mind of the most primitive human beings, had a core of identity which could be traced in societies the most diverse, 86 there would be no significance in speaking of the enlightened morality of one people and the degraded and undeveloped morality of another. 87 There could be no history of the development of the moral ideas. Collections of disparate and disconnected facts do not constitute a science, nor are

they the proper subject of a history.

88 As a matter of fact, we all do speak of degraded moral conceptions, of a perverted conscience, of a lofty morality, of a fine sense of duty; 89 we do not hesitate to compare, i. e., to treat as similar and yet dissimilar, the customs, laws and ethical maxims of different ages and of different races. 90 This means that we have in our minds some standard, perhaps consciously formulated, perhaps dimly apprehended, according to which we rate them. 91 The unreflective human is in danger of taking as this standard one's own actual code, such as it is; of accepting, together with such elements of reason as it may contain, 92 the whole mass of one's inherited or acquired prejudices; the more reflective human will strive to be more rationally critical.

THE DOGMATISM OF THE NATURAL HUMAN

George Stuart Fullerton

8 In morals and in politics it seems natural for human to be dogmatic, to take a position without hesitation, to defend it vehemently, to maintain that others are in the wrong.

2 This is not surprising. We are born into a moral environment as into an all-embracing atmosphere. From the cradle to the grave, we walk with our heads in a cloud of exhortations and prohibitions. 3 From our earliest years we have been urged to make decisions and to act, and we have been furnished with general maxims to guide our action. 4 When, therefore, we approach the solution of a moral problem, we do not, as a rule, acutely feel our fitness to solve it, even though we may be judged quite unfit by others.

5 This unruffled confidence in one's possession of an adequate supply of indubitable moral truth may be found in people who differ widely in their degree of intelligence and in the extent of their information. 6 Some

individuals seem born to it. We may come upon it in the ethical philosopher; we may meet it in the person of science, who knows that it has taken one a quarter of a century to fit the self to be an authority in matters chemical or physical, 7 but who wanders in own hours of leisure into the field of ethics and has no hesitation in proposing radical reforms. 8 But it is more natural to look for the unwavering confidence which knows no questionings among persons of restricted outlook, who have been brought into contact with but one set of opinions. 9 It is characteristic of the child, of the uncultivated classes in all communities, of whole communities primitive in their culture and relatively unenlightened.

THE AWAKENING

10 Manifestly, even the beginnings of ethical science are an impossibility where such a spirit prevails. 11 Where there are no doubts, no questionings, there can be no attempt at rational construction.

12 Fortunately for the cause of human enlightenment there are forces at work which tend to arouse people from this state of lethargy. 13 Horizons are broadened, new ideas make their appearance, there is a conflict of authorities, the birth of a doubt, and, finally, a more or less articulate appeal to Reason.

14 Even a child is capable of seeing that paternal and maternal injunctions and reactions are not wholly alike, and it sets them off against each other. Nor have all the children in the home precisely the same nature.

15 One is temperamentally frank and open, but unsympathetic; another is affectionate, and prone to lying as the sparks fly upward. 16 The virtues and vices are not spontaneously arranged in the same order of importance by children, and differences of opinion may arise. 17 Nor does it take the child long to discover that the law of its own home is not identical with that of the house next door. 18 At school the experience is repeated on a larger

scale; many homes are represented, and, besides that, two codes of law claim allegiance, the code of the schoolboy and that of the master. They may be by no means in accord.

19 And when, in college, the student for the first time seriously addresses the self to the task of the study of ethics as science, one comes to it by no means wholly unprepared. 20 You has had rather a broad experience of the contrasts which obtain between different codes. You are familiar with the code of the home, of the school, of the social class, of the religious community, of the civil community. 21 There sit on the same benches with you the sensitively conscientious student who doubts whether it is a permissible deception of one's neighbour to apply a patch to an old garment so skillfully that it will escape detection; 22 the sporting character who takes it to be the mutual understanding among people that truth shall not be demanded of those who deal in horses and dogs; 23 the youth from Texas who claims that the French philosopher, Janet, cannot be an authority on morals, since he asserts that he who cheats at cards must feel a burning shame. 24 With the ethics of the ancient Hebrews, of the Greeks, of the Romans, our young moralist has had the opportunity to acquire some familiarity, and he can compare them, if he will, with the Christian ethics of his own day. 25 He knows something of history and biography; he has read books of travel, and has some acquaintance with the manners and customs of other peoples. 26 Were he given to reflection, it ought not to surprise him to find a Portuguese sea-cook maintaining that it is wrong to steal, except from the rich; 27 or to learn that a Wahabee saint rated the smoking of tobacco as the worst possible sin next to idolatry, while maintaining that murder, robbery, and such like, were peccadilloes which a merciful God might properly overlook.

28 Material for reflection he has in abundance-- and he often remains relatively dogmatic and unplagued by doubt. 29 But only relatively so; and only so long as the claims of conflicting authorities are not

forced upon his attention, rendered importunate in the light of discussion, made so familiar as to seem real and substantial. 30 It is the tendency of the widening of the horizon to arouse people to reflection, to stimulate to criticism. From such criticism the science of ethics has its birth.

31 What is true of the individual is true of people in the mass. The blind life of social classes long laid in chains by custom and tradition may come to be illuminated by new ideas, 32 and passive acquiescence may give way to active participation in social endeavour. Nor can primitive peoples remain wholly primitive except in isolation. 33 With the increased intercourse between races and peoples, humans are brought to a clear consciousness that the accepted in morals is manifold and diverse; 34 the next step is to question whether it is, in any given instance, of unquestionable authority; thus do people become ripe for the search for the acceptable.

ETHICAL METHOD

George Stuart Fullerton

9 Professor Henry Sidgwick has defined a method of ethics as "any rational procedure by which we determine what is right for individual human beings to do, or to seek to realise by voluntary action."

2 He points out that many methods are natural and are habitually used, but claims that only one can be rational. 3 By which he means that the several methods of determining right conduct urged by the different schools of the moralists must be reconciled, or all but one must be rejected.

4 In this chapter I shall not discuss in detail the schools of the moralists and the specific methods which characterise them. 5 I am here concerned only with the general distinction between the scientific methods of deduction and induction, and its bearing upon ethical investigations.

6 How do we discover that, in an isosceles triangle, the sides which subtend the equal angles are equal? 7 We do not go about collecting the opinions of

individuals upon the subject, nor do we consult the records of other peoples, past or present. 8 We do not measure a great number of triangles and arrive at our conclusion after a calculation of the probable error of our measurements. 9 The appeal to authorities does not interest us; that measurements are always more or less inaccurate, and that all actual triangles are more or less irregular, we freely admit, but we do not regard such facts as significant. 10 We use a single triangle as an illustration, and from what is given in, or along with, that individual instance, we deduce certain consequences in which we have the highest confidence. 11 Here we follow the method of deduction. We accept a "given," with its validity we do not concern ourselves; our aim is the discovery of what may be gotten out of it.

12 In the inductive sciences the individual instance has an importance of quite a different sort. 13 It is not a mere illustration, unequivocally embodying a general truth to which we may appeal directly, treating the instance as a mere vehicle, in itself of little significance. 14 Individual instances are observed and compared; uniformities are searched for; it is sought to establish general truths, not directly evident, but whose authority rests upon the particular facts that have been observed and classified.

15 It is a commonplace of logic that both induction and deduction may be employed in many fields of science. 16 We may attain by inductive inquiry to more or less general truths, which we no longer care to call in question, and which we accept as a "given," to be exploited and carried out in its consequences. 17 Indeed, we need not betake ourselves to science to have an illustration of this method of procedure. 18 In everyday life people have maxims by which they judge of the probable actions of their fellow-people and in the light of which they direct their dealings with them. 19 Such maxims as that people may be counted upon to consult their own interests have certainly not been adopted independently of an experience of what, on particular occasions, people have shown

themselves to be. 20 But, once adopted, they may be treated as, for practical purposes, unquestionable; people are concerned to apply them, not to substantiate them. 21 In so far, people reason from them deductively and pass from the general rule to the particular instance.

THE AUTHORITY OF THE "GIVEN"

22 Obviously the "given," in the sense indicated, may possess, in certain cases, a very high degree of authority, and, in others, a very low degree.

23 In the case of the mathematical truth referred to above, people do not, in fact, find it necessary to call in question the "given," 24 though they may be divided in their notions touching the general nature of mathematical evidence and whence it draws its apparently indisputable authority. 25 In certain of the inductive sciences, as in mechanics, physics and chemistry, generalisations have been attained in which even the critical repose much confidence. 26 In other fields people are constantly making general statements which are promptly contradicted by their fellows, and are drawing from them inferences the justice of which is in many quarters disallowed. 27 There are axioms and axioms, maxims and maxims. 28 The confidence felt by a given individual in a particular "given" does not guarantee its acceptance by all people of equal intelligence. 29 Where, however, the evidence upon which a disputed "given" is based is forthcoming, there is, at least, ground for rational discussion.

30 Not a few famous writers have treated moral truths as analogous to mathematical. 31 To take here a single instance. Sidgwick, in his truly admirable work on "The Methods of Ethics," maintains that 32 "the propositions, 'I ought not to prefer a present lesser good to a future greater good,' and 'I ought not to prefer my own lesser good to the greater good of another,' 33 do present themselves as self-evident; as much e.g. as the mathematical axiom that 'if equals be added to equals the wholes are equals.'"

34 But it is one thing to claim that we are in possession of a "given" with ultimate and indisputable authority; it is another to convince people that we really do possess it. 35 Locke's efforts at deduction fall lamentably short of the model set by Euclid. 36 "Professor Sidgwick's well-known moral axiom, 'I ought not to prefer my own lesser good to the greater good of another,' 37 would," writes Westermarck, "if explained to a Fuegian or a Hottentot, be regarded by him, not as self-evident, but as simply absurd; nor can it claim general acceptance even among ourselves. 38 Who is that 'Another' to whose greater good I ought not to prefer my own lesser good? A fellow-countryman, a savage, a criminal, a bird, a fish-- all without distinction?" 39 To Bentham's "everybody to count for one and nobody for more than one" may be opposed Hartley's preference of benevolent and religious persons to the rest of humankind.

40 The fact that people eminent for their intellectual ability and for the breadth of their information are, in morals, inclined to accept, as ultimate, principles not identical, 41 and thus to found different schools, would seem to indicate that, to one who aims at treating ethics as a science, principles, as well as the deductions from them, should be objects of closest scrutiny. 42 They should not be taken for granted. The history of ethical theory appears to make it clear that the "given" of the moralist is not of the same nature as that of the geometer.

43 The ethical philosopher cannot, hence, confine the self to developing deductively the implications of some principle or principles assumed without critical examination. 44 One must establish the validity even of own principles. This we should bear in mind when we approach the study of the different ethical schools.

HOW THE MORALIST SHOULD PROCEED

George Stuart Fullerton

10 The above reflections on method suggest the materials of which the moralist should avail the

self in rearing the edifice of own science.

2 (1) Evidently you should reflect upon the moral judgments which you finds in yourself, the moral being with whom you are best acquainted. 3 You should endeavour to render consistent and luminous moral judgments which, as you finds, have too often been inconsistent and more or less blind.

4 (2) You should take cognisance of your own setting-- of the social conscience embodied in the community in which you lives.

5 (3) And since, as we have seen, the significance, either of the individual conscience, or of the social conscience revealed in custom, law and public opinion, 6 can hardly become apparent to one who does not bring within own horizon many consciences individual and social, you should enlarge your view so as to include such. 7 The moralists, in our day, show an increasing tendency to pay serious attention to this mass of materials. 8 They do not confine their attention to the moral standard which this person or that has accepted as authoritative for you, nor to that accepted as authoritative in a given community. 9 They study human-- human in all stages of own development and in material and social settings the most diverse.

10 (4) Nor should the student of ethics overlook the work which has been done by those moralists who have gone before you. 11 You who has studied descriptive anatomy is aware of the immense service which has been done you by the unwearied observations of your predecessors; 12 observations which have been put on record, and which draw your attention to numberless details of structure that would, without such aid, certainly escape your attention. 13 Ethics is an ancient discipline. It has fixed the attention of acute minds for many centuries. 14 You who approaches the subject naively, without an acquaintance with the many ethical theories which have been advanced and the acute criticisms to which they have been subjected, will almost certainly say what someone has said before, and said, perhaps, much better. 15 The valour of ignorance will involve you in ignominious defeat.

16 (5) It is evident that the moralist must make use of materials offered you by workers in many other fields of science. 17 The biologist may have valuable suggestions to make touching the impulses and instincts of human.

18 The psychologist treats of the same, and exhibits the work of the intellect in ordering and organising the impulses. They studies the phenomena of desire, will, habit, the formation of character. 19 The anthropologist and the sociologist are concerned with the codes of communities and with the laws of social development. 20 The fields of economics, politics and comparative jurisprudence obviously march with that cultivated by the student of ethics.

THE PHILOSOPHER AS MORALIST

21 In all these sciences at once it is not possible for the moralist to be an adept. 22 The mass of the material they furnish is so vast that the ethical writer who starts out to master it in all its details may well dread that one may be overcome by senility before one is ready to undertake the formulation of an ethical theory.

23 It does not follow, however, that you should leave to those who occupy themselves professionally with any of these fields the task of framing a theory of morals. 24 You must have sufficient information to be able to select with intelligence what has some important bearing upon the problem of conduct, 25 but there are many details into which you need not go. It is well to note the following points:

26 (1) A multitude of details may be illustrative of a comparatively small number of general principles. It is with these general principles that the moralist is concerned. 27 The anthropologist may regard it as own duty to spend much labour in the attempt to discover why this or that act, this or that article of food, happens in a given community to be taboo to certain persons. 28 The student of ethics is not bound to take up the detailed investigation of such matters. 29 Human nature, in its general constitution, is much the same in different races and peoples. The influence of

environment is everywhere apparent. 30 There are significant uniformities to be discovered even by one who has a limited amount of detailed information. 31 "Those who come after us will see nothing new," said Antoninus, "nor have those before us seen anything more, 32 but in a manner you who is forty years old; if you have any understanding at all, has seen by virtue of the uniformity which prevails all things which have been and all that will be." 33 Which is, to be sure, an overstatement of the case, but one containing a germ of truth.

34 (2) We find, by looking into their books, that people most intimately acquainted with the facts of the moral life as revealed in different races and peoples may differ widely in the ethical doctrine which they are inclined to base upon them. 35 Not all people, even when endowed with no little learning, are gifted with the clearness of vision which can detect the significance of given facts; nor are all equally capable of weaving relevant facts into a consistent and reasonable theory. 36 The keenness and the constructive genius of the individual count for much. And breadth of view counts for much also. 37 We have seen that ethics touches many fields of investigation, and the philosopher is supposed, at least, to let own vision range over a broad realm, and to grasp the relations of the different sciences to each other. 38 You are, moreover, supposed to be trained in reflective analysis, and of this ethical theory appears to stand in no little need.

39 (3) Finally, the mere fact that ethics has for so many centuries been regarded as one of the disciplines falling within the domain of the philosopher is not without its significance. 40 One may deplore the tendency to base ethics upon this or that metaphysical doctrine, and desire to see it made an independent science; 41 and yet one may be compelled to admit that it is not easy to comprehend and to estimate the value of many of the ethical theories which have been evolved in the past, without having rather an intimate acquaintance with the history of philosophy. 42 The ethical teachings of Plato,

of Aristotle, of St. Thomas, of Kant, of Hegel, of Green, lose much of their meaning when taken out of their setting. 43 The history of ethical theory is blind when divorced from the history of philosophy, and with the history of ethical theory the moralist should be acquainted.

44 The philosopher has no prescriptive right to preempt the field of ethics. Many people may cultivate it with profit. 45 Nevertheless, you, too, should cultivate it, not independently and with a disregard of what has been done by others, but in a spirit of hearty cooperation, thankfully accepting such help as is offered you by your neighbours.

THE APPEAL TO REASON

George Stuart Fullerton

11 The proper aim of the scientific study of ethics appears to be suggested with sufficient clearness by what has been said in the chapters on the accepted content of morals.

2 Where individuals take up unreflectively the maxims which are to control their conduct, human life can scarcely be said to be under the guidance of reason. 3 Where, moreover, the codes of individuals clash with each other or with the social conscience of their community, and where the codes of different communities are disconcertingly diverse, playful concerted action with a view to the control of conduct appears to be impracticable. 4 Historical accident, blind impulse and caprice, cannot serve as guides for a rational creature seeking to live, along with others, a rational life.

5 "The aim of ethics," says Sidgwick, "is to render scientific i.e., true, and as far as possible systematic-- 6 the apparent cognitions that most humans have of the rightness or reasonableness of conduct, whether the conduct be considered as right in itself, or as the means to some end conceived as ultimately reasonable." 7 The use here of the word "cognitions" calls our attention to the fact that, when people say, "this is right, that is wrong," they mean no more than, "this I like, that I do not like"; 8 and the use of the word "apparent" indicates that the

judgments expressed may be approved by the person who makes them, and yet be erroneous. 9 The appeal is to an objective standard; there is a demand for proof.

10 That most people recognise, in some cases dimly, in some cases clearly and explicitly, that the appeal to such a standard is justifiable, can scarcely be denied. 11 Between "I choose" and "I ought to choose," between "the community demands," and "the community ought to demand," people generally recognise a distinction when they have attained to a capacity for reflection.

12 It has, however, been denied that the appeal is justifiable, and denied by no mean authority. 13 "The presumed objectivity of moral judgments," writes Westermarck, "being a chimera, there can be no moral truth in the sense in which this term is generally understood. 14 The ultimate reason for this is, that the moral concepts are based upon emotions, and that the contents of an emotion fall entirely outside the category of truth. 15 But it may be true or not that we have a certain emotion, it may be true or not that a given mode of conduct has a tendency to evoke in us moral indignation or moral approval. 16 Hence a moral judgment is true or false according as its subject has or has not that tendency which the predicate attributes to it. 17 If I say that it is wrong to resist evil, and yet resistance to evil has no tendency whatever to call forth in me an emotion of moral disapproval, then my judgment is false." 18 The conclusion drawn from this is that there are no general moral truths, and that "the object of scientific ethics cannot be to fix rules for human conduct"; it can only be "to study the moral consciousness as a fact."

THE APPEAL TO REASON JUSTIFIED

19 The words of so high an authority should not be passed over lightly. One is impelled to seek for their proper appreciation and their reconciliation with the judgment of other moralists. 20 Such can be found, I think, by turning to two truths dwelt upon in

what has preceded: the truth that the moralist should not assume that you are possessed of a "given" analogous to that of the geometer--a standard in no need of criticism; 21 and the equally important truth that the moralist cannot hope to frame a code which will simply replace the codes of individual communities and will prescribe the details of human conduct while ignoring such codes altogether.

22 But it does not seem to follow that, because the moralist may not set up an arbitrary code of this sort, you are also forbidden to criticise and compare moral judgments, 23 to arrange existing codes in a certain order as lower and higher, to frame some notion of what constitutes progress. 24 You may hold before yourself, in outline, at least, an ideal of conduct, and not one taken up arbitrarily but based upon the phenomena of the moral consciousness as you have observed them. 25 And in the light of this ideal you may judge of conduct; your appeal is to an objective standard.

26 Thus, you who says that it is false that it is right to reduce to slavery prisoners taken in war may, if you be sufficiently unreflective, have no better reason for your judgment than a feeling of repugnance to such conduct. 27 But, if you have risen to the point of taking broad views of people and their moral codes, you may very well assert the falsity of the statement even when you feels no personal repugnance to the holding of certain persons as slaves. 28 Your appeal is, in fact, to such a standard as is above indicated, and your condemnation of certain forms of conduct is based upon their incompatibility with it.

29 Hence, a person may significantly assert that certain conduct is objectively desirable, although it may not be desired by yourself or by your community.

30 You may judge a thing to be wrong without feeling it to be wrong. Whether anything would actually be judged to be wrong, if no one ever had any emotions, is a different question. 31 With it we may class the question whether anything would be judged to be wrong if no one were possessed of even a spark of reason. 32 There is small choice between having

nothing to see and not being able to see anything.

32 An appeal, thus, from the actual to the ideal appears to be possible. 33 And, since the natural human, unenlightened and unreflective, is not more inclined to show the self to be a reasonable being in the sphere of morals than elsewhere, it seems that there is no little need of ethical science.

34 Its aim is to bring about the needed enlightenment. Its value can only be logically denied by those who maintain seriously that it is easy to know what it is right to do. Do people really hold this, if they are thoughtful?

HUMAN'S NATURE

George Stuart Fullerton

THE BACKGROUND OF ACTIONS

12 In estimating human actions we take into consideration both the doer and the circumstances under which the deed was done. 2 Actions may be desirable or undesirable, good or bad, according to their setting. How shall we judge of the blow that takes away human life? 3 It may be the involuntary reaction of a person startled by a shock; it may be a motion of justifiable self-defence; it may be one struck at the command of a superior and in the defence of one's country; it may be the horrid outcome of cruel rapacity or base malevolence.

4 Nor are the emotions, torn out of their context, more significant than actions without a background. 5 They are mental phenomena to be observed and described by the psychologist; 6 to the moralist they are, taken alone, as unmeaning as the letters of the alphabet, but, like them, capable in combination of carrying many meanings. 7 Anger, fear, wonder, and all the rest are, as natural emotions, neither good nor bad; they are colours, which may enter into a picture and in it acquire various values.

8 In morals, when people have attained to the stage of enlightenment at which moral estimation is a possible process, they always consider emotions, intentions, and actions in the light of their background. 9 We do not demand a moral life of the brutes; we do not look for it in the

intellectually defective and the emotionally insane; 10 nor do we expect a savage caught in the bush to harbour the same emotions, or to have the same ethical outlook, as the missionary with whom we may confront.

11 The concepts of moral responsibility, of desert, of guilt, are emptied of all significance, when we lose sight of the nature, inborn or acquired, of the creature haled before the bar of our judgment, and of the environment, 12 which on the one hand, impels you to action, and, on the other, furnishes the stage upon which the drama of your life must be played out to the end.

13 Hence, you who would not act as the creature of blind impulse or as the unthinking slave of tradition, but would exercise a conscious and intelligent control over your conduct, seems compelled to look at your life and its setting in a broad way, 14 to scrutinise with care both the nature of human and the environment without which that nature could find no expression. 15 When you does this, you only does more intelligently what people generally do instinctively and somewhat at haphazard. 16 You seeks a rational estimate of the significance of conduct, and a standard by which it may be measured.

HUMAN'S NATURE

17 Moralists ancient and modern have had a good deal to say about the nature of human. To some of them it has seemed rather a simple thing to describe it. 18 Its constitution, as they have conceived it, has furnished them with certain principles which should guide human action. 19 Aristotle, who assumed that every human seeks own good, conceived of own good or "well-being" as largely identical with "well-doing." 20 This "well-doing" meant to him "fulfilling the proper functions of human," or in other words acting as the nature of human prescribes.

21 To the Stoic, human's duty was action in accordance with own nature. 22 Butler, many centuries later, found in human's nature a certain "constitution," with conscience naturally supreme and

the passions in a position of subordination. This "constitution" plainly indicated to him the conduct appropriate to a human being.

23 Such appeals to human's nature we are apt to listen to with a good deal of sympathy. Manifestly, human differs from the brutes, and they differ, in their kind, from each other. To each kind, a life of a certain sort seems appropriate. 24 The rational being is expected to act rationally, to some degree, at least. In our dealings with creatures on a lower plane, we pitch our expectations much lower. 25 And the behaviour we expect from each is that appropriate to its kind. The bee and the ant follow unswervingly their own law, and live their own complicated community life. 26 However the behaviour of the brute may vary in the presence of varying conditions, the degree of the variation seems to be determined by rather narrow limits. 27 These we recognise as the limits of the nature of the creature. It dictates to itself, unconsciously, its own law of action, and it follows that law simply and without revolt.

28 When we turn to human, "the crown and glory of the universe," as Darwin calls you, we find you, too, endowed with a certain nature in an analogous sense of the word. 29 You have capacities for which we look in vain elsewhere. The type of conduct we expect of you has its root in these capacities. 30 Human nature can definitely be expected to express itself in a human life,-- one lower or higher, but, in every case, distinguishable from the life of the brute. 31 It means something to speak of the physical and mental constitution of human, that mysterious reservoir from which your emotions and actions are supposed to flow. 32 We feel that we have a right to use the expression, even while admitting that the brain of human is, as far as psychology is concerned, almost unexplored territory, 33 and that the relation of mind to brain is, and is long likely to remain, a subject of dispute with philosophers and psychologists.

HOW TO DISCOVER HUMAN'S NATURE?

34 Nevertheless, in speaking of the nature of any living creature, we are forced to remind ourselves that the original endowment of the creature studied can never be isolated and subjected to inspection independently of the setting in which the subject of our study is found. 35 Who, by an examination of the brain of a bee or of an ant, could foresee the intricate organised industry of the hive or the anthill? 36 The seven ages of human are not stored ready-made in the little body of the infant. At any rate, they are beyond the reach of the most penetrating vision. 37 In the case of the simple mechanisms which can be constructed by human a forecast of future function is possible on the basis of a general knowledge of mechanics. But there is no living being of whose internal constitution we have a similar knowledge. 38 From the behaviour of the creature we gather a knowledge of its nature; we do not start with its nature as directly revealed and infer its behaviour. 39 That there are differences in the internal constitution of beings which react to the same environment in different ways, we have every reason to believe. 40 What those differences are in detail we cannot know. And our knowledge of the capacities inherent in this or that constitution will be limited by what we can observe of its reaction to environment.

41 Sometimes the reaction to environment is relatively simple and uniform. In this case we feel that we can attain without great difficulty to what may be regarded as a satisfactory knowledge of the nature of the creature studied. 42 The conception of that nature appears to be rather definite and unequivocal. When it is once attained, we speak with some assurance of the way in which the creature will act in this situation or in that. 43 If, however, the capacities are vastly more ample, and the environment to which this creature is adjusted is greatly extended, the difficulty of describing in any unequivocal way the nature of the creature becomes indefinitely greater.

44 Is it possible to contemplate human without being struck with the breadth and depth of the gulf which separates the primitive human being from the finished product of civilisation? 45 What a difference in range of emotion, in reach of intellect, in stored information, in freedom of action, between human at your lowest and human at your highest! 46 Can we describe in the same terms what is natural to human everywhere and always?

47 For the filthy and ignorant savage, absorbed in satisfying own immediate bodily needs, standing in the simplest of social relations, taking literally no thought for the morrow, 48 profoundly ignorant of the world in which you finds yourself, possessing over Nature no control worthy of the name, the sport and slave of your environment, it is natural to act in one way. 49 For enlightened humanity, acquainted with the past and forecasting the future, developed in intellect and refined in feeling, rich in the possession of arts and sciences, 50 intelligently controlling and directing the forces of Nature, socially organised in highly complicated ways, it is natural to act in another way. 51 And to each of the intermediate stages in the evolution of civilisation some type of conduct appears to be appropriate and natural.

52 Whither, then, shall we turn for our conception of human's nature? Shall we merely draw up a list of the instincts and impulses which may be observable in all humans? 53 Shall we say no more than that person is gifted with an intelligence superior to that of the brutes? 54 To do this is, to be sure, to give some vague indication of human's original endowment. But it can give us little indication of what it is possible for human, 55 with such an endowment, and in such an environment as makes own setting, to become. And what human becomes, that you are.

56 If human's nature can be revealed only through the development of own capacities, it is futile to seek it in a return to undeveloped human. 57 The nature of the chicken is not best revealed in the egg. And, as human can develop only in interaction with own environment, we must, to

understand you, study your environment also.

THE STRUGGLE WITH NATURE

George Stuart Fullerton

13 It is not possible to disentangle from each other and to consider quite separately the diverse elements which enter into the environment of human and which influence your development.

2 Your environment is two-fold, material and social; but your material setting may affect your social relations, and it is social human, not the individual as such, that achieves a conquest over Nature. 3 However, it is possible, and it is convenient, to direct attention successively upon the one and the other aspect of your environment.

4 At every stage of your development, human must have food, shelter, some means of defense. If they are not easily obtainable, you must strain every nerve to attain them. 5 Are your powers feeble and your intelligence undeveloped, it may tax all your efforts to keep yourself alive and to continue the race in any fashion. 6 The rules which determine your conduct seem rather the dictates of a stern necessity than the products of anything resembling free choice.

7 You who is lashed by hunger and haunted by fear, who cannot provide for the remote future, but must accept good or ill fortune as the accident of the day precipitates your lot upon you, lives and must live a life at but one remove from that of the brute. 8 In such a life the instincts of human attain to a certain expression, but intelligence plays a feeble part. The person remains a slave, under dictation, and moved by the dread of immediate disaster. 9 For an interest in what is remote in time and place, for the extension of knowledge for its own sake, for the development of activities which have no direct bearing upon the problem of keeping you alive and fed, there can be little place. 10 One must be assured that one can live, and live in reasonable security and physical well-being, before the problem of enriching and embellishing life can fairly

present itself as an important problem. 11 One must be set free before one can deliberately set out to shape one's life after an ideal.

12 Not that a severe struggle with physical Nature is necessarily and of itself a curse. It may call out human's powers, stimulate to action, and result in growth and development. 13 Where a prodigal nature amply provides for human's bodily necessities without much effort on your part, the result may be, in the absence of other stimulating influences giving rise to new wants, a paralysing slothfullness, an animal passivity and content. 14 This may be observed in whole peoples highly favoured by soil and climate, and protected by their situation from external dangers. 15 It may be observed in certain favoured classes even in communities which, by long and strenuous effort, have conquered Nature and raised themselves high in the scale of civilisation. 16 The idle sons of the rich, relieved from the spur of necessity, may undergo the degeneration appropriate to parasitic life. 17 In the midst of a strenuous activity adapted to call out the best intellectual and moral powers of human, they may remain unaffected by it, incapable of effort, unintelligent, slothful, the weak and passive recipients of what is brought to them by the labour of others.

18 But the struggle with physical Nature, sometimes a spur to progress and issuing in triumph, may also issue in defeat. 19 Nature may be too strong for human, or, at least, for human at an early stage of your development. She may thwart your efforts and dwarf your life. 20 It was through no accident that the Athenian state rose and flourished upon the shores of the Aegean; no such efflorescence of civilisation could be looked for among the Esquimaux of the frozen North.

THE CONQUESTS OF THE MIND

21 Physical environment counts for much, but the physical environment of human is the same as that of the creatures below you who seem incapable of progress. 22 It is as an intelligent being that you succeeds in bringing about

ever new and more complicated adjustments to your environment.
23 From the point of view of your animal life in many respects inferior to other creatures-- less strong, less swift, less adequately provided with natural means of defense, 24 less protected by Nature against cold, heat and the inclemencies of the weather, endowed with instincts less unerring, less prolific, through a long period of infancy helpless and dependent-- human nevertheless survives and prospers.
25 You have conquered the strong, overtaken the swift, called upon your ingenuity to furnish you with means of defence. 26 You have defied cold and heat, and we find you, with appliances of your own devising, successfully combating the rigours of Arctic frosts and the torrid sun of the tropics. 27 Intelligence has supplemented instinct and has guaranteed the survival of the individual and of the race.
28 It has even protected human against the self, against the very dangers arising out of your immunity from other dangers. 29 A gregarious creature, increasing and multiplying, you would be threatened with starvation did not your intelligent control over Nature furnish you with a food-supply which makes it possible for vast numbers of human beings to live and thrive on a territory of limited extent. 30 Moreover, you have compassed those complicated forms of social organisation which reveal themselves in cities and states, solving problems of production, transportation and distribution before which undeveloped human would stand helpless.
31 And from the problem of living at all you have passed to that of living well. You have created new wants and has satisfied them. 32 You have built up for yourself a rich and diversified life, many of the activities of which appear to have the remotest of bearings upon the mere struggle for existence, but the exercise of which gives you satisfaction. 33 Thus, the primitive instinct of curiosity, once relatively aimless and insignificant, has developed into the passion for systematic knowledge and the persistent search for truth; 34 the rudimentary

aesthetic feeling which is revealed in primitive human, and traces of which are recognisable in creatures far lower in the scale, has blossomed out in those elaborate creations, 35 which, at an enormous expense of labour and ingenuity, have come to enrich the domains of literature, music, painting, sculpture, architecture. 36 Civilised human is to a great extent occupied with the production of what you does not need, if need be measured by what your wants are at a lower stage of your development. 37 But these same things you needs imperatively, if we measure your need by your desires when they have been multiplied and their scope indefinitely widened.

THE CONQUEST OF NATURE AND THE WELL-BEING OF HUMAN

38 It is evident that the successful exploitation of the resources of material Nature is of enormous significance to the life of human. It may bring emancipation; it offers opportunity. 39 One is tempted to affirm, without stopping to reflect, that the development of the arts and sciences, the increase of wealth and of knowledge, must in the nature of things increase human happiness.

40 One is tempted, further, to maintain that an advance in civilisation must imply an advance in moralisation. 41 Human has a moral nature which exhibits itself to some degree at every stage of your development. 42 What more natural to conclude than that, with the progressive unfolding of your intelligence, with increase in knowledge, 43 with some relaxation of the struggle for existence which pits human against own fellow-human, and subordinates all other considerations to the inexorable law of self-preservation, 44 your moral nature would have the opportunity to show itself in a fuller measure?

45 When we compare human at your very lowest with human at your highest such judgments appear to be justified. But human is to be found at all sorts of intermediate stages.

46 Your knowledge may be limited, the development of the

arts not far advanced, your control over Nature far from complete, and yet you may live in comparative security and with such wants as you has reasonably well satisfied. 47 Your competition with your fellows may not be bitter and absorbing. 48 The simple life is not necessarily an unhappy life, if the simplicity which characterises it be not too extreme. 49 In judging broadly of the significance for human life of the control over Nature which is implied in the advance of civilisation, one must take into consideration several points of capital importance:

50 (1) The multiplication of human's wants results, not in happiness, but in unhappiness, unless the satisfaction of those wants can be adequately provided for.

51 (2) The effort to satisfy the new wants which have been called into being may be accompanied by an enormous expenditure of effort. 52 Where the effort is excessive human becomes again the slave of own environment. Your task is set for you, and you fulfills it under the lash of an imperious necessity. The higher standard may become as inexorable a task-master as was the lower.

53 (3) It does not follow that, because a given community is set free from the bondage of the daily anxiety touching the problem of living at all, and may address itself deliberately to the problem of living well, 54 it will necessarily take up into its ideal of what constitutes living well all those goods upon which developed human is apt to set a value. 55 A civilisation may be a grossly material one, even when endowed with no little wealth. With wealth comes the opportunity for the development of the arts which embellish life, but that opportunity may not be embraced.

56 Human may be materially rich and spiritually poor; you may allow some of your faculties to lie dormant, and may lose the enjoyments which would have been yours had they been developed. 57 The Athenian citizen two millenniums ago had no such mastery over the forces of Nature as we possess today.

58 Nevertheless, you was enabled to live a many-sided life beside

which the life of the modern human may appear poor and bare. 59 It is by no means self-evident that the good of human consists in the multitude of the material things which you can compel to your service.

60 (4) Moreover, it does not follow that, because the sum of human's activities, your behaviour, broadly taken, is vastly altered, by an increase in your control over your material environment, the result is an advance in moralisation. 61 An advance in civilisation-- in knowledge, in the control over Nature's resources, in the evolution of the industrial and even of the fine arts-- does not necessarily imply a corresponding ethical advance on the part of a given community. 62 New conditions, brought about by an increase of knowledge, of wealth, of power, may result in ethical degeneration.

63 What constitutes the moral in human behaviour, what marks out right or wrong conduct from conduct ethically indifferent, we have not yet considered. 64 But no person is wholly without information in the field of morals, and we may here fall back upon such conceptions as people generally possess before they have evolved a science of morals. 65 In the light of such conceptions a simple and comparatively undeveloped culture may compare very favourably with one much higher in the scale of civilisation.

66 In the simplest groups of human beings, justice, veracity and a regard to common good may be conspicuous; the claim of each human upon own fellow-human may be generally acknowledged. 67 In communities more advanced, the growth of class distinctions and the inequalities due to the amassing of wealth on the part of individuals may go far to nullify the advantage to the individual of any advance made by the community as a whole. 68 The social bonds which have obtained between members of the same group may be relaxed; 69 the devotion to the common good may be replaced by the selfish calculation of profit to the individual; 70 the exploitation of human by own fellow-human may be accepted as natural and normal. 71 It is not without its significance

that the most highly civilised of states have, under the pressure of economic advance, come to adopt the institution of slavery in its most degraded forms; 72 that the problem of property and poverty may present itself as most pressing and most difficult of solution where national wealth has grown to enormous proportions. 73 The body politic may be most prosperous from a material point of view, and at the same time, considered from the point of view of the moralist, thoroughly rotten in its constitution.

74 It is well to remember that, even in the most advanced of modern civilisations, whatever the degree of enlightenment and the power enjoyed by the community as a whole, 75 it is quite possible for the individual to be condemned to a life little different in essentials from that of the lowest savage. 76 You whose feverish existence is devoted to the nerve-racking occupation of gambling in stocks, who goes to your bed at night scheming how you may with impunity exploit your fellow-human, 77 and who rises in the morning with a strained consciousness of possible fluctuations in the market which may overwhelm you in irretrievable disaster, 78 lives in perils which easily bear comparison with those which threaten the precarious existence of primitive human. 79 To masses of people in civilised communities the problem of the food supply is all-absorbing, and may exclude all other and broader interests. 80 The factory-worker, with a mind stupefied by the mechanical repetition of some few simple physical movements of no possible interest to you except as resulting in the wage that keeps you alive, has no share in such light as may be scattered about you.

81 The control of the forces of Nature brings about great changes in human societies, but it may leave the individual, whether rich or poor, a prey to dangers and anxieties, engaged in an unequal combat with own environment, 82 absorbed in the satisfaction of material needs, undeveloped, unreflective and most restricted in own outlook. Of emancipation there can here be no question.

83 And a civilisation in which the control of the forces of Nature has been carried to the highest pitch of development may furnish a background to the darkest of passions. 84 It may serve as a stage upon which callous indifference, greed, rapacity, gross sensuality, play their parts naked and unashamed. 85 That some people sunk in ignorance and subject to such passions live in huts and have their noses pierced, and others have taken up from their environment the habit of dining in evening dress, is to the moralist a relatively insignificant detail. 86 One looks at the human, and one finds one in each case essentially the same-- a primitive and undeveloped creature who has not come into own rightful heritage.

HUMAN'S SOCIAL ENVIRONMENT
George Stuart Fullerton

14 The old fable of a social contract, by virtue of which human becomes a member of a society, agreeing to renounce certain rights you might exercise if wholly independent, 2 and to receive in exchange legal rights which guarantee to the individual the protection of life and property and the manifold advantages to be derived from cooperative effort, points a moral, like other fables.
3 The contract in question never had an existence, but neither did the conversation between the grasshopper and the ant. In each case, a truth is illustrated by a play of the imagination. 4 Contracts there have been in plenty, between individuals, between families, between social classes, between nations; 5 but they have all been contracts between people already in a social state of some sort, capable of choice and merely desirous of modifying in some particular some aspect of that social state. 6 The notion of an original contract, lying at the base of all association of human with human, is no more than a fiction 7 which serves to illustrate the truth that the desires and wills of people are a significant factor in determining the particular forms under which that association reveals itself.
8 No person enters into a contract to be born, or to be born a Kaffir, a

Malay, a Hindoo, an Englishman or an American. 9 You enters the world without your own consent, and without your own connivance you are assigned a place in a social state of some sort. 10 The reception which is accorded to you is of the utmost moment to you. You may be rejected utterly by the social forces presiding over your birth. In which case you does not start life independently, but is snuffed out as is a candle-flame by the wind.

11 And if accepted, as you usually is in civilised communities, you takes your place in the definite social order into which you are born, and becomes the subject of education and training as a member of that particular community.

VARIETIES OF THE SOCIAL ORDER

12 The social order into which you are thus ushered may be most varied in character. You may find yourself a member of a small and primitive group of human beings, a family standing in more or less loose relations to a limited number of other families; 13 you may belong to a clan in which family relationship still serves as a real or fictive bond; 14 your clan may have its place in a confederation; or the body politic in which you are a unit may be a nation, or an empire including many nationalities.

15 Your relations to your fellow-human will naturally present themselves to you in a different light according to the different nature of the social environment in which you finds yourself. 16 The community of feeling and of interests which defines rights, determines expectations, and prescribes duties, cannot be the same under differing conditions. 17 Social life implies cooperation, but the limits of possible cooperation are very differently estimated by human at different stages of your development. 18 To a few human beings each person is bound closely at every stage of own evolution. The family bond is everywhere recognised. 19 But, beyond that, there are wider and looser relationships recognised in very diverse degrees, as intelligence expands, as economic advance and political

enlightenment make possible a community life on a larger scale, as sympathy becomes less narrow and exclusive.

20 It is not easy for a member of a community at a given stage of its development even to conceive the possibility of such communities as may come into existence under widely different conditions. 21 The simple, communistic savage, limited in own outlook, thinks in terms of small numbers. 22 A handful of individuals enjoy membership in your group; you recognises certain relations, more or less loose, to other groups, with which your group comes into contact; 23 beyond is the stranger, the natural enemy, upon whom you have no claim and to whom you owes no duty.

24 At a higher level there comes into being the state, including a greater number of individuals and internally organised as the simpler society is not. 25 But even in a highly civilised state much the same attitude towards different classes of human beings may seem natural and inevitable. 26 To Plato there remained the strongly marked distinctions between the Athenian, the citizen of another Hellenic community, and the barbarian.

27 War, when waged against the last, might justifiably be merciless; not so, when it was war between Greek states. 28 Into such conceptions of rights and duties people are born; they take them up with the very air that they breathe, and they may never feel impelled to subject them to the test of criticism.

29 It is instructive to remark that neither the speculative genius of a Plato nor the acute intelligence of an Aristotle could rise to the conception of an organised, self-governing community on a great scale. 30 To each it seemed evident that the group proper must remain a comparatively small one. Plato finds it necessary to provide in own "Laws" that the number of households in the State shall be limited to five thousand and forty. 31 Aristotle, less arbitrarily exact, allows a variation within rather broad limits, holding that a political community should not comprise a number of citizens smaller than ten, nor one greater than one hundred thousand.

32 That a highly organised state, a state not composed of a horde of subjects under autocratic control, but one in which the citizens are, in theory, self-governing, should spread over half a continent and include a hundred millions of souls, 33 would have seemed to these people of genius the wildest of dreams. Yet such a dream has been realised.

SOCIAL ORGANISATION

34 The social body of which human becomes, by the accident of birth, an involuntary member, may stand at any point in the scale of economic evolution. 35 It may be a primitive group living from hand to mouth by the chase, by fishing or by gathering such food as Nature spontaneously produces. 36 It may be a pastoral people, more or less nomadic, occupied with the care of flocks and herds. 37 It may be an agricultural community, rooted to the soil, looking forward from seed- time to harvest, capable of foresight in storing and distributing the fruits of their labours. 38 It may combine some of the above activities; and may, in addition, have arrived at the stage at which the arts and crafts have attained to a considerable development. 39 In its life, commerce may have come to play an important role, bringing it into peaceful relations with other communities and broadening the circle of its interests. 40 That human societies at such different stages of their development should differ greatly in their internal organisation, in their relations to other communities, and in the demands which they make upon the individuals who compose them, is to be expected. 41 Some manner of life, appropriate to the status of the community, comes to be prescribed. The ideal of conduct, whether unconsciously admitted or consciously embraced and inculcated, is not the same in different societies. 42 The virtues which come to be prized, the defects which are disapproved, vary with their setting.

43 Moreover, the process of inner development results in differentiation of function. 44 Clearly marked social classes come into existence, standing in

more or less sharply defined relations to other social classes, endowed with special rights and called to the performance of peculiar duties.

45 Human is not merely born into this or that community; you are born into a place in the community. 46 In very primitive societies that place may differ little from other places, save as such are determined by age or sex. 47 But in more highly differentiated societies it may differ enormously, entail the performance of widely different functions, and prescribe distinct varieties of conduct.

48 "What will be the manner of life," said Plato, "among people who may be supposed to have their food and clothing provided for them in moderation, and who have entrusted the practice of the arts to others, 49 and whose husbandry, committed to slaves paying a part of the produce, brings them a return sufficient for living temperately?"

50 His ideal leisure class is patterned after what he saw before him in Athens. He conceives those who belong to it to be set free from sordid cares and physical labours, 51 in order that they may devote themselves to the perfecting of their own minds and bodies and to preparation for the serious work of supervising and controlling the state. 52 Their membership in the class defined their duties and prescribed the course of education which should fit them to fulfill them. 53 It is not conceived that the functions natural and proper to one human being are also natural and proper to another in the same community.

54 The flat monotony which obtains in those simplest human societies, resembling extended families, where there is scarcely a demarcation of classes, 55 a distinction of occupations and a recognition of private property in any developed sense, has given place in such a state to sharp contrasts in the status of human and human. 56 Such contrasts obtain in all modern civilised communities. Human is not merely a subject or citizen; you are a subject or citizen of this class or of that, and the environment which molds you varies accordingly.

ETHICS

SOCIAL ORDER AND HUMAN WILL

57 We have seen that the material environment of a human, the extent of your mastery over Nature and of your emancipation from the dictation of pressing bodily needs, is a factor of enormous importance in determining what you shall become and what sort of a life you shall lead. 58 That your social setting is equally significant is obvious. What you shall know, what habits you shall form, what emotions you shall experience in this situation and in that, 59 what tasks you shall find set before you, and what ideals you shall strive to attain, are largely determined for you independently of your choice.

60 To be sure, it remains true that human is human, endowed with certain instincts and impulses and gifted with human intelligence. Nor are all people alike in their impulses or in the degree of their intelligence.

61 Within limits the individual may exercise choice, reacting upon and modifying own environment and the self. 62 But a moment's reflection reveals to us that the new departure is but a step taken from a vantage-ground which has not been won by independent effort. 63 The information in the light of which you chooses, the situation in the face of which you acts, the emotional nature which impels you to effort, 64 the habits of thought and action which have become part of your being-- these are largely due to the larger whole of which you finds yourself a part. 65 You did not build the stage upon which you are to act. Your lines have been learned from others.

66 You may recite them imperfectly; you may modify them in this or in that particular. But the drama from which, and from which alone, you gains your significance, is not your own creation.

67 The independence of the individual in the face of own material and social environment makes itself more apparent with the progressive development of human. 68 But human attains own development as a member of society, and in the course of a historical evolution. 69 It was pointed out many centuries ago that a hand cut off from the human

body cannot properly be called a hand, for it can perform none of the functions of one. 70 And human, torn from own setting, can no longer be considered human as the proper subject of moral science.

71 It is as a thinking and willing creature in a social setting that human becomes a moral agent. To understand you we must make a study of the individual and of the social-will.

IMPULSE, DESIRE, AND WILL

George Stuart Fullerton

IMPULSE

15 Commands and prohibitions address themselves to human as a voluntary agent. But it seems right to treat as willed by human much more than falls under the head of conscious and deliberate volition. 2 We do not hesitate to make you responsible for vastly more; and yet common sense does not, when enlightened, regard people as responsible for what is recognised as falling wholly beyond the direct and indirect control of their wills.

3 Motions due to even the blindest of impulses are not to be confounded with those brought about by external compulsion. 4 They may have the appearance of being vaguely purposive, although we would never attribute purpose to the creature making them. 5 The infant that cries and struggles, when tormented by the intrusive pin, the worm writhing in the beak of a bird,-- these act blindly, but it does not appear meaningless to say that they act. The impulse is from within.

6 Some impulses result in actions very nicely adjusted to definite ends. Such are winking, sneezing, swallowing. 7 These reflexes may occur as the mechanical response to a given stimulus. They may occur without our being conscious of them and without our having willed them.

8 Yet such responses to stimuli are not necessarily unconscious and cut off from voluntary control. 9 You who winks involuntarily when a hand is passed before your eyes may become conscious that you have done so, and may, if you chooses, even acquire some facility in controlling the reflex. 10

One may resist the tendency to swallow when the throat is dry, may hold back a sneeze, or may keep rigid the hand that is pricked by a pin. 11 That is to say, actions in their origin mechanical and independent of choice may be raised out of their low estate, made the objects of attention, and brought within the domain of deliberate choice.

12 Furthermore, many actions which, at the outset, claimed conscious attention and were deliberately willed may become so habitual that the doer lapses into unconsciousness or semi-unconsciousness of own deed.

13 They take on the nature of acquired reflexes. The habit of acting appears to have been acquired by the mind and then turned over to the body, that the mind may be free to occupy itself with other activities. 14 The person has become less the doer than the spectator of own acts; perhaps you are even less than that, you are the stage upon which the action makes its appearance, while the spectator is your neighbour. 15 The complicated bodily movements called into play when one bites one's nails had to be learned. It requires no little ingenuity to accomplish the act when the nails are short. 16 Yet one may come to the stage of perfection at which one bites one's nails when one is absorbed in thought about other things. 17 And one may learn to slander one's neighbour almost as mechanically and unthinkingly as one swallows when the throat is dry.

18 When we speak of human's impulses, we are using a vague word. There are impulses which will never be anything more. There are impulses which may become something more. There are impulses which are no longer anything more. 19 Impulses have their psychic aspect. At its lower limit, impulse may appear very mechanical; at its upper, one may hesitate to say that desire and will are wholly absent. It is not wise to regard impulse as lying wholly beyond the sphere of will.

DESIRE

20 At its lower limit, desire is not distinguished by any sharp line from mere impulse. 21 Is the infant

that stretches out its hands toward a bright object conscious of a desire to possess it? 22 Or does the motion made follow the visual sensation as the wail follows the wound made by the pin? 23 At a certain stage of development the phenomena of desire become unmistakable. The idea of something to be attained, the notion of means to the attainment of an end, the consciousness of tension, may stand out clearly. 24 The analysis of the psychologist, which finds in desire a consciousness of the present state of the self, an idea of a future state, and a feeling of tension towards the realisation of the latter, may represent faithfully the elements present in desire in the higher stages of its development, 25 but it would be difficult to find those elements clearly marked in desire which has just begun to differentiate itself from impulse. 26 There may be a desire where there can scarcely be said to be a self as an object of consciousness; one may desire where there is no clear consciousness of a future state as distinct from a present one.

27 Moreover, the consciousness of desire may be faint and fugitive, as it may be intense and persistent. 28 Desire is the step between the first consciousness of the object and the voluntary release of energy which works toward its attainment. This step may be passed over almost unnoticed. 29 The thought of shifting my position when I feel uncomfortable may be followed by the act with no clear consciousness of a tension and its voluntary release. 30 The mere thought, itself but faintly and momentarily in consciousness, appears to be followed at once by the act, and desire and will to be eliminated. 31 It does not follow that they are actually eliminated; they may be present as fleeting shadows which fail to attract attention.

32 If, however, the desire fails to find its immediate fruition, if it is frustrated, consciousness of it may become exceedingly intense. 33 There is the constant thought of the object, a vivid feeling of tension, of a striving to attain the object. 34 Desire may become an obsession, a torment filling the horizon, and the volition in which it finds its fruition stands forth as a

marked relief. 33 This condition of things may be brought about by the inhibition occasioned by the physical impossibility of attaining the object; but it may also be brought about by the struggle of incompatible desires among themselves. 34 The human is drawn in different directions, you are subject to various tensions, and you becomes acutely conscious that you are impelled to move in several ways and is moving in none.

35 I have used the word "tension" to describe the psychic fact present in desire. I have done so for want of a better word. 36 Of the physical basis of desire, of what takes place in the brain, we know nothing. With the psychic fact, the feeling of agitation and unrest, we are all familiar.

37 Of the tendency of desire to discharge itself in action we are aware. A desire appears to be an inchoate volition-- that which, if ripened successfully and not nipped in the bud, would become a volition. 38 It may be looked upon as the first step toward action-- a step which may or may not be followed by others. 39 It does not seem out of place to call it a state of tension, of strain, of inclination. In speaking, thus, we use physical metaphors, but they do not appear out of place.

DESIRE OF THE UNATTAINABLE

40 But if a desire may be regarded as an unripe act of will, an inchoate volition, how is it that we can desire the unattainable, a sufficiently common experience? 41 I may bitterly regret some act of my own in the past; I may earnestly wish that I had not performed it. But the past is irrevocable. 42 Hence, the desire for the attainment of what is in this case the object, a different past, can hardly be regarded as even a preparatory step toward attainment.

43 In this case it can not, and were all desires directed upon what is in the nature of the case wholly unattainable by effort, it would occur to no one to speak of desire as a first step toward action. 44 But normally and usually desires are not of this nature. They usually do constitute a link in the chain of occurrences which end in action.

45 Did they not, they would have little significance in the life-history of the creature desiring.

46 With the appearance of free ideas, with an extension of the range of memory and imagination, objects may be held before the mind which are not properly objects to be attained. 47 Yet such objects are of the kind which attract or repel, i.e., of the kind which humans endeavour to realise in action. 48 They cannot be realised; we do not will to realise them; but we should will to do so were they realisable. 49 The psychic factor, the strain, the tension, is unmistakably present. Real desire is revealed, and common speech, as well as the language of science, recognises the fact.

50 This general attraction or repulsion exercised by objects, in spite of the fact that the objects may not appear to be realisable, is not without significance. 51 The hindrance to realisation may be an accidental one; it may not be wholly insuperable. 52 The presence of a persistent desire may result in persistent effort, which may ultimately be crowned by success. Or it may show itself as a permanent readiness for effort. 53 Were every frustrated desire at once dismissed from consciousness, the result would show itself in a passivity detrimental to action in general. 54 Where the object is intrinsically an impossible one, persistent desire is, of course, futile. 55 The dog baying at the cat in the tree is the prey of such a desire, but it does not realise it, or it might discontinue its inefficacious leaps. 56 The person tormented by own unworthy act in the past is quite aware of the futility of own longings. Your condition is psychologically explicable, but to a rational being, in so far as rational, it is not normal.

57 Normally, desire is the intermediate step between the recognition of an object and the will to attain it. 58 The most futile of desires may be harboured. The imaginative mind may range over a limitless field, and give itself up to desires the most extravagant. But indulgence in this habit serves as a check to action serviceable to the individual and to the race. 59 As a matter of fact, desire is

usually for what seems conceivably within the limit of possible attainment. 60 The person desires to catch a train, to run that you may attain that end; your mind is little occupied with the desire to fly, nor does your longing center upon the carpet of Solomon. 61 To the desirability of dismissing from the mind futile desires current moral maxims bear witness.

WILL

62 The natural fruition of a desire is, then, an act of will; the tension is normally followed by that release of energy which makes for the attainment of the object or end of the desire.

63 The question suggests itself, may there not be present, even in blindly impulsive action, something faintly corresponding to desire and will?

64 That there should be an object in the sense of something aimed at, held in view as an idea to be realised, appears to be out of the question. 65 But may there not be a more or less vague and evanescent sense of tension, and some psychic fact which may be regarded as the shadowy forerunner of the consciousness of the release of tension which, on a higher plane, reveals itself as the consciousness of will? 66 There may be: introspection is not capable of answering the question, and one is forced to fall back upon an argument from analogy. 67 Blindly impulsive action and action in which will indubitably and consciously plays a part are not wholly unlike, but they differ by a very wide interval. 68 The interval is not an empty gap, however, for, as we have seen, all volitions do not stand out upon the background of our consciousness with the same unmistakable distinctness. 69 There are volitions no one would hesitate to call such. And there are phenomena resembling volition which we more and more doubtfully include under that caption as we pass own on the descending scale.

70 Naturally, in describing desire and volition we do not turn to the twilight region where all outlines are blurred and indistinct. 71 We fix our attention upon those instances in which the phenomena are clearly and strongly marked. 72

They are most clearly marked where desire does not, at once and unimpeded, discharge itself in action, but where action is deferred, and a struggle takes place between desires.

73 The person is subject to various tensions, you are impelled in divers directions, you hesitates, deliberates, and you finally makes a decision.

74 During this period of deliberation you are apt to be vividly conscious of desire as such-- as a tension not yet relieved, as an alternation of tensions as the attention occupies itself, 75 first with one desirable object, then with another. And the decision, which puts an end to the strife, is clearly distinguished from the desires as such.

75 In the reflective mind, which turns its attention upon itself and its own processes, the distinction between desire and will seems to be a marked one. 76 But it is not merely the developed and reflective mind which is the seat of deliberation. 77 The child deliberates between satisfying its appetite and avoiding possible punishment; it reaches for the forbidden fruit, and withdraws its hand; it wavers, it is moved in one direction as one desire becomes predominant, and its action is checked as the other gains in ascendency. 78 Deliberation this unmistakably is. And deliberation we may observe in creatures below the level of human; 79 in the sparrow, hopping as close as it dares to the hand that sprinkles crumbs before it; 80 in the dog, ready to dart away in pursuance of own private desires, but restrained by the warning voice of own master. 81 This is deliberation. Such deliberation as we find in the developed and enlightened human being it is not. 82 That, however, there is present even in these humble instances, some psychic fact corresponding to what in the higher mind reveals itself as desire and volition, we have no reason to doubt.

DESIRE AND WILL NOT IDENTICAL

83 I have had occasion to remark that the modern psychologist draws no such sharp line between desire and volition as the

psychologist of an earlier time. 84 That some distinction should be drawn seems palpable. It is not without significance that immemorial usage sanctions this distinction. 85 The ancient Stoic's quarrel was with the desires, not with the will. The will was treated as a master endowed with rightful authority; the desires were subjects, often in rebellion, but justly to be held in subjection. 86 And from the days of the Stoic down almost to our own, the will has been treated much as though it were an especial and distinct faculty of human, not uninfluenced by desire, but in no sense to be identified with it,--above it, its law-giver, detached, independent, supreme. 87 This tendency finds its culmination in that impressive modern Stoic, Immanuel Kant, who desires to isolate the will, and to emancipate it altogether from the influence of desire.

88 Recently the pendulum has swung in the other direction. It has been recognised that will is the natural outcome of desire, and that without desire there would be no will at all. 89 It has even been maintained that will is desire, the desire "with which the self identifies itself."

90 To this last form of expression objection may be made on the score of its vagueness. What does it mean for the self to "identify" itself with a desire? 91 And if such an identification is necessary to will, can there be volition or anything resembling volition where self-consciousness has not yet been developed? 92 It is very imperfectly developed in young children, and in the lower animals still less developed, if at all; and yet we see in them the struggle of desires and the resultant decision emerging in action. 93 If we call a volition in which consciousness of the self has played its part "volition proper," it still remains to inquire how volitions on a lower plane are to be distinguished from mere desires.

94 What happens in a typical case of deliberation and decision? Two or more objects are before the mind and the attention occupies itself with them successively. 95 Tensions alternate, wax strong and die away, only to recover their strength again. 96 Finally the attention fixes upon one object to

the exclusion of others, the strife of desires come to an end, and there is an inception of action in the direction of the realisation of that particular desire. 97 The desire itself is not to be confounded with the decision; the tension, with its release. The psychic fact is in the two cases different. 98 The decision brings relief from the strain. It cannot properly be called a desire, not even a triumphant desire, although in it a desire attains a victory and its realisation has begun.

99 Such a victory not all desires, even when most intense and prolonged, are able to attain. 100 We have seen that the desire for the unattainable may amount to an obsession, and yet it will not ripen into an act of volition. 101 The release of the tension in incipient action does not come. The bent bow remains bent. 102 From the sense of strain in such a case one may be freed, as one is freed from the desires which succumb during the process of deliberation, by the occupation of the attention with other things. 103 But the desire has been forgotten, not satisfied. It may at any time recur in all its strength.

104 We cannot more nearly describe the psychic fact called decision. Just as we cannot more nearly describe the psychic fact to which we have given the name "tension." 105 Although the nervous basis of the phenomena of desire and will are unknown, we can easily conceive that, during desire, and before desire has resulted in the release of energy which is the immediate forerunner of action, 106 the cerebral occurrence should be different from that which is present when that release takes place. 107 Nor should it be surprising that the psychical fact corresponding to each should be different.

108 The view here set forth does not confuse desire and will, making will indistinguishable from desire, or, at least, from certain desires. 109 On the other hand, it does not separate them, as though they could not be brought within the one series of occurrences which may properly be regarded as a unit. 110 It has the advantage of making comprehensible the mutual relations of impulse, desire, and

will. 111 Blind impulse discharges itself in action seemingly without the psychic accompaniments which distinguish desire and will. But all impulse is not blind impulse, and desiring and willing admit of many degrees of development. 112 To deny will to creatures lower than human, as some writers have done, is to misconceive the nature of the process that issues in action. 113 We are tempted to do it only when we compare will in its highest manifestations with those rudimentary fore-shadowings of it which stand at the lower end of the scale. 114 But even in human we can discern blind impulse, dimly conscious desires which ripen into as dimly recognised decisions, 115 and, at the very top of the scale, conscious decisions which follow deliberation, and are the resultant of a struggle between many desires.

116 For ethical science it is of no little importance to apprehend clearly the relation of decision to desire. 117 Moral rules aim to control human conduct, and conduct is the expression of the whole human. 118 If we have no clear conception of the desires which struggle for the mastery within you, and of the relation of your decisions to those desires, in vain will we endeavour to influence you in the direction in which we wish you to move.

THE WILL AND DEFERRED ACTION

119 It remains to speak briefly of one point touching the nature of will. It has been suggested that the decision is the psychic fact corresponding to the release of nervous energy which relieves the tension of desire. It is the beginning of action, of realisation. 120 But what shall we say of resolves which cannot at once be carried out in action? Of decisions the realisation of which is deferred? 121 I may long debate the matter and then determine to pay a bill when it comes due next month. The decision is made; but, for a time, at least, nothing happens. How can I here speak of the beginning of action?

122 The action does not at once begin, yet it is, in a sense, initiated. The struggle of conflicting

considerations has ceased; the person is "set" for action in a certain direction. 123 For the time being the matter is settled, and only an external circumstance prevents the resolve from being carried out. 124 The psychic factor is widely different from that of mere desire, and is not recognised to be different from that present in volition which at once issues in action.

THE PERMANENT WILL
George Stuart Fullerton

16 Our volitions, deliberate, less deliberate, and those verging upon what scarcely deserves the name of volition, weave themselves into complicated patterns, which find their expression in long series of the most varied activities. 2 The nature of the pattern as a whole may be determined by the deliberate selection of an end, and to that the other choices which enter into the complex may be subordinate.

3 Thus, a person may decide that you can afford to give yourself the pleasure of a long walk through the country before taking the train at the next town. 4 During the course of the ramble you may make a number of more or less conscious decisions not incompatible with the purpose you originally embraced-- 5 to take this bit of road or that, to loiter in the shade, to climb a hill that you may enjoy a view, to hasten lest you find yourself too late in arriving at your destination. 6 These decisions may require little deliberation; they spring into being at the call of the moment, are not preceded by deliberation, and leave little trace in the memory. 7 They may be made semi-consciously, and while the mind is largely occupied with other things, with thoughts of the past or the future, with other scenes suggested by the landscape, or with the flowers which skirt the road. Nevertheless, we would not hesitate to call them decisions.

8 May we apply the word in speaking of the single steps made by the traveler as you advances? Your feet seem to move of themselves and to make no demands at all upon your attention.

9 Yet it is not strictly true to say that they move of themselves. They are under control, and the successive steps follow upon each other not without direction. 10 They serve as expressions of the will to take the walk, and they are adjusted to the end consciously held in view. 11 That attention is not fixed upon the individual steps does not remove them from the sphere of the voluntary, in a proper sense of the words. 12 They are expressions of the human's will, even if they be not the result of a conscious series of deliberations and decisions. 13 Whether we shall use the term decision in connection with the single step is rather a question of verbal usage than of the determination of fact. 14 We have seen that decisions shade down gradually, from those quite unmistakable and characteristic, to occurrences far less characteristic and more disputable. 15 The consciousness of deliberation and decision does not disappear abruptly at some point in the series. It fades away, as the light of day gradually passes, through twilight, into the shades of night. 16 And actions not directly recognisable as consciously voluntary may be obviously under voluntary control. 17 They weave themselves, with actions more palpably voluntary and higher in the scale, into those complicated patterns determined by the conscious selection of an end. 18 As long as they serve their purpose, and require no effort, they may remain inconspicuous and unconsidered. 19 But, as soon as a check is met with, attention is directed upon them and they become the subject of conscious voluntary control.

ENDS NOT CONSCIOUSLY CHOSEN

20 In the above illustration the end which determines the character of a long chain of actions has been deliberately chosen. It is a consciously selected end. 21 When, however, we contemplate critically the lives of our fellow-humans, we seem to become aware of the fact that many of them act in unconsciousness of the ultimate end upon which their actions converge. 22 The attention is taken up with minor decisions,

and takes no note of the permanent trend of the will.

23 Thus, the selfish person may be unaware of the significance of the whole series of choices which one makes in a day; 24 the malicious person may not realise that one is animated by the settled purpose to injure own neighbours; one may be law-abiding without ever having resolved to obey the laws through the course of a life. 25 If called upon to account for this or that subordinate decision, each may exhaust own ingenuity in assigning false causes, while ignoring the permanent attitude of the will revealed in the series of decisions as a whole and giving them what consistency they possess.

26 Hence, the choice of ends, as well as the adoption of means to the attainment of ends, may reveal itself either in conscious deliberate decisions, or in the working of obscure impulses which do not emerge into the light. 27 Even in the latter case, we have not to do with what is wholly beyond the sphere of intelligent voluntary control. 28 The selfish person may be made aware that one is selfish; the malicious person, that one is malicious; and each may deliberately take steps to remedy the defect revealed.

29 When we understand the word "will" in the broad sense indicated in the preceding pages, we see that a person's habits may justly be regarded as expressions of the human's will. 30 That, through repetition, your actions have become almost automatic does not remove them from the sphere of the volitional. 31 That you does not clearly see, or that you misconceives, the significance of your habits, and may acquiesce in them even though they be injurious to you, does not make them the less willed, so long as you follows them. 32 It is only when you actively endeavours to control or modify a habit that you may be said to will its opposite.

THE CHOICE OF IDEALS

33 Nor is it too much to bring under the head of willing the attitudes of approval and disapproval taken by human 34 in contemplating certain occurrences,

actual or possible, which lie beyond the confines of the field within which you can exercise control. 35 The field of control, direct and indirect, is as we have seen a broad one, but it has its limits, and many of the things you would like to see accomplished or prevented lie without it.

36 A person's will may be set upon the preservation of own health, you may strive to attain that end, and circumstances may condemn you to a life of invalidism. 37 You would be healthy if you could, but your strivings are overruled. Or you may earnestly pursue the attainment of wealth, and may end in bankruptcy. You have the will to be rich, but that will is frustrated.

38 It is the same when we consider your attitude toward the decisions and actions of other people. By mere willing you cannot condition another's choice. But by willing you can often influence indirectly the volitions of your fellows. 39 You can enlighten or misinform, persuade or threaten, reward or punish. In many ways you can weight the scale of your neighbour's mind.

40 But such influences are not all-powerful, and only within limits can we bend other wills to follow a course prescribed for them by our own.

41 Nevertheless, even beyond those limits, the attitude of a human's mind toward the actions of your neighbour may be a volitional one. 42 Your will may be for them or against them; you may approve or disapprove, command or prohibit. 43 We know quite well that commands and prohibitions laid upon children and servants will not always be effective, yet we issue general commands and prohibitions, as though assuming unlimited control. 44 It is quite in accordance with usage to speak of a person as willing an end, even where it is clearly recognised that the will to attain does not guarantee attainment. 45 The person does what one can; could you do more you would do so; in your helplessness the attitude of the will persists unchanged.

46 It is obvious that, in this large sense of the word "will," we may speak of a human as continuing to will or to approve a given end,

even when you are not willing or approving anything, in a narrower sense of the words, at this or that moment. 47 We speak of a person as inspired by the permanent will to be rich, although at many times during the day, and certainly during your hours of sleep, no act of volition with such an end in view has an actual existence.

48 No human always thinks of the permanent ends which you have selected as controls to your actions. They are selected, they pass from your mind, and, when they recur to it again, the selection is reaffirmed. 49 But, whether you are actually thinking about the ends in question or not, the settled trend of your will is expressed in them.

50 This settled trend of the will, even when scarcely recognised by the person concern, may be vastly more significant than the passing individual decision, although the latter be accompanied by clear consciousness. 51 In certain cases the latter is a true exponent of character, but not infrequently it is not. It may be the result of a whim, of an irrational impulse little congruous with a human's nature. 52 It may be the outcome of some misconception and in contradiction with what the person would will, if enlightened. 53 The individual volition appears only to disappear; it may leave no apparent trace. 54 The permanent will indicates a habit of mind, a way of acting, which may be expected to make its influence felt with the persistency of that which exerts a steady pressure. To refuse it the name of will seems arbitrary and unjustifiable.

55 In the permanent will is expressed the 'character' of the person. This character is reflected in own 'ideals'. 56 Sometimes ideals are clearly recognised and deliberately chosen. Sometimes a person is little aware of the nature of the ideals which control own strivings. 57 You may be said to choose, but to choose more or less blindly. But, whether you chooses with clear vision or without it, you may choose well or ill.

ETHICS

THE OBJECT IN DESIRE AND WILL

George Stuart Fullerton

17 The expression "the object before the mind in desiring and willing" is not free from ambiguity. 2 It may be used in referring to the idea, the psychic fact, which is present when one desires or wills. Or it may be used to indicate the future fact which is the realisation of the idea, that which the idea points to as its end.

3 The idea and the end are, of course, not identical, but they are related. The idea mirrors the end, foreshadows it. 4 In the attempt to explain a voluntary act we may turn either to the one or to the other; we may regard the idea as the efficient cause which has resulted in the act, or we may account for the act by pointing out the end it was purposed to attain. 5 There is no reason why we should not recognise both the efficient cause and the final cause, or end. The latter has been the subject of more or less mystification. 6 How, it has been asked, can an end, which does not, as yet, exist, be a cause which sets in motion the apparatus that brings about its own existence?

7 The difficulty is a gratuitous one. It lies in the confusion of the final cause or end, with the efficient cause. 8 When we realise that the expression "final cause" means simply that which is purposed, or accepted as an end, objections to it fall away. 9 That, in desire and will, in all their higher manifestations, at least, there is consciousness of an end, there can be no question.

10 If we attempt to give more than a vague physical explanation of actions due to blind impulse, we are compelled to refer to the idea, the psychic fact present, as efficient cause. 11 Not so when we are concerned with actions of a higher order. We constantly refer such actions to the ends they have in view. We regard them as satisfactorily explained when we have pointed out the end upon which they are directed.

12 To the moralist it is of the utmost importance to know what ends people actually choose, and what they may be induced to choose. 13 You are concerned with conduct, which is intelligent and

purposive action. 14 Conduct may be studied without entering upon an investigation of the efficient causes, whether physical or mental, which are the antecedents of action of any kind. Such matters one may leave to the physiologist and the psychologist.

15 Accordingly, when I speak of "the object" in desiring and willing, I shall use the word to indicate the end held in view, that toward which the creature desiring or willing strives.

HUMAN NATURE AND THE OBJECTS CHOSEN

16 What objects do people actually desire and will to attain? To give a detailed account of them appears to be a hopeless and profitless task.

17 I take up my pen, I write, I turn to a book; I look at my watch, change my position, stretch, walk up and down, speak to some one who is present, smile or give vent to irritation; 18 I sit down to a meal, eat of this dish rather than of that, go out to visit a place of amusement, respond to the appeal of the beggar in the street-- 19 in short, I fill my day with a thousand actions the most diverse, which follow each other without intermission.

20 Each of these actions may be the object of desire and will. No novel, however realistic, however prolix in its descriptions, can give us more than the barest outlines of the course of life followed by the personages it attempts to portray. 21 A touch here, a touch there, and a character is indicated. No more, for more would be intolerable.

22 It is significant, however, that the few points touched upon can serve to give an idea of a character. Not-withstanding their diversity, volitions fall into classes; 23 it is quite possible to indicate in a general way the kind of choices a given creature may be impelled to make. They are a revelation of the nature of the creature choosing. 24 That beings differing in their nature should be impelled to different courses of action can surprise no one. 25 Cats have no temptation to wander in herds; the exhibition of pugnacity in a sheep would strike us with wonder.

26 To every kind of creature its nature: and, although individuals within a kind differ more or less from one another, we look for approximation to a type. So it is with human. 27 The expression "human nature," so much in the mouths of certain moralists ancient and modern, although somewhat vague, is not without its significance. 28 To it we refer in passing a judgment upon individual human beings, and we regard as abnormal those who vary widely from the type.

THE INSTINCTS AND IMPULSES OF HUMAN

29 In sketching for us the outlines of this distinctively human nature, the psychologist proceeds to an enumeration of the fundamental instincts and general innate tendencies of human, and they draws up a list of the emotions which correspond to them. 30 They mentions the instincts of flight, repulsion, curiosity, pugnacity, self- abasement, self-assertion, the parental instinct, the instinct of sex, the instinct for food, that for acquisition, etc. 31 They points out that human is by nature open to sympathy, is suggestible, and has the impulse to play. 32 In such instincts and inborn general tendencies, blending and reinforcing or opposing and inhibiting one another, 33 they sees the forces which give their direction to desire and will; which select, out of all possible objects, those which are to become objects for human.

34 It is not necessary here to discuss the nature of instinct, to distinguish between an instinct and a more general inborn tendency, or to attempt a complete list of the instincts and inborn tendencies of human. 35 Nor need I ask whether every choice made by a human being can be traced, directly or indirectly, to one or more of the instincts and other tendencies given in the above or in any similar list. 36 In explaining the individual choices which humans make, or the desires to which they are subject, there is much scope for the ingenuity of the psychologist.

37 But of the significance for human life of the impulses mentioned there can be no

question. 38 What would the life of a person be if you could feel no fear or repulsion? Could there be a development of knowledge in the absence of curiosity? 39 How long would the race endure if the parental instinct were wholly lacking? What would become of a person who never desired food? 40 Could a human society of any sort exist if there were no sympathy or tender feeling, no impulse to seek the company of other people?

41 It is people, such as they are, endowed with the qualities which distinguish human, who associate themselves into communities, and the customs and laws of such reflect the fundamental impulses in which they had their origin.

THE STUDY OF HUMAN'S INSTINCTS IMPORTANT

42 That a careful study of human nature is of the utmost importance to the moralist is palpable. You must not prescribe for human a rule of conduct which it is not in human to follow. 43 You must not set before human, as inducements to actions, objects which it is impossible for human to desire and, hence, to choose.

44 To be sure, the main traits of human nature were pretty well recognised many centuries before the modern science of psychology had its birth. 45 Had they not been, human could not have had rational dealings with own fellow-human; could not effectively have persuaded and threatened, rewarded and punished, 46 and, in short, set in motion all the machinery which is at the service of one human when you wants to influence the conduct of another. 47 But moralists ancient and modern have made serious blunders through an imperfect understanding of the impulses natural to human; 48 and the modern psychologist, without claiming to be a wholly original or an infallible guide, may be of no little service in helping us to detect them.

49 Thus, it was possible for as shrewd an observer of human as Aristotle to explain the affection of a person for own child by regarding it as an extension of self-love, the child being, in a sense, a part of the parent. 50

Aristotle's quaint explanation of the fact that maternal affection is apt to be stronger than paternal is an error of a kindred nature. 51 And the ancient egoists, in setting before human their selfish and anti-social ideal of human conduct, made their appeal, not to the whole human, but only to a part of you. 52 The normal person, whether savage or civilised, whether ancient or modern, cannot desire a life filled only with the objects which they set before you. Nor is the modern moralist, or as you prefers to style yourself, 53 "immoralist," Nietzsche, guilty of less gross a blunder. He rails at morality as commonly understood, calling it "the morality of the herd," 54 and he recommends isolation, the repression of sympathy, and a contempt for one's fellows. 55 To be sure, the "herd" is a scornful, rhetorical expression,-- what Bentham would have called a "question-begging epithet,"-- 56 for people do not, properly speaking, live in herds; but they do normally live in human societies of some sort, and they have the instincts and impulses which fit them to do so. 57 The repression of such instincts and impulses does violence to their nature, and you who advocates other than a social morality should advocate it for some creature other than human. 58 Human is a social creature, and, among the objects of your desire and will, you must give a prominent place to some which are distinctively social.

THE BEWILDERING MULTIPLICITY OF THE OBJECTS OF DESIRE, AND THE EFFORT TO FIND AN UNDERLYING UNITY

59 The mere enumeration of the characteristics which have been adduced as instincts or fundamental innate tendencies of human is enough to reveal the truth that human is not merely the subject of desire, but of desires; 60 that is to say, your impulses are directed upon objects widely different from each other.

61 And when we call to mind that the concepts of the instincts and fundamental tendencies of human nature, as thus enumerated, are products of abstraction and generalisation-- 62 are general notions gathered from the

numberless concrete instances of desire and will furnished by our observation-- 63 we are forced to realise that the objects which individual people set before themselves in desiring and willing are really endlessly varied.

64 All people are not equally moved by fear, anger, repulsion, tender emotion, or sympathy. Nor do all humans find the same things the objects of their fear, anger, repulsion, and the rest. 65 The desire for food is an abstraction; in the concrete, this person eagerly accepts an oyster, and that one turns from it in disgust. 66 In order to deal successfully with our fellow-human, we must not merely know human. We must know humans.

67 Furthermore, not only do individuals set their affections upon different objects, but the same person at different stages of own development desires widely different things. 68 What is a temptation to the boy has no attraction for the man. What fills the savage with longings may inspire in the product of a high civilisation no other feeling than repulsion.

69 And what is true of the individual is true of people in the mass. The objects of desire and of endeavour are not the same in communities of all orders. 70 Each kind of human has its own nature, which differs in some respects from that of each other kind, and dictates what shall be, for this or that person, an object of desire and will. 71 No two persons desire precisely the same thing in all particulars. Yet each is a human, and is endowed with the usual complement of human instincts.

72 The process of abstraction and generalisation which resulted in the above-mentioned list of the elements which enter into the constitution of human nature is, nevertheless, not without its uses. 73 It serves to order, to some extent, at least, the bewildering variety of the phenomena presented to us when we view the broad field of the desires and volitions of all sorts and conditions of people. 74 People's choices fall into ‘kinds’; there is similarity in difference. We do not approach an unknown person with the feeling that you are a wholly unknown quantity. 75 You are, at least, a

human, and we know something of humans. We have some notion how to go at you.

76 But the ordering of the motley multiplicity of human's desires by a reference to the fundamental instincts of human stops far short of a complete unification. 77 We are left with a number of distinct and apparently irreducible impulses and tendencies on our hands. If it is useful to go so far, may it not be much more useful to go still farther?

78 Aristotle divided things eligible into those eligible in themselves and those eligible for the sake of something else. 79 How it would illuminate the field of action, if it were discovered that people ultimately desire but one thing, and choose all other things on account of it! 80 Would the discovery not facilitate immensely our dealings with our fellows, suggesting new possibilities of control? 81 A notorious instance of the attempt to conjure away the bewildering diversity in human's desires and choices lies in the selection of pleasure as the one thing eligible in itself, 82 the unique ultimate object of human action. Of this object we have, so far, taken no account.

INTENTION AND MOTIVE

George Stuart Fullerton

18 I may desire to clear my throat and may do so. The action is a trivial one, is over in a moment, and is forgotten. 2 On the other hand, I may desire to spend my summer on the sea-coast, to grow rich in business, to attain to high social position, or to satisfy political ambition.

3 When the object is of this complicated description, there may easily be elements in it which, considered alone, I should not desire at all.

4 The summer on the New Jersey coast may make for health. But it may entail mosquitoes, uncomfortable rooms, unaccustomed food, the lack of wonted occupations, and a distasteful association at close quarters with neighbours not of one's choosing. 5 The road to wealth is an arduous one.

6 The envied social station may imply the swallowing of many

rebuffs. The way of the politician is hard.

7 One may desire, on the whole, one of these objects, or a thousand like them; but there are, obviously, many things comprised in the whole, or unavoidably bound up with it, that cannot attract, and are not eligible for their own sake.

INTENTION

8 An object chosen and realised may bring in its train an indefinite series of consequences foreseen or unforeseen.

9 The striking of a match to light a candle may result in an unforeseen and disastrous conflagration. 10 The overmastering desire to grow rich may have its fruit in an excessive application to business, the neglect of the family and of the duties of citizenship, and in hard and, perhaps, unscrupulous dealings. 11 These things may be foreseen and accepted as natural accompaniments of the end chosen. 12 But there may also be entailed shattered health, overwhelming anxieties, and the distress of seeing one's offsprings, brought up in luxury and without incentive to effort, victims to the dangers which menace the idle rich.

13 Whether such consequences might have been foreseen and provided against or not, it is true that they are frequently not foreseen with clearness.

14 They certainly form no part of the intention of the person who bends own energies to the attainment of wealth. 15 You does not deliberately intend to injure your health, to lose the affection of your family, to leave behind you degenerate children. You does intend to get rich, if you can.

16 How many of the elements contained in the object chosen, or so bound up with it that they must be accepted along with it, may fairly be said to fall within the intention of the chooser? 17 There may easily be dispute touching the latitude with which the word intention may be used. 18 Some things a person sees clearly to be inseparably connected with the object of own choice; some you are less conscious of; some you overlooks altogether.

19 It does not seem unwarranted to maintain that the first of the three

classes of things, at least, may be said to be intended. 20 When Dr. Katzenberger, in his desire to get across the road without sinking in the mire, used as a stepping-stone his old servant Flex, who had fallen down, 21 his complete intention was not simply to cross the road unmuddied. It was to cross the road unmuddied by stepping on Flex.

22 Evidently the intention-- the whole object-- gives some revelation of the character of a human. 23 Many people may will to avoid the mud; but not all of these can will to avoid it by stepping upon a fellow-human.

MOTIVE

24 The stepping upon a fellow-human with whom one is on good terms can scarcely be regarded as a thing desirable in itself. 25 If it is desired, it is because of the complex in which it is an element. 26 Some other element or elements may exert the whole attractive force which moves desire and will. In other words, some things are chosen for the sake of others.

27 When we have discovered that for the sake of which any object is chosen, we have come upon the Motive. 28 The intention may be said to embrace the whole object as foreseen. The motive embraces only a part of it, but the vital part, the part without which the object would not be desired and willed.

ETHICAL SIGNIFICANCE OF INTENTION AND MOTIVE

29 There has been much dispute among moralists as to the ethical significance of intention and motive. 30 Bentham maintains that "from one and the same motive, and from every kind of motive, may proceed actions that are good, others that are bad, and others that are indifferent." He gives the following illustration:

31 "(1.) A boy, in order to divert himself, reads an inspiring book; the motive is accounted, perhaps, a good one; at any rate, not a bad one. 32 (2.) He sets his top a-spinning: the motive is deemed at any rate not a bad one. 33 (3.) He sets loose a mad ox among a crowd: his motive is now, perhaps, termed an abominable one. 34 Yet

in all three cases the motive may be the very same: it may be neither more nor less than curiosity."

35 In criticising this citation I must point out that curiosity is not, properly speaking, an object of choice at all. 36 I have used the word "object" to indicate what is chosen, not to indicate the psychic fact present at the time of the choice. And I have said that the motive is the vital part of the object.

37 Hence curiosity should not be called the motive. No human chooses curiosity as an object, either in the abstract or in the concrete. 38 Curiosity is a fundamental impulse of human nature; we may elect to satisfy the impulse in any given instance; in other words, we may choose the appropriate object.

39 In the case of the boy letting loose the bull in the crowd, the object is to see what will happen under the given circumstances. 40 This is what appeals to the boy. Something else might have appealed to him in performing the action. 41 He might have had the deliberate wish to injure certain persons present against whom he harboured resentment. 42 Or his sympathies might have been with the bull, which had been the victim of bad treatment, and to which he wished to grant its liberty. 43 Were the crowd in question a band of ruffians intent upon lynching, he might have been moved by the desire to assist, in a somewhat irregular way, in the re-establishment of law and order. 44 But even if his real object is only to see what will happen, there is no reason to put it on a par with the object in view when a boy spins a top. 45 "To see what will happen" is the vaguest of phrases, and covers a multitude of disparate objects. 46 He who does things to see what will happen has, at least, a very general knowledge of the kind of thing likely to happen, if a given experiment is made. 47 A child does not hold own finger in the candle-flame to see what will happen. 48 You who does things to see what will happen, in really complete ignorance of what is likely to happen, may be set down as too much of a fool to be the subject of moral judgments.

49 It is obvious that an act may be done with many different objects

in view-- I mean real objects, motives. 50 I give money to a beggar whose case is one to inspire pity. My motive, my "vital" object, may be to relieve the beggar. 51 But it may equally well be to get rid of the beggar, to gratify my self-feeling by becoming the dispenser of bounty, or to inspire admiration in the onlooker. 52 The intention, as I have used the word above, is to relieve the beggar, with such consequences of the act as may be foreseen at the time. 53 Within the limits of this intention, the motive may vary widely, and may, in a given instance, be either admirable or contemptible.

54 It may be claimed, in answer to this, that the real intention is, in every case, what I have called the motive; that, in the first case, it was to relieve suffering; 55 in the second, to get rid of an annoyance; in the third to satisfy vanity; in the fourth, to be admired.

56 The word "intention," thus used, is equivalent to "motive." Popular usage gives some sanction to this confusion of the words. 57 We say of a person who has done a questionable act: "Your intentions were good," or, "Your motives were good." Still, popular usage does not always regard the two expressions as equivalent. 58 To revert to the case of the unhappy Flex. It does not seem inappropriate to say that the use of a person as a stepping-stone was a part of own master's intention. 59 It does appear inappropriate to call it the motive or a part of the motive of the whole transaction.

60 Intention and motive are convenient words to designate the whole object chosen and the part of the object which accounts for the choice of the whole. That it is important to distinguish between the two is palpable.

61 The intention gives some indication of character. We know something about a person when we know what kinds of objects you will probably set before yourself as aims. 62 But we know more when we know why you chooses these objects rather than others; when we can analyse the complex and can discover just what elements in it attract you.

63 With an increase of our knowledge comes an increased power of control. 64 Until we

know a person's motives, we do not really know the person; and until we know the person, our efforts to influence you must be rather blind.

65 The search for motives appears to carry us in the direction of the systematisation and simplification of the embarrassing wealth of objects which are actually the goal of human desires and volitions. 66 Human may desire a boundless variety of objects. Your motives in desiring them may, conceivably, be comparatively few.

67 It should be apparent that both intention and motive have ethical significance. 68 We have our opinion of people capable of harbouring certain intentions. But we recognise that some people may harbour them with better motives than others. 69 And we can see that a person's intention may be bad, and yet your motive, considered in itself, be good. How we are to rate the person, morally, becomes rather a nice question.

FEELING AS MOTIVE

George Stuart Fullerton

19 Two people may recognise with equal clearness the presence of a danger. That recognition may evoke in the one a violent emotion of fear, and in the other little or no emotion. 2 Two people may be treated with indignity. The one fumes with rage; the other remains calm. It is well recognised that people may be susceptible to emotion in general, or to certain specific emotions, in varying degrees. 3 Knowledge is not always accompanied by a marked manifestation of emotion. Thoughts may be clear, but cold. 4 There are, however, natures whose intellectual processes are steeped in emotion. Such people live in an atmosphere of agitation.

5 Lists of the emotions which correspond to the instincts and fundamental impulses of human have been drawn up. 6 In them we find mentioned fear, disgust, wonder, anger, elation, tender feeling, and so forth; phenomena which, by earlier writers, were classified as "passions," and to which we may conveniently give

the name "feeling." 7 We constantly speak of our emotions as our "feelings," and we contrast the human of feeling with the coldly intellectual mind in which emotion is at a minimum.

8 But it is not alone to such specific emotions as those above-mentioned that we apply the term feeling. Thoughts are agreeable or disagreeable, pleasurable or painful. So are emotions. 9 The agreeableness or disagreeableness, pleasantness or painfullness, which are the accompaniments of thoughts and emotions, have been called by modern psychologists their feeling-tone. 10 It is not out of harmony with common usage to give them the name of feelings. In so doing we contrast them with knowledge and assimilate them to emotion.

11 Whether every sensation and every thought gives rise to an emotion of some sort is matter for dispute, as is also the question whether every sensation, thought and emotion is tinged with some degree of pleasurable or painful feeling. 12 In the absence of conclusive evidence, it is open to us to assume that some feeling is always present where there is mental activity of any kind. 13 The feeling may be so faint and evanescent as to escape detection, but this does not prove that it is absent.

FEELING AND ACTION

14 Emotions and feelings of pleasure and pain are the normal accompaniments of the exercise of the instincts and impulses of creatures that desire and will. 15 Within limits, we appear to be able to take them as an index of the strength of the desire and the vigour of the effort at attainment.

16 An act of cruelty is perpetrated. I see it, and it leaves me, perhaps, cold and unmoved. In such case, it is hardly expected of me that I should take energetic measures to have the evil-doer punished. 17 The person whose face flushes, whose brows descend, whose teeth come together, whose fists clench, whose heart beats thickly, at the recognition of an insult, is, as a rule, the person from whom we look for vigourous efforts at retaliation.

18 The apathetic creature who feels no resentment is usually expected to swallow the indignity. 19 The child who jumps for joy at the sight of a new doll is supposed to desire it eagerly, and to be ready to make efforts to obtain it.

20 But it is only within limits that this relation between feeling and action holds. People of little emotion may be resolute and prompt to action.

21 Their desires, as evinced by their actions, may be persistent and effective. Nor need the individual fix own choice upon the particular object that arouses in you the most feeling. 22 A person may see own fellow-creature destitute, and may shed tears over their pitiable lot. But you will not bequeath your money to them. 23 You will leave it to your offsprings, for whom, perhaps, you have no respect and has come to have little affection. And you may leave it to them with regret, knowing that it will be dissipated in ways which you cannot approve. 24 It has been pointed out with justice that the exercise of many instincts may be accompanied with little feeling; 25 and we are all aware of the fact that, as action becomes habitual, emotion tends to evaporate and the pleasure of effort and attainment is apt to be reduced to a minimum.

FEELING AS OBJECT

26 It is well to keep in mind the distinction between feeling as a psychic fact present in the mind of the creature desiring and willing, and feeling as the object of desire and will. 27 A person in a rage is the victim of a storm of feeling. The thought of the injury one has received and the desire for retaliation by no means exhaust the contents of own mind. 28 But the passion which shakes you is not your object; that object is revengeful action.

29 Nevertheless, feeling may be made the object of desire and will. One may attend a religious or political meeting with the deliberate view of arousing in one's self certain complex emotions. 30 Poe's gruesome tales are read for the sake of the thrill which is produced by the perusal.

31 Probably the desire for excitement, for the experiencing of certain vivid emotions, has no little to do with the attraction exercised by certain criminal professions. The burglar desires the booty, but may desire something more.

32 Emotions have, as we have seen, their "tone" of pleasure or pain. They are agreeable or the reverse, 33 and it is palpable that people do not, as a rule, deliberately make them the object of desire and will in indifference to the fact that they are pleasant or are painful. 34 We do not normally wish to attain to states of mind in which remorse plays a prominent part; we do not aim to revel in shame; we do not seek to be haunted with fear. 35 Pleasurable emotions are desired, where desire is set on emotions at all; and painful emotions are regarded by the mind as unwelcome guests. 36 At any rate, this appears to be the rule, and to characterise the person whom we regard as normal.

37 This being the case, it seems natural to ask whether, when we embrace the intention of producing in ourselves a given emotion, our motive may not be narrower in scope, namely, the attainment of pleasure? 38 And, when we wish to rid the mind of any emotion, our motive may not be the avoidance of pain?

39 The adoption of this view would give to the feelings of pleasure and pain a unique importance. They would be accepted as the only ultimate objects of desire and will. By many they have been thus accepted. 40 It has been insisted that objects of every description are chosen only as they arouse some feeling; and that those which promise pleasant feeling are sought and those which entail pain are avoided. 41 The general recognition of the primacy of pleasure and pain over our other feelings, over the specific emotions mentioned above, 42 is indicated by the fact that ethical writers of eminence sometimes make pleasure and pain synonymous with feeling in general, passing over other feelings, as though it were not important for the moralist to take them into consideration. 43 The dispute whether the proper course for human action to take is

prescribed by reason or is dictated by feeling often resolves itself into the problem whether we should be guided by reason, or by a consideration of pleasure to be attained or pain to be avoided.

FREEDOM AS OBJECT

44 The acceptance of pleasure and pain as the ultimate motives of human action seems, at first sight, to be of inestimable assistance to us in threading our way through the labyrinth of diverse choices made by creatures that desire and will.

45 But only at first sight. Even if it be true that every creature seeks only to attain pleasure and to avoid pain, and uses the means it finds to hand in the attainment of these ends, the endless diversity of the means remains as a thing to reckon with. 46 The knowledge that all humans desire pleasure does not help us a whit in dealing with people, unless we know what things will give pleasure to this person or to that. 47 All humans may desire pleasure; but it remains true that what gives pleasure to the spendthrift gives pain to the miser; what appeals to the glutton disgusts a person of refined tastes. 48 If all humans were alike and precisely alike, and if their natures were very simple and remained unchanged, the problem of the distribution of pleasures would be vastly simplified.

49 Whether the pursuit of pleasure and the avoidance of pain may be regarded as the only ultimate ends proper to human will be discussed later.

50 Here, it is important to insist that so general a formula gives us little useful information touching the set of the will either of classes of people or of individuals. 51 This we can attain to only as a result of the study of the complex nature of human as revealed in the choices which you actually makes. 52 The ends of human are many and various; some of these ends are accidental, palpably means for the attainment of other ends more fundamental, and for them other means of attaining the same ends may be substituted. 53 But other ends, and they are by no means to be reduced to a single class, appear to belong to the very nature of

human. In seeking them you are giving expression to the impulses which make you what you are.
54 In so far as these impulses find an unimpeded expression the human is free; otherwise you are under restraint. 55 Without rendering here a final decision upon the importance of the role played in human life by pleasure and pain, one feels impelled to ask the question whether the goal of a person's endeavours may not best be described as freedom? 56 Not freedom in the abstract, freedom to do anything and everything, but freedom to live the life appropriate to you as human, and as a human of a given type. 57 That this freedom is limited in a variety of ways, by your material environment, by the clashing of impulses within yourself, by the conflict of your desires with the will of the social organism in which you finds your place, is sufficiently palpable.

RATIONALITY AND WILL
George Stuart Fullerton

THE IRRATIONAL-WILL.

20 As dreams do not consist of an insignificant medley of elements drawn from the experiences of waking life, but, in spite of their fantastic character, bear some semblance of ordered reality, 2 so the impulses of even the most unintelligent and inconsequent of human beings are not wholly chaotic, but differ only in the degree of their organisation from those of the most rational and far-seeing.
3 Where there is even a glimmer of intelligence, ends are recognised and means to their attainment are chosen. Ends are compared, and the preference is given to some over others. 4 But, with all this, there may be much incoherence and planlessness. Humans can live somehow without looking far into the future, or keeping well in mind the lessons to be learned from the past. 5 They can manage to exist in the face of no little short-sighted impulsiveness and inconsistency. But it is palpable that they cannot, under such circumstances, live as

they might live were they more truly rational.

6 The individual deficient in foresight and control may, it is true, be carried along and defended from disaster by the presence of these qualities in the greater organism of which one is a part. 7 The infant is a parasite upon society; it is provided for independently of its own efforts. 8 The child would soon come to grief were its ends not chosen by others and its conduct kept under control. And a vast number of persons not children are in much the same position. 9 There is foresight and rational purpose somewhere; they profit by it; but of foresight and rational purpose they themselves possess but a modicum.

10 Where breadth of view is lacking, where the future is unforeseen or ignored and the past is forgotten, where desires arise and impel to action in relative independence of one another, the person seeks today what tomorrow one rejects. 11 We can scarcely say that the person chooses. You are the scene of independent choices, varied and inconsistent. 12 You are the victim of caprice, and appears to us largely the creature of accident, a prey to the impulse which happens to be in your mind at the moment. 13 From such a person we cannot look for an adherence to distant aims, and the marshalling of the proper means to their attainment. You cannot count upon yourself, and you cannot be counted upon. 14 That you can play no significant role in such stable organisations as the state and church is obvious. 15 Your desires may be many and varied, but they converge upon no one end. We set you down as irrational.

ONE VIEW OF REASON

16 Concerning the part played by reason or intelligence in the active life of human there has been no little dispute.

17 It has been maintained, on the one hand, that reason or intelligence serves its whole purpose in holding before the mind all its impulses and desires, revealing their interrelations, and making possible an enlightened

and deliberate choice from among them. 18 Where the horizon is thus extended and mental clarity reigns, the attention can roam unimpeded over the whole field, consider the objects of desire in their true relations and compare them with one another. 19 Congruous desires can reinforce each other; conflicting desires can be brought face to face, and the one or the other can deliberately be dismissed; 20 fundamental and dominant desires may assert their supremacy, and give their stamp to far-reaching decisions which exercise a control over minor decisions and favour or repress a multitude of desires and volitions.

21 The attainment of perfect rationality in this sense is an ideal never completely realised. 22 No human can hold before own mind all own impulses and desires, see them in their true relations to each other, and come to a decision which will do complete justice to all. But the ideal may be approached.

23 The reason, in this case, resembles the presiding officer of a deliberative assembly, who insists that all the members shall be heard from, all proposals seriously considered, and that the ultimate decision shall justly represent the true will of the deliberative body as a whole.

24 The specious but fallacious argument is, in the debate, revealed in its true nature; the obstinate insistence of the individual is not allowed to prevail; 25 the loud voice is recognised to be a loud voice and nothing more; 26 fugitive gusts of passion exhaust themselves; the permanent and fundamental will of the assembly is revealed in the final vote. 27 It is claimed that, in such a mind, the result is a harmonisation and unification of the multiplicity of the desires and purposes which, in a mind less rational, jostle one another without control, and refuse to fall into an ordered system. 28 That the decisions of a rational mind reveal both a unity and a harmony not evinced by a mind short-sighted and impulsive cannot be denied. But it is well to understand clearly what is meant by such unity and harmony.

DOMINANT AND SUBORDINATE DESIRES

29 Wherever a group of desires fall into a system and work together toward a common end, we have unity. 30 Such a system may be short-lived, comparatively poor in content, and of no great significance for a human's life as a whole. 31 It may come into competition with another similar system, and be displaced by it. An interest that has dominated our minds for a time, and controlled our desires and volitions, may readily give place to different choices. 32 I may successively bend all my energies upon the winning of a game, the doing of a successful stroke of business, the defeat of a social rival, the success of a philanthropic undertaking. 33 There is no normal human being who does not exhibit such limited volitional units. 34 The most idle and purposeless of vagrants, the most scatter-brained school-boy, the most volatile coquette, may, for a time, be dominated by some desire which calls into its service other desires and thus realises some chosen end.

35 Such volitional units do not, however, go far toward unifying the efforts of a life. 36 It is only when some dominant and deep-seated desire, oft recurring, not easily displaced by others, sweeps into its train the other desires of a human, establishing a sovereignty and exacting subservience, that such an effect is accomplished. 37 Then the lesser units fall into a significant relation to each other as constituent elements in the greater unit. The life, as such, may be said to have a purpose; it strives toward a single goal.

38 Whatever bears upon the attainment of such a dominant purpose may, however trivial in itself, acquire a vital importance and be eagerly desired. 39 To a human of mature mind there can be little interest in hitting a small ball with a stick, abstractly considered. 40 Nor is the dropping of a bit of paper into a box with a slit in it an action in itself calculated to stir profound emotion. 41 But if the hitting of the ball in the right way marks the critical point in winning an eagerly contested game of golf, the interest in it may be absorbing. 42 And if

the bit of paper is an offer of marriage committed to the post, the hand may tremble and the heart leap in the breast. 43 A dominant desire may create or reinforce other desires to a degree to which it is not easy to set limits.

THE HARMONISATION OF DESIRES

44 And it may actively repress other desires or cause them to dwindle and disappear. 45 A human possessed by a devouring ambition may resolutely scorn delights to which you would otherwise be keenly susceptible, or you may simply ignore them without effort. 46 The attention, fixed upon some chosen end, and busied with the means to its attainment, may leave them unheeded. 47 Finding no place in the volitional pattern that occupies the mind, they are cast aside and soon forgotten.

48 In so far, hence, as the desires of a human tend to fall thus into groups converging upon a single end, we find not merely unity but harmony. The volitional pattern is of a given kind, and the colours which enter into it are selected.

49 When, however, we speak of the desires of a rational mind as harmonised, we do not mean that incompatible desires are reconciled. 50 One cannot laugh and drink at the same time, nor can the desire for luxurious ease be made to fall upon the neck of the desire for attainment through strenuous effort. 51 The final harmony attained resembles in some respects the peace enforced by the violent character depicted by Mark Twain, who would have peace at any price, and was willing to sacrifice to it the life and limb of the opposing party. 52 The cessation of strife does not imply the satisfaction of all parties to a contest; nor does the fact that a life is controlled by a ruling motive, which reinforces or calls into being certain desires and robs others of their insistence, 53 imply that by any device all the desires which human has, still less all that you, as a human being, might have, can find their satisfaction. 54 Harmony is obtained at the price of the suppression of many desires; but, where a mind is

strongly dominated by a comprehensive volitional unit, the price may be paid without much regret.

VARIETIES OF DOMINANT ENDS

55 Obviously, the comprehensive and harmonious volitional complexes which may come to characterise different minds may be of very different complexion. 56 Peace of mind, the bubble reputation, the amassing of a fortune, a happy domestic life, humanitarian effort, the perfecting of one's character-- each may become the controlling end which furthers or inhibits individual desires and emotions. 57 Or the ends may be such as to appear to most people far more insignificant. 58 To the collection of first editions or the heaping together of bric-a-brac a person may sacrifice own financial security and the welfare of own family. 59 Naturally, the moralist cannot put all such ends upon the same level; but, from the point of view of the psychologist, the processes which take place in the minds thus unified and harmonised are essentially the same.

AN OBJECTION ANSWERED

60 To the position that it is reason or intelligence that brings about this unity and harmony an objection may be brought. 61 It may be claimed that breadth of information and clarity of vision are quite compatible with highly inconsistent action revealing the temporary dominance of a succession of incongruous desires. 62 ‘Video meliora proboque, deteriora sequor,’ confessed the Latin poet. 63 Have we not seen people of the highest intelligence, gifted with foresight, quite capable of grasping the relation of means to ends, 64 nevertheless subject to the baleful influence of momentary desires which drive them hither and thither like a rudderless bark at the mercy of the wind and tide? How does it happen that their intelligence does not help them?

65 To this we may answer that it is not the same thing to possess intelligence and to use it. 66 One

may be supplied with information and quite capable of taking long views and embracing inclusive ends-- and the attention may be so preoccupied with the desire of the moment, that the voices of others are stifled. 67 In so far as this is the case, the person can not, at the time, be said to be reasonable or intelligent. 68 You have information, and acts as if you were ignorant; your choices do not issue as a resultant of your desires as a whole; there is no resultant; the single desires make their influence felt separately.

69 To be sure, an insistent and oft-recurring desire may introduce a good deal of unity and harmony into life, even where long views are not taken and there is little intelligence. 70 The stupid egoist may become rather a consistent egoist, and increasingly so as you grows older. 71 Your desires and volitions may converge upon an end of which you are very imperfectly conscious; incompatible desires may come to be repressed. 72 But this does not refute the position that, when reason or intelligence is supreme, the attention is directed upon a wide range of desires, 73 they are weighed in the light of each other, and the ultimate decision is no longer blind, but fairly expresses the permanent push of the human's nature. 74 Even where a desire or group of desires, unilluminated by intelligence, seems so insistent as to take on something of this character, complete unity and harmony of action may be lacking, due to the short-sightedness of the methods employed to attain to the chosen goal. 75 Blind desires may easily defeat their own ends; wealth does not necessarily accumulate in proportion to a human's miserliness; the ardent but unenlightened philanthropist may do own fellow-human more harm than good. 76 Long views are of no little service in weeding out inconsistent actions and introducing order and unity into life.

THIS VIEW OF REASON MISCONCEIVED

77 In the above view of the function of reason or intelligence it has not been represented as issuing commands to perform certain

actions rather than others, nor as furnishing motives not in some way related to the impulses and desires of human. 78 It has been treated, literally, as the presiding officer of a public assembly, who insists that every voice shall be heard; that all proposals shall be weighed and compared with one another; that the consequences of all shall be clearly foreseen. 79 Its function is enlightenment; the driving force which impels to action of any sort has been found in the impulses and the desires.

80 It is possible to set this view forth in terms which make it highly unpalatable.

81 Thus Hume, who has a weakness for shocking the susceptibilities of the conservative and the sober-minded, startles us with the remark that "Reason is, and ought only to be, the slave of the passions." 82 This doctrine, taken as the average reader is almost inevitably impelled to take it, seems worthy of instant reprobation. It appears to degrade the rational in human and to exalt the blind and irrational.

83 But it is not fair to the doctrine to set it forth in such terms. There is no small difference between random and fugitive desires and those more fundamental desires that express truly the nature of a person. 84 Desires organised and harmonised gain great strength, and are enabled to overcome and expel from the mind erratic impulses, the obedience to which may easily be followed by regret. 85 Action taken without a clear foresight of consequences, with an imperfect conception of the relation of means to ends, is blind and irrational action. 86 Reason, as bringing enlightenment, as making possible deliberation, as turning the incoherent clamours of a mob of inconsistent desires into the authoritative voice of an orderly deliberative assembly, is not a faculty to be lightly regarded.

87 Nor should it be forgotten that, neither to the plain person, nor to the moralist, do desires all stand upon the same level. 88 You who bends your intellectual energies to the satisfaction of your greed, your avarice, your longing for revenge, may fairly be said to be prostituting your mind to the service of passion. 89 But is it a proper use of language to describe

as the slave of your passions the person whose thought is set upon the enlightenment of humankind, the alleviation of suffering, the service of a state, the attainment of a noble character? 90 Were Socrates, St. Francis, Abraham Lincoln, Wilberforce, Thomas Hill Green, the slaves of their passions? 91 Yet these men were moved by certain dominant desires, and their unswerving pursuit of their goal was made possible only by the reason that harmonised their lives and substituted deliberate purpose for random impulse.

92 The doctrine, then, that the reason is to be likened rather to the presiding officer of a deliberative assembly, concerned only to give every voice a fair hearing, than to a legislator issuing commands independently, may be so stated as not to shock the sober-minded.

93 And the doctrine recommends itself in showing that reason and inclination or desire are not enemies. 94 The possession of reason must lead to the suppression of some desires--those incompatible with a comprehensive purpose deliberately embraced; 95 but the desires and the reason or intelligence work together to a common end. 96 On this view, it is not the rational human who is divided against the self; it is the short-sighted, the impulsive, the inconsistent, the irrational human. 97 You are the prey of warring desires whose strife leads to no permanent peace under the guidance of reason.

ANOTHER VIEW OF REASON

98 To certain minds this view of reason as the arbiter and reconciler of human's impulses and desires does not appeal.

99 Thus, Kant, whose doctrine will be more fully considered later, holds that human's reason promulgates a law which takes no account of the impulses and desires of human. 100 Thus, also, Henry Sidgwick, who differs from Kant in making the attainment of happiness the goal of human endeavour, and who, consequently, is not tempted to disregard the desires of human, 101 yet refers to the reason

independently certain maxims, which you regards as self-evident, touching our own good and the good of our neighbour.

102 There are certain considerations which appear to favour the view that the reason is a faculty which may be regarded as an independent law-giver. 103 A person may be possessed of great intelligence; you may be well-informed, acute in your reasonings, and consistent in your strivings to attain some comprehensive end, which, on the whole, appears congruous to your nature, such as it is. 104 Yet we may regard you as highly unreasonable. Judged by some higher standard which we look upon as approved by reason, you are found to fall short. 105 Is reason, then, synonymous with intelligence? 106 Or is it something more-- the source of an ultimate standard of action, intuitively known, and by which all human's actions must be judged?

CHARACTERISTICS OF THE SOCIAL-WILL

George Stuart Fullerton

21 The social-will is not a mysterious entity, separate and distinct from all individual wills. It is their resultant.

2 The resultant of two or more physical forces is a force; it has a character and may be described. 3 The resultant of individual wills in interaction is a will with a given character which it is of no small importance for the moralist to comprehend. 4 This will presents aspects closely analogous to those presented by the will of the individual.

5 Thus, to begin with, a community of people may be said to will a vast number of things which have never been made by the members of the community the object of conscious reflection. 6 It may unthinkingly move along the groove made for it by tradition. It may be intellectually upon so low a plane that even the possibility of acting in other ways does not occur to it.

7 Nevertheless, ways of action thus unthinkingly pursued cannot

properly be said to be beyond the voluntary control of the community. 8 A new situation may draw attention to the fact that they are unsatisfactory, lead to critical examination, to inhibition, to deliberate change. 9 Between the passive acceptance of actions prescribed by tradition and deliberate conscious choice in the presence of recognised alternatives there is no clear line of demarcation.

10 Under the pressure of circumstances or with the gradual increase of information and intelligence the traditional may undergo slight modifications which scarcely rank as conscious departures from what has been passively accepted. 11 The algebraic sum of such departures may, with the lapse of time, come to be by no means insignificant, yet no individual may have exercised in any considerable degree conscious reflection or shown in any large measure freedom of choice.

12 On the other hand, the social-will may, at times, reveal itself in deliberate decisions, preceded by much conscious deliberation, and initiating wide departures from established usage. 13 The presence of new enemies or a diminution of the food-supply may awake a primitive community from its lethargy, leading it to modify its habits and adjust itself to new conditions. 14 A barbarous horde may set out upon a career of conquest, and may introduce revolutionary changes into its manner of life. 15 A civilised nation may come to the conclusion that, in the course of human events, it has become necessary for it to dissolve the bands which have held it to another nation; 16 it may frame for itself an independent constitution, embodying new ideals and prescribing a new form of corporate life.

17 But, as in the case of the individual, so in that of the community, the tendency to fall again into a rut is always apparent. 18 Laws, once enacted, lend a passive resistance to change, even when they no longer serve well the ends they were intended to serve. 19 The independence of thought and action revealed in the adoption of new constitutions are not

conspicuous in their maintenance. 20 Human collective, as well as human individual, falls into habits, and you commits to your unthinking self what was wrought out by yourself as thinking and consciously choosing. 21 Passive acceptance of the traditional again wins the day and becomes a ruling factor in action.

22 This tendency to mechanisation should not surprise us, for we meet with the phenomenon everywhere. 23 The person who says, "Good-by" today does not mean "God be with thee," and the "Gruss Dich Gott" of the Bavarian peasant is very properly translated by the American child as "Hallo." 24 The traditional tends to lose or to alter its meaning, but it continues to serve a purpose. 25 A community without traditions, without settled ways of acting, followed, for the most part, without much reflection, would be in the position of a human without habits either good or bad. 26 Human life as we know it could not go on upon such a basis. The rule has, at times, its inconveniences; but it leads somewhere, at least; 27 whereas you who plunges into the unexplored forest may find every step a problem, and may come even to doubt whether any step is a step in advance.

SOCIAL-WILL AND SOCIAL HABITS

28 Within the province of the social-will fall what may not inaptly be called the habits of a community-- ways of acting acquired largely without premeditation and followed to a great extent through mere inertia. 29 The province of the social-will is a broad one. Deliberate choices; those half-conscious choices analogous to the unheeded expressions of preference which fill the days of the individual; 30 impulses and tendencies which scarcely emerge into the light-- all are expressions of the social-will.

31 In the next chapter I shall distinguish between customs proper and social habits in a broader sense. But, in discussing the general problem of the relation of habit to will, it is not necessary to mark the distinction.

32 Some habits rest upon us lightly; some are inveterate. Of

some we are well aware; others have to be pointed out to us before we recognise that we have them. Some we approve, some we disapprove, to some we are indulgent or indifferent. 33 All these peculiarities are found in the relation of the social-will to social habits. It may recognise them, approve of them, encourage them. It may pay them little attention. It may disapprove them and strive to repress them. 34 Will has brought them into being; it is will that maintains them; it is will that must modify or suppress them.

35 As a matter of fact, all communities do tend to change their habits, some more slowly, some more rapidly. And for its habits we hold a community responsible. 36 Common sense refers them to its will, and exercises approval or disapproval. This it would not do were the practices upon which judgment is passed recognised as beyond the control of will altogether.

SOCIAL-WILL AND SOCIAL ORGANISATION

37 Under the general heading of the habits of a society it is not out of place to discuss its social and political organisation.

38 The fact that there never was an original social contract, made with each other by humans solitary and unrelated, with the deliberate intent of putting an end to the war of all against all, 39 does not signify that the social state in which people find themselves is something with which the human will has had, and has, nothing to do.

40 Social and political organisation are the result of a secular process, but behind that process, as moving and directing forces, stand the will and the intelligence of human. 41 The social and political organisation of a community is not the creation of any single generation of people. Each generation is born into a given social setting, as the individual is born into the setting furnished by the community. 42 This social setting, the heritage of the community from the past, may be compared to a great estate brought

together by the efforts of a human's ancestors, and transmitted to you to hold intact, to add to, to squander, as you may be inclined. 43 It is a product attained by human's nature in its struggle with environment, and that product may be modified by the same forces that made it what it is.

44 Into this heritage the generation of humans who compose a community at any given time may enter with little thought of its significance, with no information, 45 or with false information, touching the manner of its coming into being, and with small inclination to do anything save to leave unchanged the institutions of which it finds itself possessed.

46 Nevertheless, the forms under which societies are organised are subject to the social-will, and, if disapproved, are modified or abolished. 47 Some change is taking place even where there is apparent immobility, as becomes evident when the history of institutions is followed through long periods of time. 48 The utmost that can be said is that, where intelligence is little developed and energy at a low ebb, the social-will may bear the stamp of passive acceptance of the inherited, rather than exhibit a tendency to innovation. 49 ‘Will’ it remains, but we may hesitate to describe it as a ‘free-will’.

50 It is at times forced upon our attention with unmistakable emphasis that the forms of social and political organisation are under voluntary control. 51 Momentous changes may be made deliberately, and with full consciousness of their significance. Among the more progressive nations in our day the duty of introducing innovations appears to be generally recognised: 52 constitutions are amended; the status of social classes is made the object of legislation; even the domain of the family is invaded, as in legislation touching marriage and divorce. 53 Humans appear to feel themselves free to will deliberately the end that shall be served by the mechanism of the state, and to adapt that mechanism to the attainment of the end chosen.

THE SOCIAL-WILL AND IDEAL ENDS

54 The social-will, like the wall of the individual, may manifest itself in decisions which it is obviously impossible to carry out to a completely successful issue. 55 A community has a power of control over its members, but that control has its limits. Even a person's actions cannot be completely controlled by the community of which one is a part. 56 There are always individuals who violate rules, and to whom, as it would seem, no motive can be presented which is adequate to keep them in the rut prescribed by society.

57 Still less can the social-will exercise full control over human's thoughts and feelings. Influenced to some degree they may be. 58 A person may be kept in ignorance, or furnished with information calculated to determine own thought in a given direction. 59 Your emotions may be played upon; you may be exhorted, rewarded, punished. But thoughts and feelings are not open to direct inspection; they may be concealed or simulated. Much more readily than actions can they withdraw themselves from control.

60 Nevertheless, the social-will may, and does, ignore all such limitations to its powers. Laws are not passed to regulate the changes of the weather, which palpably fall outside the province of the law; 61 but laws are passed to regulate the actions of people, which normally fall within it; that is, which can, to a very significant degree, be influenced by the attitude of the social-will. 62 For the same reason laws may even take cognisance of human's thoughts. Of the accidental limitations of its power of control within the general sphere in which it has a meaning to speak of control, the social-will is not compelled to take cognisance. 63 It may set itself to encourage or repress certain types of character and conduct, and take measures to attain the end it has selected. 64 That the measures taken should sometimes prove inadequate does not alter the fact of the choice of an end, nor does it obscure the revelation of the trend of the social-will.

65 Thus, a community may be said to will that its members shall not

be guilty of violence; it may will to live at peace with other communities; it may will to conquer and subjugate. 66 Whether, in each case, the will shall be completely realised or not, may not be determined by the mere fact of its willing. 67 Nevertheless, the permanent volitional attitude may be unmistakably present, and may reveal itself in strivings toward the chosen goal. 68 To describe this attitude as no more than wishing is manifestly to do it an injustice.

THE PERMANENT SOCIAL-WILL

69 The social-will may be regarded as something permanent. Its existence is not confined to those moments in which collective decisions are being made. 70 The will to be one which constitutes a group of human beings a nation is not at all times actively exercised, but the settled disposition to action looking toward that end may be always present and ready to be called into action. 71 An autocracy remains such when its irresponsible head is making no decisions; and a democracy is not such only while elections are being held or the legislature is sitting. 72 The organisation of a society, the whole body of the usages which it accepts and approves, are revelations of the social-will. 73 That 'will' does, it is true, give expression to itself in a series of actual decisions more or less conscious and deliberate, but it is far more than any such series of decisions. 74 It is a disposition, rooted in the past and reaching into the future. It is a guarantee of decisions to come, of whose nature we may make some forecast.

75 The permanent social-will constitutes the character of a community. 76 Our study of the will of the individual prepares us for the recognition of the fact that communities may be but dimly aware of their own character, and may be quite unable to give an unbiased account of the ideals which animate them.

ETHICS

EXPRESSIONS OF THE SOCIAL-WILL
George Stuart Fullerton

CUSTOM

22 We have seen above that even the forms of political and social organisation may justly be regarded as an expression of the social-will. 2 Such forms are the result of past choices, and their acceptance in the present is evidence of present choice.

3 Between the organisation of a society and its customs proper we may distinguish by comparing the former to structure and the latter to function in the case of any organism. 4 But we must bear in mind that, here, structure has been built up by, and is in process of modification by, the same forces that exhibit themselves in function. 5 It would not be wholly out of place to describe a people as having the custom of being ruled by hereditary chiefs, of choosing their monarchs, or of governing themselves through elected representatives. 6 Forms of organisation are handed down to successive generations by the same social tradition that transmits customs of every description.

7 Customs are public habits which are, on the whole, approved by a community. They are ways of acting which are regarded as normal and proper. 8 Where the authority of custom is evoked, pressure is brought to bear upon the individual to adjust yourself to the will of the community.

9 A community, like an individual, may have habits which it does not approve. Such may be tolerated, although disapproved; or active efforts may be made to set them aside. 10 Some habits may be regarded with comparative indifference, although professedly held in condemnation. 11 The individual, in following such habits, may claim that they are not unequivocally condemned by the community, and one is not conscious of the weight of displeasure which visits the violation of the will of the community when unequivocally expressed.

12 In simple and primitive societies custom prescribes to the individual own course of life in the minutest detail. It possesses the authority of the dictator. 13 In societies upon a higher level it may leave to you

some discretion in deciding upon the details of your daily life, while still exercising a paramount control over the general trend of your actions.

14 Thus the will of the community, expressed in custom, determines what the members of the community ought to do, and it takes measures to enforce obedience to its decisions. 15 Is it surprising that the names which have been given to the science which treats of human's rights and duties, morals, ethics (mores, ethica, Sitten), should reflect this truth? 16 It would be an inadequate statement to maintain that the science of morals is no more than a systematic exposition of the customary in human societies. 17 It is not an inadequate statement to assert that, in many societies, custom has, in fact, furnished the ultimate and complete standard of obligation, 18 and that in all societies it is of enormous significance in moulding human's notions of right and wrong.

THE GROUND FOR THE AUTHORITY OF CUSTOM

19 Habits are as essential to a society as they are to an individual human being. Without them, society could not live. 20 In any social state-- and no human can live except in a social state-- there must be cooperation. 21 How can there be cooperation if there are no social habits upon which people may count in their dealings with one another?

22 Try to conceive all the tacit mutual conventions, the unconscious adaptations to custom, which guide our daily lives, suspended for twenty-four hours. 23 When should one rise in the morning? How should one dress? What and how should one eat? Of business there could be no question, nor could there be cooperation in pleasures. 24 Public order there could not be, for there would be no public worthy of the name. Protection of life and limb would be the creature of accident. Between civility and insult there would be no recognisable distinction. 25 In short, humans could not behave either well or ill, for there would be no rule to

follow or to violate, nothing to expect, and, hence, no ground for disappointment.

26 In such a chaotic condition no society of people has ever lived. No actual state of anarchy has ever been complete, nor could it be, and endure. 27 A "reign of terror" is a reign of law in comparison with such a dissolution of all the bonds which knit human to human. 28 When we pass from one community to another, we find one set of public habits exchanged for another. 29 Some sets impress us as better, some as worse. But there is no set which is not better than none. It makes it possible for humans to live, if not to live well.

30 Customs are, then, a necessity. It is equally necessary that they should, in general, have binding force for the individual. But there are customs good and bad. 31 The individual may fall into habits which you, upon reflection, concludes to be injurious to you, and which others see clearly to be injurious. 32 A community sufficiently enlightened to criticise itself at all, may come to disapprove some of its customs and may endeavour to abolish them.

33 This means that a new act of the social-will may set itself in opposition to the social-will already crystallised into custom. 34 In a given instance, and where there are differences of opinion, it may be a nice question whether the new or the old should be regarded as the authoritative expression of the social-will.

THE ORIGIN AND THE PERSISTENCE OF CUSTOMS

35 From the fact that customs are, in general, to be regarded as expressions of the social-will, it might be assumed that their purposive character and social utility should be a sufficient explanation of their coming into being.

36 But the matter is not so simple. A person may fall into habits which are no indication of what one regards as useful to the self. Such habits have not been formed independently of own will, and yet they may appear to be purposeless, or even detrimental. 37 Who wishes to have the inveterate habit

of cracking the joints of own fingers or of biting own finger-nails? What purpose do such habits serve?

38 Although the social utility of customs, taken generally, is easily apparent, yet there are many customs which seem inexplicable upon such a principle. 39 Why, for example, should the king of a primitive community be prohibited from sleeping lying down? or why should it be forbidden that he gaze upon the sea? 40 The origin of such customs is hidden in obscurity. That their adoption was not without its reason, we may assume. 41 That the reason was a reasonable one cannot be maintained. It seems probable, however, that it at some time seemed reasonable to some one.

42 The persistence of habit, social as well as individual, would account for the perpetuation of the custom long after the occasion which gave rise to it had been forgotten.

LAW

43 Between custom and law, taken generally, it is by no means easy to draw a sharp distinction, although, in some instances, the distinction, may be clearly marked. 44 In primitive communities, laws reduced to writing, and administered by persons deliberately chosen for that end, may be wholly lacking; 45 and yet who would say that such communities do not live under the reign of law in a broad sense of the term? 46 A course of life is prescribed to the individual; failure to come up to the standard meets with punishment.

47 Nevertheless, as social life rises in the scale and as communities become developed, custom and law become differentiated. 48 The latter stands out upon the background of the former as something more sharply defined.

49 Penalties and the method of their infliction are more exactly fixed. 50 Not all violations of what is customary are taken up into the legal code as punishable offences, although they meet with that indefinite measure of punishment entailed by social disapproval.

51 Those public habits which it seems to a community it is of especial importance to preserve

and enforce come to be embodied in laws. 52 The selection is a matter of more or less deliberate choice, and is an expression of will. The choice is not, normally, an arbitrary one. 53 The laws of a people are, unless accident has intervened, the outcome and expression of its corporate life. For their ultimate authority they rest upon the acquiescence of the social-will. 54 Laws contrary to deep-seated and widely accepted custom are not apt to be regarded as of binding force. They are felt to be tyrannous, and are obeyed, if at all, unwillingly, and because of pressure from without.

55 In a later chapter I shall dwell upon the fact that the accidental may play a very significant role in law. 56 In given instances the laws of a community may be, not the outcome of its will in any sense, but something imposed upon it. Such laws cannot but be felt to be oppressive and a restriction of freedom.

57 Laws, like customs, may cease to have a significance, and they may be modified or allowed to fall into desuetude. 58 There is, however, much conservatism, as all who are familiar with legal usage know. And laws may fail of their purpose. 59 They may aim to diminish crime, and their undiscriminating severity may foster crime. 60 So may the individual select an end, fall into error in own choice of means, and, as a result of experience, resolve to substitute for such means others which are better adapted to carry out own purpose.

PUBLIC OPINION

61 Public opinion is manifestly a force broader and more vague than established custom, and still broader than law. 62 Public opinion may approve or condemn what no law touches, and it makes its influence felt beyond the sphere of what is customary.

63 Where customs and laws come to be imperfect expressions of the social-will, they may stand condemned by public opinion. In such a case their authority is undermined and violations of them are condoned. 64 Where public opinion is strongly against a law; the law becomes ineffective. 65 The conservatism of law is such

that a law may be allowed to stand unchanged, and yet may fail to be carried into effect. 66 Juries may refuse to convict, or the unpalatable infliction of punishment may be avoided by granting to the judge a wide discretion in pronouncing sentence.

67 The gradual development of a strong public sentiment may lead to the passage of new laws, not based upon previously established customs, but deliberately framed with a view to the public weal. 68 Old customs may be modified and new customs may be introduced. That the recommendations of public opinion extend beyond the sphere of the customary is manifest. 69 It is not the custom of most people to leave any large part of their estate to public charity. Except in the case of the very rich, the failure to do so is not, as a rule, expressly condemned. 70 Yet such bequests are approved, the testators are praised, and the attitude of public opinion has no small influence upon the conduct of individuals. 71 Again, extreme self-sacrifice is not customary; it is exceptional; and yet shining examples of unselfishness excite a warm sympathy. The expression of this sympathy is not without its influence.

72 Public opinion is more palpably an expression of the actual social-will than are custom and law. 73 We have seen that the last two may represent, in given instances, rather the inherited will of the past than the living will of the present. 74 But when we call public opinion an expression of the social-will we cannot mean that it necessarily reflects the sentiment of all the members of a given community.

75 In primitive communities custom may be a public habit which embraces all, or nearly all, individuals. Public opinion may scarcely have a separate existence. 76 In communities more developed, some individuals may disapprove and refuse to follow many customs which are characteristic of the society to which they belong. 77 Laws are not approved by all, and, in progressive states, there is usually some agitation which has as its object the repeal of old laws or the passage of new ones. 78 In

communities where there is independence of thought, public opinion is usually divided.

79 Furthermore, the communities to which civilised people belong are not homogeneous aggregations of units. There is the public opinion which obtains within single groups within the state. 80 The adherents of a religious sect may have notions peculiar to themselves of the conduct proper to the individual, and such notions may extend far beyond what is actually prescribed by the tenets of the sect. 81 The several trades and professions, the social classes, neighbourhoods, even lesser voluntary associations of people, such as clubs, may be pervaded by a public sentiment which varies with each group. 82 When we speak of public opinion generally we have in mind something broader, a resultant. But the public sentiment of the lesser groups cannot be ignored. 83 The individual feels the self especially influenced by the opinions of those most nearly associated with the self.

84 Under the head of public opinion it is convenient to speak of the opinions of moral teachers who have influenced the race. Such a thinker may enunciate truths far in advance of the opinions of own fellows. 85 Your teachings are not, hence, fairly representative of the social-will as it reveals itself in your time. But the sentiments of the more enlightened never are completely in accord with those of the mass of their fellows.

86 They are not mere aberrations from the social-will; they are its forerunners. The moralist and the religious teacher initiate new choices, which may become the choices of large bodies of people. 87 From them proceed influences which have their issue in new expressions of the social-will, characterising whole societies, and giving birth to new customs, new laws, and a new form of public opinion. 88 One can scarcely imagine what China would be without her Confucius; or the Arabic world, with Mahomet abstracted.

ETHICS

THE SHARERS IN THE SOCIAL-WILL

George Stuart Fullerton

THE COMMUNITY

23 It is difficult to state with absolute exactness what constitutes a community. 2 We may define it as a group of human beings associated in a common life, depending upon and cooperating with each other. 3 This definition will apply, to be sure, to lesser groups within a tribe or state; and even to a collection of tribes or states in so far as such enter into alliances and cooperate to their mutual advantage. 4 As, however, the bond of union is, in the former case, subordinate to the higher authority of a larger group (for the family is subject to the tribe or state); 5 and as, in the latter case, the bond of union is a relatively loose one, and evidently subordinate to that which binds the citizens of individual states, 6 the community proper may be regarded as that group which is characterised by a relatively great degree of inner coherence and by relative external independence.

7 The type of such communities is, among the more primitive peoples, the tribe, and among the more developed, the state. 8 The authority of such groups over their own members is, theoretically, paramount, although it may be suspended or abolished by the exertion of force from without.

9 Such a community may be said to be inspired by a social-will expressed in its customs, its laws and the public opinion prevalent in it. 10 Its members may be said to be sharers in the social-will of the community. Their participation in it is marked by their being endowed with rights and charged with duties.

11 It has not been characteristic of communities generally that all who find their place in them should be like sharers in the social-will. 12 The distinction has been made between the citizen, who enjoys the fullest rights and may, perhaps, directly take part in the government of the state, and those who, while in the state, are not of it, as they do not enjoy citizenship. 13 Where slavery, in any of its forms, has prevailed, the distinction between those who are significant factors in determining the social-will, and those who

have not this prerogative, has been very marked. 14 Social classes have often enjoyed, even before the law, privileges of great moment. Women have, as a rule, not been treated as citizens, and have been refused a share in the government of the community. 15 Children are cared for and are protected, but political rights are denied them. Their status before the law is a peculiar one. 16 The mentally defective, both in primitive communities and in developed ones, stand in a relation to the community peculiar to themselves. 17 They are not excluded from it; they are accorded rights; but they are assigned in the community a place of their own. 18 Wherever we look, we find inequality. The sharers in the social-will do not share equally, nor do they share in the same way. This is true of communities of every description, but the differences are more marked in some than in others.

THE COMMUNITY AND THE DEAD

19 It is not merely of the living human beings which compose a community that the social-will takes cognisance. Other wills are made participants in the body of rights and duties peculiar to the community.

20 In many communities the dead are still counted among its members. They are conceived as affecting its welfare, and as demanding services from the living. 21 Duties towards the dead are a well-recognised division of the sum of a human's obligations in communities the most diverse in their character. 22 In some, they occupy a very prominent place; in no community are they wholly overlooked. A striking illustration of the recognition by the social-will of the rights of the dead is to be found in the whole modern law of testamentary succession. 23 The will expressed by a person while you are alive is given effect as though you were still in the flesh and insisted upon the fulfillment of your desire. 24 It appears to work as a permanent factor in the community life, making its

influence felt for generations. Witness its influence in charitable foundations, in the law of entail, and the like.

THE COMMUNITY AND THE SUPERNATURAL

25 Nor is it merely in recognising the wills of the dead that the social-will extends its sphere beyond the community of living human beings. 26 To primitive human, and to human far from primitive, their social environment has not seemed to be limited to the living and the dead who have, or who have had, an undeniable and unequivocal place in the community.

27 The part played in the life of human by supernatural beings of various orders has been a most significant one. 28 Demons and gods, spirits of a lower or of a higher order, have occupied your mind and have influenced your actions. 29 Such beings have been conceived to be, sometimes, malevolent and needing to be placated, sometimes, benevolent and fit objects of gratitude. 30 Their wills human has regarded as forces to be taken into account, a something to which the individual and the community must adjust themselves.

31 Human's relation, or supposed relation, to such beings has been a source of classes of duties upon which great stress has been laid. 32 The influence of this admission of supernatural beings into the circle of those directly concerned in the community life has found its expression in the organisation of the state, in custom, in law, in public opinion. We know little of a community when we overlook this factor.

33 Between magic and religion it is not easy to draw a sharp line, especially when we view religion in the lower stages of its development. In both we have to do with what may be called the supernatural. 34 Magic has been defined as the employment of mechanical means to attain the desired end. 35 In religion, when it so far develops that its specific character seems clearly revealed, we have left the sphere of the mechanical.

36 The distinction between the mechanical and the spiritual is

familiar to us in our dealings with our fellow-humans. 37 In such dealings we may employ physical force. On the other hand, we may appeal to their intelligence and their emotions, and thus influence their action. 38 In so far as we do not make such an appeal, we deal with our fellows, not as though they belonged to our social environment, but to our physical.

39 At the lowest stages of your development, human does not distinguish clearly between persons and things. This means that you cannot distinguish clearly between your material environment and your social. 40 But the distinction becomes gradually clearer, and it is, in the end, a marked one. 41 Religion becomes differentiated from magic. To confound religion, in its higher developments, with magic is an inexcusable confusion.

RELIGION AND THE COMMUNITY

42 The denotation of the term religion is a broad one, and there will probably always be dispute as to the justice of its extension to this or to that particular form of faith. 43 But it seems clear that it is typical of religion to extend what may not unjustly be called the social environment of human.

44 Will is recognised other than the wills of the human beings constituting the community. To the part played by such wills a very great prominence may be given.

45 States may be theocratic, as among the ancient Hebrews; or church and state may share the dominion, or struggle between themselves for the supremacy, as in Europe in the Middle Ages; 46 or the state may be theoretically supreme in authority and yet maintain and lend authority to a church. 47 Even where church and state are, in theory, quite divorced-- a modern conception-- the church with its ordinances and prescriptions, its sacred days, its ceremonial, its educational institutions, remains a very significant factor in the social environment of human. 48 Religious duties have at all times and in all sorts of societies been regarded as constituting an important aspect of conduct. They colour strongly the mores of the

community. 49 Whole codes of morals may be referred to the teachings of certain religious leaders. They claim their authority on religious grounds.

50 The great significance of the role played by religion in the sphere of morals is impressed upon one who glances over the works of those writers who have approached the subject of ethics from the side of anthropology or sociology. 51 A review of the facts has even tempted one of the most learned to seek the origin of morals almost wholly in religion.

52 That religion should play an important part in giving birth to or modifying moral codes is not surprising. Human adjusts the self to own social environment as one conceives it. 53 If the community of wills which you recognises includes the wills of supernatural beings, it is natural that the social-will which finds its expression in the organisation of the state, in custom, in law and in public opinion, should be modified by such inclusion.

54 Nor is it surprising that the supernatural element should, at times, dwarf and render insignificant the other elements which enter into the social-will. It may seem to human the all-important factor in your life.

55 Within the human community some individuals count for much more than do others. There are those who scarcely seem to have any voice in contributing to the character and direction of the social-will. 56 Others are influential; and, in extreme cases, the wills of the few, or even that of a single individual, may be the source of law for the many. 57 If people come to the conclusion that the weal and woe of the community are dependent upon the will of the gods, or of God, they will unavoidably give frank recognition to that will above others, and such recognition will dictate conduct. 58 The gods of Epicurus, leading a lazy existence in the interstellar spaces, indifferent to human and in no wise affecting his life, could scarcely become the objects of a cult. 59 But the God of the Mahometan, of the Jew, or of the Christian, is a ruler to be feared, loved, obeyed. His will is law, and is determinative of conduct.

ETHICS

THE SPREAD OF THE COMMUNITY

60 So far I have been speaking of the community properly so called, of the single group of human beings living its corporate life. But such groups do not normally remain in isolation.

61 As the isolation of the group diminishes, as contacts between it and others become more numerous and more important, the necessity of conventions controlling the relations of groups becomes more pressing.

62 This implies the development of a broader social-will, inclusive of the social-wills of the several communities. 63 This social-will may be very feeble, and the bond between people belonging to different communities may be a weak one; or it may be vigourous, and furnish an intimate bond. 64 The savage, to whom those beyond the pale of own tribe or small confederation are mere strangers, and probably enemies, stands at the lower limit of the scale; 65 the trader, to whom the stranger is co-partner in a mutually profitable transaction, stands higher; 66 the Stoic philosopher, cosmopolitan in thought and feeling, rating the claims of kindred and country as less significant than the bonds which unite all people in virtue of their common humanity, marks the other extreme. 67 The spread of the social-will grows marked as human rises in the scale of civilisation. Barriers are broken down and limits are transcended.

68 This broader social-will, like the narrower, reveals itself in the organisation of society. We find confederations of tribes or states; alliances temporary or relatively permanent. 69 And the broader social-will modifies customs, gives birth to systems of law, and encourages the development of an inclusive humanitarian sentiment. It does not necessarily obliterate old distinctions. 70 The family, neighbourhood, kindred, have their claims even under the most firmly organised of states; but those claims are limited and controlled. 71 Even so, the broader social-will may come to regard states as answerable for their decisions. 72 International law remains to the present day what has aptly been called a pious wish. But public

opinion prepares the way for law; 73 and all states, whatever be their real aims, now attempt to justify their actions by an appeal to the more or less nebulous tribunal of international public opinion. In this they recognise its claim to act as arbiter. 74 Within the jurisdiction of a state, the motto, "my family, right or wrong," would not be a maxim approved in a court of justice.

75 International law is made a mock of by the frank enunciation of the maxim, "my country, right or wrong." Hence, such frankness is, in international relations, not encouraged. 76 The more or less skillfully made appeal to the moral sense of humankind-- to the broader social-will as public opinion-- implies a certain recognition of its authority, or, at least, of its influence. 77 Whether this is a definite step toward the granting of a real authority to the broader social-will, an authority which will curb impartially the selfishness of individual states, it remains for the future to decide.

THE IMPERFECT SOCIAL-WILL

George Stuart Fullerton

THE APPARENT AND THE REAL SOCIAL-WILL

24 It is important to distinguish between the apparent and the real social-will. We may begin by pointing out that the question "apparent to whom?" is a pertinent one.

2 The social-will is brought to bear upon the individual through a variety of agencies. The family, the neighbourhood, the church, the trade or profession, the political party, the social class-- all these have their habits and maxims. 3 They tend to mold to their type those whom they count among their members. The pressure which they bring to bear is felt as a sense of moral obligation. 4 Naturally, individuals with different affiliations will be sensible of the pressure in different ways, and may differ widely in their conceptions of the obligations actually laid upon the individual by the will of the greater organism of which one is a part.

5 But even you who rises above minor distinctions and takes a

broad view of society is forced to recognise that the distinction between the apparent and the real social-will may be a most significant one.

6 We have found the expression of the social-will in custom, law and public opinion. This is just; but the statement must be accepted with reservations.

7 There are instances in which neither the organisation of the state, nor the laws according to which it is governed, can be considered as in any sense an expression of the social-will. 8 An autocracy, established by force, and ruling without the free consent of the governed, is an external and overruling power. 9 It may be obeyed, but it is not consented to. Nor is any body of law or system of government imposed upon a subject people by an alien and dominant race a fair exponent of the social-will of the people thus governed. 10 Custom and public opinion are at variance with law. However just and enlightened the government, as judged from the standpoint of some other race or nation, its control must be felt as oppressive by those upon whom it is imposed. 11 Traditions felt to be the most sacred may be violated; moral laws, as understood by those thus under dictation, may be transgressed by obedience to the law of the land.

12 Where custom, law and public opinion are more nearly the spontaneous outcome of the life of a community, they may with more justice be taken as expressions of the social-will of that community as it is at the time.

13 Yet, even here, we must make reservations. The organisation of a state represents rather the crystallised will of the past than the free choice of the present. To be sure, it is accepted in the present; but this is little more than the acquiescence of inertia.

14 And public opinion may be at variance both with custom and with law long before it succeeds in modifying either. What is the actual social-will of a community during the interval?

15 The past may be felt as exercising a certain tyranny over the present. That the present cannot be cut wholly loose from it is manifest, but how far should its dependence be accepted? 16 In the

past there have been historical causes for the rise of dictatorships, of oligarchies, of dominant social classes. The people of a later time inherit such social institutions, may accept them as desirable, or may feel them as instruments of tyranny. 17 Shall we say that they represent the actual social-will of the community until such time as they are done away with by a successful revolution? 18 Or shall we say that they are in harmony with the apparent social-will only, and really stand condemned?

THE WILL OF THE MAJORITY

19 Our own democratic institutions rest upon the theory that the social-will is to be determined by the majority vote. 20 To be sure, we seem to find it necessary to limit the application of this doctrine, and to seek stability of government by fixing, in certain cases rather arbitrarily, the size of the majority that shall count. 21 But the doctrine, taken generally, does seem in harmony with the test of rationality developed above. It aims at the satisfaction of many desires-- at what may be termed satisfaction on the whole.

22 Nevertheless, it is possible to question whether the vote of the majority represents, in a given instance, the actual will of the community. 23 No one knows better than the practical politician how the votes of the majority are obtained. No one knows better than them that, in the most democratic of communities, it is the wills of the few that count. 24 The organisation of a party, clever leadership, the command of the press, the catching phrases of the popular orator, the street procession, the brass band, the possession of the ability to cajole and to threaten-- 25 these play no mean role in the outcome, which may be the adoption of a state policy of which a large proportion of the majority voting may be quite unable to comprehend the significance. 26 Shall we say, in such a case, that the will of the majority was for the ultimate end? 27 Or shall we say that the vote was in pursuance of a multitude of minor ends, many of which had but an accidental connection with the ultimate end?

IGNORANCE AND ERROR
AND THE SOCIAL-WILL

28 The apparent will of the community appears to be, in large measure, an accidental thing. 29 That is to say, people will what they would not will were they not hampered by ignorance and error, and were they not incapable of taking long views of their own interests.

30 The decisions of the social-will may be the outcome of ignorance and superstition. 31 Where it is thought necessary to punish the accidental homicide in order to appease the ghost of the dead person, which might otherwise become a cause of harm, the course of justice, if one may call it such, deviates from what the enlightened person must regard as normal. 32 The belief that sin is an infection, communicable by heredity or even by contact, must lead to similar aberrations of primitive justice. 33 Animals, and even material things, have, and not by peoples the most primitive, been treated as rational, responsible and amenable to law. This seems to do the brutes more than justice. 34 On the other hand, the philosophical tenet of the Cartesians, which denied a mind to the brutes, resulted in no little cruelty. 35 The treatment of drunkards, and of the mentally defective, has, at times, been based upon the notion that they are possessed by god or demon, and, hence, have a right to peculiar consideration, or may be treated with extreme rigour.

36 It is worthwhile to follow up the above reference to the Cartesians by a reference to St. Augustine. Trains of reasoning based upon theological or philosophical tenets have more than once given rise to aberrations of the moral judgment.

37 The intellectual subtlety of Augustine betrays him into magnifying to enormous proportions the guilt of the boyish prank of stealing green pears from the garden of a neighbour, inspired by the agreeable thought of the irritation which would be caused by the theft. 38 The pears were not edible, and were thrown to the pigs, which circumstance seduces this father of the Church into the reflection that the sin must have been committed for no other end than for the sake of sinning. A

greater crime than this he cannot conceive.

39 Many years after the event, in writing his Confessions, he expresses in unmeasured terms his horror of the deed, filling seven chapters with his reflections and lamentations: 40 "Behold my heart, O God, behold my heart, upon which thou hadst mercy when in the depths of this bottomless pit." 41 "O corruption! O monster of life and depth of death! Is it possible that I liked to do what I might not, simply and for no other reason than because I might not?"

42 Saint as he was, Augustine would have made a sorry schoolmaster. It is evident that the enlightened mind cannot regard schoolboys as unique monsters of iniquity for making a raid on an orchard.

43 The community whose decisions are made under the influence of erroneous preconceptions undoubtedly wills, but its will is determined by the accident of ignorance. 44 It is to be likened to the person who, in unfamiliar surroundings, takes the wrong road in own desire to get home. One chooses, but one does not choose what one would if one knew what one was about.

HEEDLESSNESS AND THE SOCIAL-WILL

45 Numberless illustrations might be given of the fact that, not merely ignorance and error, but also a short-sighted heedlessness plays no small part in introducing elements of the accidental and irrational into the social-will. 46 The person who spends freely with no thought for the morrow is not more irrational than the state that permits a squandering of its resources, and wakes up too late only to discover that it has lost what cannot easily be replaced.

47 The life of the community is a long one, and calls for long views of the interests of the community. 48 These are too often lacking. Heedlessness and indifference are a fertile source of abuses. In which case, the will of the community resembles that of the impulsive and erratic human, who has too little foresight and self-control to consult consistently own interests. 49 We may say that you desires your own good on the whole, but

we cannot say that you desires it at all times. 50 Future goods disappear from your view. Your choices clash. Your actual will at any given moment appears to be the creature of accident. So it may be with the community.

RATIONAL ELEMENTS IN THE IRRATIONAL-WILL

51 The actual social-will, as revealed in custom, law and public opinion, often appears, thus, highly irrational, and we may be justified in distinguishing between it and the real will which we conceive of as struggling to get itself expressed.

52 Nevertheless, in justice to custom, law and public opinion, we must look below the surface of things. 53 Even where the decisions of the community seem most irrational, and where there appears to be little consciousness of the ends pursued by the real will, the discriminating observer may see that pure irrationality does not prevail. 54 The individual may show by own actions that you have comprehensive ends, and may yet not be distinctly aware of them. So may a community of people.

55 "The true meaning of ethical obligations," says Hobhouse,"-- their bearing on human purposes, their function in social life-- only emerges by slow degrees. 56 The onlooker, investigating a primitive custom, can see that moral elements have helped to build it up, so that it embodies something of moral truth. 57 Yet these elements of moral truth were perhaps never present to the minds of those who built it. Instead thereof we are likely to find some obscure reference to magic or to the world of spirits. 58 The custom which we can see, perhaps, to be excellently devised in the interests of social order or for the promotion of mutual aid is by those who practice it based on some taboo, or preserved from violation from fear of the resentment of somebody's ghost." 59 It is not wholly irrational that, in the laws of various peoples, an allowance should be made for the sudden resentment which flames up when wrong has been suffered, 60 and that an offence grown cold should be treated more leniently

than one which is fresh and the smart caused by which has not had time to suffer diminution. 61 Society has to do with people as they are. It is its task to bend the will of the individual into conformity with the social-will.

62 That resentment for wrongs suffered is an important element in the establishment of order in the community can scarcely be denied, nor is it wholly unreasonable, humans being what they are, for the community to make some concessions to the natural feeling of the individual. 63 Moreover, the offender caught in the act is indubitably the real offender; and settled animosities are more injurious to the social order than are fugitive gusts of passion.

64 And if it is true that the arbitrary laws of hospitality, as recognised by some primitive and half-civilised communities, are reinforced by the superstitious fear of the stranger's curse, it is none the less true that they serve certain social needs. 65 The fact that hospitality tends to decline when it becomes superfluous is sufficient to indicate its social significance.66 Again, collective responsibility-- the making of a human responsible for the delinquencies of those connected with you, even when you could in no way have prevented the evils in question-- appears to modern civilised human, in most instances, an irrational thing. 67 Yet people are actually knit into groups with common interests and accustomed to cooperation. 68 To treat them as wholly independent units, responsible only to some higher organisation such as the state, is to overlook actual relationships which have no small influence in determining the course of their lives. 69 Within each lesser group the members can and do encourage or repress given types of action beneficial or the reverse. Is it irrational for the larger group to set such influences to work by holding the lesser group responsible in its collective capacity?

70 In China the principle has worked with some measure of success as an instrument of order for many centuries. 71 In an enlightened society some better method of attaining order may obtain, 72 but it would be a

mistake to assume that there is nothing behind the principle of collective responsibility save the unintelligent attempt to satisfy resentment by striking indirectly at the offender through those connected with the person, 73 or the mental confusion that identifies the culprit, through mere association of ideas, with other members of the group to which one belongs.

THE SOCIAL-WILL AND THE SELFISHNESS OF THE INDIVIDUAL

74 There is, then, often some reason to be discovered even in what appears at first sight to be wholly irrational. 75 But no small part of the irrationality of the actual social-will must be set down, in the last instance, to that peculiar form of irrationality in the individual or in groups of individuals which we call selfishness.

76 That some degree of inequality should be necessary in communities of people, in view of the differentiation of function implied in cooperative effort, may be admitted. 77 How far the inherited organisation or the existing environment of a given community may make it necessary, in the interests of all, to grant a large measure of power or prerogative to a single individual, or to the few, is fair matter for investigation. 78 But the most cursory glance at the pages of history, the most superficial survey of the present condition of humankind, 79 must make it evident that a far-seeing and enlightened social-will has not been the determining factor in bringing into existence many of the institutions which are accepted by the actual social-will of a given epoch.

80 Neither Alexander the Great nor Napoleon can be regarded as true exponents of the social-will. The rule of the oligarchy is based upon selfish considerations. 81 The institution of slavery overrides the will of the bondsman in the interests of own possessor. 82 The perennial struggle between the "haves" and the "have nots"-- the rich and the poor-- is, unfortunately, carried on by those engaged in it with a view to their

own interests and not with a view to the good of society as a whole.
83 That those to whom especial opportunities are, by the accident of their position, open, or by whom special rights are inherited, should accept the situation as right and proper is not to be wondered at. 84 All rights and duties have their roots in the past, and conceptions of what is feasible and desirable are always influenced by tradition. 85 While from the standpoint of the real social-will anomalous and accidental it is nevertheless psychologically explicable and natural that the mediaeval knight should be bound by the rules of chivalry only in own dealings with those of one's own rank; 86 that the murder of a priest should be regarded as a crime of a special class; that benefit of clergy should be extended to a limited number of those guilty of the same offence; 87 that the lists of the deadly sins should, in an age dominated by the monastic idea, smack so strongly of the cloister.
88 Natural it is, and, perhaps, inevitable, that such expressions of the social-will should make their appearance. They have their place in the historic evolution of society. 89 But they betray the fact that human is imperfectly rational. They cannot be regarded as expressions of the permanent rational-will which belongs to human as human.

THE RATIONAL SOCIAL-WILL

George Stuart Fullerton

REASONABLE ENDS

25 We have seen in the chapter on "Rationality and will," that we cannot consider a human rational unless your choices are harmonised and converge upon some comprehensive end. 2 It has been hinted, furthermore, that not all comprehensive ends can be described as reasonable or rational. 3 A child may be consistently disobedient to its parents, and, given parents of a certain kind, it may find its life highly satisfactory. 4 A person may consistently be a bad neighbour, and may harbour the conviction that, on the whole, he gains by it. 5 A miser may be consistent; you may come to joy in denying

yourself luxuries and even comforts, repaid in the consciousness of an increasing store. 6 The philosophical egoist may reason with admirable consistency, and may habitually act in accordance with own convictions, leading, for the self, a very endurable life.

7 All these may be intelligent, even acutely intelligent, and may reason clearly and well. Nevertheless, humans generally refuse to consider their behaviour reasonable. 8 There are ends which we regard as rational, and others which we condemn as irrational.

9 It is not enough, hence, that a human's volitions should be intelligently harmonised and unified. Your will must be adjusted to ends which themselves can be judged rational.

10 And in deciding whether the ends you chooses are rational or not, we proceed just as we do in judging the rationality of your individual choices. 11 If the latter are made in the light of information, if their significance is realised, if they converge upon some comprehensive end and do not merely clash and defeat one another, we have seen that they are made under the guidance of reason or intelligence. 12 The individual volitions are congruous with the permanent set of the human's will. They are judged by their background, by their harmony with the "pattern" which is revealed in the human's volitional life.

13 Even so, each such volitional pattern, the harmonised and unified will of the individual as directed upon some comprehensive end, is judged to be rational or not according as it does or does not accord with the ends pursued by the social-will. 14 Individuals, whose wills are thoroughly unified and harmonised by the dominant influence of given chosen ends, may be thoroughly out of harmony with the chosen ends of the larger organism of which they are a part. 15 They may be out of harmony with each other. Considered alone, each may display an internal order and unity. Taken together they may be seen to be in open strife.

16 We have found the social-will to be something relatively permanent and moving with more

or less consistency toward certain comprehensive ends.

17 That the ends chosen by given individuals may be very much out of harmony with these is palpable. 18 The deliberate idler, the whole-hearted epicure, the habitually untruthful person, the miser, the cold egoist-- these and such as these are condemned in enlightened communities. 19 Their lives do not help to further, but serve to frustrate, the ends approved by the social-will. In so far they may be regarded as consistently irrational.

AN OBJECTION ANSWERED

20 Consistently irrational! it may be exclaimed; how can that be? Is not a far-sighted consistency the very mark of rational choice?

21 The difficulty is only an apparent one. Many forms of consistency may indicate a certain degree of rationality, and yet too slight a degree to win approval. 22 There is such a thing as a narrow consistency. You who devotes your life to the purpose of revenge, may live consistently, but you loses much. 23 A bitter and angry life is not a desirable thing, even from the standpoint of the individual.

24 But why should we limit ourselves to the standpoint of the individual, in judging of the rationality of ends? 25 There are those to whom it appears self-evident that this should be done; those to whom it does not seem reasonable for a person to do anything by which you, on the whole, loses; 26 those who deny the reasonableness of self-sacrifice in any form.

27 Here it is enough to point out that humans do not actually limit the notion of rationality in this way. In every, even moderately, rational life some desires must be suppressed. All desires cannot be satisfied. 28 Why should it not be regarded as rational and reasonable that, to attain the comprehensive ends of the social-will, certain ends consistently chosen by certain kinds of individuals should deliberately be denied?

29 As a matter of fact, humans generally do so regard it. They employ the terms rational and irrational, reasonable and

unreasonable, to indicate the harmony or lack of harmony between the individual and the social-will. 30 We call the person unreasonable who insists upon having your own way regardless of your fellows; and this, even in instances in which your fellows cannot punish you for your selfish attitude.

31 It is not a matter of accident that this should be so. The analogy between the relation of separate volitions to the dominant ends which control action on the part of the individual, and the relation of the ultimate choices of individuals to the ends pursued by the social-will, is a close one. 32 In the well-ordered mind the clash of conflicting desires is reduced to a minimum. In a well-ordered community the conflict of individual wills is also reduced to a minimum. 33 In each case, we are concerned with the work of reason, and judgments as to rationality and irrationality are equally in place.

REASONABLE SOCIAL ENDS

34 The will of the individual, when affirmed to be rational or irrational, is, therefore, referred to the background of the social-will. 35 But the social-will is more or less different in different communities, and in the one community at different stages of its development. 36 Is there any measure of the degree of rationality of the social-will itself? is there any standard to which its different expressions may be referred?

37 We may criticise a community as we criticise an individual person even when you are taken as abstracted from your social setting. 38 The person's choices may be blind, conflicting, wayward, and ill-adapted to serve own interests taken as a whole. 39 In the last chapter we saw that a community may resemble such a person. It may be ignorant, superstitious, short-sighted, and in conflict with itself. 40 The social-will as actually revealed may be an imperfect and inconsistent thing. Here enlightenment and inner

harmonisation are called for, to set the social-will free.

41 But even where the will of a community is something more definite and consistent than this, it may be condemned by the moral judgment of the enlightened. 42 An appeal may be made from the will of the community in the narrower sense to that of the larger community. 43 The limits of nation, race and religion may be transcended, and we may appeal to humanity as such, refusing to recognise the will of any lesser unit as really ultimate. 44 You who occupies the one standpoint is apt to speak of defending your legitimate rights, or of extending to subject races the blessings of civilisation. 45 You who takes your stand upon the other may talk of lust of dominion, or desire for economic advantage. The one may use the term righteous indignation; the other, the word anger. 46 The moral judgment passed upon an act depends upon the concept under which people manage to bring it. What is approved by the tribal ethics may be abhorrent to the ethics of humanity.

47 But the larger social-will, so far as it has gotten itself expressed at all, seems to remain something vague and indefinite. It is appealed to as rational; 48 but how indicate clearly the end which it sets before itself and the obligations which it lays upon humankind?

49 The difficulty of describing in detail the ultimate ends of the real social-will has led some writers to speak in terms of exaggerated vagueness. 50 The mere idea in a human "of something, you knows not what, which you may and should become" can give little guidance to action; 51 nor can one aim with much confidence at a goal of which "we can only speak or think in negatives."

52 But it is not necessary to speak in this way. We may form some conception of the real, rational social-will, without being compelled to know all that human is capable of becoming and without being able to forecast the details of your environment in the distant future.

53 We may attain to our conception by determining clearly the nature of the aims human sets before the self in proportion to

your growing rationality. 54 We can see in what direction human moves as you develops and becomes enlightened. 55 From this standpoint, the aims of the rational social-will appear to be as follows:
(1) The harmonious satisfaction of the impulses and desires of human.
56 (2) Such an unfolding of your powers as will increase their range and variety, broaden human's horizon, and give you an increased control over erratic impulses.
57 (3) The bringing about of a social state in which the will of each individual within a community counts for something, and not merely the will of a chosen few.
58 (4) The broadening of the conception of what constitutes a community, so that ever increasing numbers are regarded as having claims that must be recognised.
59 (5) The taking into consideration of the whole of life; the whole life of individuals and of communities, so that the insistent present shall not be given undue weight, as against the future.

THE ETHICS OF REASON

60 The doctrine of the Rational social-will might very properly be called the Ethics of Reason. 61 It is not to be confounded with the so-called "tribal" or "group" ethics. To be sure, it has to do with human as a social being; 62 but this is characteristic of ethical systems generally. Human is a social being; you are one essentially, and not accidentally. 63 That you should be a member of a tribe, or of any lesser group than the whole body of sentient and reasonable beings, may not unjustly be regarded as an historical accident, as a function of your position in the scale of development.
64 In judging the doctrine of the rational social-will, bear in mind the following:
(1) It rests upon the basis of the impulsive and volitional nature of human.
65 (2) It recognises reason in the individual, and declares that only so far as you are rational is you the proper subject of ethics at all. Erratic and uncontrolled impulse knows no moral law.
66 (3) It sees reason in the customs, laws and public opinion of the

tribe or the state, while recognising a higher tribunal before the bar of which all these are summoned.

67 (4) It appeals to the reason of the race-- the reason appropriate to the race as enlightened and freed from the shackles of local prejudice and restricted sympathy.

68 (5) It recognises that human can give expression to own nature, can satisfy own desires and exercise own reason, only as aided by own physical and social environment. 69 It emphasises the necessity of a certain reverence for the actual historical development of human societies, with their institutions. 70 Such institutions are the embodiment of reason-- not pure reason, but reason struggling to get itself expressed as it can. 71 You who would legislate for human independently of such institutions has left the solid earth and human far behind. You are suspended in the void.

THE DEVELOPMENT OF CIVILISATION

72 Civilisations differ; some are more material, laying stress upon human's conquest of own material environment. 73 Others exhibit a greater appreciation of idealistic elements, the pursuit of knowledge for its own sake, the cultivation of the fine arts, the development of humanitarian sentiment. 74 For civilisation in general it is not necessary to advance an argument. But there are elements in many civilisations which the thoughtful human may feel called upon to defend.

75 Civilisation, taken generally, scarcely needs a laboured justification because it is only in a civilisation of some kind or other that we can look for a guarantee of the broad social-will, for the reign of reason. 76 Undeveloped human is at the mercy of Nature; you are the sport of history. Where developed human can raise own voice, human possessed of power and capable of taking broad views of things, the rule of reason may be set up. 77 A deliberate attempt may be made to recognise many wills, harmonise discords. Order may be brought out of chaos, and the limits of the realm within the borders of which order reigns may be indefinitely extended.

ETHICS

78 Such is the general ethical justification for the rise of a civilisation. It is an expression of, and an instrument for the realisation of, the broader social-will. 79 That a given civilisation may be imperfect in both respects has been made clear in the last chapter. In the light of the general justification for civilisation many questions may be raised touching this or that element in civilisations as we observe them.

80 Thus, it may be pointed out that as human progresses in civilisation you calls into being a multitude of new wants, many of which may have to remain unsatisfied. 81 It may be asserted that literature, art and science are, in fact, cherished as though they were ends in themselves, and not means called into existence to serve the interests of human. 82 Absorbing as it may be to you, how can the philologist prove that own science is useful to humanity either present or prospective? 83 How shall the astronomers, who may frankly admit that they cannot conceive that nine tenths of the work with which they occupies themselves can ever be of any actual use to anyone, justify themselves in devoting own life to it? 84 Shall a curiosity, which seems to lead nowhere, be satisfied? And if so, on what ground?

85 Moreover, every civilisation recognises that some wills are to be given a more unequivocal recognition than others. Inequality is the rule. 86 A person does not put own children upon a level with those of own neighbour. Even in the most democratic of states people do not stand upon the same level. 87 In dealing with our own fellows we do not employ the same weights and measures as in dealing with foreigners. 88 Who loses own appetite for own breakfast when you reads that there have been inundations in China or that an African tribe has come under the "protection" of a race of another colour? 89 The white person has added to own burden-- the burden of economic advantage present or prospective-- and we find it as it should be. 90 Finally, when we bring within our horizon the "interests" of humbler sentient creatures, we see that they are unhesitatingly subordinated to our own. 91 Some attention is paid

to them in civilised communities. They are recognised, not merely by custom and public opinion, but, to some degree, even by law. 92 People are punished for treating certain animals in certain ways. But why? Have the animals rights? 93 There is no topic within the sphere of morals upon which moralists speak with more wavering and uncertain accents.

94 I know of no way in which such problems as the above can be approached other than by the appeal to reason, as reason has been understood in the pages preceding. 95 The reign of reason implies the recognition of all wills, so far as such a recognition is within the bounds of possibility. 96 The escape from chaos lies in the evolution of the enlightened social-will. Human must be raised in the scale, in order that you may have control; control over yourself, over other humans, over the brutes. 97 And you cannot rise except through the historical evolution of a social order. This implies the development of the capacities latent in human.

98 To decide that any of your capacities shall be allowed to remain dormant may threaten future development. 99 To cut off certain arts and sciences as not palpably serving the interests of human is a dangerous thing. 100 To ignore the actual history of human's efforts to become a rational being, and to place, hence, all wills upon the one level, is to frustrate the desired end. It is not thus that the reign of reason can be established.

THE INDIVIDUAL AND THE SOCIAL-WILL

George Stuart Fullerton

HUMAN'S MULTIPLE ALLEGIANCE

26 We have seen that each human has own place in a social order. 2 This order is the expression and the embodiment of the social-will, which accepts you, protects you, gives you a share in the goods the community has so far attained, 3 recognises your individual will in that it accords to you rights, and prescribes your course of conduct, that is, defines your duties or obligations.

4 The social-will is authoritative; it issues commands and enforces

obedience. With its commands the individual may be in sympathy or you may not. 5 But upon obedience the social-will insists, and it compasses its ends by the bestowal of rewards or the infliction of punishment. 6 The moral law to which human thus finds yourself subject is something not wholly foreign to the nature of the individual. 7 It has come into being as an expression of the nature of human. That nature the individual shares with own fellows.

8 Obedience to the social-will would be a relatively simple matter were that will always unequivocally and unmistakably expressed, and did all the members of a community feel the pressure of the social-will in the same manner and to the same degree. 9 But the whole matter is indefinitely complicated by what may be called human's multiple allegiance. 10 Organised societies do not consist of undifferentiated units. They are not mere aggregates, both are highly complex in their internal constitution. 11 A conscientious person may feel that you owes duties to yourself, to your immediate family, to your kindred, to your neighbourhood, to your social class, to your political party, to your church, to your country, to its allies, to humanity. 12 The social-will does not bring its pressure to bear upon the person who holds one place in the social order just as it does upon you who holds another. Nor are the injunctions laid upon a human always in harmony. 13 The demands of family may seem to conflict with those of neighbourhood or of profession; 14 duties to the church may seem to conflict with duties to the state; patriotism may appear to be more or less in conflict with an interest in humanity taken broadly. 15 That the individual should often approach in doubt and hesitation the decision as to what it is, on the whole, own duty to do, is not surprising. 16 Nor is it surprising that individuals the most conscientious should find it impossible to be at one on the subject of rights and duties. 17 Two people may agree perfectly that it is right to "do good," and be quite unable to agree just what

good it is right to do now, or with whom one should make a beginning.

THE APPEAL TO REASON

18 Were there no appeal save to the social-will as it happens to make its pressure felt upon this person or that, in this situation or that, there could be no issue to dispute. 19 Dispute would be useless and sheer dogmatism would prevail. But there is such an appeal and people do make it, where they are in any degree enlightened. It is the appeal to Reason.

20 You who says: "I have especial rights, just because I am Smith, and so has my father, because he is my father," has no ground of argument with Jones, who says: "I have especial rights because I am Jones, and so has my father, because he is my father." 21 Upon such a basis, or lack of basis, all discussion becomes fatuous. 22 But if Smith and Jones agree that duties to self should only within limits be recognised, and that duties to family have their place upon the larger background of the will of the state, they may, at least, begin to talk.

23 The multiple allegiance of the individual does not mean that a person is subject to a multitude of independent masters whose several claims have no relation to one another. An appeal may be made from lower to higher.

24 We have seen that, in the organisation of a given society, the social-will may be imperfectly expressed. It may come about that the place in the social order assigned to a person cramps and pains you or forces you to exertions which seem intolerable. 25 You may passively accept it, or you may set yourself in opposition to the social-will as it is, appealing to a better social-will. 26 The fact that an individual finds the self out of harmony with given aspects of the social-will characteristic of own age and country is no proof that one desires to set the self up in opposition to the social-will in general.

27 In a given instance, you may be, from the standpoint of existing law, a criminal. Yet you may reverence the law above your fellows. 28 Your aberrations need

not be arbitrary wanderings, prompted by selfish impulses. You may leave the beaten track because you does not approve of it, which is a very different thing from disliking it. 29 Some will judge you to be a pestilent fellow; some will rate you as a reformer, a prophet, perhaps a martyr.

30 Neither judgment is of the least value so long as it reflects merely the tastes or prejudices of the individual. 31 Each must justify itself before the bar of reason, if it would have a respectful hearing. A reason must be given for conservatism and a reason must be given for reform.

THE ETHICS OF REASON AND THE VARYING MORAL CODES

32 Several advantages may be claimed for the ethical doctrine I have been advocating:

(1) It gives a relative justification to the varying moral codes of communities of people in the past and in the present. 33 A code may, even when imperfect from some higher point of view, fit well a community at a given stage of its development. 34 It may be a person's duty to obey its injunctions, even where they are not seen to be the wisest possible. 35 One reason for bowing to custom is that it is custom; one reason for obeying laws is that they are laws. 36 They embody the permanence and stability of the social-will, and have a prima facie claim to our reverence.

37 (2) In recognising the social-will as something deeper and broader than the will of the individual, as having its roots in the remote past and as reaching into the distant future, 38 it admits the futility of devising utopian schemes which would bless humanity in defiance of the actual expressions of the social-will revealed in the development of human societies. 39 The whim of the individual cannot well be substituted for then settled purpose of the community--a purpose ripened by generations of experience, and adjusted to what is possible under existing conditions.

40 (3) On the other hand, it distinguishes between lower and higher ethical codes, or codes lower or higher in certain of their aspects. 41 It sets a standard of

comparison; it recognises progress towards a goal.

42 (4) And, in all this, it does not appear to decide arbitrarily either what is the goal of human's moral efforts or what means must be adopted to attain to it. 43 It rests upon a study of human; human as you have been, human as you are, in all the manifold relations in which you stands to your environment, physical and social.

44 There are other ethical theories in the field, of course. Some of them are advocated by people of original genius and of no little learning. 45 Some deserve more attention than others, but all should have a hearing, at least. 46 A close scrutiny will often reveal that advocates of different theories are by no means so far apart as a hasty reading of their works would suggest. 47 Writers the most diverse may assist one to a comprehension of one's own theory. Its implications may be developed, objections to it may be suggested, its strong points may stand revealed. 48 By no means the least important part of a work on ethics is its treatment of the schools of the moralists. 49 If it be written with any degree of fairness, it may contain what will serve the reader with an antidote to erroneous opinions on the part of the writer. 50 To a study of the most important schools of the moralists I shall now turn.

THE SCHOOLS OF THE MORALISTS

George Stuart Fullerton

INTUITIONISM

WHAT IS IT?

27 "We come into the world," said Epictetus, "with no natural notion of a right-angled triangle, or of a quarter-tone, or of a half-tone; 2 but we learn each of these things by a certain transmission according to art; and for this reason those who do not know them do not think that they know them. 3 But as to good and evil, and beautiful and ugly, and becoming and unbecoming, and happiness and misfortune, and proper and improper, and what we ought to do and what we ought not to do, who ever came into the world without having an innate idea of them?"

4 Seneca adds his testimony to the self-luminous character of moral truth: "Whatever things tend to make us better or happier are either obvious or easily discovered."

5 With the general spirit of these utterances the typical intuitionist is in sympathy, although you need not assent to the doctrine of innate ideas, nor need you hold that all moral truths are equally self-evident. 6 There are intuitionists of various classes, and there are sufficiently notable differences of opinion. 7 Still, all intuitionists believe that some moral truth, at least, is revealed to the individual by direct inspection ‘intueor’, and that we must be content with such evidence and must not seek for proof. 8 It may be maintained that our moral judgments-- or some of them-- are the result of "an immediate discernment of the natures of things by the understanding." and appeal may be made to the analogy furnished by mathematical truths.

VARIETIES OF INTUITIONISM

9 Forms of intuitionism have been conveniently classified as Perceptional, Dogmatic and Philosophical.

10 To this nomenclature it may be objected that the term "dogmatic" carries with it a certain flavour of disapprobation, and predisposes one to the assumption of a critical attitude, while the term "philosophical" has the reverse suggestion, and smacks of special pleading. 11 While admitting that there is something in the objection, I retain the convenient terms, merely warning the reader to be on your guard.

12 (1) Perceptional Intuitionism falls back upon the analogy of perception in general. I seem to perceive by direct inspection that my blotter is green, and that my pen-holder is longer than my pencil. 13 I do not seek for evidence; I do not have recourse to any chain of reasonings to establish the fact. And I am concerned here with facts, not with some general proposition applicable to many facts. 14 Even so, I may maintain that, in specific situations, the rightness or

wrongness of given courses of action may be perceived immediately.

15 You who accepts the spontaneous deliverances of your conscience, when confronted with the necessity of making a decision, as revelations of moral truth, may be called a perceptional intuitionist. 16 The deliverances must, however, be spontaneous and immediate, not the result of reasoning. 17 If a person reasons, if you falls back upon general considerations, if you looks into the future and weighs the consequences of your act, and, as a result, decides what you ought to do, you are no longer a perceptional intuitionist.

18 The perceptional intuitionist, consistently and unreservedly such, is rather an ideal construction than an actually existing person. 19 Most people, on certain occasions, are inclined to say, "I feel this to be right, and will do it, although I cannot support my decision by giving reasons."

20 Many people are, at times, tempted to maintain that a given course of action is evidently right and should be followed irrespective of consequences. 21 But this is not the habitual attitude even of people very little gifted with reflection, and it is highly unsatisfactory to those who have the habit of thinking.

22 Primitive human supports own decisions by an appeal to custom. Civilised human turns to custom, to law, or to general principles of some sort, which one accepts as authoritative, and which one regards as having a bearing upon the particular instance in question. 23 That individual decisions should be capable of some sort of justification by the adduction of a reason or reasons is generally admitted. 24 No sane person would maintain the general proposition that the consequences of acts should be wholly disregarded in determining whether they are or are not desirable.

25 (2) Thus, Perceptional Intuitionism gives place to what has been called Dogmatic Intuitionism-- to the doctrine that certain general moral rules can be immediately perceived to be valid. 26 The application of such general rules to particular instances

implies discrimination and the use of reason.

27 Here decisions are not wholly unsupported. Reasons may be asked for and given. 28 In answer to the question: Why should I say this or that? it may be said: Because the law of veracity demands it. 29 In answer to the question: Why should I act thus? it may be said: Because it is just, or is in accordance with the dictates of benevolence. 30 The general rule is accepted as intuitively evident, but it is incumbent upon the individual to use own judgment in determining what may properly fall under the general rule.

31 But there are rules and rules. It is not easy to draw a sharp line between Perceptional Intuitionism and Dogmatic, just as it is not easy in other fields to distinguish sharply between knowledge given directly in perception, and knowledge in which more or less conscious processes of inference play a part. 32 Do I perceive the person whom I see, when I look into a mirror, to be behind the mirror or in front of it? 33 Do I perceive the whereabouts of the coach which I hear rattling by my window, or does reasoning play its part in giving me information? 34 And if I follow my conscience in not withholding from the cab-man the small customary fee in addition to his fare, am I prompted by an unreasoned perception of the rightness of my act, or am I influenced by general considerations-- 35 the thought of what is customary, the belief that gratuities should not be withheld where services of a certain kind are rendered, etc.?

36 Even so, it is difficult to draw a sharp line between Dogmatic Intuitionists and Philosophical, or to regard Dogmatic Intuitionists as a clearly defined class of any sort. 37 A person may accept it as self-evident that a waiter should receive ten per cent of the amount of own bill; a woman may find it obviously proper that an old lady should wear purple. 38 Those little given to reflection may accept such maxims as these without attempting to justify them by falling back upon any more general rule. 39 We all find about us human beings who have their minds stored with a multitude of

maxims not greatly different from those adduced, and who find them serviceable in guiding their actions. 40 But thoughtful people can scarcely be content with such a modicum of reason, and they distinguish between ultimate principles and minor maxims which stand in need of justification by their reference to principles.

41 The intuitional moralists by profession draw this distinction. We find them setting forth as ultimate a limited number of ethical principles of a high degree of generality. 42 It is obvious that, the more general the principle, the more room for conscious reasoning in its interpretation and application. 43 The person to whom it appears as in the nature of things suitable that the waiter should receive own ten per cent is relieved from many perplexities which may beset the person who feels assured only of the general truth that it is right to be benevolent.

44 A glance at a few of the moralists who are treated in the history of ethics as representative intuitionists reveals that they are little in harmony as touching the particular moral intuitions which they urge as the foundation of ethics.

45 Thus, John Locke maintains that from the idea of God, and of ourselves as rational beings, a science of morality may be deduced demonstratively; 46 a science: "wherein I doubt not but from self-evident propositions, by necessary consequences, as incontestable as those in mathematics, 47 the measures of right and wrong might be made out to anyone that will apply the self with the same indifferency and attention to the one, as one does to the other of those sciences."

48 Among Locke's self-evident propositions or moral axioms we find: where there is no property there is no injustice; no government allows absolute liberty; all people are originally free and equal; 49 parents have the power to control their children till they come of age; the right of property is based upon work, but is limited by the supply of property left for others to enjoy.

50 These axioms cannot be identified with Samuel Clarke's four chief rules of righteousness,

which inculcate: piety toward God, equity in our dealings with people, benevolence, and sobriety.

51 Richard Price gives us still another choice, in dwelling upon our obligation as regards piety, prudence, beneficence, gratitude, veracity, the fulfillment of promises, and justice.

52 And Whewell, emulating the performance of Euclid, tried to build up a system of morals upon axioms embodying the seven principles of benevolence, justice, truth, purity, order, earnestness, and moral purpose.

53 These moralists press the analogy of mathematical truth. It must be confessed, however, that a row of text-books on geometry, with so scattering and indefinite a collection of axioms, would do little to support one another; 54 and little to convince us that they represented a coherent and consistent body of truth in which we might have unquestioning faith.

55 (3) It is not unnatural that some thoughtful intuitionists, dissatisfied with a considerable number of independent moral principles, should aim at a further simplification. 56 Such a simplification Kant finds in the *Categorical Imperative,* or unconditional command of the Practical Reason: 57 "Act only on that maxim whereby thou canst at the same time will that it should become a universal law."

58 And Henry Sidgwick, refusing to regard all intuitions as of equal authority, selects two only as ultimately and independently valid-- that which recommends a far-seeing prudence, and that which urges a rational benevolence. 59 Those who make their ultimate moral rules so broad and inclusive base upon them the multitude of minor maxims to which people are apt to have recourse in justifying their actions. 60 Whether their doctrine may be called philosophical in a sense implying commendation is matter for discussion.

ARGUMENTS FOR INTUITIONISM

61 What may be said in favour of intuitionism?

(1) It may be urged that it is the doctrine which appeals most

directly to common sense, and that it is found reasonably satisfactory in practice by people generally.

62 Intuition appears to be, in fact, human's guide in an overwhelming majority of the situations in which you are called upon to act. 63 In the face of the concrete situation you feels that you should say a kind word, help a neighbour, stand your ground courageously, speak the truth, and a thousand other things which a moralist might, upon reflection, approve.

64 That you "feels" this does not mean merely that you are influenced by an emotion. 65 We constantly employ the word to indicate the presence of a judgment which presents itself spontaneously and for which people cannot or do not seek support by having recourse to reasons.

66 You who, without reflection, affirms, "this action is right," has framed a moral judgment. You have in a given instance distinguished between right and wrong, although you have not raised the general problem of what constitutes right and wrong. 67 You have exercised the prerogative of a moral being, though not of a very thoughtful one.

68 We have seen above, that perceptional intuitionism tends to pass over into dogmatic intuitionism of some sort, even in the case of minds little developed. 69 The egoistic rustic may defend own selfishness by citing the proverb, "my shirt is closer to me than my coat." 70 If you does so, it means that a doubt has been suggested, a conflict of some sort called into being. 71 Were such conflicts, causing hesitation and deliberation, of very frequent occurrence, life could scarcely go on at all. 72 Conversation would be impossible were no word placed and no inflection chosen without conscious reference to the rules of grammar. 73 No human could conduct the self properly in a drawing-room or at a table, were own mind harking back at every moment to the instructions contained in some volume on etiquette.

74 You who must justify every act by reflection is condemned to the jerkiest and most hesitant of moral lives. 75 Perceptional moral

intuition must stand our friend, if there is to be a flow of conduct worthy of the name.

76 There are, however, occasions for checking the flow by reflection. Then people are forced to think, and we find them appealing to custom, citing proverbs, quoting maxims, taking their stand upon principles. 77 Recourse may be had to generalisations of a very low or of a very high degree of generality.

But low or high, it is upon intuitions that humans actually fall back in justifying their actions. 78 Benevolence, justice, honesty, truthfullness, purity, honour, modesty, courtesy, and whatnot, are intuitively perceived to be right, and an effort is made to bring the individual act under some one of these headings. 79 The mass of people, even in enlightened communities, do not feel impelled to justify these general moral maxims, to reduce them to a harmonious system, or to reconcile with each other the different lists of them which have been drawn up. 80 They find it possible in practice to resolve most of their doubts by an appeal to this maxim or to that. From such doubts as refuse to be resolved they are apt to turn away their attention. But the moral life goes on, and to intuitions it owes its guidance.

81 As to the few who reduce the moral intuitions to a minimum, and, like Kant and Sidgwick, end with one or two ultimate intuitional moral principles, we may say that they, like others, are compelled, in the actual conduct of life, to turn to intuitions of lower orders. 82 All sorts of moral intuitions are actually found helpful by all sorts of people.

83 (2) To the minds of humans differing in their education and traditions, and at different stages of intellectual and moral development, very different moral judgments spontaneously present themselves. 84 It is not a matter of accident that this person may "feel" an action to be right, and that person may "feel" it to be wrong. 85 There is evident adaptation of the judgments to history and environment. They spring into being because the people are what they are and are situated as they are.

86 It is this adaptation that renders the moral intuitions serviceable in carrying on the actual business of life. It is more complete, the less abstract the moral intuitions which come into play. 87 Plato, who in his "Laws" enters very minutely into the question of the permissible and the forbidden in the life of the citizens of his ideal state, finds it necessary to leave some things to the judgment of the individual. 88 Thus, he finds it impossible to determine exhaustively what things are, and what things are not, worthy of a freeman. He leaves it to the virtuous to give judgments "in accordance with their feelings of right and wrong."

89 The intuitions of the mediaeval saint, of the upright modern European, of the virtuous Chinaman, would have impressed him as without rhyme or reason. 90 He appealed to the Greek gentleman, whose sense of propriety was Greek, and might be expected to be adjusted to the situation.

91 (3) The intuitive judgment of a sensitive moral nature may often be more nearly right than moral judgments based upon the most subtle of reasonings.

92 It is not hard to find, with a little ingenuity, apparent justification for actions which the consciences of the enlightened condemn at first sight. Scarcely any action may not be brought under some moral rule, if one deliberately sets out to do so. 93 A narrow selfishness is defended as caring for one's own; a refusal of aid to the needy is justified by a reference to the evils of pauperisation; patriotism becomes the excuse for hatred, willful blindness and untruthful vilification. 94 To the sophistries of those who would thus make the worse appear the better, the intuitive judgment of the moral human opposes its unreasoned conviction. 95 That the conviction is not supported by arguments does not prove that it is not a just one.

ARGUMENTS AGAINST INTUITIONISM

96 What may be urged against Intuitionism?

(1) It may be pointed out that such considerations as the above

constitute an argument to prove the value of moral intuitions, and not one to prove the value of intuitionism as an ethical theory. 97 That moral intuitions are indispensable may be freely admitted even by one who demurs to the doctrine that intuitionism in some one of its forms may be accepted as a satisfactory theory of morals.

98 (2) Perceptional Intuitionism, at least, cannot be regarded as embodying a rational theory or furnishing a science of any sort. 99 Its one and only dogma must be that whatever actions reveal themselves to this person or that as right, are right, and there is no going behind the judgment of the individual.

100 Shall we say to humans: "In order to know what is right and what is wrong in human conduct, we need only to listen to the dictates of conscience when the mind is calm and unruffled"? 101 As well say: "The right time is the time indicated by your watch, when you are not shaking it." 102 If people are to keep appointments with each other, they must have some other standard of time than that carried by each person in own vest-pocket.

103 Perceptional Intuitionism ignores the fact that consciences may sometimes disagree, and that there may be a choice in consciences. 104 The consistent perceptional intuitionist is, however, scarcely to be found, as has been said above; 105 and we actually find those, some of whose utterances read as though the authors ought to be adherents of such a school, dwelling upon the desirability of the education of the conscience, i.e., upon the desirability of acquiring a capacity for having the right intuitions. 106 In other words, they tell us to follow our noses-- but to make sure that they point in the right direction. In which case the determination of the right direction is not left to perceptional intuition.

107 (3) The Dogmatic Intuitionist has difficulties of their own with which to cope. It is not enough to possess a collection of valid and authoritative rules. 108 The rules must be applied; there is room for the exercise of judgment and for the possibility of error.

109 Error is not excluded even when the rule appears to be at only one or two removes from the individual instance; where the rule is one of great generality the problem of its application becomes correspondingly difficult. 110 The interpretation of the rule is not given intuitively with the rule. This means that the rule must, in practice, be supplemented.

111 Always and everywhere, a straight line appears to be the shortest distance between two points. What is meant by shortness hardly seems to be legitimate matter for dispute. 112 But the person convinced that one ought to pay own workman a fair wage, and that one ought to do own duty by own son, may be in no little perplexity when you attempts to define that fair wage or that parental duty. 113 If you turns for advice to others, you will find that history and tradition, time, place and circumstance, very perceptibly colour the advice they offer.

114 The application of the general rule is, hence, quite as important as the rule. There is no such thing as conduct in the abstract. 115 Let us admit that benevolence is morally obligatory. How shall we be benevolent? 116 Shall we follow Cicero, and give only that which costs us nothing? or shall we emulate St. Francis? 117 The general rule may be a faultless skeleton, but it is, after all, only a skeleton, and it cannot walk of itself.

118 Again. The dogmatic intuitionist has quite a collection of rules by which you must judge of your actions. They are severally independent and authoritative. 119 Suppose an act appears to be commanded by one rule and forbidden by another? Who shall decide between them? 120 Prudence and benevolence may urge you in opposite directions. Benevolence and justice may not obviously be in harmony. The rule of veracity may seem, at times, to prescribe conduct which will entail much suffering on the part of the innocent. 121 To what court of appeal can we refer the conflicts which may arise when ultimate authorities disagree? 122 You who, in war time, can conscientiously shoot a sentry, but cannot conscientiously lie to him, may, later, have your misgivings, when

the Golden Rule knocks at the gate of your mind.

123 (4) Nor does you leave all difficulties behind you, who abandons Dogmatic Intuitionism and takes refuge in Philosophical.

124 Kant's maxim needs a vast amount of interpretation. As it stands, it is little more than an empty formula. What I can wish to be the law of the universe must depend very much upon what I am. 125 The lion and the lamb do not thirst for the same law. To the quarrelsome heroes of Walhalla a world of perpetual fighting and feasting must seem a very good world, in spite of knocks received as well as given. 126 Kant's fundamental maxim scarcely appears to be a moral rule at all, unless we make it read: "Act on a maxim which a ‘wise and good person’ can will to be a universal law." But how decide who is the wise and good person?

127 The philosophical intuitionist who accepts more than one ultimate moral rule must face the possibility that you will meet with a conflict of the higher intuitions to which you have had recourse. 128 Shall your intuitions be those recommending a rational self-interest and a rational benevolence? Can you be sure that the two are necessarily in accord? 129 Can there be a rational adjustment of the claims of each? Not if there be no court of appeal to which both intuitions are subject.

130 Furthermore, between the philosophical and the dogmatic intuitionist serious differences of opinion may be expected to arise. 131 You who makes, let us say, benevolence the supreme law naturally allows to other intuitions, such as justice and veracity, but a derivative authority. 132 It appears, then, that there may be occasions on which they are not valid. To some famous intuitionists this has seemed to be a pernicious doctrine.

133 "We are," writes Bishop Butler, "constituted so as to condemn falsehood, unprovoked violence, injustice, and to approve of benevolence to some preferably to others, abstracted from all consideration, which conduct is likeliest to produce an over-balance of happiness or misery."

134 Butler thought that justice should be done though the heavens fall; the philosophical intuitionist must maintain that the danger of bringing down the heavens is never to be lost sight of. 135 But this doctrine that there are intuitions and intuitions, some ultimately authoritative and others not so, raises the whole question of the validity of intuitions. 136 How are we to distinguish those that are always valid from others? By intuition?

137 Intuition appears to be discredited. And if it is proper to demand proof that justice should be done and the truth spoken, why may one not demand proof that people should be prudent and benevolent? 138 One may talk of "an immediate discernment of the nature of things by the understanding" in the one case as in the other. If error is possible there, why not here?

THE VALUE OF MORAL INTUITIONS

139 It would not be fair to close this chapter on intuitionism, an ethical theory competing with others for our approval, without emphasising the value of the role played by the moral intuitions.

140 They are the very guide of life, and without them our reasonings would be of little service. 141 They should be treated gently, gratefully, with reverence. To them human societies owe their stability, their capacity for an orderly development, the smooth working of the machinery of daily life. 142 Their presence does not exclude the employment of reasoning, but they furnish a basis upon which the reason can occupy itself with profit.

143 They are a safeguard against those utopian schemes which would shatter our world and try experiments in creation out of nothing.

144 Nevertheless, you who busies yourself with ethics as science must study them critically and strive to estimate justly their true significance. 145 You may come to regard them, not as something fixed and changeless, but as living and developing, coming into being, and modifying themselves, in the service of life. Does you

dishonour them who so views them?

EGOISM

George Stuart Fullerton

WHAT IS EGOISM?

28 Egoism has been defined as "any ethical system in which the happiness or good of the individual is made the main criterion of moral action," 2 or as "the doing or seeking of that which affords pleasure or advantage to oneself, in distinction to that which affords pleasure or advantage to others."

3 It may strike the average reader as odd to be told that such definitions bristle with ambiguities, and that it is by no means easy to draw a sharp line between doctrines which everyone would admit to be egoistic, and others which seem more doubtfully to fall under that head. 4 "Happiness," "good," "advantage," "self," all are terms which call for scrutiny, and which set pitfalls for the unwary.

CRASS EGOISMS

5 We may best approach the subject of what may properly be regarded as constituting egoism, by turning first to one or two "terrible examples."

6 No one would hesitate to call egoistic the doctrine of Aristippus, the Cyrenaic, the errant disciple of Socrates. 7 He made pleasure the end of life, and taught that it might be sought without a greater regard to customary morality than was made prudent by the penalties to be feared as a consequence of its violation. 8 Where the centre of gravity of the system of the Cyrenaics falls is evident from their holding that "corporeal pleasures are superior to mental ones," and that "a friend is desirable for the use which we can make of him or her."

9 The doctrine of the English philosopher, Thomas Hobbes, is as unequivocally egoistic. 10 "Of the voluntary acts of every human," he writes, "no person giveth, but with intention of good to the self; because gift is voluntary; and of all voluntary acts the object is to every human one’s own good."

11 He leaves us in no doubt as to the sort of good which he conceives people to seek when they practice what has the appearance of generosity. 12 Contract he calls a mutual transference of rights, and he distinguishes gift from contract as follows: "When the transferring of right is not mutual, but one of the parties transferreth, in hope to gain thereby friendship, or service from another, or from own friends, 13 or in hope to gain the reputation of charity or magnanimity, or to deliver own mind from the pain of compassion, or in hope of reward in heaven, this is not contract but gift, free gift, grace, which words signify the same thing."

14 There is a passage from the pen of the British divine, Paley, which appears to merit a place alongside of the citations from Hobbes, widely as the people differ in many of their views. 15 It reads: "We can be obliged to nothing but what we ourselves are to gain or lose something by; for nothing else can be a 'violent motion' to us. 16 As we should not be obliged to obey the laws, or the magistrate, unless rewards or punishments, pleasure or pain, somehow or other, depended upon our obedience; 17 so neither should we, without the same reason, be obliged to do what is right, to practice virtue, or to obey the commandments of God."

EQUIVOCAL EGOISM?

18 The above is unquestionably egoism. The person who accepts such a doctrine and consistently walks in the light must be set down as self-seeking. 19 But self-seeking, as understood by different people, appears to take on different aspects. 20 Shall we class all those who frankly accept it as human's only ultimate motive with Aristippus and Epicurus and Hobbes?

21 Thomas Hill Green writes: "Anything conceived as good in such a way that the agent acts for the sake of it, must be conceived as one’s own good."

22 The motive to action is, he maintains, always "some idea of the person's personal good." You does not hesitate to say that a person necessarily lives for

oneself; a self-seeking ego, a self-seeking subject, and a self-seeking person.

23 Were Green's book a lost work, only preserved to the memories of people by such citations as the above, the author would certainly be relegated to a class of moralists with which you had, in fact, little sympathy.

24 But the book is not lost, and by turning to it we find Green continuing the first of the above citations with the words: "Though you may conceive it as your own good only on account of your interest in others, and in spite of any amount of suffering on your own part incidental to its attainment." 25 He is willing to grant the self-seeking ego an eye single to its own interests, but he is careful to explain that: "These are not merely interests dependent on other persons for the means to their gratification, 26 but interests in the good of those other persons, interests which cannot be satisfied without the consciousness that those other persons are satisfied."

27 When Hobbes gave an account of "the passions that incline people to peace," he made no mention of the social nature of human. 28 That nature, Green conceives to be so essentially social that the individual cannot disentangle one's own good from the good of own fellows. 29 To live "for oneself," since that self is a social self, means to live for others. May this fairly be called egoistic doctrine?

WHAT IS MEANT BY THE SELF?

30 It is sufficiently clear that the happiness, or good, or advantage, or interests of the individual or self may mean many things. 31 It is equally clear that in our interpretation of all such terms our notions of the nature of the self will play no inconsiderable role. What is the self?

32 In his famous chapter on the Consciousness of Self, William James enumerates four senses of the word. With three of these we may profitably occupy ourselves here. He calls them the Material Self, the Social Self and the Spiritual Self.

33 The innermost part of the material self he makes our body,

and next to it, in their order, he places our clothes, our family, our home, and our property. 34 They contribute to our being what we are in our own eyes, we identify ourselves with them, and we experience "a sense of the shrinkage of our personality" when even the more outlying elements, such as our possessions, are lost. 35 "Our immediate family," he writes, "is a part of ourselves. Our father and mother, our wife and babes, are bone of our bone and flesh of our flesh. 36 When they die, a part of our very selves is gone. If they do anything wrong, it is our shame. If they are insulted, our anger flashes forth as readily as if we stood in their place."

37 It is obvious that the limits of the material self, as above understood, may be indefinitely extended. 38 There are people who feel about their country as the average normal person feels about own home; 39 and doubtless the suffering of a stray beggar tugged at the heart of St. Francis as the misfortune of wife or child does in the case of other people. 40 How far abroad our "interests" are to be found, and just what "interests" we shall regard as intimately and peculiarly our own, depends upon what we are.

41 The Social Self James describes as the recognition a person gets from own mates: "We are not only gregarious animals, liking to be in the sight of our fellows, but we have an innate propensity to get ourselves noticed, and noticed favourably, by our kind." 42 People certainly regard their fame or honour as to be included among their interests, and they may value and seek to obtain the good opinion of a very little clique or of a much wider circle.

43 By the Spiritual Self is meant our qualities of mind and character-- "the most enduring and intimate part of the Self, that which we most verily seem to be." 44 Our interest in these it is impossible to overlook, and their cultivation and development may become a ruling passion.

45 James's illuminating pages make clear that you who speaks of the advantage or interest of the individual may have in mind predominantly any one of these aspects of the Self, or all of them conjointly. 46 The Self as you

conceives it may be a narrow one, or it may be a very broad one.

EGOISM AND THE BROADER SELF

47 It may with some plausibility be maintained that you who lives for yourself may not properly be regarded as an egoist and called selfish, if your Self is sufficiently expanded. 48 May it not, theoretically, include as much of the universe as is known to human? And where can a person seek ends of any sort beyond this broad field?

49 On this view, all people are, in a sense, self-seeking, but only those are reprehensibly self-seeking who have narrow and scanty selves.

50 But common sense and the common usage of speech do not sanction such statements as that a person necessarily lives for the self and that all humans are self-seeking. 51 It is justly recognised that some people with broad interests-- of a sort-- are self-seeking, and that some others with great limitations are not.

52 You who has property scattered over four continents and watches with absorbing interest all movements upon the political and economic stage may nevertheless be a thorough-going egoist. The breadth of your horizon will not redeem you. 53 One may look far afield and live labourious days in the pursuit of fame, and be egoistic to the back-bone, although one's interests, in this case, include even the contents of the minds of generations yet unborn. 54 One may forego many pleasures and concentrate all one's efforts upon the attainment of intellectual eminence or of a virtuous character, and yet seem to have a claim to the name of egoist.

55 That even the pursuit of virtue may take an egoistic turn has frequently been recognised: 56 "Woe betides that person," writes Dewey, "who having entered upon a course of reflection which leads to a clearer conception of own moral capacities and weaknesses, maintains that thought as a distinct mental end, and thereby makes own subsequent acts simply means to improving or perfecting own moral nature." 57 He characterises this as one of the worst kinds of selfishness. 58 The task set the self

by the egoist who aims at outshining own fellows in an unselfish self-forgetfullness would seem to be a particularly difficult one; yet we have all met persons who appear to be animated by some such desire.

EGOISM NOT UNAVOIDABLE

59 On such cases as the above the common judgment can hardly be in doubt. But there are cases more questionable. 60 Was Hobbes really self-seeking when he gave the sixpence to the old beggar? Is it egoism that leads the young mother to give herself the exquisite pleasure of feeding and caring for her babes? or that induces the patriot to die for his country? 61 To be sure, both the babes and the fatherland may fall within the limits of the self, as the psychologist has broadly defined it.

62 But they fall within it only in a sense. No doctrine of the mutual inclusion of selves can obliterate the distinction between self and neighbour, and make my neighbour merely a part of myself. 63 The common opinion of humankind is not at fault in basing upon the distinction between selves the further distinction between egoism and altruism. 64 Whatever interests the egoist may have, own ultimate motive to action cannot be the recognition of the desire or will of another. Such can be the motive of the altruist.

65 Human motives are of many sorts, and just what they are it is not always easy to discover. 66 Cornelia, in exhibiting her "jewels," may have been puffed up with pride. When Cyrano de Bergerac threw, with a noble gesture, his purse to the players, his "Mais quel geste!" reveals that he was a player himself and was "showing off." 67 There may be spectacular patriots, who are willing to suffer the extreme penalty for the sake of a place in history. 68 But all maternal affection is not identical with pride; all generous impulses cannot be traced to vanity; all patriotism is not spectacular; nor is the motive to the relief of suffering necessarily the removal of one's own pain. 69 It is one thing to hire Lazarus not to exhibit himself in

his shocking plight on our front porch, and it is a distinctly different thing to be concerned about the needs of Lazarus per se.

70 It is obvious, then, that it is only by a straining of language that one can say that human necessarily lives for oneself, or is unavoidably self- seeking. 71 You who makes such statements overlooks the fact that, even if is true that, in a sense, a human's self may be regarded as coextensive with all that interests you, 72 it is equally true that different selves are mutually exclusive and that the good of one may serve as the ultimate motive in determining the action of another. 73 The ethnologist is compelled to recognise altruistic impulses in people primitive and in people civilised: 74 "Of the doctrine of self-interest as the primary and only genuine human motive, it is sufficient to say that it bears no relation to the facts of human nature, and implies an incorrect view of the origin of instinct."

VARIETIES OF EGOISM

75 The egoist may set own affections upon pleasure, and become a representative of Egoistic Hedonism, the variety of egoism normally treated as typical and made the subject of criticism in ethical treatises. 76 But there is nothing to prevent you from making your aim, not so much pleasure, as self-preservation; or from taking as your goal wealth, power, reputation, intellectual or moral attainment, or whatnot.

77 So long as the motives which impel you to get, to avoid, to be, or to do, something, do not include, except as means to some ulterior end, the desire or will of your fellow-human, there appears no reason to deny you the title of "Egoist." 78 Nor need we deny you the title because you may be unconscious of your egoism. There are unconscious egoists who are wholly absorbed in the individual objects which are the end of their strivings. 79 They may be quite unaware that they are ruled by self-interest, when it is clear to the spectator that such is the case. But the philosophical egoist must rise to a higher plane of reflection.

80 There are, thus, egoisms of many sorts, and they may urge people to very different courses of conduct. Some of them may pass over more naturally than others into forms of doctrine which are not egoistic at all. 81 You who aims at a maximum of pleasure for yourself is likely to remain an egoist; 82 you whose ambition is to be a patron of science or a philanthropist, may, it is true, remain within the circle of the self, 83 but it is quite possible that your ulterior aim may come to be forgotten and your real interest be transferred to the enlightenment of humankind or to the relief of suffering.

84 It is especially worthy of remark that in judging a system of doctrine we must take it as a whole, and not confine ourselves to a few utterances of the person who urges it, however unequivocal they may appear when taken in isolation. 85 You whose motive to action is always some idea of your own personal good is an egoist. 86 But a philosopher may hold that human motives are always of this sort, and yet reveal unmistakably, both in your life and in your writings, that you are not really an egoist at all. 87 In which case, we may tax you with more or less inconsistency, but we should not misconceive you.

THE ARGUMENTS FOR EGOISM

88 So much for the forms of egoism. It remains to enquire what may be urged in favour of the doctrine, and what may be said against it.

89 (1) It has been urged that egoism is inevitable. This, to be sure, can scarcely be regarded as an argument that a person ought to be an egoist, 90 for there seems little sense in telling a person that you ought to do what you cannot possibly help doing. But the argument may be used to deter us from advocating some other ethical doctrine.

91 "On the occasion of every act that you exercises," says Bentham, "every human being is led to pursue that line of conduct which, according to your view of the case, taken by you at the moment, will be in the highest degree

contributory to your own greatest happiness."

92 From this we might conclude, not only that every human is an egoist, but also that every human is at all times a prudent and calculating egoist-- 93 which seems to flatter grossly the drunkard and the excited person lying about you in blind fury. But one may hold that egoism is inevitable without going so far.

94 (2) The egoistic ideal may be urged upon us on the ground that it addresses itself to human as natural and reasonable.

95 Thus, the Cyrenaics saw in the fact that we are from our childhood attracted to pleasure, and, when we have attained it, seek no further, a proof that pleasure is the chief good. 96 Paley maintains that, when it has been pointed out that private happiness has been the motive of an act, "no further question can reasonably be asked." 97 Our citations from Hobbes and Bentham and Green reveal that these writers never think of giving reasons why a human should seek own good.

98 And various moralists, who do not make self-interest the one fundamental principle which should rule human conduct, are evidently loath to make of it a principle subordinate to some other. 99 Bishop Butler, who maintains that virtue consists in the pursuit of right and good as such, yet holds that: "When we sit down in a cool hour, we can neither justify to ourselves this nor any other pursuit till we are convinced that it will be for our happiness, or at least not contrary to it." 100 Clarke, who dwells upon the eternal and immutable obligations of morality "incumbent on humans from the very nature and reason of things themselves" teaches that it is not reasonable for humans to adhere to virtue if they receive no advantage from it.

101 The moral here seems to be that, whatever else a person ought to do, you ought to seek your own advantage-- real self-sacrifice cannot be your duty. 102 This conviction of the unreasonableness of self-sacrifice reveals itself in another form in the doctrine that morality cannot be made completely rational unless a reconciliation between prudence and benevolence can be found; 103

and in the laboured attempts to show that the good of the individual must actually coincide with that of the community.

104 It may be questioned whether the same conviction did not lurk in the back of the mind of that sternest of moralists, Kant, who denied that happiness ought to be sought at all, and yet found so irrational the divorce of virtue and happiness that he postulated a God to guarantee their union.

105 Thus, moralists of widely different schools agree in recognising that self-interest is a principle that should not be placed second to any other. 106 The confessed egoist only goes a step further in recognising it as a principle that has no rival. 107 And that people generally are inclined to regard egoism as not unnatural seems evinced by the fact that for apparently altruistic actions they are very apt to seek ulterior egoistic motives, while, if the action seems plainly egoistic, they seek no further.

108 Does, then, anything seem more natural than egoism? And, if natural, may it not be assumed to be proper and right?

109 (3) Finally, it may be urged that you who serves your own interests at all intelligently has, at least, a comprehensive aim, and does not live at random. 110 In so far, egoism appears to be rational in a sense dwelt on above; it harmonises and unifies the impulses and desires of the human.

THE ARGUMENT AGAINST EGOISM

111 What may be said against egoism?

112 (1) Enough has been said above to show that egoism is not inevitable, but that people actually are influenced by motives which cannot be regarded as egoistic. It is, hence, not necessary to dwell upon this point.

113 (2) As to the naturalness of egoism. Both the professional moralist and the person in the street may hesitate to admit that a human should neglect own interests, and may find it natural that you should cultivate them assiduously. 114 But it is only the exceptional person who maintains that you should have nothing else in view.

115 There are individuals so constituted that self-interest makes to them a peculiarly strong appeal. Others, more social by nature, may be misled by psychological theory to maintain that a person's chief and only end is one's own "satisfaction." 116 Still others, realising that both one's own interests and the interests of one's neighbour are natural and seemingly legitimate objects of regard, are perplexed as to the method of reconciling their apparently conflicting claims, and are betrayed into inconsistent utterances.

117 But it is too much to say that the professional moralist and the plain human normally regard pure egoism with favour and find it natural. 118 In spite of our cynical maxims and our inclination to seek for ulterior motives for apparently altruistic acts, we abhour the thorough-going egoist, and we are not inclined to look upon the phenomena, let us say, of the family life, as manifestations of self-seeking.

119 It is worthwhile to remark that, even if the approach to the Cyrenaic ideal were so common as not to seem wholly unnatural, that would not prove that it ought to be embraced; it is natural for people to err, but that does not make error our duty.

120 (3) By the moral conviction of organised humanity, as expressed in custom, law, and public opinion, egoism stands condemned. 121 Neither in savage life nor among civilised peoples, neither in the dawn of human history nor in its latest chapters, do we find these agencies encouraging every human to live exclusively for oneself. 122 Egoistic impulses are recognised, in that reward and punishment are allotted, but the end urged upon the attention of the individual is the common good, not your own particular good.

123 The social conscience has always demanded of the individual self- sacrifice, even to the extent of laying down your life, on occasion, for the public weal. 124 And the enlightened social conscience does not regard a person as truly moral whose outward conformity to moral laws rests solely upon a basis of egoistic calculation. 125 The very

existence of the family, the tribe, the state, is a protest against pure egoism. Were all people as egoistic as Aristippus seems to have professed to be, a stable community life of any sort would be impossible.

126 (4) The argument that egoism is rational at least in so far as it introduces consistency into actions and unifies and harmonises desires and impulses deserves little consideration.

127 Any comprehensive end will do the same, and many comprehensive ends may be very trivial. 128 One may make it the aim of one's life to remain slender, or may devote all one's energies to the amelioration of the social position of bald-headed men.

129 You who counsels deliberate egoism does not recommend it merely on the score that it leads to consistent action. You does it on the ground that the end itself appeals to you as one that ought to be selected and will be selected if a person is wise. 130 That the interest of the individual is in this sense a matter of obligation, is something to be proved, not assumed.

THE MORALIST'S INTEREST IN EGOISM

131 It has been worthwhile to treat at length of egoism because the doctrine takes on more or less subtle forms, 132 and its fundamental principle, self-interest, has a significance for various ethical schools which are not, or are not considered, egoistic.

133 People have been vastly puzzled by the moral claims of the principle of self-interest, both plain people and professional moralists.

134 That prudence is not the only fundamental virtue, most people would be ready enough to admit; but is it properly speaking, a virtue at all?

135 Ought I, for example, to try to make myself happy? Suppose I do not want to be happy, what is the source of the obligation?

136 Butler tells me that interest, one's own happiness, is a manifest obligation; 137 Bentham, a writer of a widely different school, informs me that "the constantly proper end of action on the part of any individual at the moment of action is your real greatest happiness from that moment to the

end of your life." 138 On the other hand, Hutcheson teaches me that I am under no obligation to be good to myself, although I am under obligation to be good to others: 139 "Actions which flow solely from self-love, and yet evidence no want of benevolence, having no hurtful effects upon others, seem perfectly indifferent in a moral sense." 140 Which means that intemperance is blameworthy only so far as it is against the public interest.

141 May I, should I, on occasion, sacrifice myself? Thoughtful people generally recognise self-sacrifice, not only as possible, but as actual, and believe it to be at times a duty. But the moralist gives forth here an uncertain sound.

142 Self-interest and benevolence have been left to fight out their quarrel in a court without a judge to decide upon their conflicting claims; 143 it has been declared impossible; it has been denied that it can ever be a duty; the kind of self-sacrifice in question has been regarded as significant.

144 You who has rejected as unworthy of serious consideration the naive egoism of an Aristippus or an Epicurus is not on that account done with egoism, by any means.

UTILITARIANISM

George Stuart Fullerton

WHAT IS UTILITARIANISM?

29 The division of things desirable into those desirable in themselves, and those desirable for the sake of something else, is two thousand years old. Those things which we recognise as desirable for the sake of something else, we call useful.

2 What we shall regard as useful depends in each case upon the nature of the end at which we aim.

3 If our aim is the attainment of pleasure, the preservation of life, the harmonious development of our faculties, or any other, we may term useful whatever makes for the realisation of that end.

4 Hence, we can, by stretching the application of the word, call utilitarian any ethical doctrine which sets an ultimate end to human endeavour and judges

actions as moral or the reverse, according to their tendency to realise that end, or to frustrate its realisation. 5 As the ends thus chosen may be very diverse, it is obvious that widely different forms of utilitarian doctrine may come into being.

6 It is, however, inconvenient to stretch the term, "utilitarianism" in this fashion. Certain forms of doctrine which, in its wider sense, it would include, have come to be known under names of their own; 7 and, besides, the especial type of utilitarianism advocated by Bentham and John Stuart Mill appears to have a claim upon the appellation which they set in circulation. 8 Common usage has thus limited the significance of the word, and we naturally think of the doctrine of these men when we hear it uttered. It is in this sense that I shall use it.

9 "The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle," writes Mill, "holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. 10 By happiness is intended pleasure, and the absence of pain; by unhappiness, pain and the privation of pleasure."

11 This means, he adds, "that pleasure, and freedom from pain, are the only things desirable as ends; 12 and that all desirable things ... are desirable either for the pleasure inherent in themselves, or as means to the promotion of pleasure and the prevention of pain."

13 The pleasure here intended is not the selfish pleasure of the individual. Utilitarianism is not Cyrenaicism. The goal of the utilitarian's endeavours is the general happiness, in which many individuals participate. 14 The moral rules which control and direct the strivings of the individual derive their authority from their tendency to serve this end.

BENTHAM'S DOCTRINE

15 Most uncompromising is the utilitarianism set forth in the writings of Mill's master, that most benevolent and philanthropic of people, Jeremy Bentham. He is

true to his principles and he makes no concessions.

16 He regards that as in the interest of the individual which tends to add to the sum total of own pleasures or to diminish the sum total of own pains. 17 And he understands in the same sense the interest of the community. That which serves that interest he sets down as "conformable to the principle of utility." 18 What is thus conformable he declares ought to be done, what is not conformable ought not to be done. 19 Right and wrong he distinguishes in the same manner. "When thus interpreted," he insists, "the words ‘ought’, and ‘right’ and ‘wrong’, and others of that stamp, have a meaning; when otherwise, they have none"

20 Of differences in quality between pleasures Bentham takes no account. In his curious and interesting chapter entitled "Value of a Lot of Pleasure or Pain, how to be Measured," he enumerates the circumstances which should determine the value of a pleasure or a pain. 21 They are as follows:

1. Its intensity. 2. Its duration. 3. Its certainty or uncertainty. 4. Its propinquity or remoteness. 5. Its fecundity. 6. Its purity. 7. Its extent.

22 The first four of these characteristics call for no comment. By the fecundity of a pleasure Bentham understands its likelihood of being followed by other pleasures; by its purity, the likelihood that it will not be followed by pains. 23 The characteristic "extent" marks off utilitarianism from egoism, for it has reference to the number of persons affected by the pleasure or the pain. 24 The greater the number, the higher the value in question. The greatest number of pleasures of the highest value, as free as possible from admixture with pains, is the goal of the endeavours of the utilitarian. 25 Naturally, when the interests of many persons are taken into account, the question of the principle according to which "lots" of pleasure are to be distributed becomes a pressing one.

26 Bentham decides it as follows: "Everybody to count for one, and nobody for more than one."

In other words, the distribution should be an impartial one.

27 At first sight, this account of the relative desirability of pleasures and undesirability of pains seems sensible enough. 28 Humans do desire pleasure, and they undoubtedly approve the preference given to pleasures more intense, enduring, certain, immediate, fruitful in further pleasures, free from painful consequences, and shared by many, 29 over those which have not these characteristics: "Intense, long, certain, speedy, fruitful, pure-- Such marks in ‘pleasures’ and in ‘pains’ endure. 30 Such pleasures seek, if ‘private’ be thy end: If it be ‘public’, wide let them ‘extend’. Such ‘pains’ avoid, whichever be thy view; If pains ‘must’ come, let them ‘extend’ to few.

31 These mnemonic lines may well strike many readers as embodying a very good working rule of common-sense morality; as paying a proper regard to prudence and to benevolence as well. 32 But there are passages in Bentham calculated to shake such acquiescence. He writes:

"Now pleasure is in ‘itself’ a good; nay, even setting aside immunity from pain, the only good: 33 pain is in itself an evil, and, indeed without exception, the only evil; or else the words good and evil have no meaning. And this is alike true of every sort of pain, and of every sort of pleasure."

34 "Let a human's motive be ill-will; call it even malice, envy, cruelty; it is still a kind of pleasure that is your motive: the pleasure you takes at the thought of the pain which you sees, or expects to see, your adversary undergo. 35 Now even this wretched pleasure, taken by itself, is good: it may be faint; it may be short; it must at any rate be impure: yet, while it lasts, and before any bad consequences arrive, it is as good as any other that is not more intense."

36 Reflection upon such passages may well lead a person to ask yourself: (1) Is it, after all, the consensus of human opinion that pleasure is the only good and pain the only evil?

37 (2) Are some pleasures actually regarded as more desirable than others, solely through the application of the standard given above? 38 (3) Can the pleasure of a

malignant act properly be called ‘morally’ good at all?

THE DOCTRINE OF JOHN STUART MILL

39 Bentham's purely quantitative estimate of the value of pleasures has aroused in many minds the feeling that he puts morality upon a low level. 40 Mill attempts an improvement upon his doctrine. "It is quite compatible with the principle of utility," he writes, "to recognise the fact that some ‘kinds’ of pleasure are more desirable and more valuable than others. 41 It would be absurd that, while in estimating all other things quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone."

42 Thus, Mill distinguishes between higher pleasures and lower, and he gives a criterion for distinguishing the former from the latter: 43 "Of two pleasures, if there be one to which all or almost all who have experience of both give a decided preference, irrespective of any feeling of moral obligation to prefer it, that is the more desirable pleasure." 44 He refers the whole matter to the judgment of the "competent;" and, in accordance with that judgment, decides that: "It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. 45 And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question. The other party to the comparison knows both sides."

46 That some pleasures may properly be called higher than others moralists of many schools will be ready to admit, but to Mill's criterion of what proves them to be higher they may demur. 47 Of the delight that a fool takes in own folly a wise person may be as incapable as a fool is of the enjoyment of wisdom. 48 With mature years humans cease to be competent judges of the pleasures of childhood. To each nature, its appropriate choice of pleasures. 49 That human beings at a given level of intellectual and emotional development actually desire certain things rather than certain others does not prove that those things are desirable in any general

sense. 50 It does not prove that humans ‘ought’ to desire them. For that proof we must look in some other direction; 51 and a critical scrutiny of the pleasures which moralists ancient and modern have generally accepted as "higher" reveals a common characteristic which explains their being thus classed together much better than the appeal to Mill's criterion.

52 As has often been pointed out, Mill, while defending Utilitarianism, really passes beyond it, and his doctrine tends to merge in one widely different from that of Bentham. 53 For the "Greatest Happiness Principle" he virtually substitutes the "Highest Happiness Principle." 54 But he scarcely realises the significance of his substitution, and he gives an inadequate account of the significance of higher and lower.

THE ARGUMENT FOR UTILITARIANISM

55 We have seen above that Bentham maintains that such words as "ought," "right" and "wrong" have no meaning unless interpreted after the fashion of the utilitarian. 56 He admits that his "principle of utility" is not susceptible of direct proof, but claims that such a proof is needless.

57 Accepting it as a fact revealed by observation that the actual end of action on the part of every individual is your own happiness as you conceives it, 58 He appears to have passed on without question to the further positions, that the ‘proper’ end of action of the individual is your own greatest happiness, and, yet, your ‘proper’ end of action, as a member of a community, is the greatest happiness of the community.

59 The second of these positions cannot be deduced from the first, nor can the third be inferred from the other two. 60 Bentham appears to have taken the "principle of utility" for granted; but one coming after him and scrutinising his work can scarcely avoid raising the question of the justice of his assumption. 61 That happiness is the only thing desirable, and that the happiness of all should be the object aimed at by each, are

propositions which seem to stand in need of proof.

62 Such proof Mill attempted to furnish. He argues as follows:

"The only proof capable of being given that an object is visible, is that people actually see it. 63 The only proof that a sound is audible, is that people hear it; and so of the other sources of our experience. 64 In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it. 65 If the end which the utilitarian doctrine proposes to itself were not, in theory and practice, acknowledged to be an end, nothing could ever convince any person that it was so. 66 No reason can be given why the general happiness is desirable, except that each person, so far as you believes it to be attainable, desires your own happiness. 67 This, however, being a fact, we have not only all the proof the case admits of, but all which it is possible to require, 68 that happiness is a good: that each person's happiness is a good to that person, and the general happiness, therefore, a good to the aggregate of all persons. 69 Happiness has made out its title as 'one' of the ends of conduct, and, consequently one of the ends of morality."

70 That happiness is the 'only ultimate' end, 71 Mill regards as established by the argument that other things, for example, virtue, though they come to be valued for themselves, do so only through the fact that, originally valued as means to the attainment of happiness, 72 they become, through association, valued even out of this relation, and thus treated as a part of happiness.

73 The defects in Mill's argument have made themselves apparent, not merely to the opponents of utilitarianism, but even to its advocates. 74 We cannot say that things are desirable in any moral sense, simply because they are desired. 75 In a loose sense of the word, everything that is or has been desired by anyone is desirable-- it evidently can be desired. 76 When we say no more than this, we say nothing. But when we call a course of action desirable we mean more than this; and we are compelled to admit that a multitude of desirable things are

not generally desired. This is the burden of the lament of every reformer.

77 Furthermore, it does not appear to follow that, because your own happiness is a good to each member of a community, the happiness of all must likewise be a good to each severally. 78 A community in which every person studies own interest may conceivably be a community in which no person regards it as desirable to consult the public weal. 79 That the general happiness is desirable, in a loose sense of the word, is palpable fact; it is obvious that it can be desired, for some persons do actually desire it. 80 But that it is desirable in any sense cannot be inferred from the fact that all humans desire something else, namely, their own individual happiness.

81 We must, then, look further for the proof of the utilitarian principle. Henry Sidgwick, that admirable scholar and most judicial mind, falls back upon certain intuitions which, he conceives, present themselves as ultimate and unassailable. 82 He writes: "Let us reflect upon the clearest and most certain of our moral intuitions. 83 I find that I undoubtedly seem to perceive, as clearly and certainly as I see any axiom in Arithmetic or Geometry, that it is 'right' and 'reasonable' for me to treat others as I should think that I myself ought to be treated under similar conditions, and to do what I believe to be ultimately conducive to universal Good or Happiness."

84 And again: "The propositions, 'I ought not to prefer a present lesser good to a future greater good,' and 'I ought not to prefer my own lesser good to the greater good of another,' do present themselves as self-evident; 85 as much (e. g.) as the mathematical axiom that 'if equals be added to equals the wholes are equal.'"

86 Whether these intuitions will be accepted as furnishing an indisputably sound basis for utilitarianism will depend upon one's attitude toward intuitions in general and the list of intuitions one is inclined to accept. 87 It is significant that Sidgwick does not accept as self-evident such subordinate propositions as, "I ought to speak the truth." He

regards their authority as derived from the Greatest Happiness Principle.

THE DISTRIBUTION OF HAPPINESS

88 The person who accepts the Greatest Happiness Principle as the sole basis of own ethical doctrine is faced with the problem of its application in detail. 89 The "greatest good of the greatest number" is a vague expression. What is properly understood by "the greatest number"? and upon what principle shall "lots" of happiness be assigned to each? 90 Very puzzling questions arise when we approach the problem of the distribution of pleasures and the calculation of their values. Let us look at them.

I. Who should be considered in the Distribution?

91 (1) Shall we aim directly at the happiness of all humans now living? Or shall we content ourselves with a smaller number? 92 Certainly, with increasing intelligence and broadening sympathies, humans tend toward a more embracing benevolence.

93 (2) Shall we admit to the circle generations yet unborn? And, if so, how far into the future should we look?

94 (3) Should we make a deliberate attempt to increase the number of those who may share the common fund of happiness, by striving for an increase in the number of births? 95 This end has been consciously sought for divers reasons. The ancestor-worship of China has made the Chinaman eagerly desirous of leaving behind them those who would devote themselves to them after they have departed this life. 96 Nations ancient and modern have endeavoured to strengthen the state by providing for an increase in its population. Shall a similar end be pursued for the ethical purpose of widening the circle of those who shall live and be happy? 97 Most ethical teachers do not appear to have regarded this as a corollary to the doctrine of benevolence.

98 (4) Shall we enlarge the circle so as to include the lower animals? As Bentham expressed it: The question is not, "Can they

‘reason’? Nor, Can they ‘talk’? but, Can they ‘suffer’?"

99 (II.) How should the "lots" of happiness be measured?

(1) Should everybody count as one, and nobody as more than one? in other words, should strict impartiality be aimed at?

100 Dr. Westermarck's striking reply to the argument for impartiality as urged by Professor Sidgwick has already been quoted. Let the reader glance at it again.

101 It must be confessed that to put one's parents, one's children, one's neighbours, strangers, foreigners, the brutes, all upon the same level, is contrary to the moral judgment of savage and civilised alike. 102 It would seem contrary to the sentiments which lie at the root of the family, the community, and the state. 103 Nor have we reason to look forward to any future state of human society in which such lesser groups within the broad circle of humanity will be done away with, though they tend to become less exclusive in their demands upon human sympathy.

104 (2) Suppose that the greatest sum of happiness on the whole could be best attained by an unequal distribution-- by making a limited number very happy at the expense of the rest. Would this be justifiable? 105 It would be in harmony with the Greatest Happiness Principle, though not with the principle of the greatest happiness equally shared.

106 (III.) The question of the distribution of happiness in the life of the individual is not one to be ignored. 107 If we are concerned only with the quantity of happiness, may we not take as the ethical precept "a short life and a merry one"-- provided the brief span of years be merry enough, and there be no objection to the choice on the score of harm to others?

108 This problem is closely analogous to that of the distribution of pleasures to those who compose the "greatest number" taken into account.

109 There we were concerned with the shares allotted to individuals; here we are concerned with the shares assigned to the different parts of a single life. 110 In the attempt to solve the problem, Bentham's criteria of intensity,

certainty, purity, etc., might naturally be appealed to.

THE CALCULUS OF PLEASURES

111 Nor are the problems which meet us less perplexing when we pass from questions of the distribution of pleasures to that of the calculus of pleasures. 112 How are delights and miseries to be weighed, and reasonably balanced?

113 (1) Humans desire pleasure, and they desire to avoid pain. The two seem to be opposed. But humans constantly accept pleasures which entail some suffering, and they avoid pains even at the expense of some pleasure.

114 Are, however, pleasures and pains strictly commensurable? How much admixture of pain is called for to reduce the value of a pleasure to zero? 115 And how much pleasure, added to a pain, will make the whole emotional state predominantly a pleasurable one? 116 A disagreeable taste and an agreeable odour may be experienced together, but they cannot be treated as an algebraic sum. 117 If we do so treat them, we seem to fall back upon the assumption that the mere fact that the heterogeneous complex is accepted or rejected is evidence that its ingredients have been measured and compared. This is an ungrounded assumption.

118 (2) Undoubtedly humans prefer intense pleasures to mild ones, and those long-continued to those which are fleeting. But what degree of intensity will overbalance what period of duration? 119 Here, again, we appear to be without a unit of measure, both in the case of pleasures and of pains.

120 (3) Obviously, you who would distribute pleasures with impartiality must take into consideration the natures and capacities of the recipients. 121 All are not susceptible of pleasure in the same degree, nor are all capable of enjoying the same pleasures. 122 It is small kindness to a cat to offer it hay; nor will the miser thank us for the opportunity to enjoy the pleasures of liberality. 123 The gift which arouses deep emotion in one person, will leave

another cold. 124 The diversity of natures would make the calculus of pleasures, in any accurate sense of the expression, a most difficult problem, even if such a calculus were admissible in the case of a single individual.

III. THE DIFFICULTIES OF OTHER SCHOOLS

125 It would be unjust to the utilitarian not to point out that those who advocate other doctrines must find some way of coping with the difficulties which embarrass you.

126 Thus, the egoist may ignore duties to others, but you cannot free yourself from the problems of the distribution of happiness in your own life and of the calculus of pleasures. 127 The intuitionist, who, among other precepts, accepts as ultimate those enjoining upon you justice and benevolence, may well ask yourself toward whom these virtues are to be exercised, and whether the claims of all who belong to the class in question are identical in kind and degree. 128 If they are not, you must find some rule for estimating their relative importance. 129 You who makes it your moral ideal to Follow Nature, to Strive for Perfection, or to realise your Capacities, must determine in detail what conduct, self-regarding and other regarding, the acceptance of such aims entails. 130 Only the unreflective can regard the utilitarian as having a monopoly of the difficulties which face the moralist. 131 The vague general statement that we should strive to render others happy-- a duty recognised by people of very different schools-- never frees us from the perplexities which arise when it is asked: What others? With what degree of impartiality? When? By what means? 132 But that such questions can be approached by a path more satisfactory than that followed by the utilitarian, there is good reason to maintain.

SUMMARY OF ARGUMENTS FOR UTILITARIANISM

133 It is worthwhile to summarise what may be said for utilitarianism, and what may be

said against it. 134 It may be argued in its favour:

(1) That it appears to set as the aim of human endeavour, an intelligible end, and a fairly definite one. 135 Everyone has some notion of what happiness means, and is not without ideas touching the way to seek your own happiness, or to contribute to that of others.

136 (2) The end is one actually desired by humans at all stages of intellectual and moral development. 137 Humans are impelled to seek their own happiness, and there are few who do not feel impelled to take into consideration, to some degree, at least, the happiness of some others.

138 (3) The general happiness is not merely desired by some people, but it is felt to be ‘desirable’; that is, it is an end not out of harmony with the moral judgments of humankind. 139 It makes its appeal to the social nature of human; it seems to furnish a basis for the exercise of benevolence and justice.

140 (4) The utilitarian's clear recognition of the general happiness as the ultimate end of human endeavour, 141 and your insistence that institutions, laws and moral maxims must be judged solely by their fitness to serve as means to that end, have made you an energetic apostle of reform, and intolerant of old and passively accepted abuses. 142 Your insistence upon the principle of impartiality in the distribution of happiness has made you a champion of the inarticulate and the oppressed. 143 Whatever one may think of your abstract principles, the general character of the specific measures you have advocated must meet with the approval of enlightened moralists of very different schools.

ARGUMENTS AGAINST UTILITARIANISM

144 Against utilitarianism as an ethical theory various objections have been brought or may be brought.

145 (1) Objection may be taken to the utilitarian assumption that the only ultimate object of desire is pleasure or happiness.

146 It was pointed out forcibly by Bishop Butler in the eighteenth century that humans desire many things besides pleasure. 147 Human's desires are an outcome of own nature, and that results in "particular movements towards particular external objects"--honour, power, the harm or good of another.

148 To be sure, "no one can act but from a desire, or choice, or preference of one's own," but this is no evidence that what you seeks in acting is always pleasure.

149 Particular passions or appetites are, Butler ingeniously argues, "necessarily presupposed by the very idea of an interested pursuit; since the very idea of interest or happiness consists in this, that an appetite or affection enjoys its object."

150 Here we find our attention called to a very important truth, the significance of which there is danger of our overlooking. 151 Pleasure or happiness is not something that can be parcelled up and handed about independently of the nature of the recipient. It is not everyone who can desire everything and feel pleasure in its attainment. 152 That the objects of desire and will are many, and that the strivings of conscious creatures have in view many ends, and vary according to the impulsive and instinctive endowments of the creatures in question, has been well brought out in the admirable studies of instinct which we now have at our disposal. 153 The most ardent devotee of pleasure must recognise, that only certain pleasures are open to you; that, such as they are, they are a revelation of your nature and capacities; 154 that pleasures, if sought at all, cannot be secured directly, but only as the result of a successful striving for objects not pleasures, which bring pleasure as their accompaniment. 155 You who would have the pleasure of eating must desire food; and neither food, nor the eating of food, can be regarded as, 'per se', pleasure. 156 The pleasure of the brooding hen is beyond the reach of human, who, however pleasure-loving, cannot desire to sit upon eggs, and so must forego the pleasure which, in the case of the bird, crowns that exercise.

157 Such considerations as the above have led some moralists to define, as the end of desire, not pleasure, but self-satisfaction. 158 Every desire, it is pointed out, strives to satisfy itself in the attainment of its appropriate object. With the attainment of the object, the desire has produced its proper fruit and ceases to be. 159 It is admitted that the satisfaction of desire is accompanied by pleasure, but it is denied that the pleasure may be properly called the object of the desire, or regarded as calling it into being: 160 "The appetite of hunger must precede and condition the pleasure which consists in its satisfaction. It cannot therefore have that pleasure for its exciting object."

161 At the same time it is conceded that the idea of a pleasure to be attained may "reinforce" the desire for an object, may "intensify the putting forth of energy," and may tend "to sustain and prolong any mode of action."

162 The utilitarian is not wholly helpless in the face of such objections. You may argue that, if it is difficult to see how a pleasure which is the result of a desire may cause the desire, it is equally difficult to see how it may prolong, reinforce or intensify it. 163 And you may maintain that, although the pursuit of pleasure, in certain forms, is calculated to defeat its own aim and is undoubtedly unhealthy, this need not be the case if one's aim be the true utilitarian one-- the happiness of all. 164 The direct attack upon your Greatest Happiness Principle which consists in the objection that, if pleasure is the only object of desire, a sum of pleasures, as not being a pleasure, cannot be desired, you can put aside with the remark that no far-reaching and comprehensive aim can be realised at one stroke. 165 I can desire a long and useful life; this cannot be had all at once. I can desire a long life full of pleasures; this cannot be enjoyed all at once either. But each can certainly be the object of desire.

166 But, when all is said, it remains true that the contention of those, who distinguish sharply between the satisfaction of desire and the attainment of pleasure, is of no little importance. 167 It calls our attention to the following truths:

(a) We have definite instincts and impulses which tend to satisfy themselves with their appropriate objects.

168 (b) At their first exercise, our aim could not have been the pleasure resulting from their satisfaction, for that could not have been foreseen.

169 (c) Although, after experience, the attainment of pleasure may come to be our aim in the exercise of many activities, and may often, as far as we can see, be a natural and not unwholesome aim; 170 it is by no means evident that, even when we are experienced and reflective, the exercise of our faculties comes to be regarded 'only' as a means to the attainment of pleasure.

171 (d) The hedonist, in maintaining that pleasure is the only ultimate object of desire, appears, thus, to be committed to the doctrine that the satisfaction of all other desires is subordinated to the satisfaction of the desire for pleasure. 172 For this position you can furnish no adequate proof. Self-evident the doctrine is not.

173 (e) It is incumbent upon you, as a moralist, to prove, not merely that all other satisfactions are, but also that they 'ought' to be subordinated to the satisfaction of the desire for pleasure. This you appears to assume without proof.

174 (2) We have seen above that the fundamental principle of utilitarian hedonism, as against egoistic, namely, the making the Greatest Happiness of the Greatest Number the object of the endeavours of each individual, has not been satisfactorily established by leading utilitarians. 175 Bentham assumes the principle; Mill advances a doubtful argument; Sidgwick falls back upon intuitions which all will not admit to be indubitable. 176 To his assertion: "Reason shows me that if my happiness is desirable and a good, the equal happiness of any other person must be equally desirable," the doubter may reply: Desirable to whom? to some other or to me?

177 (3) Finally, it may be objected that the consistent utilitarian, in making pleasure, abstractly taken, the only ultimate good, and in regarding as the sole criterion of right actions their tendency to produce pleasure, really tears

pleasure out of its moral setting altogether.

178 Thus Bentham's contention that the pleasure a human may derive from the exercise of malice or cruelty is, "taken by itself," good-- 179 while it lasts, and before any bad consequences have set in, as good as any other that is not more intense-- derives what plausibility it has, from an ambiguity in the word "good." 180 Pleasure, taken by itself, is undoubtedly pleasure, whatever be its source. 181 To affirm this is mere tautology. And, if we chose to make "good" but a synonym for pleasure, we remain in the same tautology when we affirm that every pleasure is a good. 182 But Bentham assumed that good in this sense and moral good are the same thing.

183 His assumption is not borne out by the moral judgments of humankind. 184 Even a cursory view of those moral judgments as revealed in customs, laws and public opinion makes it evident that, under certain circumstances, pleasure is regarded as, from a moral standpoint, a good, and, under other circumstances, an evil. 185 Torn out of its setting, it is simply pleasure, a psychological phenomenon like any other, with no ethical significance.

186 Take the case of the pleasure enjoyed by the malignant human. It may be intense, if you be peculiarly susceptible to such pleasure. 187 The pain suffered by your victim may conceivably be less intense. Both may die before the "bad consequences," that is to say, other pains, arrive. 188 There may be no spectators. Is, in such a case, the pleasure one to be called a "good"? 189 Can it be approved No reflective moralist would maintain that it can. Which means that the moralists, in all ages, have meant by "good" something more than pleasure, taken abstractly, and that Bentham's assumption may be regarded as an aberration.

TRANSFIGURED UTILITARIANISM

190 It is possible to hold to a utilitarianism more circumspect and less startling than Bentham's. It is possible, while maintaining that pleasure is the only thing that an experienced and reasonable being can regard as ultimately

desirable, 191 to maintain at the same time that it is rash for any human to attempt to seek own happiness, or to strive to promote the general happiness, without taking into very careful consideration the instincts and impulses of human and the nature of the social organisation which has resulted from human's being what you are. 192 One may argue that the experience of the race is, as a rule, a safer guide than the independent judgment of the individual; 193 and that, in the secular endeavour to compass the general happiness, it has discovered the paths to that goal which may most successfully be followed. 194 Thus, one may distrust Utopian schemes, recognising the significance of custom, law, traditional moral maxims, and public opinion, and yet remain a utilitarian.

195 But you who does this must still answer the preceding objections. You must prove: (1) That pleasure is the only thing ultimately desirable; (2) that each is under obligation to promote the pleasure of all; 196 (3) that its mere conduciveness to the production of a preponderance of pleasure makes an action right, even though the pleasure be a malicious one, as in the illustration above given.

197 Still, your doctrine has become less startling, and you have moved in the direction of a greater harmony with the moral judgments of humans generally.

198 The conduct you recommends need not, as a rule, differ greatly from that recognised as right by moralists of quite different schools.

199 Such a utilitarian may easily pass over to a form of doctrine which is not utilitarian at all. 200 Thus, Sidgwick asks whether there is a measurable quality of feeling expressed by the word "pleasure," which is independent of its relation to volition, and strictly undefinable from its simplicity-- 201 "like the quality of feeling expressed by 'sweet,' of which also we are conscious in varying degrees of intensity;" 202 and he answers: "For my own part, when the term (pleasure) is used in the more extended sense which I have adopted, to include the most refined and subtle intellectual and emotional gratifications, 203 no

less than the coarser and more definite sensual enjoyments, I can find no common quality in the feelings so designated except some relation to desire or volition."

204 When we seek, then, to "give pleasure," are we doing nothing else than giving recognition to the desire and will of our neighbour? 205 What has become of the Greatest Happiness Principle? Has it not dissolved into the doctrine of the Real social-will?

NATURE
George Stuart Fullerton

HUMAN NATURE AS ACCEPTED STANDARD

30 The three doctrines, that the norm of moral action is to follow Nature, that it is to aim at the attainment of perfection, and that it is the realisation of one's capabilities, have much in common. 2 Early in the history of the Ethics we find the moralist preaching that it is the duty of human to follow Nature, and branding vice as unnatural and, hence, to be abhorred.

3 The word "nature," thus used, has had a fluctuating meaning. Sometimes the thought has been predominantly of human nature, and sometimes the appeal has been to Nature in a wider sense.

4 Aristotle, who finds the "good" of human in happiness or "well-being," points out that this is something relative to human's nature. 5 The well- being of a human he conceives as, in large part, "well-doing," and well- doing he defines as performing the proper functions of a human.

6 If we ask him what is proper or natural to human, he refers us to what human, when fully developed, becomes: 7 "What every being is in its completed state, that certainly is the nature of that thing, whether it be a human, a house, or a horse." 8 He conceives human's nature, thus, as that which it is in human to become. Toward this end human strives; and it is this which furnishes you with the law of your action.

9 But, it may be asked, how shall this end be defined in detail? Individual humans, who arrive at mature years, are by no means

alike. Some we approve; some we disapprove.

10 We evidently appeal to a standard by which the individual is judged. The appeal to the nature of human helps us little unless we can agree upon what we may accept as a just revelation of that nature-- 11 a pattern of some sort, divergence from which may be called unnatural, and is to be reprobated.

12 Neither Aristotle, nor those who, after him, took human nature as the moral norm, were without some conception of such a pattern. 13 They kept in view certain things that humans may become rather than certain others. They accepted as their standard a type of human nature which tends, on the whole, to realise itself more and more in the course of development of human communities. 14 But as different human societies differ more or less in the characteristics which they tend to transmit to their members, in the kind of human whom they tend to form, we find the ideal of human nature, with which we are presented, somewhat vague and fluctuating. 15 Different traits are dwelt upon by different moralists. Still, the appeals to human nature have a good deal in common; upon human's rational and social qualities especial stress is apt to be laid.

HUMAN NATURE AND THE LAW OF NATURE

16 "Every nature," said Marcus Aurelius, "is contented with itself when it goes on its way well; 17 and a rational nature goes on its way well, when in its thoughts it assents to nothing false or uncertain, and when it directs its movements to social acts only, 18 and when it confines its desires and aversions to the things which are in its power, and when it is satisfied with everything that is assigned to it by the common Nature."

19 In the last clause the Stoic turns from the contemplation of human's nature, taken by itself, and dwells upon the nature of the universe, which you conceives to be controlled by reason. 20 You thus gains an added argument for the obligations laid upon human by your own nature.

21 He writes: "Every instrument, tool, vessel, if it does that for which it has been made, is well, and yet you who made it is not there. 22 But in the things which are held together by Nature there is within and there abides in them the power which made them; 23 wherefore the more is it fit to reverence this power, and to think that, if thou dost live and act according to its will, everything in thee is in conformity to intelligence."

24 The law of human's nature is, thus, regarded as a part of the law of Nature-- "We are all working together to one end, some with knowledge and design, and others without knowing what they do." 25 And, this being the case, human may take pattern, when you are inclined to fall below the standard of duty appropriate to you, by considering humbler creatures: 26 "Dost thou not see the little plants, the little birds, the ants, the spiders, the bees working together to put in order their several parts of the universe? 27 And art thou unwilling to do the work of a human being? And dost thou not make haste to do that which is according to thy nature?" 28 The delinquent is, hence, judged guilty, not merely of derogation from own high estate, but also of impiety.

VAGUENESS OF THE LAW OF NATURE

29 The question of the influence of religious belief upon a theory of morals I shall discuss elsewhere. Here it is only necessary to point out that, if there is vagueness in the appeal to human nature, it can scarcely be dissipated satisfactorily by simply turning to Nature in a broader sense. 30 Shall we, when in doubt as to human behaviour, copy that of the brutes? 31 The industry of some humble creatures it seems edifying to dwell upon; but from the fact that bees are stung to death by their sisters in the hive, or that the spider is given to devouring her mate, we can hardly draw a moral lesson for human.

32 The appeal to a Law of Nature so often made in the history of ethical speculation has furnished but a vague and elusive norm. 33 You who makes it is apt to fall back upon the moral intuitions

with which you are furnished, and to pack a greater or less number of them into your notion of Natural Law.

34 In Cicero, Nature becomes fairly garrulous to human on all matters of deportment: "Let us follow Nature, and refrain from whatever lacks the approval of eye and ear. 35 Let attitude, gait, mode of sitting, posture at table, countenance, eyes, movement of the hands, preserve the becomingness of which I speak."

THE APPEAL TO NATURE AND INTUITIONISM

36 The moralists who urge us to follow Nature, whether human nature or Nature in a wider sense, we may, hence, regard as intuitionists of a sort. 37 Those who emphasised human nature evidently depend upon their moral intuitions to give them information as to its characteristics. 38 It is intuition that paints for them their pattern. They do not take human as they actually find you; they call for the suppression of some traits, and the exaggeration of others.

39 Nor are those who appeal to Nature in a wider sense less guided by moral intuitions. The appeal is never made without restrictions and limitations. 40 No one dreams that the bird, the ant, the spider, the bee, can be regarded as satisfactory teachers of morals to human beings. 41 Each may be occupied in putting in order its corner of the universe; but the order attained is not a human order, and there is in it much that is revolting to the moral judgments of humankind. 42 Human must have a standard of your own. You listens to Nature only when She tells you what you already approves.

43 As a form of intuitionism the doctrine of following.. Nature may be criticised in much the same way as other forms. One great merit it has. It calls attention to the fact that Ethics is a discipline which has no significance abstracted from the nature of human. 44 It appears absurd to say that human ought to do what it is not in human, under any conceivable circumstances, to do. 45 And, like other forms of intuitionism, it has the merit of avoiding that short-

circuiting which may easily prove seductive to the egoist or the utilitarian. 46 You who accepts as your end either your own happiness or that of humans generally may easily be induced to take short cuts to that end, and pay little attention to moral maxims as such.

47 You may treat lightly that great system of rules and observances by which humans are guided in their relations with one another, and which prevent human societies from relapsing into a chaos.

48 On the other hand, the follower of Nature, like other intuitionists, may easily be thrown into perplexity by the fact that what seems to you natural, and, hence, right, may not be approved by other people. 49 You cannot prove that you are right and they are wrong. You appears condemned to take refuge in subjective conviction, that is, in mere dogmatism.

II. PERFECTION

PERFECTION AND TYPE

50 When we speak of a thing as more or less perfect, we commonly mean that it is more or less perfect in its kind. 51 A good saw makes a poor razor; a good chair, a more than indifferent bed. A bee crushed by a blow, a bird with a broken wing, we regard as imperfect. 52 But it scarcely occurs to us to ask ourselves whether the bee is more or less perfect than the bird, or the bird than the spider. 53 Swift's Houyhnhnms at their best could not be either perfect horses or perfect humans. They were creatures with a perfection of their own, and one appropriate to their hybrid nature.

54 To every creature its own perfection. This principle humans seem to assume tacitly in their judgments. 55 They set up a standard for each kind, and they conceive the individual to attain or to fall short, according to the degree of its approach to, or of its divergence from, the allotted standard.

56 If we take perfection in this sense-- and we usually have no

other sense in mind in our judgments of perfection-- the doctrine that it is the whole duty of human to strive to attain to perfection is none other than the doctrine that it is your duty to follow Nature, your proper nature as human. 57 And any difficulties which may legitimately be urged upon the attention of the moralist who recommends the following of Nature may with equal justice be urged upon the attention of you who exhorts us to aim at perfection.

58 Thus, if it is doubtful just what Nature demands of us, it seems no less doubtful what obligations are laid upon us when we make perfection our goal. 59 That goal cannot mean for each human simply the developing to the utmost of all the capacities which you possesses. 60 There are people rich in the possibilities of sloth, of indifference to future good, of egoism, even of malignant feeling. Nor does the average person furnish the pattern of perfection. 61 The perfectionist does not regard the average person as the embodiment of own ideal. You seeks to better you.

62 That, in striving to attain perfection, a human should remain a human, with essentially human characteristics, seems evident. But what sort of a human you should be is not as clear. 63 Until we are in a position to give some reasoned account of what we mean by perfection as an ideal, and to show that it is a desirable goal for human, we appear to be setting up but a vague end for human endeavour, and to be assuming intuitively that it is a desirable end.

MORE AND LESS PERFECT TYPES

64 So much for perfection as synonymous with the ideal human nature of which ancient and modern moralists have treated. It appears, however, possible to use the word "perfection" in a somewhat different sense.

65 Human is not merely human; you are a living being, and there are living beings of many orders. 66 The plants, the simpler forms of animal life, the brutes which we recognise as standing nearer to us, and human may, from this point of view, be referred to the one series.

67 Some members of this series we characterise as lower, and others we speak of as higher in the scale. Now, such designations as higher and lower cannot be applied indiscriminately. 68 There is little sense in the assertion that a bit of string is higher than a straight line, or a hat than a handkerchief. Some significant basis of comparison must be present. 69 Things must be recognised as approximating to or diverging from an accepted standard in varying degrees. Such a basis of comparison is present when some objects possess the same qualities in a more marked degree than do others. 70 But this is not the only possible basis of comparison. We may assume that the possession of certain qualities marks a creature as higher, and that the creature which has them not, or has them imperfectly developed, thereby stamps itself as being of a lower order.

71 Something like this appears to determine our judgments when we assign to various creatures their place in the scale of living beings. 72 We do not mean that the higher possess to a greater degree all the capacities possessed by the lower. Many things which the plant does human cannot do at all; 73 and, among the animals, those which we recognise as higher may be lacking in many capacities present in a marked degree in the lower. 74 In ranking one living creature as higher, and, thus, as more perfect, than another, we assume that the "nature" of the one, with its various capacities and lacks of capacity, is, on the whole, of more ‘worth’ than the "nature" of another.

75 It might be maintained that, in your estimate of the worth of different kinds of beings human is influenced by your partiality for the distinctively human, rating creatures as lower or higher in proportion to their divergence from or approximation to your own type. 76 Undoubtedly this plays a part in people's judgments. We are partial to ourselves. And yet judgments of perfection and imperfection cannot wholly be explained on this principle.

77 "I think we must admit without proof," writes Professor Janet, a brilliant apostle of the doctrine of perfection, 78 "that things are good, even independently of the

pleasure which they give us, in themselves and by themselves, because of their intrinsic excellence.

79 If anyone were to demand that I should prove that thought is worth more than digestion, a tree more than a heap of stones, liberty than slavery, maternal love than luxury, I could only reply by asking you to demonstrate that the whole is greater than one of its parts. 80 No sensible person denies that, in passing from the mineral kingdom to the vegetable kingdom, from this to the animal kingdom, from the animal to human, from the savage to the enlightened citizen of a free country, Nature has made a continual advance; that is to say, at each step has gained in excellence and perfection."

81 One is naturally impelled to ask from what point of view things so disparate as the mineral, the plant, the brute, human, thought and digestion, liberty and slavery, can be compared with one another at all, and referred to any sort of a series. 82 What is, in its essence, this excellence or perfection of which we have more shining evidence as we go up in the scale? 83 Janet identifies it with intensity of being, with activity. The greater the activity, the greater the perfection.

84 To the identification of perfection and activity we may hesitate to assent. It does not seem clear that there is greater activity manifested in a snail than in a burning house, in maternal love than in furious hate, in quiet thought than in passion. 85 Yet it seems significant that judgments of worth do not appear out of place in comparing such things.

PERFECTIONISM AND INTUITIONISM

86 Taking into consideration all that is said above, it seems not unreasonable to conclude:

(1) That in speaking of the perfection of any creature we very often judge it only by the standard set by its own type. We regard it as a good specimen of its kind.

87 (2) But when we use perfection in a wider sense, we judge different types after the standard furnished by the distinctively human.

88 (3) And we take as our standard of the human the "pattern" human held in view by those who urge us to follow Nature.

89 But why should this pattern human be assumed to be better or worthier than a human of a different sort? 90 You who finds in you a greater exhibition of activity may with equal justice address to yourself the question: Why is activity, in itself, of value? 91 The one question, like the other, looks for its answer in the dictum of some intuition. What may be said for, and what against, intuitions, we have already considered.

III. SELF-REALISATION

THE SELF-REALISATION DOCTRINE

92 The ethical school which makes the realisation of the capacities of the self the aim of moral action has for a generation, especially in England and America, had the support of many acute and scholarly minds. 93 The doctrine, often spoken of as the Neo-Kantian or the Neo-Hegelian, may be said to be influenced by Kant, so far as concerns metaphysical theory, 94 but its ethical character is more properly Hegelian and suggests in many particulars that great German philosopher's "Philosophy of Right."

95 We may conveniently take as the protagonist of the school the Oxford scholar, Thomas Hill Green, whose "Prolegomena to Ethics" has had, directly and indirectly, a powerful influence upon the minds of the people of our generation.

96 We find the doctrine of self-realisation, as set forth by Green, to be as follows:

(1) In all desire some object is presented to the mind as not yet real, and there is a striving to make it real, and thus to satisfy, or extinguish, the desire.

97 (2) Self-consciousness knits the desires into a system, and thus attains to the conception of "well-being," which implies the satisfaction of desire in general, and not merely of this or that desire.

98 (3) "Good" is that which satisfies some desire. Any good at which an agent aims must be own good; and "true good" is nothing else than "permanent well-being."

99 (4) A desire is determined by the nature of the creature desiring; human can attain satisfaction only in the realisation of own capacities. 100 Your true good lies only in their complete realisation--in your becoming all that it is in you to become.

101 (5) But human is a social being, and has an interest in other persons than oneself. Hence your complete self-satisfaction implies the satisfaction of your social as well as of your other impulses. That is, your true good includes the good of others.

102 (6) We can only discover what our "capacities" are by observing them as so far realised, and thus gaining the idea of future progress. The ultimate end is unknown to us.

103 (7) But we see enough to recognise that human's capacities can be realised, your self-satisfaction intelligently sought, only in a social state based upon the notion of the common good. The right reveals itself in the actual evolution of society.

THE DOCTRINE AKIN TO THAT OF FOLLOWING NATURE

104 The self-realisation doctrine has much in common with the doctrine of following Nature. 105 Thus: 1. It evidently does not recommend the realisation of all the capacities of the individual as such, but holds in view a "pattern" human.

106 (2.) This is social human, the true representative of human nature as conceived by the ancient Stoic. 107 Green holds before himself "the ideal of a society in which everyone shall treat everyone else as own neighbour, 108 in which to every rational agent the well-being or perfection of every other such agent shall be included in that perfection for which one lives."

109 The same thought was more pithily expressed by Marcus Aurelius in the aphorism that "what is good for the hive is good for the bee."

110 (3.) We find, too, the analogue of that wider appeal to Nature which suffused the Stoic doctrine with religious feeling. 111 In the above brief recapitulation of the steps in the self-realisation

doctrine I have omitted this aspect, as I wished to confine myself to the ethical doctrine pure and simple. 112 But Green conceives of the Divine Consciousness as already having before it the consummation toward which human strives in own efforts at self-realisation; 113 he regards human as working toward the attainment of a Divine Purpose. 114 The self-realisationist may prefer, sometimes, to use language more abstract. You may say: "Human's consciousness of the self as a member of society involves a reference to a cosmic order."

115 But the difference of language scarcely carries with it a substantial difference of thought.

116 4. As the appeal to human nature, or to Nature in a broader sense, left the norm for the guidance of human actions somewhat vague, so the appeal to the principle of self-realisation seems to leave one without very definite guidance. 117 There may easily arise disputes touching what capacities are to be realised, and in what degree.

IS THE DOCTRINE MORE EGOISTIC?

118 One difference between the principles of following Nature, striving to attain to perfection, and aiming at self-realisation seems to force itself upon our notice. 119 On the surface, at least, the last doctrine appears to stand out as more distinctly egoistic. The very name has an egoistic flavour; 120 the doctrine bases itself upon the satisfaction of desire; nor do its advocates hesitate to emphasise that the satisfaction sought is the satisfaction of the agent desiring. 121 In the chapter on Egoism I have cited some utterances which sound egoistic, and such citations might be multiplied.

122 Nevertheless, from this egoistic root springs a flower which disseminates the perfume of a saintly self-abnegation. How is this seeming miracle accomplished?

123 The transition is brought about through a chain of reasoning which is subtle and ingenious in the extreme. 124 Must we not admit that in all purposive action--the only action with which the moralist need concern the self--

there is a striving to realise or satisfy desire in the attainment of some object? 125 And if the desires of a mind or self converge upon some object, does not its realisation imply the satisfaction or realisation of the desires of that mind or self? 126 Furthermore, if our desires have as their root our capacities-- for we can desire nothing that it is not in us to desire-- is not the realisation of desire the realisation of capacity? 127 Does it not follow, hence, that every mind or self, in all purposive action, is striving, either blunderingly or with far-sighted intelligence, to attain to self-satisfaction, which means, to the realisation of its capacities? 128 Finally, as humans are by nature social creatures, how can a person fully realise own capacities without becoming a truly unselfish being? 129 Unselfishness appears to be the inevitable goal of the strivings for self-satisfaction of an unselfish self.

WHY AIM TO REALISE CAPACITIES?

130 This reasoning appears highly satisfactory in two very different ways. It seems, on the one hand, to stop the mouth of the egoist, who insists that own advantage is own only proper aim. 131 It assures you that you are throughout seeking your own advantage, when you aims at self-realisation. 132 On the other hand, it assures the person to whom egoism appears repellent and immoral, that self-realisation implies that one must love one's neighbour as oneself. 133 The immemorial quarrel between self-love and benevolence appears to be adjusted to the mutual satisfaction of both parties.

134 Is the reasoning unassailable? There are two steps in it which appear to demand a closer scrutiny. 135 One is the transition from desire to capacity; the other, the assumption that you who follows an unselfish impulse may properly be said to aim at self-satisfaction, and to exercise no self- denial.

136 As to the first. Our desires may have their roots in our capacities,

but desires and capacities are, nevertheless, not the same thing.

137 Humans do actually strive to realise their desires-- a desire is nothing else than such a striving for realisation or satisfaction. 138 But it cannot be said that humans generally strive to realise their capacities, except to the limited degree in which their capacities may happen to be expressed in actual desires. 139 Capacities may lie dormant, and the person in whom they lie dormant need not on that account feel dissatisfied, as does the person whose desires are not realised. 140 Self-realisation, as understood by the school of thinkers which advocates it, implies much more than the satisfaction of desire. It implies the multiplication of desires and their satisfaction. 141 On what ground shall we persuade the contented egoist, who has but a handful of commonplace desires and finds it possible to satisfy most of them, that it is better to call into being a multitude of wants many of which will probably remain unrealised? 142 You may point out that the divine discontent is apt to leave the idealist and the reformer as lean as Cassius. 143 All of which does not prove that the self-realisationist is not right in exhorting humans to develop their capacities in the direction of the pattern which you holds in view; 144 but it does seem to prove that the path to self-realisation, in this sense, is not necessarily the path to self-satisfaction. 145 "The good" has come to mean more than that which satisfies desire. How shall we persuade people that it is their duty to make this good their end?

THE PROBLEM OF SELF-SACRIFICE

146 As for the second point. You who makes your moral aim self-satisfaction can scarcely be expected to advocate self-sacrifice. 147 Accordingly, we find among self-realisationists, a tendency to repudiate altogether what may properly be called self-denial. 148 "Anything conceived as good in such a way that the agent acts for the sake of it," said Green, "must be conceived as your own good." 149 "A moment's consideration will show," writes Professor Fite, in your clear and attractive book,

"that, for self-sacrifice in any absolute sense, no ground of obligation is conceivable. 150 Unless I am in some way interested in the object whose attainment is set before me as a duty, it seems to be psychologically impossible that I should ever strive for it."

151 Now we do seem compelled to concede that, unless a person desires an end, you cannot will that end. 152 Anything that is selected as an end, and striven for, must be desired. And the attainment of the end implies, of course, the satisfaction of that particular desire. 153 But, admitting all this, is not the question left open whether some desires may not be sacrificed to others; and whether, indeed, a whole extensive system of desires may not, on occasion, be sacrificed to a single desire? 154 In this case, may not the transaction properly be called self-sacrifice? 155 Suppose the desire to serve one's neighbour, if satisfied, prevents the realisation of a multitude of other desires of the same agent. Is it certain that its satisfaction does not imply self-denial?

SELF-SATISFACTION AND SELF-SACRIFICE

156 The argument to prove that it is not really self-sacrifice may follow diverse paths.

157 Thus, it may be argued that, since the proper end of a rational being is your own permanent good, the sacrifice of such goods as do not conduce to this end is not self-sacrifice. 158 Sensual pleasures, the satisfaction of vanity or ambition, the accomplishment of a vengeful purpose, an excessive preoccupation with one's own interests as contrasted with those of others-- such things as these, it is claimed, do not permanently satisfy. 159 That the so-called human of pleasure is a human upon whom pleasures pall, and that you who seeks too earnestly to save your own life is apt to lose it, has been reiterated by a long line of professional and lay moralists from Buddha to Tolstoi. 160 The refuge from the discontent arising out of the attempt to quench one's thirst by sipping at transient delights has always been found in altruism under some guise. 161 The self-realisationists may claim that

certain things are given up in order that other things more permanently satisfying to the self may be attained, and may deny that this is any renunciation of self-satisfaction.

162 Again. It may be argued that human's interests do not conflict as widely as is commonly supposed. 163 To be sure, two men may have to struggle with each other for the pleasure of eating a given apple, of making a pecuniary profit, of obtaining a coveted post, of being the first authority in a given science or art, of securing the affections of a particular woman.

164 Here one person's loss seems to be another person's gain. But two people may enjoy seeing a child eat an apple, or a deserving person profit, or their common candidate win the election, or their favourite artist honoured, or their beloved nephew accepted by the lady of own choice. 165 If one desires certain things, and certain things only, there seems no reason why one's desires should not be in harmony with those of others.

166 The things best worth having, it is claimed, do not admit of being competed for. If my aim is unselfish devotion to humanity, how can I lose if my neighbour attains in the same running? 167 Do virtuous people, in so far as they are virtuous, stand in each other's light? Are there not as many prizes as there are competitors? 168 As long as I remain in this field I may seek self-satisfaction without scruple. I satisfy another's desire in satisfying my own. By benevolence I lose nothing.

169 The list of things which one may forego without self-sacrifice has been made a long one. Even the realisation of capacities highly valued by cultivated people has been brought into it:

170 "No conflict," writes Professor Seth, "is possible between the ends of the individual and those of society. 171 The individual may be called upon to sacrifice, for example, your opportunity of aesthetic or intellectual culture; but in that very sacrifice lies your opportunity of moral culture, of true self-realisation."

CAN MORAL SELF-SACRIFICE BE A DUTY?

172 To this position one is tempted to demur until two questions have found a satisfactory answer:

173 1. Is it true that there is no sacrifice of self-realisation or self-satisfaction, properly so called, where all other desires and impulses are sacrificed to the one desire to do right?

174 2. Is it not conceivable, at least, that obedience to an unselfish impulse may result even in the sacrifice of the opportunities of moral culture in general? Can it, then, be called self-realisation?

175 Touching the first question it may plausibly be maintained that the desires of the self are many and various, 176 and that the satisfaction of an altruistic impulse may imply the sacrifice of so many of them that the self may very doubtfully be said to attain to permanent satisfaction when the impulse is realised. 177 Aristotle's hero, who, in dying for his country, chooses the more "honourable" for himself, 178 can hardly be said in that one act to have accomplished a state of permanent satisfaction or well-being for the self whose being was, in that act, brought to an abrupt termination. 179 Certain Stoics seem to have taught that virtue is its own adequate reward and that nothing else matters; but this has not been the verdict of moralists generally. 180 Paley, who writes like an unblushing egoist, we may pass over; but even Kant, a thinker of a very different complexion, appears to regard the mere doing of a right act as not a sufficient reward for the doer. 181 He looks for the act to be crowned with happiness in a life to come, thus saving it from being mere self-sacrifice.

182 The second question one approaches with some hesitation. "No moralist," writes Professor Sidgwick, "has ever directed an individual to promote the virtue of others except in so far as this promotion is compatible with, or rather involved in, the complete realisation of virtue in the self." 183 It appears rash to admit to be a duty that which as high an authority as Sidgwick maintains no moralist has ever ventured to advise. 184 Still, it is permissible to adduce an illustration taken from

actual life, and to ask the reader to form your opinion independently.

185 A girl, anxious to provide her younger sister with a better lot, enters a factory and gives up her life to labour of a monotonous and mind-destroying character, amid sordid and more or less degrading surroundings. 186 The act is a heroic one, but is it clear that it conduces to the self-realisation, not of the sister, but of the agent herself? 187 The influence of surroundings counts for much. High impulses may, under such pressure, come to be repressed.

188 "Capacity for the nobler feelings," writes Mill, "is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance; 189 and in the majority of young persons it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favourable to keeping that higher capacity in exercise. 190 People lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity for indulging them; 191 and they addict themselves to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access, or the only ones they are any longer capable of enjoying."

192 In other words, one may put oneself into a situation in which self-realisation appears to be made a most difficult and problematic goal. Nor does it seem inconceivable that one should do this for the sake of another's good. 193 Hence, even if we restrict the meaning of the word "self-sacrifice" to the sacrifice of the "real" or moral self, the impossibility of self-sacrifice scarcely appears to have been proved; 194 the impossibility of a conflict between the ends of the individual and of society does not appear to be indubitably established.

SELF-SACRIFICE AND THE IDENTITY OF SELVES

195 Can it be maintained upon any other grounds than those adduced above? One line of argument remains open to us. 196 We may

maintain that, while two bodies are two because they occupy two portions of space, two minds, as not in space, cannot thus be held apart, and we may conclude that "the many individuals composing the race are not really many, but one." 197 I suppose that you who can take this position will find it natural to argue that any act which serves the interests of any self must be regarded as serving the interests of every self, and thus cannot be considered as sacrificing the interests of any self.

198 To these transcendental heights, however, comparatively few will be able to climb. 199 To people generally it will still appear that Peter's love to Paul is not identical with Peter's love to Peter; and that Peter may act in such a way that, on the whole, he loses, while Paul gains. 200 That the interests of Peter and Paul, as developed social beings and members of a civilised community, are less likely to be in conflict than those of their primitive cave-dwelling forerunners may be freely conceded. 201 But from such relative harmony to a complete identity of interests seems a far cry.

QUESTIONS WHICH SEEM TO BE LEFT OPEN

202 Evidently, the self-realisation doctrine is a great advance upon the doctrine of following Nature. 203 The self-realisationist realises that human's nature is in the making, and you are not blind to the difficulty of the task of determining just what the real demands of human nature are.

204 This leads to your laying much stress upon the gradual development of systems of rights and duties as they emerge under the actual conditions to which human societies are subjected in the course of their evolution.

205 You reads history with comprehending eyes, and reverences the human reason as crystallised in social institutions. 206 Hence, the divergence of the moral standards which obtain in different ages and among different peoples does not seem to you a baffling mystery. 207 You can find a relative justification for each,

and yet hold to an ideal in the light of which each must be judged.

208 It may be questioned, however, whether the edifice which you erects can be based wholly upon the appeal to the self which ostensibly furnishes the groundwork of the doctrine. 209 We may ask whether such an appeal can:

(1) Prescribe to the individual in what measure your various capacities should be realised.

210 (2) Show that it is reasonable to awaken dormant capacities, and thus multiply desires.

211 (3) Justify social acts which certainly appear to be self-sacrificing, and which the moral judgments of people generally do not hesitate to approve.

THE ETHICS OF EVOLUTION

George Stuart Fullerton

THE SIGNIFICANCE OF THE TITLE

31 The title, "The Ethics of Evolution," seems to assume that the evolutionist, frankly accepting yourself as such, must be prepared to join some school of the moralists different from other schools, and basing itself upon evolutionary doctrine.

2 That the ethical views of individuals and of communities of people may undergo a process of evolution or development is palpable. 3 The ethical notions of the child are not those of the adult, nor are the moral ideas of primitive races identical with those of races more advanced intellectually and morally.

4 But it is one thing to maintain that morals may be in evolution in individuals and in communities, 5 and quite another to hold that the acceptance of the doctrine of evolution, broadly taken, forces upon one some new norm by which human actions may be judged. 6 It was possible for as ardent an evolutionist as Huxley to hold that evolution and ethics are not merely independent, but are actually at war with one another, 7 the competitive struggle for existence characteristic of the one giving place in the other to a new principle in which the rights of the weak and the helpless attain express recognition. 8 And Sidgwick, that clearest of thinkers,

maintains that we have no reason to assume that it is our duty as moral beings simply to accelerate the pace in the direction already marked out by evolution.

9 It should be remembered that the word evolution may be used equivocally. It is not evident that all evolution is in the direction of a life, brute or human, that we commonly recognise as higher. 10 There is retrogression, as well as progress, where such retrogression is favoured by environment. We may call this, if we please, 'devolution'.

11 Were the conditions of your life very unfavourable, human could not live as you now lives; 12 and, indeed, were they sufficiently unfavourable-- for example, if the earth cooled off to a certain point-- you could not live at all, but would have to give place to a lowlier creature better fitted to the conditions. 13 Must the person who foresees this end approaching strive to hasten its arrival, or should one oppose it? 14 In a decadent society, to come nearer to the problems which concern us in ethics, must a person strive to realise the social-will expressed in progressive decadence? Should one hasten the decline of the community?

15 That those who study human as a moral being, like those who study human in any of your other aspects, will be more or less influenced in their outlook by the broadening of the horizon which results from a study of what the students of the evolutionary process have to tell us, may be conceded. 16 But when we admit this, we do not necessarily have to look for a new norm by which to judge conduct. We seem, rather, forced to ask ourselves how this broadening of the horizon affects the norms which have heretofore appealed to people as reasonable. 17 To be sure, any evolutionist has, in the capacity of a moralist, the right to suggest a new norm. But, in that case, you must, like any other moralist, convince us that it is a reasonable one.

EVOLUTION AND THE SCHOOLS OF THE MORALISTS

18 Those who have suggested the norms discussed above, no one would think of as greatly

influenced in their ethical teaching by the doctrine of evolution. 19 Locke, Price, Butler and Sidgwick; Aristippus and Epicurus; Paley and Hobbes; Bentham and Mill; Epictetus and Marcus Aurelius; Janet, Green, and the rest, no one would be inclined to class simply as evolutionary moralists.

20 Some of them never thought of evolution at all. How would it affect their standards of right and wrong were evolution expressly taken into account? 21 Would the standards have to be abandoned? Or would the people, as broader people, merely have to revise some of their moral judgments?

22 (1) It might be supposed that the acceptance of evolutionary doctrine would bring into being a grave problem for the intuitionist, at least. 23 If the body and mind of human are products of evolution, must we not admit as much of human's moral intuitions? 24 Then why not admit that these may be replaced some day by other moral intuitions to be evolved in an unknown future?

25 You who reasons thus should bear in mind that Sidgwick, who by no means repudiated the doctrine of evolution, was an intuitionist, and placed his ultimate moral intuitions on a par with such mathematical intuitions as that two and two make four. 26 If all intuitions are a product of evolution, Sidgwick might claim that the moral intuitions he accepts fare no worse than those elementary mathematical truths which we accept without question and without reflection. 27 And he might maintain that an appeal to evolution need cast no greater doubt upon ultimate moral truth than upon mathematical. 28 If intuitionism in all its forms is to be rejected, it seems as though it must be done upon some other ground than an appeal to evolution.

29 (2) As to the egoist. It is not easy to see how the appeal to evolution need disconcert you. 30 Should you be so foolish as to maintain that egoism is always, in fact, necessary and unavoidable on the part of every living creature, you might easily be refuted by a reference to the actual life of the brutes, where altruism can be shown to play no insignificant role.

31 But if you simply maintains that the only ‘reasonable’ principle for a person to adopt is egoism, you may continue to do so. You makes the self and its satisfactions your end. 32 How can it concern you to learn how the self came to be what it is, or what it will be in the distant future? 33 You panders to the present self; you may assume that it will be reasonable to pander at the appropriate time to the self that is to be, whatever its nature.

34 (3) The utilitarian remains such whether you makes the greatest good of the greatest number to consist in pleasure or in some other end, such as self-preservation. 35 Some utilitarians, who have been inclined to emphasised the good of human, rather than to extend even to the brutes the goods to be distributed, may be influenced to extend the sphere of duties, if they will listen to the evolutionist, who cannot well leave out of view humbler creatures.

36 You may broaden your sympathies. But this need not compel you to abandon your fundamental doctrine.

37 (4) A very similar conclusion may be drawn, when we consider the influence of an acceptance of the doctrine of evolution upon those who would turn to human's nature, to perfection, or to self-realisation, as furnishing the norm of human conduct.

38 A Marcus Aurelius could, with little reference to evolution, accept human's nature, or Nature in the wider sense, as marking out for human the round of your duties. 39 A modern Darwinian might fall back upon much the same standard, while clearly conscious of the fact that human's nature is not something unchangeable, and while inclined to view Nature in general with different eyes from those of the Roman Stoic. 40 No sensible evolutionist would maintain that a creature of a given species should act in defiance of all the instincts of creatures of that type, merely on the ground that species may be involved in a process of progressive development. 41 Nor need the perfectionist abandon own perfectionism in view of any such consideration. 42 You who measures perfection by the degree

of activity exercised in action, may admit that the coming human will be more perfect than it is possible for any human to be now; 43 but that need not prevent you from holding that it is human's present duty to aim at the only perfection possible to you, you being what you are. 44 Similar reasoning will apply to any other conception of perfection likely to be adopted, consciously or unconsciously, by any adherent of the school in question.

45 As for the self-realisationist, a very little reflection seems sufficient to reveal that the maxim that it is human's duty to become all that it is in you to become is in no wise refuted by the claim that human may, in the indefinitely distant future, become much more than many people have supposed or now suppose.

46 (5) There remains the doctrine of the Rational social-will as furnishing the norm of conduct. I have tried to show that this doctrine must rest upon broad views of human and of human's environment. 47 It is the very essence of the rational-will to take broad views, to consider the past, the present, and the future. 48 Surely the adherent of this school may let the evolutionist work in peace, may thank you for any helpful suggestions you have to offer, and may develop own doctrine with little cause for uneasiness at the thought that information given may refute own fundamental principle.

49 However, it is not out of place for you to point out, if revolutionary measures of any sort are suggested by this or that evolutionist, that ethics is a discipline which is concerned with what humans have to do, here and now. 50 It must take into consideration what is advisable and feasible.

51 Utopian schemes which break violently with the actual order of things and the normal development of human societies may be suggested by evolutionists, as they have been suggested by people who were not evolutionists at all. 52 They are not to be taken much more seriously in the one case than in the other.

THE ETHICS OF INDIVIDUAL EVOLUTIONISTS

53 Such considerations seem to make it evident that the acceptance of the doctrine of evolution should have no other influence upon us as moralists than that of making us take broad views of human and of your environment. 54 It still remains to find a norm of conduct, and evolutionists, like other people, may develop ethical systems which are not identical. 55 It is worthwhile here to touch very briefly upon the suggestions of one or two individual evolutionists. Those who speak of the ethics of evolution are very apt to have such in mind.

56 Thus, Darwin, whose study of the lower animals led him to believe that the social instincts have been developed for the general good rather than for the general happiness of the species, 57 defines the "good" as "the rearing of the greatest number of individuals in full vigour and health, with all their faculties perfect, under the conditions to which they have been subjected." 58 The "greatest happiness principle" he regards as an important secondary guide to conduct, while making social instinct and sympathy primary guides.

59 Spencer maintains that the evolution of conduct becomes the highest possible when the conduct "simultaneously achieves the greatest totality of life in self, in offspring, and in fellow-humans." 60 "The conduct called good," he writes, "rises to the conduct conceived as best, when it fulfills all three classes of ends at the same time." 61 But life he does not regard as necessarily a good. He judges it to be good or bad "according as it has or has not a surplus of agreeable feeling." 62 Hence, "conduct is good or bad according as its total effects are pleasurable or painful."

63 To be sure, Spencer criticises the utilitarians, and thinks little of the Benthamic calculus of pleasures. He believes that we should substitute for it something more scientific, a study of the processes of life. 64 In his earlier writings he appears to be largely in accord with the intuitionists in judging of conduct, regarding intuitions as having their origin in

the experiences of the race. 65 Nor does he ever seem inclined to break with intuitionism completely. But, as we have seen above, there appears to be nothing to prevent a utilitarian from being an intuitionist of some sort, as well.

66 Stephen, in his clear and beautifully written work on morals, also accepts the general happiness as the ultimate end of reasonable conduct; and he, too, criticises the current utilitarianism. 67 He writes: "This, as it seems to me, represents the real difference between the utilitarian and the evolutionist criterion. The one lays down as a criterion the happiness, the other the health of society." 68 By which, of course, he does not mean merely physical health, but such a condition of vigour and efficiency as carries with it a promise of continued existence and well-being in the future.

69 It is not necessary to multiply instances. It can readily be seen that all three of the writers cited are utilitarians, and the last two are what have been characterised as hedonistic utilitarians. 70 That they suggest this or that means of best attaining to the desired goal does not put them outside of a school which embraces people of many shades of opinion.

PESSIMISM

George Stuart Fullerton

THE PHILOSOPHY OF THE PESSIMIST

32 With philosophy in general this volume has little to do; but as pessimism is not the doctrine of normal humans generally, but is apt to be identified in our minds with the teachings of certain of its leading exponents, 2 it may be well to give, in briefest outline, the type of reasonings upon which the pessimist may take own stand.

3 Schopenhauer held that the one World-will, which manifests itself in all nature, inorganic and organic, and is identical with the will of which each human is conscious in the self, is a "will to live." 4 When the World-will becomes conscious, as it does in human, the will to live is consciously asserted. 5 But the will to live is essentially blind and unreasoning, or it would not do

anything so stupid as to will life of any sort. 6 He writes: "Only a blind-will, no seeing-will, could place itself in the position in which we behold ourselves. 7 A seeing-will would rather have soon made the calculation that the business did not cover the cost; 8 for such a mighty effort and struggle, with the straining of all the powers, under constant care, anxiety and want, 9 and with the inevitable destruction of every individual life, finds no compensation in the ephemeral existence itself, which is so obtained, and which passes into nothing in our hands."

10 The basis of all will, says Schopenhauer, is need, deficiency, and, hence, pain. 11 You dwells at length upon the misery of life, and the desirability of a release from life. 12 The refuge of suicide at once suggests itself, but is rejected by Schopenhauer on the ground that the destruction of the individual cannot prevent the One-will from manifesting itself in other individuals. 13 Curiously enough he appears to approve of suicide by starvation, as indicating a renunciation of the will to live. But his general recommendation is asceticism, renunciation of the striving for pleasure, the voluntary acceptance of pain. 14 Through this the will is to be taught to apprehend its own nature, and, thus, to deny itself. 15 How a general asceticism on our part will rob the one universal will, revealed in the mineral, vegetable and animal worlds, of its nature, and still its strivings, the great pessimist does not indicate.

16 At this point, Von Hartmann, who may fairly be called Schopenhauer's pupil, takes up the tale. He suggests that it is conceivable that a universal negation of the will may be obtained, 17 if the preponderating part of the actual World-will should come to be contained in the conscious minds that resolve to will no more. 18 This he thinks may neutralise the whole, and put an end to existence, which is unavoidably an evil, and implies a preponderance of pain.

COMMENT ON THE ETHICS OF PESSIMISM

19 On the metaphysics of the pessimists I shall make no comment save that there appears to be here sufficient vagueness to satisfy the most poetical of minds. 20 But the following points in the ethics of pessimism should be noted:

(1) Pleasure and pain are made the measure of the desirability or undesirability of existence.

21 (2) It is assumed that pleasure and pain are measurable; and that they may be quantitatively balanced against one another in such a way that this or that mixture of them may be declared by an enlightened person to be, on the whole, desirable or the reverse.

22 (3) It is claimed that the balance must necessarily incline to the side of pain, and hence, that life is not worth living.

23 (4) It follows from all this that it is our duty to aim, not necessarily directly, but in some manner, at least, at the destruction of life everywhere.

24 (5) I beg the reader to observe that the above doctrine rests upon assumptions which seem to be made without due consideration. 25 Thus: (a) It is by no means to be assumed without question that pleasure and pain alone are the measure of the desirable. 26 They are not the only things actually desired; and, if we assert that they alone are desirable, we fall back upon a dubious intuition.

27 (6) The quantitative relations of pleasures and pains are legitimate subjects of dispute, as we have seen in earlier chapters in this volume.

28 When is one pleasure twice as great as another? How can we know that three pleasures counterbalance a pain? 29 Is it by the mere fact that we ‘will’ as we do, in a given instance? Then how prove that we will as we do, because of the equivalence of the pleasure to the pain?

30 (c) Who shall decide for us whether life is-- not desired, it is admittedly that, as a rule,-- but, also, desirable?

31 May the person who denies it rest own assertion upon such general considerations as that satisfaction presupposes desire, and that desire implies a lack, and, hence, pain? 32 The famous author

of "Utopia" pointed out long ago that the pains of hunger begin before the pleasure of eating, and only die when it does. 33 Shall we, then, regard a hearty appetite as a curse, to be mitigated but not wholly neutralised by a series of good dinners?

34 To be sure, the pessimists do not depend wholly upon such general arguments, but point out in great detail that there is much suffering in the world, and that the fulfillment of desire, when it is attained, often results in disillusionment. 35 But the fact remains that life, such as it is, is desired by humans and other creatures generally; desired not as an exception, and under a misapprehension, but, as a rule, even by the enlightened and the far-seeing.

36 Is not the desirable what is desired by the rational-will? 37 We have seen that the rational social-will does not aim at the suppression of desires generally, but only at the suppression of such desires as interfere with broader satisfactions. 38 Viewed from this stand-point, the pessimist's "denial of the will to live" appears as an expression of the accidental or irrational-will. It is not an expression of the nature of human, but of the nature of the pessimist.

39 (6) It is, perhaps, worthwhile to point out that there is nothing to prevent a given pessimist from being an intuitionist, an egoist, a utilitarian (of a sort), or an adherent of one of the other schools above discussed. 40 You may assume intuitively that life is undesirable; in view of its undesirability you may act, either taking yourself alone into consideration, or including your neighbour; you may invoke the doctrine of evolution; 41 you may even, if you chooses, call it self-realisation to annihilate yourself, for you may argue that a will that comes to clear consciousness must see that it must be its own undoing. 42 It is hardly necessary to point out, however, that the pessimist, as such, should not be in any wise confounded with the moralists discussed in the five chapters preceding.

ETHICS

KANT, HEGEL AND NIETZSCHE
George Stuart Fullerton

KANT

33 It is impossible, in any brief compass, to treat of the many individual moralists, some of them people of genius and well worthy of our study, who offer us ethical systems characterised by differences of more or less importance. 2 When we refer a person to this or that school and do no more, we say comparatively little about the person, as has become evident in the preceding chapters. 3 As we have seen, it has been necessary to class together those who differ rather widely in many of their opinions. 4 Here, I shall devote a few pages to three people only, partly because of their prominence, and partly because it is instructive to call attention to the contrast between them in their fundamental positions. 5 I shall begin with Kant.

Kant held that the human reason issues "categorical imperatives," that is to say, unconditional commands to act in certain ways. 6 The motive for moral action must not be the desire for pleasure, but solely the desire to do right.

7 He makes his fundamental rule abstract and formal: "So act that you could wish your maxim to be universal law." 8 As no person could wish to be the self neglected when in distress, this law compels you to be benevolent, and a new form of the fundamental rule is developed: 9 "Treat humanity, in yourself or any other, as an end always, and never as a means."

10 Now Kant, although he maintains that it is not a human's duty to seek own happiness-- a thing which natural inclination would prompt you to do-- by no means overlooks happiness altogether. 11 He thinks that virtue and happiness together constitute the whole and perfect good desired by rational beings. The attainment of this good must be the supreme end of a will morally determined. 12 We are morally bound to strive to be virtuous ourselves and to make others happy.

13 Still, each human's happiness means much to him; and Kant, convinced that virtue ‘ought’ to be rewarded with happiness, holds that our world is a moral world,

where God will reward the virtuous. 14 If we do not assume such a world, he claims, moral laws are reduced to idle dreams.

15 Such utterances as the last may well lead the utilitarian to question whether Kant was quite whole-hearted in his doctrine of the unconditional commands of the practical reason of human. 16 They appear to be not independent of all consideration of human happiness.

17 I shall not ask whether Kant was consistent. Great people, like lesser people, seldom are. 18 But, in order that the contrast between his doctrine and those of the two writers whom I shall next discuss may be brought out clearly, I shall ask that the following points be kept well in mind:

19 (1) Kant was an out-and-out intuitionist. He goes directly to the practical reason of human for an enunciation of the moral law.

20 (2) Moral rules of lesser generality, such as those touching benevolence, justice and veracity, he traces to the practical reason, making them independent of all considerations of expediency. 21 Thus he defends the body of moral truth accepted by so many of his fellow-moralists.

22 (3) His "practical reason" speaks directly to the individual. Kant looked within, not without. We may call him an ethical individualist. 23 Socrates, when on trial for his life, listened for the voice of the divinity within him. He needed no other.

HEGEL

24 In strongest contrast to the individualism of Kant stands the doctrine of Hegel. To the latter, duty consists in the realisation of the free reasonable will-- 25 but this will is identical in all individuals, and its realisation reveals itself in the customs, laws and institutions of the state. 26 From this point of view the individual is an accidental thing; the ethical order revealed in society is permanent, and has absolute authority. 27 It is true, however, that it is not something foreign to the individual; you are conscious of it as your own being. In duty you finds your liberation.

28 But what is a human's duty? "What a human ought to do," says

Hegel, "what duties you should fulfill in order to be virtuous, 29 is in an ethical community easy to say-- the person has only to do what is presented, expressed and recognised in the established relations in which you finds yourself."

30 In other words, you ought to do just what your community prescribes! This seems, taken quite literally, a startling doctrine.

31 It would be a wrong to Hegel to take you quite literally, for you elsewhere makes it plain that you by no means approves of all the laws and customs that have obtained in various societies. 32 Still, you exalts the law of the state and regards any opposition to it on the authority of private conviction as "stupendous presumption." This is a serious rebuke to the reformer. 33 The individual must, according to Hegel, look for the moral law outside of the self-- of yourself as an individual, at least. You must find it in the State.

34 Again a startling contrast: after Hegel, Nietzsche-- the voice of one crying in the wilderness, exquisitely, passionately, but scarcely with articulate scientific utterance. 35 A prophet of revolt and emancipation; a cave-dweller, who would flee organised society and the refinements of civilisation; 36 the rabid individualist, to whom the community is the "herd," and common notions of right and wrong are absurdities to be visited with scorn and denunciation. 37 He makes a strong appeal to young people, even after the years during which the carrying of one's own latch-key is a source of elation. 38 He appeals also to those perennially young persons who never attain to the stature which befits those who are to take a responsible share in the organised efforts of communities of people.

39 With Nietzsche the person, his suffering life, and the melancholy eclipse of his brilliant intellect, ethics as science is little concerned. 40 In Nietzsche the marvellous literary artist it can have no interest. These things are

the affair of literature and biography.

41 Here we are concerned only with his contribution to ethics. Just what that has been it is more difficult to determine than would be the case in a writer more systematic and scientific. 42 But he makes it very clear that he repudiates the morals which have been accepted heretofore by moralists and communities of people generally.

43 He confesses himself an "immoralist." He despises human as you are, and hails the "Superman," a creature inspired by the "will to have power" and free from all moral prejudices, including that of sympathy with the weak and the helpless.

44 "Full is the world of the superfluous," he sings in his famous dithyramb, "marred is life by the many-too-many."... 45 "Many too many are born; for the superfluous ones was the State devised."..."There, where the State ceaseth-- there only commenceth the person who is not superfluous."

46 Human, says Nietzsche, should regard yourself as a "bridge" over which you can pass to something higher. 47 Upon the fact that the Superman may have the same reason for regarding yourself as a "bridge" as the most commonplace of mortals, and may begin anew with loathing and self-contempt, you does not dwell. 48 Yet, as long as progress is possible, human may always be regarded as a "bridge." 49 The reader of Nietzsche is tempted to believe that hatred and contempt must always be the predominant emotions in the mind of the "superior" person. 50 Darwin, who knew much more about human and Nature than did our passionate poet, was still able to regard human as "the crown and glory of the universe." Not so, Nietzsche.

51 Those who have read little in ethics are inclined to attribute to Nietzsche a greater measure of originality than you can reasonably claim.

52 More than two millenniums before him, Plato conceived an ideal Republic in which moral laws, as commonly accepted, were to be set aside. 53 Marriage was to be done away with; births were to be scientifically regulated;

children were to be taken from their mothers; sickly infants were to be destroyed. 54 In Sparta the committee of the elders did not permit the promptings of sympathy and the cries of wounded maternal love to influence the decision touching the life or death of the new-born.

55 Here was an attempt at bridge-building, but it was conceived as a scientific matter, to be taken in hand by the State, and for the good of the State. 56 But Nietzsche would destroy the State. His Superman appears as individualistic as a "rogue" elephant, a few passages to the contrary notwithstanding. 57 Are we to regard him as a mere lawless egoist, or as something more? We are left in the dark. 58 But we note that Nietzsche disagrees with most moralists, in that he refuses to regard Caesar Borgia as a morbid growth.

59 The Superman has always been with us, in somewhat varying types. From Alexander the Great to Napoleon, and before and after, he adorns the pages of history. 60 Attila, among others, may enter his claim to consideration. It remains for the serious student of ethics to estimate scientifically his value as an ethical ideal, and to judge how far this type of character may profitably be taken as a pattern. 61 Nietzsche stands at the farthest possible remove from Hegel. Does he, as an individualist, stand within hail of Kant? It scarcely seems so. 62 When we examine Kant's "practical reason," in other words, the moral law as it revealed itself to Kant, we find that it had taken up into itself the moral development of the ages preceding. 63 Kant's practical reason, his conscience, to speak plain English, was not the practical reason of, for example, Aristotle.

64 The latter could speak of a slave as an "animated tool," and could believe there were people intended by Nature for slavery. Kant could not. 65 In theory an individualist, the Sage of Konigsberg stands, in reality, not far from Hegel. He does not break with the past. But Nietzsche is revolt incarnate.

THE ETHICS OF THE SOCIAL-WILL

George Stuart Fullerton

THE DOCTRINE SUPPORTED BY THE OTHER SCHOOLS

34 I urge the more confidently the Ethics of Reason, or the Ethics of the Rational social-will, because there is so little in it that is really new. 2 It only makes articulate what we all know already, and strives to get rid of certain exaggerations into which many people who reason, and who reason well, have unwittingly fallen.

3 The fundamentals of the doctrine have been exhibited. Hence, I may speak very briefly in indicating how the Ethics of Reason finds a many-sided support in schools which appear, on the surface, to be in the opposition.

4 It is evident, to begin with, that the Ethics of the social-will cannot dispense with Moral Intuitions, but must regard them as indispensable; as, indeed, the very foundation of the moral life. 5 That the individual may, and if you are properly equipped for the task, ought, to examine critically your own moral intuitions and those of the community in which you finds yourself, 6 and should, with becoming modesty and hesitation, now and then suggest an innovation, means no more than that you and the community are not dead, but are living, and that progress is a possibility, at least.

7 As for the Egoist, unless you are an absurd extremist, we must admit that you says much that is worth listening to. 8 Was not Bentham quite right in maintaining that if all A's interests were committed to B, and all B's to A, the world would get on very badly? A charity that begins at the planet Mars would arrive nowhere.

9 The Ethics of Reason has room for a very careful consideration of the interests of the self. But it may object to the position that the moral mathematician may regard as the only important number the number One.

10 With the Utilitarian our doctrine need have, as we have seen, no quarrel. Did not that learned, enlightened, and most fair-minded of utilitarians, Sidgwick, ultimately resolve the happiness which humans seek into anything which may be the object of the

mind in willing? 11 Did not a critical utilitarianism resolve itself into the doctrine of the Rational Social-will? 12 Why take less critical utilitarians as the only exponents of the school? 13 Besides, is there any reason why the social-will should be blind to the fact that humans generally do desire to gain pleasure and to avoid pain? It is only the exaggeration of this truth that we need to combat.

14 To Nature, properly understood, we can enter no objection. Who objects to Perfection as a "counsel of perfection?" 15 Can the social-will object to a human's striving to realise own Capacities-- under proper control, and with a regard to others? 16 The Pessimist is an unhealthy creature, and the social-will represents normal and healthy humanity. 17 Here we have disparity. But to Evolution our doctrine offers no opposition. It is only by a process of development that the Actual social-will has come to be what it is; and the Rational social-will looks to a further development under the guidance of reason.

18 The fact is that thoughtful people belonging to different schools tend to introduce into their statement of their doctrines modifying clauses; and in the end we find them not as far apart as they seemed at the beginning.

19 The tendency is, I think, in the direction of the recognition of the Rational social-will. This doctrine belongs to nobody in particular; it is the. common property of us all. It contains little that is startling.

ITS METHOD OF APPROACH TO PROBLEMS

20 He who looks to the Rational social-will for guidance in given a compass which may be of no small service to him. 21 For example:

(1) He will see that moral phenomena are not to be isolated. He will accept the historic order of society and judge human and your emotions and actions in the light of it. 22 He will never feel tempted to say, with Bentham, that the pleasure which has its roots in malice, envy, cruelty, "taken by itself, is good."

23 He will simply say, it is pleasure. That it is, of course; but

he will maintain that nothing "taken by itself" is either good or bad, from the moralist's point of view. 24 The cruel person may will to see suffering, and may enjoy it. The moral person may hold that the cruel person, your act of will, and your pleasure, should all be snuffed out, in the interest of humanity, as an unmitigated evil.

25 (2) The advocate of the Rational social-will recognises, as do many adherents of other schools, that the social-will, as expressed at any given time, is only relatively rational; 26 that humans must live in their own day and generation, although they can, to some degree, reach beyond them; 27 and that some differences of opinion as to the relative values of virtues, and the goodness of characters, are to be expected.

28 (3) Furthermore, you are in a position to explain how a person may be "subjectively" right and yet "objectively" wrong. 29 The person's character may be such that it is, on the whole, to be approved by the Rational Social-will. You may be animated by the desire to adjust yourself to that will.

30 And yet, the accident of ignorance, the accident of prejudice not recognised by yourself as such, may lead you to do what you thinks right and what those more enlightened recognise to be wrong.

ITS SOLUTION OF CERTAIN DIFFICULTIES

31 Perhaps it would be better for me to give this section a heading more nearly like the last. I aim only to give the reader a point of view from which you can approach the problem of a solution.

32 Take the problem which has come up before in the form of the distribution of pleasures. You who dwells, not so much upon pleasure, as upon the satisfaction of desire and will, must state it differently, but the problem is much the same.

33 What degree of recognition should be given to the will of each individual, or to the separate volitions and desires in the life of the individual? 34 Should everybody count for one? Should every desire or group of desires receive recognition? 35 Is no

distinction to be made in the intensity of desires? And how many individuals shall we include in our reckoning?

36 Light seems to be shed upon this complicated problem or set of problems when we hold clearly before ourselves what the task of reason is in regulating the life of human individually and collectively. 37 Its function is to bring order out of chaos and strife; to substitute harmony and planfullness for accident; to introduce long views in the place of momentary impulses; to prevent the barter of permanent good for a mess of pottage.

38 Reason must accept the impulses and instincts of human as it finds them, and do what it can with them. It cannot ignore them. 39 Slowly, civilisations, to some degree rational, have come into being. In so far as they are rational, they are justified. 40 Keeping all this in view we may say, tentatively:

(a) The principle, "everybody to count for one, and nobody for more than one," must be interpreted as an expression of the conviction that no will should be 'needlessly' sacrificed.

41 Reason is bodiless, except as incorporated in human societies, and these must have their historic development. 42 Can we do away with the special claims of family, of neighbourhood, of the state? They have their place in the historic rational order. 43 But the whispered "everybody to count for one" may help us to realise that such special claims cannot take the place of all others.

44 (b) Shall a deliberate attempt be made to enlarge the circle of those who are to share in the social-will, not merely by diminishing the number of deaths, but by promoting the number of births? 45 States have attempted it often enough. I can only say that, if this be attempted, it should not be attempted in ways that ignore the historical development of society, with its social and moral traditions.

46 (c) Why not justify our attitude toward the brutes by maintaining that they have, theoretically, rights to recognition, in so far as such recognition does not interfere with the rights of human in the rational

social order? 47 The brutes outnumber us, to be sure. We are in a hopeless minority. But were this minority sacrificed, there would be no rational social order at all-- 48 no right, no wrong; nothing but the clash of wills or impulses which reason now strives to harmonise as it can.

49 (d) When we turn to the problem of the distribution of satisfactions in the life of the individual, we find ready to hand a variety of unwise saws--"A short life and a merry one," and the like. 50 How should the individual choose own satisfactions? Merely from the standpoint of the individual? What is ‘desirable’? Not ‘desired’, by this person or by that, but ‘desirable, reasonable’?

51 It is an open secret that the house of mirth lacks every convenience demanded of a permanent residence, and that those who breathlessly pursue pleasure are seldom pleased. 52 Nor do humans, when they stop to think, want their lives to be very short.

53 And, in any case, this question of the distribution of satisfactions in the life of the individual does not concern the individual alone. 54 Is the person who wants a short life and a merry one an "undesirable" from the standpoint of the Rational social-will? 55 Then you should be suppressed. The manner of distribution of even your own personal satisfactions is not your affair exclusively. Every ordered society has its notions touching the type of human which suits its ends.

56 (e) But shall we, in making up our minds about the "satisfaction on the whole" which busies the rational individual or the rational community, take no account at all of the intensity of pleasures and of pains, the eagerness with which some things are desired and the feebleness of the impulsion toward others? 57 May not the intense thrill of a moment more than counterbalance "four lukewarm hours?" 58 Are we not, if we take such things into consideration, back again face-to-face with something very like the calculus of pleasures-- that bugbear of the egoist and of the utilitarian?

59 It would be foolish to maintain that human, either individually or collectively, places all desires

upon the same level. 60 No human of sense holds that every desire should count as one. On the other hand, no human of sense pretends to have any accurate unit of measurement by which you can make unerring estimates of desirability.

61 Fortunately, you are not compelled to fall back upon such a unit. Even if you was born yesterday, the race was not. You are born into a system of values expressed in social organisation and social institutions. 62 It is the resultant of innumerable expressions of preference on the part of innumerable people. It is a general guide to what, on the whole, human wants.

63 It is, then, foolish for you to raise such questions as, whether it is not better to aim at intense happiness on the part of the few, to the utter ignoring of the mass of humankind. 64 Such questions the Rational social-will has already answered in the negative.

THE CULTIVATION OF OUR CAPACITIES

65 Finally, we may approach the question whether it is reasonable to awake dormant desires, to call into being new needs; which, satisfied, may be recognised as a good, but which, unsatisfied, may result in unhappiness.

66 A little cup may be filled with what leaves a big one half empty. It is easy to find grounds upon which to congratulate the "average" person. 67 All the world caters to you-- ready-made clothing is measured to fit your figure, and it is sold cheap; 68 the average restaurant consults your taste and your pocket; the average woman just suits you as a help-mate; you are much at home with your neighbours, most of whom diverge little from the average. 69 Why strive to rise above the average-- and fall into a divine discontent?

70 May one not say much the same of a community? Why should it strive to attain to new conquests, to awaken in its members new wants and strain to satisfy them? 71 Does it seem self-evident that it is reasonable, in general, to

multiply desires with no guarantee of their satisfaction?

72 I know no way of approaching the solution of this problem save from the standpoint of the Rational social-will. We are confronted with the general problem of the desirability of civilisation, with all that that implies. 73 The life of human in some rather primitive societies has seemed in certain respects rather idyllic. The eating of the fruit of the tree, and the consequent opening of the eyes, has, time and again, seemed to result in disaster.

74 But was the idyllic life not an accidental thing, due to a fortuitous combination of circumstances, rather than to human's intelligent control of a larger environment? Civilisation of some sort seems inevitable. 75 Have we any other guarantee that we can make it, in the long run, rational, than a many-sided development of human's capacities? 76 And must we not exercise a broad faith in the value of enlightenment, increase of knowledge, far-sightedness, the cultivation of complex emotions, even at the risk of some waste of effort and some suffering to certain individuals?

77 Perhaps this is as good a place as any to say a word about the significance of the terms "higher" and "lower," when used in a moral sense. 78 We have seen that John Stuart Mill made much of the distinction in his utilitarianism. Bentham appears to sin against the enlightened moral judgment in holding that, quantities of pleasure being the same, "push-pin is as good as poetry."

79 When we realise that the worth of things may be determined from the standpoint of the Rational social-will, we can easily understand that some occupations and their accompanying pleasures should be rated higher than others, however satisfactory the latter may seem to certain individuals. 80 It is not unreasonable to rate the pleasure of scientific discovery as higher than the pleasure of swallowing an oyster; 81 and that, without following Bentham in falling back upon a quantitative standard, or following Mill in maintaining that pleasures, as pleasures, differ in kind.

ETHICS

THE MORAL LAW
AND MORAL IDEALS
George Stuart Fullerton

DUTIES AND VIRTUES

35 We saw, at the very beginning of this volume that a single moral law, so abstractly stated as to cover the whole sphere of conduct, must be something so vague and indeterminate as to be practically useless as a guide to action. 2 The admonition, "do right," does not mean anything in particular to the person who is not already well instructed as to what, in detail, constitutes right action. Nor do we make ourselves more intelligible, when we say to you "be good."

3 It seems to mean something more when we say "act justly" or "be just"; "speak the truth," or "be truthful." And the more we particularise, the more we help the individual confronted with concrete problems-- the only problems with which life actually confronts us.

4 This is as it should be. Duties and virtues are expressions of the Rational social-will, and that will is a mere abstraction except as it is incorporated, with a wealth of detail, in human societies. 5 It would be hard for the small child to classify, under any ten commandments, the innumerable company of the "don'ts" which one hears from own mother during the course of a week. 6 You can leave such work to the moralist. But you are receiving an education in the moral law, as an expression of the social-will, through the whole seven days.

7 If we wish, we can emphasised the ‘moral law’, and dwell upon the ‘duties’ of human. On the other hand, we may lay stress upon the ‘virtues’, and point to ‘ideals’. 8 The Greek made much of the virtues; the Christian moralist had more to say of human's duties. In the end, there need be little discrepancy in the results. 9 I make the same recommendation, whether I say to a person, Speak the truth! or whether I say to you, Be truthful!

10 It may be claimed that shades of difference make themselves apparent, where one emphasises the law and another points to an ideal. Perhaps they do, in most minds. 11 It certainly sounds more

conceited to say: "I am trying to be virtuous," than to say: "I am trying to do my duty." 12 On the other hand, the admonition, "Be truthful," appears to leave one a little latitude. We take the truthful person, so to speak, in the lump. 13 If you have a strong bias toward truth-speaking, and is felt to be reliable, on the whole, it is not certain that we should rob you of your title on the ground of one or two lapses for which weighty reasons could be urged. 14 The admonition: "Speak the truth!" seems more uncompromising; and yet you who prefers this legal form may maintain that it is a general admonition addressed to people of sense who are supposed to be able to exercise reason.

THE NEGATIVE ASPECT OF THE MORAL LAW

15 Why does the Moral Law, on the surface at least, appear to be so largely negative? 16 As we look back upon our early youth, our days appear to be punctuated with punishments. When we attain to years of discretion, this is not the case, with most of us, at least. 17 But when we turn to the law, in our own society or in others, we find prohibitions and penalties everywhere. Of rewards little is said. 18 Is the social-will meant to be chiefly inhibitory? Is it a check to the action of the individual?

19 (1) The negative aspect of the moral law is, to a considerable degree, an illusion. 20 The social-will takes us up into itself and forms us. In our early youth we are acutely conscious of the process. 21 A vast number of the things a child wants to do are things that do not suit the social-will at all. You wants to break windows; you wants to fight other children; you wants to be idle; your delight is in adventures not normally within the reach of, or suited to the taste of, the citizens of an ordered state. 22 It is little wonder that the child regards the moral law as a nuisance and the state as a suitable refuge for those suffering from senile decay.

23 There are individuals who scarcely get beyond this stage. They remain, even in their later years, at war with the state. 24 From time to time, we seize them and incarcerate them. That the law

'forbids' and 'punishes', they never forget. It is chiefly for such that the criminal law exists. 25 They are in the state, but they are not of it. They have small share in the heritage of the civilised human.

26 For most of us there comes a time when most prohibitions are little thought of. It has been maintained, that the law is negative partly for the reason that positive duties are too numerous to be formulated. 27 But how numerous are the things that ought not to be done which normal people never think of doing! 28 At this moment, I could swallow a pen, taste the ink in the ink-well, throw my papers from the window, hurl the porcelain jar on the chimney-piece at the cat next door, swing on the chandelier. I am conscious of no constraint in not doing these things. Why? 29 I have become to some degree adjusted to the type which the social-will strives to produce.

30 (2) And, having become so far adjusted, I recognise that the social-will is distributing rewards most lavishly. The whole organism of society is its instrument. 31 Work is found for me, and I am paid for it. If I am industrious and dependable, I am recompensed. If I am truthful, I am believed, which is no little convenience. If I am energetic and persevering, I may grow rich or be elected to office. If I am courteous, I am liked and am treated with courtesy.

32 Every day I am paid, in the ordinary course of things, according to my deserts. 33 Why should society work out an extraordinary system of rewards for those whom it is already rewarding automatically?

34 In some cases, recourse is had to extraordinary rewards. We give prizes to children in the schools; we give medals to soldiers for distinguished service; we confer honourary degrees upon people for a variety of reasons. 35 In monarchical countries and in their colonies, the person who earns an extraordinary reward may even pass it on, in the shape of a title, to own descendants, as though it were original sin. But the giving of extraordinary rewards to all ordinary, normal persons would be too much.

36 The person who markedly offends against the moral law is not an ordinary, normal person. You are not adjusted to the social-will. It is natural that you should attract especial attention. 37 Thus the "Thou shalt not!" is given prominence. To this I might add, that punishments are cheaper and easier than extraordinary rewards. Pains are sharper than pleasures, and are easily inflicted.

38 (3) It is worthy of remark that, with the evolution of morality, it tends to become positive. The enlightened moral person recognises, not merely the actual social-will, but also the Rational social-will. 39 You may feel it your duty to do much more than society formally demands of you.

HOW CAN ONE KNOW THE MORAL LAW?

40 This question has already been answered in chapters preceding. Every person has three counsellors: (1) The "objective" morality of your community--custom, law, and public opinion, which certainly deserve to be taken very seriously; 41 (2) your moral intuitions, which may be of the finest; and 42 (3) your reason, which prevents you from making decisions without reflection.

43 Can a person who listens to these three counsellors be sure that you are right in a given decision? 44 The sooner a person learns that you are not infallible and impeccable, the better it will be for you, for your neighbour, and for the world at large.

THE MORAL CONCEPTS
George Stuart Fullerton

GOOD AND BAD; RIGHT AND WRONG

36 As a rule, humans reflect little touching the moral terms which are on their lips every day. It is well worthwhile to take some of them up and to turn them over for examination.

2 We may use the terms "good" and "bad," "right" and "wrong," in a very broad sense. A "good" trick may be a contemptible action; 3 the "right" way to crack a bank-safe may be the means to the successful commission of a crime. Evidently, the words, thus used, are not employed in a moral sense.

4 When we pass judgments from the moral point of view, we concern ourselves with humans and with their actions, and measure them by the standard of the social-will. 5 Humans and actions are "good," when they can meet the test. Actions are "right" or "wrong," when they are in accordance with the dictates of the moral law, or are at variance with them. 6 That an act may be both right and wrong, when viewed from different standpoints, even on moral ground. A person may mean to do right, and may, through ignorance or error, be guilty of an act that we condemn.

7 To the intelligent, confusions are here unnecessary. But the history of ethics is full of confusions in just this field.

DUTY AND OBLIGATION

8 Verbal usage sometimes justifies the use of one of these words, and sometimes that of the other. We say: I did my duty; we do not say: I did my obligation. 9 But this is a mere matter of verbal expression, and we are really concerned with two names for the same thing.

10 (1) There has been much dispute as to whether the sense of duty or moral obligation can or cannot be analysed. It has been declared unanalysable and unique. 11 Some think this a point of much importance which imparts a peculiar sacredness to the sense of duty.

12 There appears no reason why this position should be taken. No one has been able to analyse into its ultimate sensational elements the peculiar feeling one has when one is tickled. But this does not make the feeling sacred or awe-inspiring. 13 The authority of the sense of duty must be looked for in another direction-- and authority it has.

14 (2) I have spoken of the "sense" of duty. We all recognise that, when we are faced with a duty, a feeling is normally present. 15 But the whole argument of this volume has maintained that human is not to be treated only as the subject of emotions. You are a rational being. 16 In some persons feeling is very prominent; in others it is less so. It is quite conceivable that, in a

given case, a person capable of reflection should recognise that you are confronted with a duty, and yet that you should feel no impulse to perform it. 17 Did no one ever feel any such impulse, the whole system of duties, the whole rational order of society itself, would dissolve and disappear.

18 Fortunately, the normal person does feel an impulse to perform duties recognised as such. And in the case of those exceptional persons who do not, society strives to supply surrogates, extraordinary impulses based upon a system of rewards and punishments. 19 This is a mere supplement, and could never keep alive a society from which the sense of duty had disappeared.

20 Duty ‘is’ sacred. It is the very foundation of every rational society. 21 It does not greatly concern ethics whether the impulse, which makes itself felt in people who want to do their duty, can or cannot be analysed. But it is all-important that they should feel the impulse.

22 (3) Can a person do more than own duty? Is it the duty of everyone to be, not merely a good, average, honest, faithful, law-abiding citizen, but to go far beyond this and be conspicuously a saint?

23 It should be remembered that we are concerned with the connotation properly to be given to a word in common use.

24 A certain amount of goodness the social-will appears to demand of people rather peremptorily. Its demands seem to vary somewhat with the exigencies of the times--for example, in peace and in war.

25 It does not make the same demands of all people. From those to whom much has been given--wealth, education, social or political influence,-- much is required.

26 From certain persons it appears to be glad to get anything. If they keep out of the police-court, it is agreeably surprised.

27 I have no desire to dissuade anyone from the arduous pursuit of sainthood; but I submit that the word "duty," as sanctioned by usage, implies but a limited demand, and takes cognisance of character and environment. 28 You who comes up to this moderate standard is not condemned; but

you are free to go farther and to become as great a saint as you pleases. In which case, we admire you. 29 Those who, in the past, have spoken of "counsels of perfection," have drawn upon a profound knowledge of human nature and of human societies.

REWARD AND PUNISHMENT

30 We saw in the last chapter that it is something of a criticism upon human and upon societies of people that extraordinary rewards have to be given and that punishments must be inflicted.

31 More attention has been paid to punishments than to rewards, and the question touching the proper aim of punishment in a civilised state has received much discussion. 32 The study of the history of the infliction of punishment is suggestive, but it does not shed a clear light. 33 The social-will has not always been a rational social-will, and some of its decisions may be placed among the curiosities of literature. Still, they may serve the purpose of the traditional "terrible example."

34 Should we, in punishing, aim at the prevention of crime? Are punishments to be "deterrent"? 35 Under this head we must consider, not merely the criminals themselves, but also those who are in more or less danger of becoming criminals, though they have, as yet, committed no known crime.

36 Should the aim of punishment be the reformation of the criminal? Should we punish merely that "justice" be done? 37 You who steals and eats fruit is visited with punishment, in the course of Nature, if the fruit is unripe. But you suffers equally if you eats your own fruit, under like conditions. 38 This seems a blind punishment. Should we visit pain upon you for the theft, merely because it is a theft, and without looking abroad for any other reason?

39 Light appears to be thrown upon these problems when we reflect that punishment is an instrument, employed by the Rational social-will, in pursuance of its ends.

40 (1) It is desirable that humans should be deterred from committing crime. If this cannot

be done save by the infliction of punishment, then let humans be punished. 41 But be it remembered that punishment is a regrettable necessity, and that the occasions for the infliction of penalties may greatly be diminished by the amelioration of the organism of society.

42 There is the born criminal, as there is the born inmate of an asylum for the insane. 43 But there is also the manufactured criminal; the product of the slum, the victim of ignorance, the prey of the walking-delegate, the sufferer from over-work and undernourishment, the inhabitant of the filthy and overcrowded tenement, the person robbed of own self-respect, who has no share in the sweetness and light of civilisation. 44 A society that first manufactures criminals and then expends great sums in punishing them is, in so far, not rational.

45 (2) It is desirable that the criminal should be reformed and returned to society as a normal person. But this is not the one and only aim of the social-will. 46 The whole flock should not be sacrificed to the one black sheep, as some sentimental persons appear to believe. There is room here for the exercise of judgment and of some cool calculation.

47 (3) As for the demand that a given pain shall be inflicted for a given wrong done, irrespective of any gain to anybody, and irrespective of consequences,-- it appears to carry one back to ancient and primitive law.

48 Undoubtedly many punishments have been inflicted in the past to satisfy the sense of resentment. Undoubtedly the same is true of the present. Can anything be said in favour of this impulse? It plays no small part in the life of humanity.

49 We feel that a bad person ‘ought’ to be punished. We harbour a certain resentment against you. 50 The resentment of the individual for personal injuries we recognise to be wrong. It is not impartial, and it is apt to be excessive and unreasoning. Public order demands that it be refused expression.

51 But is the-- we must admit, somewhat more disinterested-- resentment of the community a rational thing? Have people,

collectively, no whims, no prejudices? 52 When a trial is deferred, and public indignation has cooled off, how do the chances of the prisoner compare with those you enjoyed just after the commission of the crime? 53 And yet something may be said for public resentment. It has a certain driving-power. 54 It may be questioned whether either our desire to deter people from crime, or our benevolent interest in the criminal, would be quite sufficient to enforce law, if all sense of resentment against the law-breaker were lacking. 55 Its usefullness as an instrument of the social-will appears to give it a certain justification. But it also suggests that even public resentment should not be given free rein.

56 Before leaving the subject of reward and punishment, it may be well to say a word touching our use of the terms ‘credit’ and ‘discredit’, ‘merit’ and ‘demerit’.

57 We do not give a person credit for an action, we do not think of you as meritorious, merely because you have done right. 58 Who thinks of praising the young mother for feeding and washing her first-born? Who shakes the hand of the Sunday-school teacher and congratulates you upon having stolen nothing for a week? 59 But the waif from the gutter who wanders through a department-store and resolutely takes nothing, emerging exhausted with the struggle, we slap upon the back and call a little person.

60 Our notions of credit and merit are bound up with our notions of extraordinary rewards. The creditable action, the meritorious person, have a certain claim upon us, if only the claim of special recognition. 61 Any person who makes a notable step forward deserves credit, whatever your actual position upon the moral scale. 62 You who only "marks time" upon a relatively high level may be a good person, but we do not give you credit for the act normally to be expected of you. 63 The recognition of merit is a part of the machinery of moralisation.

VIRTUES AND VICES

64 One swallow, said Aristotle, does not make a spring, nor does

one happy day make a happy life. Elsewhere he draws our attention to the fact that one good action does not constitute a virtue.

65 We may define the virtues as those relatively permanent qualities of character which it is desirable, from the moral point of view, that a person should have. 66 The vices are the corresponding defects. I shall not attempt to draw up a list of the virtues. For a variety of lists, exhibiting curious and interesting diversities, I refer the reader back to Chapter-7.

67 The Rational social-will aims to build up a social order which shall do justice to the fundamental impulses and desires of human, a social and rational creature. 68 The stones which it must build into its edifice are human beings. If the human beings are mere lumps of soft clay, incapable of holding their shape or of bearing any weight, the walls cannot rise.

69 And a human being may be satisfactory in one respect, and far from satisfactory in another. No one of us is wholly ignorant of the qualities desirable in our building-material. 70 Custom, law and public opinion are there to indicate what qualities have, in fact, proved, on the whole, not detrimental. Our intuitions help us in forming a judgment. Rational reflection is of service.

71 But one thing is very evident. Nowhere is it made clearer than in the study of the virtues and vices, that the moralist cannot consider the phenomena, with which you occupies yourself, in a state of isolation.

72 Is courage a virtue? Is, then, the person who is willing to take the risk of breaking a bank, or holding up a stage-coach, in so far virtuous? 73 Is perseverance a virtue? Is, then, the woman, who holds out to the bitter end in her desire to have the last word, in so far virtuous? 74 Is justice a virtue? Then why not be virtuous in demanding the pound of flesh, if it is the law-- as it once was?

75 Certain qualities of character have been recognised as, ‘on the whole’, and ‘generally’, serviceable to the social-will. But a person is not a quality of character, and qualities of character are sometimes gathered into strange bundles. 76 It is of people that the state is composed;

of thinking, feeling humans. We cannot isolate qualities of character, and assess their value in their isolation.

CONSCIENCE

77 We are all forced to recognise that conscience has its dual aspect. It is characterised by ‘feeling’; and the feeling is seldom blind, or, at least, wholly blind; conscience implies a ‘judgment’ that something is right or wrong.

78 (1) The feeling is, to be sure, very often in the foreground. Those who say, "My conscience tells me that this is wrong," often mean little more than, "I feel that it is wrong."

79 But the word "feeling" is an ambiguous one. It is used to cover all sorts of intuitive judgments as well as mere emotions. 80 The person who takes the time to reflect upon own feeling of the rightness or wrongness of an action can often discover some, perhaps rather vague, reason for own feeling proper.

81 (2) In other words, you may come upon an intuitive judgment. And the thoughtful person who talks about own conscience is rarely satisfied with a blind intuition; you wants to be sure you are right, and you thinks the whole matter over.

82 (3) The feeling and the judgment are not necessarily in accord. The feeling may lag behind an enlightened judgment. 83 On the other hand, the feeling of repugnance to acting in certain ways may be a justifiable protest against a bit of intellectual sophistry.

84 (4) So much ought to be admitted by everyone who holds that conscience may be blunted or may be enlightened. Consciences vary indefinitely. 85 Some we set down as hopelessly below the average; others we reverence as refined and enlightened. 86 The social worker makes it own aim to "awaken" conscience, to cultivate it, to bring it up to a high standard. 87 No practical moralist regards the conscience of the individual as something which must simply be left to itself and treated as sacred, no matter what its character.

88 (5) The above sufficiently explains some of the puzzles which confront the person who

reverences conscience and yet studies the consciences of own fellow-people. 89 You finds that the individual conscience is not an infallible guide-post pointing to right action; that it is not a perfect time-keeper, in complete accord with the watches of other people.

90 "It's a terrible thing to have killed the wrong person," said the conscience-stricken illicit distiller in own mountain fastness. 91 "I never seen good come o' goodness yet; you as strikes first is my fancy," said the dying pirate in "Treasure Island." 92 Augustine, passing over much worse offences, exhausts himself in agonies of remorse over a boyish prank.

93 Seneca draws up a list of the most horrifying crimes, and decides that ingratitude exceeds them all in enormity.

94 (6) It appears to be quite evident that consciences ought to be standardised, and that the standard should be made a high one. The true standard is the one set by the Rational social-will. 95 It is as much a duty to have a good conscience as it is to obey the conscience one has.

THE ETHICS OF THE INDIVIDUAL

George Stuart Fullerton

WHAT IS MEANT BY THE TERM?

37 People collected into groups and organised in various ways we call states, and we treat a state as a unit. 2 We look upon it as having rights and as owing duties both to individuals and to other states. 3 There are individuals whom we are apt to regard as representatives of the state; as instruments, rather than as people-- executive officers, legislators, official interpreters of its laws, whether good or bad. 4 For states and their representatives we often have especial moral standards, differing more or less from those by which we judge human beings merely as human beings. It is with the morality of the latter that I am here concerned. 5 To be sure, all human beings are to be found in states, or in that rudimentary social something which foreshadows the state. 6 To talk of the morality of the isolated individual is nonsense. Morality is the expression of the social-will; and if we think of even you as a

good person, it means that we apply to you social standards.

7 We must, then, take the individual as we find you in the state, but it is convenient to consider your morality separately from the ethics of the state, its institutions and its instruments.

THE VIRTUES OF THE INDIVIDUAL

8 What moral traits have we a right to look for in the individual human? What sort of a person is it your duty to be?

9 Evidently, human's duties must vary somewhat according to the type of the society to which they belong, and to their definite place in that society. 10 Still, certain general desirable traits of character unavoidably suggest themselves. To attempt a complete list seems futile, but the most salient have been dwelt upon by the moralists of many schools, and for centuries past.

11 Does it not appear self-evident that a person should be law-abiding, honest, industrious, truthful, and capable of unselfishness? 12 Should you not have a regard for your health and efficiency? Should you not aim to develop your capacities, and in so far to diminish the dead mass of ignorance and bad taste which weighs down society?

13 Of marital fidelity, with all that that implies-- personal purity, the good of one's children, a fine sense of loyalty-- it is scarcely necessary to speak. 14 No person, betrothed or married, can be sure that you will not meet tomorrow some one whom the unprejudiced would judge to be more attractive than the one to whom you have bound yourself. 15 Shall you remain unprejudiced-- a floating mine, ready to explode at any accidental contact? 16 Away with you! You have, in the eyes of the scientific moralist, "too much ego in your cosmos." 17 Those babble of "affinities" who know little, and care less, about the long and arduous ascent up which humankind has toiled, in the effort to attain to civilisation.

18 And what shall we say of such things as religious duties, of cheerfullness, of good manners, of personal cleanliness? Of religious duties I shall speak elsewhere. 19

As to cheerfullness and good manners, it is only necessary to reflect upon the baleful influence exercised upon the young-- who have here my entire sympathy-- by a bilious and depressing piety, or by those who are rudely and superciliously moral.

20 Cleanliness deserves some special attention, on account of the fact that it has perplexed even thoughtful scholars to discover why society has come to regard it as a duty at all. 21 That, if society does regard cleanliness as important, it should be the duty of the individual to keep yourself and your house clean, presents no problem. 22 You have no right to make yourself gratuitously offensive, and gratuitously offensive you will be, if you are a dirty fellow. 23 But why does anyone object to you being a dirty fellow? The prejudice in favour of cleanliness does not appear to be universal-- witness the Eskimo and various other peoples.

24 We have learned that the social-will has its foundation in the fundamental impulses and instincts of human. 25 An admirable scholar has suggested that the ultimate root of the regard for cleanliness which more or less characterises civilised societies may be traced to some such primitive and inexplicable impulse to cleanliness as we observe, for example, in the cat. 26 It must be admitted that it is far more marked in the cat than in the human being. A kitten is much more fastidious than is a baby, and a grown cat would tolerate no powder or rouge.

27 But, assuming that such an instinct exists, even in weak measure, it might easily develop with the development of society. 28 And, as human is a rational being, capable of discovering a connection between cleanliness and hygiene, the duty of cleanliness would acquire a new authority. Dirt becomes no longer merely distasteful; it is recognised as a danger.

CONVENTIONAL MORALITY

29 There are virtues-- taking the traits of character indicated by the names broadly and loosely, and making allowance for all sorts of variations within wide limits--

which appear to be recognised as such very generally. 30 Bishop Butler regarded justice, veracity and regard to common good as valued in all societies. Certainly they have served as expressions of the social-will in many societies, ancient and modern, primitive and highly civilised.

31 We have seen that the forms under which they appear are not independent of the degree and kind of the development of the society we may happen to be contemplating. 32 And we have realised that human is born into a world of ready-made duties which are literally forced upon your attention. 33 You finds yourself a member of a family, somebody's neighbour, a resident in a town or village, allotted to a social class, an employer or an employee, a citizen of a state. 34 Justice, veracity and a regard for common good appear to have their value in all these relations; but the manner of their interpretation is not independent of the relations, and the relations with their appropriate demands are relatively independent of the individual will. 35 One cannot ignore these demands and fall back, independently, upon metaphysical theory. 36 Aristotle's claim that a human cannot be unjust to one's own child, because the child is a part of oneself, and a human cannot be unjust to oneself, excites our curiosity. It does not elicit our approval.

37 It is because the vast majority of our duties are so unequivocally thrust upon us that I have been able to touch so lightly, in the last section, upon the duties of the individual. 38 Why dilate upon what everybody knows? Is it not enough to set you thinking about it?

39 And, in helping you to think, the reference to the virtue of cleanliness has its value. Cleanliness is prized by those who know little of hygiene.

40 If a society cannot be happy without cleanliness, for whatever reason, is it not the duty of the individual to be clean? But 'how' clean should one be?

41 There are virtues-- I use the word here broadly to cover approved habits-- which seem to have a very direct reference to chronology and geography.

42 They are ‘conventional virtues’; they suit a given society, and satisfy its actual social-will. 43 A Vermont housekeeper in an ‘igloo’ would be an intolerable nuisance. Imagine an unbroken succession of New England house-cleanings with the inhabitants of the house sitting in despair in the snow outside.

44 Those who live north of the Alps are sometimes criticised for dipping Zwieback into their tea. Those who live south of the Alps eat macaroni in ways revolting to other nations. 45 A very pretty Frenchwoman, devouring snails after the approved fashion of the locality, has driven me out of an excellent restaurant. And the world opens its eyes in wonder when it sees the well-bred Anglo-Saxon dispose of his asparagus.

46 There is a little-recognised virtue called toleration. St. Ambrose was a wise man when he advised St. Augustine to do, when in Rome, as the Romans do. 47 Of course, he did not mean this to apply to robbery or to murder. He was giving an involuntary recognition to the doctrine that there are conventional virtues, worthy of our notice, as well as virtues of heavier caliber and wider range.

THE ETHICS OF THE STATE

George Stuart Fullerton

THE AIM OF THE STATE

38 He who has resolved to devote but a single chapter to the Ethics of the State must deliberately sacrifice nine- tenths, at least, of the material-- 2 some of it very good material, and some of it most curious and interesting-- which has heaped itself together on your hands in the course of your reading and thinking. 3 I have resolved to write only the one chapter. The State is the background of the individual, the scaffold which supports your moral life. Without it, you may be a being; but you are scarcely recognisable as a human being.

4 It has made the individual what you are, and it is the medium in which you can give expression to the nature which you now possesses.

5 Plato maintains that the object of the constitution of the state is the happiness of the whole, not of any part. 6 Aristotle, in his "Politics," maintains that it is the aim of the state to enable people to live well. 7 Sidgwick defines politics as "the theory of what ought to be (in human affairs) as far as this depends on the common action of societies of people."

8 We may agree with all three, and yet leave ourselves much latitude in determining the nature of the organisation of, and the limits properly to be set to the activities of, the State as such. 9 Shall the State only strive to repress grave disorders? Or shall it take a paternal interest in its citizens, making them virtuous and happy in spite of themselves?

ITS ORIGIN AND AUTHORITY

10 In Chapter 12 to Chapter 24 we have seen how and upon what basis the State has grown up. It is an organism, something that lives and grows. 11 It is not a machine, deliberately put together at a definite time by some human or some group of people. 12 The "social contract" fanatic may have read history, but you have not understood it. Of psychology you have no comprehension at all.

13 Herodotus, at some of whose stories we smile, was a wiser man. He writes: "It appears certain to me, by a great variety of proofs, that Cambyses was raving mad; he would not else have set himself to make a mock of holy rites and long-established usages. 14 For, if one were to offer people to choose out of all the customs in the world such as seemed to them the best, they would examine the whole number, and end by preferring their own; so convinced are they that their own usages far surpass those of all others."

15 This may be something of an over-statement, for people in one state have shown themselves to be, within limits, capable of learning from people in another. But only within limits. 16 Those things which give a state stability-- and without stability we are tossed upon the waves of mere anarchy-- have their roots in the remote past. 17 Strip a person of own past, and you are little better than an idiot;

18 strip people within the State of their corporate institutions and ideals, of their loyalties and emotional leanings, and we have on our hands a mob of savages, something much below the tribe proper, knit into unity of purpose by custom and tribal law.

19 The State has its origin in human as a creature desiring and willing, and at the same time endowed with reason. Its authority is the authority of reason. 20 Not reason in the abstract, with no ground to stand upon, and no material for its exercise; but reason as incorporate in institutions and social usages; 21 reason which takes cognisance of the nature of human, and recognises what human has already succeeded in doing.

22 Where shall we look for a limit to the authority of the State? Surely, only in the Reason which makes it possible for the State to be. The State must not defeat its own object.

FORMS OF ORGANISATION

23 The special science of politics enters in detail into the forms of organisation of the State. The ethical philosopher must content the self with certain general reflections.

24 Everyone knows that States have been organised in divers ways; and that their citizens, under much the same form of political organisation, have been here happy and contented, and there in a state of ferment. 25 The form of government counts for something; but its suitability to the population governed, and the degree of enlightenment and discipline characteristic of the population, count for much more. 26 It is not every shoe that fits every foot, and there are feet that are little at home in shoes of any description.

27 Monarchies of many sorts, aristocracies, oligarchies, democracies, even communisms, have been tried; and all, save the last, have managed to hold their own with some degree of success. 28 It is easy to bring objections against each form of government,

just as it is easy to say something specious in its favour.

29 Are the eldest sons of a few families peculiarly fitted by Nature to be governors of the State? 30 Look at history, and wake up to common sense. Of the divine right of kings I shall not speak, for the adherents of the doctrine are in our day relegated to museums of antiquities. 31 And have the members of aristocracies been carefully bred with a view to their intellectual and moral superiority, as we breed fine varieties of horses and dogs? 32 Have those who have had their share in oligarchies been peculiarly wise and peculiarly devoted to the common good? 33 The communist makes two fatal mistakes. You shuts your eyes to history, and you overlooks the fact that there is such a thing as human nature.

34 There remains democracy. Of this, Herodotus, already quoted as a man of sense, has his opinion. He makes a shrewd Persian, in a political crisis, thus address his fellow-conspirators: 35 "There is nothing so void of understanding, nothing so full of wantonness, as the unwieldy rabble. 36 It were folly not to be borne, for people, while seeking to escape the wantonness of a tyrant, to give themselves up to the wantonness of a rude unbridled mob. 37 The tyrant, in all own doings, at least knows what the self is about, but a mob is altogether devoid of knowledge; 38 for how should there be any knowledge in a rabble, untaught, and with no natural sense of what is right and fit? 39 It rushes wildly into state affairs with all the fury of a stream swollen in the winter, and confuses everything. 40 Let the enemies of the Persians be ruled by democracies; but let us choose out from the citizens a certain number of the worthiest, and put the government into their hands."

41 To be sure, we, who belong to a modern, enlightened democracy, would resent being called "a rude unbridled mob," and being likened to the populace of ancient Persia. 42 But those of us who reflect recognise the dangers that lurk in the "psychology of the crowd"; and we are all aware that, after a popular vote, it is quite possible to discover that few, except a handful of office-holders, have gotten

anything that they really want. 43 Democracy is not a panacea for all political evils, and there are democracies of many kinds.

44 Still, when all is said, it seems as though the Rational social-will, the ultimate arbiter of every moral State, should give its authority to a democratic form of government, rather than to another form. Every individual will has a ‘prima facie’ claim to recognition.

45 But the Rational social-will can never forget that human nature is in process of development, and that each nation, at a given time, is a historical phenomenon. 46 The Rational social-will is too enlightened to drape an infant in the raiment appropriate to a college graduate. It is only an intemperate enthusiasm that is capable of that.

THE LAWS OF THE STATE

47 The State allots to individuals, and to the lesser groups of human beings, of which it is composed, ‘rights’, and it prescribes to them ‘duties’. 48 Upon its activities in this sphere I can touch only by way of illustration, and for the sake of making clear the nature of the functions of the State.

49 (1) To whom shall the State grant a share in the formulation and execution of its laws? 50 Once, in communities very enlightened, in their own peculiar way, women, children, slaves, mechanics, petty traders, and hired servants were deemed quite unfit to be entrusted with such responsibilities.

51 With us, the position of woman has changed. Slavery, in a technical sense, has been abolished. The mechanic and the petty trader are much in evidence at "primaries." 52 Hired servants are by some accused of being tyrants. Children, and defectives who are grossly and palpably defective, we bar from elections, and we also reject some criminals.

53 The times have changed, and our notions of the right of the individual to an active share in the State have changed with them. 54 The expression of the social-will has undergone modification, and I think we can say that it is, on the whole, modification in the right direction.

55 To be sure, the court of last resort is the ‘Rational’ social-will.

What is best for the State, and, hence, for those who compose it? 56 What is practicable in the actual condition in which a given state finds itself at a given time? 57 It seems too easy a solution of our problems to seek dogmatic answers to our questionings by having recourse to the "natural light," that ready oracle of the philosopher, Descartes.

58 (2) There are certain classes of rights which civilised states generally guarantee to their citizens with varying degrees of success. They make it the duty of their citizens to respect these rights in others.

59 (a) The laws protect life and limb. Much progress has been made in this respect in the last centuries past. 60 I own no coat of mail; and, when I walk abroad, I neither carry a sword nor surround myself with armed retainers.

61 (b) They protect private property. To be sure, the "promoter" may prey upon my simplicity; and the state itself does not recognise that I have any absolute right to my property, any more than it recognises that I have an absolute right to my life.

62 It may send me into the trenches. It may take from me what it will in the form of taxes. It may even forbid me to increase my income by using my property in ways which will make me insupportable to my neighbours. 63 But it will not allow my neighbour, who is stronger than I, to take possession of my house without form of law. It will even allow me to dispose of my property by will, after my death.

64 I suggest that those, to whom this right appears to be rooted in the very nature of things, and not to be a creation of the State, called into being at the behest of the social-will in a certain stage of its development, 65 should read and re-read what Sir Henry Maine has to say about testamentary succession, in his wonderful little book on "Ancient Law."

66 The State has not always treated a person as an individual, directly and personally responsible to the state. 67 It has treated you as a member of a family or some other group; a being endowed, by virtue of your position, with certain rights, and burdened with certain duties. 68 A being who, when you

drops out of being, is automatically replaced by someone else who is clothed upon with both your rights and your responsibilities.

69 Our conceptions have changed. The lesser groups within the State have to some degree lost their cohesion, and the bond between the individual, as such, and the state has been correspondingly strengthened. 70 But many traces of the old conception make themselves apparent. The law compels me to provide for my wife and children; and, if I die intestate, the law by no means assumes that my property is left without a claimant.

71 Have we been moving in the right direction, as judged by the standard of the Rational social-will? We think so. 72 But it is well to bear in mind what Herodotus said about the madness of Cambyses, and the prejudice people have in favour of their own customs. 73 No state is a mere aggregate of unrelated individuals. People are set in families, and the State seems to be composed of groups within groups. 74 How far the State should recognise the will of the individual, as over against the claims of the lesser groups to which you may belong, is a nice question for the Rational social-will to settle.

75 (c) The law must regulate marriage and divorce. Matters so vital to the interests of society cannot be left at the mercy of the egoistic whims of the individual. 76 But to what law shall we have recourse? It seems highly irrational to have forty-eight independent authorities upon this subject within the limits of a single nation. 77 And, if we turn the matter over to the churches, we discover that we have committed it to the care of one hundred and eighty, or more, sects. 78 Add to this, that a state of any sort cannot be set upon its feet without some difficulty, while any enterprising man or woman can call a sect into existence any day. 79 There is a new adherent for sectarian eccentricities born every minute. Surely, here is a field for the activities of the Rational social-will.

80 (d) To paternalism of some sort the modern State, as law-giver, seems hopelessly pledged. If we

ignore this we are simply closing our eyes. 81 The State seems to be justified in educating its citizens, in protecting children and women against exploitation, in protecting the working classes, in stamping out infectious diseases. 82 We are not even allowed to expectorate when and where we will, a privilege enjoyed by the merest savage.

83 (e) In one respect the paternalism of our own State has lagged behind that of certain others. We do little to secure to a person a decent privacy, or to safeguard your personal dignity. 84 The newspaper reporter is allowed to rage unchecked, to unearth scandals in private families, and to cause great pain by printing the names of individuals.

85 I have known, in Europe, a man, after a difference of opinion touching the ventilation of a railway carriage, to break a window with his elbow and to apply to his fellow-passenger an offensive epithet. 86 The court made him pay a dollar and a half for breaking the window and six dollars for giving himself the pleasure of being insulting.

87 Which was the greater offense? Herodotus would expect this question to be answered in accordance with the prejudices of the person giving the answer.

THE RIGHTS AND DUTIES OF THE STATE

88 The State evidently has rights over its citizens, and may enforce these rights through the infliction of punishment. It as evidently has duties. 89 A given state may not be answerable to any actual given power. Our own State is in such a position at the present time-- there is no other state strong enough to call it to account.

90 But this does not free it from duties. No state is anything more than a brute force, except as it incorporates, in some measure, the Rational social-will. 91 And states that fall far short, as judged by this standard, may overstep their rights and ignore their duties, whether they are dealing with individuals or with other states.

92 In punishing, the State should punish rationally. And it should not demand of its subjects what will degrade them as moral beings.

93 "We all recognise," said a pure and candid soul, "that a rightful sovereign may command own subjects to do what is wrong, and that it is then their duty to disobey."

94 But how discover what demands are just? It is the whole argument of this volume that no person should venture an opinion upon this subject without having come to some appreciation of what is meant by the Rational social-will. 95 Human, your instincts, the degree of your intelligence and self-control, the history of the development of human societies, cannot be ignored. 96 It is the weakness of good people, endowed with a high degree of speculative intelligence, to construct Utopias, and to tabulate the "rights of human," or, as Bentham well expressed it, to make lists of "anarchical fallacies." 97 Thus, some may, with Plato and Aristotle, advocate infanticide. The Greek city-state was a crowded little affair, and in danger of over-population. Some may propose radical measures to increase the population. 98 To France and Argentina, in our day, such an increase appears highly desirable. May any and every method be embraced which seems adapted to avert a given evil or to attain to a desired end? 99 It is instructive to note that Francis Galton, the father of "eugenics," proposed to leave morals out of the question as "involving too many hopeless difficulties." But do people live well who leave morals out of the question?

100 The people who falls back upon intuition alone, in his advocacy of the abolition of capital punishment, may be expected to maintain next that a state, in going to war, should stop short at the point where the lives of its citizens are put in jeopardy. 101 Why kill a good person, when it is wrong to kill a bad one?

102 It must be admitted that the State and its representatives enjoy some rights and duties not accorded to individuals. 103 The State may condemn people to death or to imprisonment; it may take over property; it may make itself a compulsory arbiter between individuals. On the other hand, its representatives are not always as free as are private

persons. 104 The individual, if you are a generous soul, may freely forego some of your advantages and may seek only a fair fight with an opponent. 105 It is doubtful whether the duty the State owes to its citizens permits of chivalry. 106 Certainly strong states do not hesitate to attack weak ones; nor do many hesitate to combine against one, on the score of fair play. And a private person may temper justice with mercy in ways forbidden to a judge.

INTERNATIONAL ETHICS

George Stuart Fullerton

WHAT IS MEANT BY THE TERM

39 I am almost tempted to avoid the discussion of this thorny subject by simply referring the reader to what has been said already on "The Spread of the Community," and developed in the chapters on "The Rational social-will" and "The Individual and the social-will."

2 You who confines yourself to generalities avoids many difficulties and can assure yourself of the approval of many. Who, condemns justice and humanity in the abstract? 3 Who can wax eloquent in own condemnation of freedom? Who finds the Christian Church on own side, when you advocates rapacity and the oppression of the helpless, without entering into details?

4 On the other hand, who wishes to view own country with a cold impartiality, and to place its interests exactly on a par with the interests of other lands? 5 Who, save the Chinaman himself, thinks it as important that a Chinaman should have enough to eat as that an American or an Englishman should? 6 Was not the turpitude, that excluded the Chinaman from Australia, traced to the two deadly sins of undue diligence and sobriety? 7 As for freedom, people of certain nations regard it as the highest virtue to be willing to die for it-- their own freedom, be it understood,-- 8 while they regard the same desire for freedom on the part of their colonists as a moral obliquity to be extirpated, root and branch.

9 That the historian and the sociologist should find much to

say touching the relation of nations to each other and to subject peoples goes without saying. 10 But the cynic may maintain with some plausibility that the moralist's chapter on International Ethics must be as void of content as the traditional chapter on "Snakes in Ireland." 11 In this the cynic is wrong, as usual; but it is instructive to listen to you, if only that we may intelligently refute you.

12 It is not always easy for an individual to determine just what you owes to your family, to your neighbours, or to your country. 13 Is it surprising that it should be difficult for people to determine just what one country, or what one race, owes to another? This is the subject of international ethics.

14 You who treads upon this ground should walk gingerly, and not feel too sure of yourself. 15 But there is no reason why the moralist should not put upon paper such reflections as occur to you. You cannot say anything more devoid of reason than much that is said by others.

16 The great Grotius, in writing on international law, in the seventeenth century, drew his illustrations chiefly from Greeks and Romans long dead. 17 He had much more recent material ready to hand. But he well knew that you, who would induce another to give you calm and dispassionate attention, must not begin by treading on the toes of your listener. 18 I shall strive to profit by his example. It is best to say only what each person can apply to own neighbour. We are all sensitive in this field.

OUR METHOD OF APPROACH TO THE SUBJECT

19 We have seen that rational elements are to be found even in the irrational-will, if one will look below the surface.

20 Is it rational for the mother to place before all else the interests of the hairless, toothless and, apparently, mindless little creature that she clasps to her breast? 21 The very existence of society depends upon her having the feeling that prompts her to do it. 22 Is it rational to favour one's neighbour, to be proud of one's native town, which may be a poor

sort of a town? 23 Is it rational to be patriotic, even when one's state is not much of a state?

24 We have seen that the Rational social-will incorporates itself in societies very gradually, and that it draws into its service lesser groups of many descriptions. 25 You who detaches yourself from these lesser groups is not a person. You are the mere outline of a human-- the "featherless biped" of the philosopher. It is not of such that a state can be made.

26 It is the duty of the state to prevent a person from shrinking into being the mere member of some lesser group, but it is not its duty to obliterate what is human in you. 27 And the Rational social-will must see to it that you does not, on the other hand, forget, in a blind and irrational patriotism, that you are a human being with a capacity for human sympathies--sympathies extending far beyond the limits of any state. 28 Except when they are under the influence of strong passion, I think we may say that people in civilised states, at least, have already shown themselves amenable to the influence of the Rational social-will in this direction. 29 It must be confessed that that influence has, as yet, been limited.

30 The approach to the subject of international ethics must lie in the recognition that people are set in families, in neighbourhoods, in towns or cities, in states; 31 and are yet human beings with a capacity for respecting and loving those who belong to none of these particular organisations. 32 My advice to the person who wishes to abuse own fellow-human is to do it quickly, and before you are acquainted. If you gets to know this person well, you will probably find something lovable, and you will lose the pleasure of being malicious.

SOME PROBLEMS OF INTERNATIONAL ETHICS

33 The person who reads history finds, sometimes, things to inspire you; and sometimes, things that are depressing. 34 You sees that the family must expand into the clan, that the clan must come into contact with others, that the state must rise, and that some interrelation of states is an

inevitable necessity. 35 You sees that human's increase in insight, in diligence, in enterprise, must make you reach out and trade with your fellow-human.

36 You sees also conquest, with the subjugation of peoples; you sees trade extended by force, and under the smoke of cannon; 37 you sees a peaceful economic penetration, which ends in protectorates and annexations, in defiance of the will of those who do not want to be either protected or annexed.

38 What is rational is real, and what is real is rational, said Hegel. 39 He further maintained that civilised nations may treat as barbarians peoples who are behind them in the "essential elements of the state"; 40 and also that, in a given epoch, a given nation is dominant, and "other existing nations are void of right."

41 Hegel has long been dead, and is turned to dust. He always was as dry as dust, even when he was alive, but he was a great man. 42 But the famous Englishman, Sir Thomas More, wrote more engagingly; and does he not tell us, in his "Utopia," that any nation's holding unused a piece of ground needed for the nourishment of other people is a just cause of war?

43 Such doctrines should be most comforting to us Americans. They appear to teach us that we are, at present, the chosen people; 44 that the rights of other peoples are as the rights of the Hivites, the Hittites, and all the rest; that we are justified in taking what we please, for who is there to withstand us?

45 Yet ethical Americans shake their heads over such philosophies, and some of them even speak slightingly of philosophers. 46 This, in spite of the fact that great people seldom talk pure nonsense, except when carried away by excitement, as all people may be, at times. 47 If what they say sounds to us wholly unmeaning, it is probable that we have not fully understood the voice that speaks within them. 48 What can be said in their defense? And what can be said in, at least, partial defence of the actual historical procedure of the nations? 49 They have not been wholly composed of criminals, and they must possess at least the rudiments of a moral sense.

ETHICS

50 (1) We have seen that the state maintains its right as against those who belong to it by controlling, not by destroying, the lesser groups which exist within the state. 51 Such a control appears to be demanded by the Rational social-will, but it often frustrates the will of the individual.

52 (2) We have seen that the spread of the community is inevitable, and that, in the interests of rationality, it is desirable.

53 (3) We have seen that, even in the family, all the members are not equally free agents. The small child is not consulted touching the amount of own punishment, nor can the child dictate where it shall be laid on. 54 And the state does not give to all the individuals in it equal political rights, nor guarantee to them an equal share of influence. 55 This is desirable, on the whole, in the interests of the whole, but grave abuses may easily come into being.

56 (4) We have seen that the greater whole guarantees to individuals rights, and assigns to them duties. In so far as it is rational, it cannot do this arbitrarily. 57 To have recourse to metaphysical abstractions is futile. Shall we say, without hedging, that a person has a right to the fruits of own labour, or that first occupation gives a right to the soil?

58 Then, shall the person who is too weak to work be refused a right to the ownership of a coat? 60 Or must the discoverer of a continent prove a real occupancy, by performing the ridiculous task of the abnormal center of the mythical mathematical infinite circle, by being everywhere at the same time?

61 (5) We have seen that the human community, taking the words in a broad sense, will spread, and already has spread, beyond the limits of several nationalities. 62 It is in the interest of human society that it should do so. It is rational, in the sense of the word everywhere used in this book. 63 But the nations continue to exist, and they often cultivate selfishly national interests. So do families cultivate selfishly family interests. So does the egoist selfishly dig about and fertilise the number One.

64 (6) It requires little acuteness to see that some communities of people are miserable exponents of the social-will. They are deplorably governed. 65 Read Slatin's fascinating book, "Fire and Sword in the Soudan,"-- it is better than any novel,-- and ask yourself what becomes of the social-will or of rationality of any sort under the rule of a Mahdi. 66 Is it not the duty of the nations to combine and to relieve suffering humanity?

67 (7) There are theorists who maintain that, in the nature of things, the soil belongs to nobody. We find, in the actual state of things, it usually belongs to somebody, unless it is so poor that it is not worth owning at all. 68 But it may belong to somebody who can make little more use of it than an infant can of a gold watch. 69 A handful of Indians, wandering over a great tract of country in which they chase game in the intervals of time during which they chase and scalp one another, may have an immemorial, although unrecorded, title to the land.

70 Shall they be permitted to keep back settlers from more or less civilised and densely populated countries? 71 Settlers eager to cultivate the land and to make it support many, where before it supported few, and supported those few miserably?

72 And shall the natural resources of great regions of the earth be permitted to lie fallow merely because the actual inhabitants are too ignorant and too indolent to want to produce anything and to trade? 73 You who finds your happiness in idleness, bananas, and black wives who can be beaten with impunity, has little interest in international traffic, with such blessings as it is supposed to bring.

74 The world is filling up. The losses due to war and pestilence, said no less an authority than Darwin, are soon made up. 75 There is something terrifying in what the very modern science of geography has to tell us about the rapidity with which the remaining part of the earth's surface, available for the nourishment of human, is being exhausted. 76 What problems will face the Rational social-will in the none too distant future?

ETHICS

THE OTHER SIDE OF THE SHIELD

77 We have seen that something can be said for the philosopher. The Rational social-will does not appear to give carte blanche to the person who wishes to remain ignorant, idle, cut off from the family of the nations, 78 the possessor of great tracts of land which you will not develop, the cruel oppressor of such as you finds within your power. 79 It tends to deal with you, wherever it finds you, as an enlightened nation treats the idle, the vicious and the irresponsible within its own borders.

80 Undoubtedly civilisation has made some advance in the course of the centuries. When the world is at peace, the stranger is not normally an outlaw. 81 I have sojourned in the cities of many of the nations of Europe and have made excursions into Africa and Asia. Nowhere have I been compelled to ask for the protection of an American consul. 82 It has been recognised that I had rights, although an American. And the ability to sign my name has procured me a supply of money.

83 Notwithstanding all this, it is depressing to read of the dealings of the nations with each other, and with backward peoples-- who have been well defined as peoples who possess gold-mines, but no efficient navy. 84 Is it not generally taken for granted that it is the duty of more powerful and more enlightened nations to take the backward nations in hand, to exploit their resources, and, incidentally, to exploit ‘them’?

85 Not that international law has not counted for something. To be sure Hegel reduced it to the level of "a good intention," but it has counted for something.

86 Descartes and Spinoza could, with impunity, be heretics in little Holland. Switzerland has for centuries been the refuge of the oppressed.

87 But we cannot forget that our highest authority, Captain Mahan, declared, in 1889, that certain rights of neutrals were "forever secured," and you have since stood revealed as a false prophet, a mere human making a guess. 88 International law is a capital thing-- when it is not put under a

strain, and when no nation is too powerful.

89 The depressing thing is that rapacity and oppression become glorified, when the cloak of patriotism is thrown over their shoulders. 90 I drew my illustrations in the last section from wild Indians and from African savages. But there are nations in all stages of their development. 91 How "backward" must a nation be to give us the right to rule over it by force? No people were more ingenious than the ancient Romans in finding plausible reasons for the wars which it pleased them to wage. 92 This has never been a lost art. People's enemies are, like the absent, always in the wrong; and those are apt to become enemies, in whose defeat some substantial advantage is to be looked for.

THE SOLUTION

93 The very title seems a presumption. Who may dogmatise in matters so involved? 94 I make no pretensions to giving a clear vision of "yonder shining light," but I venture to hint at the general direction in which one is to seek the little wicket gate.

95 The only ethical solution of our problem appears to lie in the frank recognition of the fact that the groups of people, called nations, may be as brutal egoists as are individual persons, and in the earnest attempt to avoid the baleful influence of such egoism.

96 Human is your brother's keeper. But that does not give you the right to keep your brother in chains, nor to use others for selfish ends. 97 This is as true of nations as it is of individuals, of families, of religious orders, or of unions, whether of employers or of employees.

98 It is certainly true of nations. It is only as having a place in, and as being an instrument of, the great organism of humanity aimed at by the Rational social-will, that the individual, the family, the tribe, the nation, have any ethical justification for being at all. 99 Sometimes it is very profitable for the individual, or for some group of human beings, to disallow this obligation to be moral. 100 We treat the individual as a robber;

why not admit that there are robber nations?

101 I feel like reiterating that it is a great thing to be young; to live in that Golden Age in which one still believes what one sees in print, and still is moved by the honeyed words of statesmen. 102 When one is old, and has enjoyed some breadth of culture, one has read the newspapers of many lands, and has met a certain number of statesmen, usually with a start of surprise.

103 It is borne in upon one-- a matter touched upon in the last chapter-- that it appears to be generally accepted that the state and its representatives may adopt a peculiar variety of ethics. 104 Certainly statesmen feel justified in doing for their country what they, as gentlemen, would never dream of doing for themselves. 105 They talk of justice, when they would scoff at such justice within the borders of their own states; 106 they talk of humanity, and they have in mind the economic advantage of their own peoples; 107 they speak of protection and Christianisation, when they mean economic exploitation or strategic superiority. 108 As for truth, the less said about that subject the better.

109 I know of only one way in which the determination of a nation to aid in the general realisation of the Rational social-will can be tested. 110 Does it, in dealing with other nations, civilised or backward, propose what is palpably to its own advantage, or is it evidently disinterested? 111 It is thus that we judge other persons, when we wish to fix their ethical status; it is thus that the Rational social-will judges a nation. The language in which the proposals are made is a matter of no moment. 112 It may fairly be called professional slang, and can quickly be acquired, even by people of mediocre intelligence, in any diplomatic circle.

THE NECESSITY FOR CAUTION

113 Shall a person, then, eschew patriotism, and become a citizen of the world, as though you were a Stoic philosopher?

114 By no means. As well eschew the family or the neighbourhood. But let you not, in your patriotism,

forget that you are a human. 115 Here, as everywhere, you are called upon to exercise judgment. This is a burden which you can never throw off. You must pay the penalty of being a rational human being. 116 As an instrument of the Rational social-will the state must be kept up. It is your duty to see that it is done. Your cat has an easier task; it may sleep its life away in peace.

117 We hear much of the brotherhood of human and of artificial barriers. The barriers are not all artificial, and they cannot be swept away with a gesture.

118 Races and peoples are formed upon the model of their own immemorial past. They have their institutions, their traditions, their loyalties, their standards of living. 119 What is tolerable to one person is wholly intolerable to another. To compel people to live together in intimacy, when centuries of training have made them antipathetic, is sheer cruelty.

120 People may be brothers, but there are big brothers and little brothers. I do not refer to physical bulk. I refer to the development of intelligence, to the degree and kind of culture, which has been attained. 121 There are little brothers still at the stage of development at which it is natural for human beings to drool. Shall we have them sit up to the table and serve them with the complete dinner, enlivening it with intellectual conversation?

122 Between incontinently doing this, and relegating the little brothers to a nursery where they will be treated with cruelty and starved in our interests, some persons seem to think there is no middle course. 123 In their enthusiasm for humanity, they forget that the brotherhood of human may be made as ridiculous as the eight-hour day. 124 Between eight hours of the creative work of a Milton and eight hours of the dawdling done by a lazy housemaid, there is no relation save that both may be measured by a clock.

125 These enthusiasts forget much. People are not alike; they do not want to be alike; they do not want to live together in close intimacy, when they have little in common; 126 they reverence different things; as a rule, they would rather be

somewhat unhappy after their own fashion, than be happy under compulsion, after the fashion of someone else.

127 We have, thus, on the one hand, the enthusiasts who would at once sound the trump and announce the millennium, feeding the lion and the sucking calf out of the same dish and on the same meat. 128 We have, on the other, those who are eager to take on their shoulders the white person's burden-- to enclose in a coop, as if they were chickens, the greater part of the human race, 129 allaying the discontent of the imprisoned by pointing out to them that, although their freedom of movement is limited, they are growing fat, and that they should show their gratitude by laying eggs.

130 Surely, there must be some middle course. Patience and caution are virtues. 131 Surely, it is possible to accept the existing organism of society, to love one's country, and yet to strive to respect the freedom of others. 132 It is not easy for a true patriot to do this, but it seems to be what the Rational social-will demands of you.

133 The moralist who reads history carefully is not wholly discouraged. You may look forward to some time, in the more or less distant future, when there may be a union of the nations in the interests of all people; 134 when the gross egoism of the hypertrophied patriot may be curbed; when the mellifluous language of the statesman may mean more than did the pious letter which Nero wrote to the Roman Senate, after he had murdered his mother.

ETHICS AND OTHER DISCIPLINES

George Stuart Fullerton

SCIENCES THAT CONCERN THE MORALIST

40 There are certain sciences that the Moralist must lay under contribution very directly, and yet you seems to be able to make little return to those who cultivate them, at least in their professional capacity. 2 You must ask aid from the biologist, the psychologist, the anthropologist. They help you to a

comprehension of what human is; and, hence, of what it is desirable that human should strive to do. 3 But these people seldom come to the moralist for advice. They appear to be able to work without your help.

4 There are, however, other sciences in which the moralist feels that you have more of a right to meddle, however independent they may regard themselves.

5 Take, for example, politics or economics, or the very modern and rudimentary science of eugenics. The person who cultivates political science may know much more than do most moralists about states and their forms of organisation; 6 about legislative, executive and judicial functions; about the probable effects of the centralisation or decentralisation of authority; about what may be expected, in a given case, from a restriction or extension of the franchise; 7 about the creation and maintenance of a military establishment and the building up of an efficient civil service. 8 The economist may be a monster of learning and a master in ingenuity on all problems touching the creation and distribution of wealth.

9 But the political scientist and the economist, however able, share our common humanity. A person's outlook is more or less apt to be bounded by the limits of the science of own predilection. 10 The several sciences, broader or more specialised, rest, in the minds of most people, upon foundations which are taken for granted. 11 It is too much to expect that every sermon should begin as far back as the Garden of Eden. "Practical" politics and economics do not, as a rule, go so far back.

12 The transition from practical politics and economics to ethical problems may be made at any time. 13 No person was shrewder than Machiavelli, and the moral sense of humankind has rebelled against him and made him a byword. 14 A state, desirous of maintaining itself, may palpably violate in its institutions, inherited from the past, a social-will grown more rational, more conscious of its rights and more articulate. 15 Then the appeal is made to right and justice in other than the traditional forms. It may, in a

given instance, be wrong to create wealth; existing forms of its distribution may be iniquitous. The ultimate arbiter in all such matters must be the Ethical Human.

16 Human society is indefinitely complex. Many specialists must occupy themselves with its problems. A technical question in this field may always be carried over to moral ground. 17 You who undertakes to make this transition without having made a fairly thorough study of ethics appears to be working in the dark. 18 Your assumptions have been questioned, or have been abandoned. Who shall furnish you with a new basis for your special science?

19 Ethics is a basal science. It justifies, or it refuses to justify, those specialists who concern themselves with humans in societies. It is a very old science and has interested people vastly. 20 I have spoken above of eugenics as a new science. Only in its modern form is it new. Plato cultivated it intemperately when he wrote his "Republic"-- but he saw that his "Republic" would not do, and he wrote his "Laws." He stood condemned by Ethics.

21 Usually people who occupy themselves seriously, and in a broad way, with human in society, have adopted, consciously or unconsciously, some ethical doctrine. 22 But this is often done without due consideration, and without a sufficient knowledge of what has been said by the great thinkers of the past. 23 It is for this reason that I have treated at such length in this volume of the schools of the moralists.

ETHICS AND PHILOSOPHY

24 It should be observed that in developing the Ethics of the Rational social-will, or the Ethics of Reason-- the doctrine advocated have not depended upon a particular philosophy.

25 I see no reason why a Realist or an Idealist, a Monist or a Dualist, one who holds to an immediate perception of an external world or one who regards our acquaintance with it as a matter of inference, should refuse to go with me so far. 26 Nor do I see any reason why a believer in God, one who bows at the shrine of Mind-Stuff, or one

who refuses to commit the self at all upon such matters, should enter a demurrer. 27 The Parallelist and the Interactionist, however widely they differ touching the relation of mind and body, may here fall upon one another's necks and shed tears of brotherly affection.

28 That it is proper for the philosopher to interest the self in ethics, I have maintained. 29 You are supposed to be a critical and reflective human, and to take broad views of human affairs. Such views are needed when one comes to the study of ethics.

30 I am forced to admit that some philosophers, when they have written on ethical subjects, have said certain things to which the critical moralist cannot readily assent. 31 You who maintains that certain human intuitions-- which it may even appear impossible to reconcile with each other-- are inexplicably and infallibly authoritative, seems to leave us without so much as the hope of ever attaining to ultimate rationality.

32 And there are philosophers who would persuade us that, unless we accept all the religious or theological doctrines which have appeared to them acceptable, we rob human of every incentive for being moral at all. 33 If God is not going to repay you with interest for the pains which you gives yourself, does you not play the part of a dupe in being good? 34 We have seen that this was palpably the position of Paley. If God will not reconcile, ultimately, benevolence and self- interest, proclaimed Reid, human "is reduced to this miserable dilemma, whether it is best to be a fool or a knave."

35 Some of the utterances of Kant and of Green seem to point in the same direction, but both have made it abundantly plain that they, personally, and whatever their intellectual perplexities, were moved by something much higher than egoism.

36 I mean to say very little about philosophy in this volume. I wish to keep to ethics, a science old enough and strong enough to stand upon its own feet. 37 But it would be wrong not to underline one or two points in this connection, if only to obviate misunderstanding:

ETHICS

(1) There is nothing wrong in a person's wishing to earn the heaven in which you believes. 38 It is not wrong for you to wish to be happy on earth and in the body. But if the desire for your own happiness, either here or hereafter, is the ‘only’ motive that can move you, you are not a good person. 39 Prudence may be a virtue, generally speaking; but it is no substitute for benevolence. The person who is ‘only’ prudent is no fit member of any society of rational beings anywhere.

40 (2) Humans are often better than their words would indicate. Paley talks as if he were a cad; Reid flounders; Kant, noble as are many of his utterances, sometimes gives forth an uncertain sound. Yet no one of these men was personally selfish.

41 And yet all of these men assumed that morality is endangered unless there is a God to repay humans for being good. 42 Why did they insist so strenuously upon this, and incorporate it into their philosophy? We must, I think, go beneath the surface to find the real reason; and when we have discovered it, we cannot regard them in an unfavourable light.

43 They felt, I believe, that good people ‘ought’ to be made happy; that this is rational, if anything is. 44 So far, they are quite in accord with the doctrine of the Rational social-will. And they saw no other way of guaranteeing a complete rationality than in holding to a theistic philosophy.

45 (3) This means that their real motives were not selfish and personal. This is admirably brought out when we turn to Green. It is too much to expect that many of my readers have read his "Prolegomena to Ethics," 46 which is repetitious, tedious, and rather vague, though it is inspired by a fine spirit and has the great merit of having influenced, directly or indirectly, a number of able writers to produce excellent works on ethics.

47 Green dwells, with infinite repetition, upon the presence in human "of a principle not natural," which is identical in all humans, and which, in some way that he does not explain, holds the world of our experiences together, being itself not in time or in space. 48

The disciple of Paley or Reid or Kant will search his pages in vain for any indication that this "principle" performs or can perform any of the functions of the God believed in by the above-mentioned philosophers. 49 Nevertheless, it is the source of an ardent inspiration to Green, who relieves the baldness of the appellation "principle," by calling it, sometimes, "self-consciousness," sometimes, "reason." 50 It does not appear to promise Green anything, so his devotion to it may be regarded as disinterested. However, he owes to it inspiration.

51 Philosophers find their inspiration in very different directions. The philosopher, as such, sometimes rather objects to the word, "God."

52 But you may feel much as people generally feel toward God, when you contemplates your "Conscious Principle," or your "Idea," or the "Substance" which you conceives as the identity of thought and extension, or, for that matter, "Mind-Stuff" or the "Unknowable." 53 That other people may not see that you have anything in particular to be inspired about, or that you can hope for anything in particular for yourself or for other people, does not rob you of your inspiration, and that may affect your life deeply.

54 It is, hence, not a matter of no importance to ethics what manner of philosophy it pleases a person to elect. One's outlook upon the great world may repress or may stimulate ethical strivings, may narrow or may broaden the ethical horizon. 55 It is something to feel, even rather blindly, that one has a Cause. For myself, I think it is better to have a Cause that seems worthwhile, even when rather impartially looked at. But, of this, more in the next section.

56 (4) Whatever one thinks of such matters, it is well to come back to the fact that, nevertheless, ethics stands upon its own feet. 57 Even if Paley, and Reid, and Kant, and Green, and many others, are in the wrong, the doctrine of the Rational social-will stands sure. 58 It is wrong to be selfish; it is wrong to be untruthful; it is wrong to be unjust. It is wrong for individuals, and it is wrong for nations. 59 The

person, or the group of people, that does wrong, is irrational. It stands condemned.

ETHICS AND RELIGION

60 I regret having to speak, in this book, about religion at all, just as I regret having to refer to the philosophers. But it would be folly to omit all reference to religious duties. 61 They have played quite too important a part in the life of the family, of the tribe, of the state; and that not merely here and there, but everywhere, in societies of all degrees of development, in recent centuries and in times of a hoary antiquity. 62 Those interested in the classics have read the remarkable little book, "The Ancient City," by Fustel de Coulanges.

63 As schoolboys we were brought up on the pious Aeneas. All Christians have some knowledge of the theocratic state of the Hebrews, and we know something of the history of Christian Europe. 64 The anthropologist gives us masses of information touching the religious duties of all sorts and conditions of humans.

65 There are those who rid themselves easily of the problem of religious duties. They simply deny that there are any. 66 And there are those-- the classes overlap-- who easily shuffle off duties to the family and to the state. They regard it as their function to ignore and to destroy.

67 (1) I cannot think the matter is so simple. There always have been religious duties generally recognised, as a matter of fact. 68 The boldest and most gifted of thinkers, who have not hesitated to call into being Utopian schemes for an ideal state, such men as Plato and More, have thought that the ideal state must have a religion. 69 And the modern scientist has gravely raised the question whether the state can maintain itself, if all religious beliefs, with their inspirations and their restraints, die out.

70 The moralist, who accepts religious duties, has a difficult task. It is not enough for you to say that humans have religious duties "in general," just as it is not enough for you to say that they have political duties "in general." 71 On the other hand it would be

the height of presumption for you to endeavour to tell every person what you should do in detail. 72 You does not feel it your duty to tell every person whom you should marry, or for whom you should vote at each election. 73 Still, it does seem as though the moralist ought to do more than tell a person vaguely that you have religious duties.

74 (2) Why not follow the analogy suggested by duties to the family, the neighbourhood, the state?

States have their religions, sometimes unequivocally and unmistakably, and sometimes not so palpably. 75 The religion of a people has, as a rule, its roots far back in the history of that people. Its religion has influenced in many subtle ways its institutions, its emotions, its habits, its whole outlook upon life.

76 Even where, as with us, state and church have been, in theory, wholly sundered, there has been no question, up to the present, of the disappearance of a religion. 77 The United States has been regarded as a Christian nation, inspired by ideals and addicted to customs only explicable by a Christian past.

78 The fact that it is so is somewhat obscured to us. For this there are two causes. The first is, that the American, who is a freeman, possesses and exercises a fatal ingenuity in the creation of a multitude of sects out of practically nothing. 79 Still, most of these sects have more in common than some of their adherents suppose. They spring, as a rule, from a Christian root. 80 The second is, that our land has been the goal of the greatest migration ever recorded in human history. 81 Most of those who have come to us have, so far, come from nations in some sense Christian, but they have brought with them very diverse traditions, and some appear to object to traditions altogether.

82 Nevertheless, I think we may be called a Christian nation, and if we follow the analogy above suggested-- that of the relations of people to the state and to lesser organisms within the state-- 83 it would appear that it is the duty of an American to recognise oneself as a Christian rather than as a

Mahometan or a Pagan. 84 If you does recognise this, you will feel yourself under certain obligations which are independent of your personal tastes and proclivities.

85 (3) For one thing, you will recognise that a religion is not a thing to be stripped off and drawn on as one changes a suit of clothes.

86 A woman may regret that her infant has red hair. She will not, on that account, as a rule, exchange him surreptitiously for another. 87 People do not commonly repudiate their fathers because they are not rich or are growing old. A good citizen may regret that own country has seen fit to enter into a given war, but you will not, therefore, give aid or comfort to the enemy.

88 You who is capable of lightly repudiating your religion resembles the person who is capable of discarding own spouse, when you sees the first grey hair.

89 Those who do such things are apt to be people who fill their whole field of vision with their rights, and can find no place there for their duties.

90 Nor should it be overlooked that the man, who is capable of lightly discarding his wife, is the man as capable of supplying her place with a worse. 91 Even so, you who easily throws off your religion is usually the person who easily replaces it with some superstition, scientific or merely whimsical, at which other people wonder.

92 People lament sometimes over the fact that the task of the foreign missionary is a hard one. Were it really an easy one, there would be no stability in human societies, for there would be no stability in human nature. 93 The person of light credulity is the person who easily takes on new faiths; not the person to whom tradition and loyalty mean something.

94 (4) It seems to follow, as a corollary, that the religion in which a person has been brought up has the first claim upon you. I accept this without hesitation.

95 But this does not mean that the claim is in all cases final and valid. There may be cases in which it seems to be the duty of a person to leave own spouse, to disinherit a child, to transfer own allegiance from one state to another. 96 Such cases are recognised as justifiable by people who are thoughtful and

disinterested. But the same people also recognise that, were such disruptions of the bonds which unite people in communities the rule and not the exception, it would mean the destruction of the community.

97 Similarly, it may become the duty of a person to transfer own allegiance from one church to another.

98 Are not religions, rationally compared, of different values? Have there not been religions indisputably on a moral level lower than that of the community which they represent? Undoubtedly.

99 And there have been governments so bad that the only refuge has seemed to lie in revolution. 100 It should be remembered, however, that revolutions can be resorted to too lightly; and that evolution, where possible, is preferable to revolution, whether in things secular or in things religious. 101 It is always easier to tear down than it is to build up. Nor does anyone, save the anarchist, tear down through wanton love of destruction. 102 Even you are apt to feel called upon to give some sort of a vague excuse for your violence.

103 It will be observed that I have all along spoken, not merely of religion, but of the Church. I have done this because religion is a social phenomenon. It has its institutions, and cannot live without them.

104 It cannot be denied that individual philosophers have evolved religious philosophies; it cannot be denied that solitary individuals, as such, have felt religious emotions. 105 How much of this is due to the fact that there have been religions and churches, I do not believe that they themselves have realised.

106 But, if religion is to be a vital force of any sort in a state, holding up ideals and stimulating the emotion that helps to realise them, it must be incorporated in an institution or in institutions. 107 You cannot remove the rose and keep the perfume. Even the memory of it tends to vanish. 108 A religious person without a church is like a citizen without a state. A citizen without a state is a person who makes the effort to

keep step, and to walk in single file, all alone.

109 (5) Having said so much for Religion and for the Church, it is right that I should refer to some things that may be said on the other side.

110 It may be claimed that people of science have a tendency to turn away from religion and to grow indifferent to or to deny religious duties. In this there is some truth, although notable exceptions to the rule may be cited.

111 But I have known many people of learning in two hemispheres, in some cases rather intimately. With the utmost respect for their learning and for their mental ability, I am still bound to say that I have found them quite human.

112 Some of them-- among the greatest of them-- have been so absorbed in their special fields of investigation, that they have not merely given scant attention to religion and to religious duties, but have done scant justice even to their own family life or to the state.

113 And all have not been equally broad people, capable of seeing clearly the part which religion has played in the life of humanity.

114 To this I must add that the impartial objectivity with which the scholar is supposed by the layman to view things is something of a chimera. 115 In saying this I criticise no one more severely than I criticise myself.

This may be taken as my apology for the utterance. 116 Have we not seen, not many years since, that, in the feeling aroused by an international conflict, some scores of great scholars on the one side found it possible to write and to sign a series of statements diametrically opposed to a series drawn up and signed by some scores of equally famous scholars on the other? 117 Was either group walled in hopelessly by sheer ignorance? It is easy to take lightly matters about which one does not particularly care.

118 There is another objection brought against religion and the church which seems to be more significant. Is there not a danger that an interest in these may hamper freedom of thought and encourage an undue conservatism?

119 It should be borne in mind that religion and the church are not the only forces that make for conservatism. 120 Family affection is conservative; the law is conservatism itself, and people feel that it should not be lightly tampered with. 121 How impartial and how ready to introduce innovations should people be in any field? Changes of certain kinds, though they may have no little bearing upon our comfort, do not threaten the existence of either state or church. 122 Could someone devise a scheme by which the periodical visits of the plumber could be avoided, we should all welcome it, and have no fear of the consequences.

123 Other innovations may bring in their train consequences more momentous. What people deeply care about, they cling to, and the question which confronts us is a very broad one. 124 Does humanity, on the whole, gain or lose by a given degree of conservatism? 125 An increase of knowledge is by no means the only thing that makes for civilisation. People may be highly enlightened, and yet rotten to the very core. 126 How much of the ballast of conservatism and of loyalty to tradition is it well to throw overboard in the interest of accelerated motion? 127 Those who, in our judgment, throw overboard much too much we have taken to deporting.

128 (6) Here it will very likely be objected: In all this you are advocating sheer Pragmatism! 129 Are we to accept God and look for a life to come, extending the spread of the community after the fashion suggested in Chapter 23, and broadening the outlook for a future and more perfect rationality, for no better reason than that it is our whim? 130 Shall we ‘believe’ and join ourselves with other ‘believers’, for no better reason than that something happens to tempt our will?

131 I beg the reader, if you will be just to my thought, to follow me here with close attention.

ETHICS AND BELIEF

132 Under this heading I must call attention to several points.

(1) I deny that I advocate Pragmatism at all. 133 The views

which I advocate are so many thousand years older than Pragmatism, that it seems unjust to them, at this late date, to compel them to take on a new name, 134 and to be carried about in swaddling clothes in the arms of the philosophers, after they have been functioning as adults in human communities from time immemorial.

135 (a) That abounding genius and most lovable man, william James, realising, as many lesser men did not realise, that the truth contained in such views was in danger of being lost sight of by many, 136 wrote, with characteristic vivacity and unerring dramatic instinct, the little volume called "Pragmatism." 137 It is with no lack of appreciation of the services he has rendered, that I venture to call attention to the fact that he has, in certain respects, failed to do justice to those views.

138 (b) Pragmatism has received attention partly on account of the exaggerations of which it has been guilty. These have repelled some people of sober mind. 139 It appears to be maintained that we can play fast and loose with the world, and make it what we will. I have criticised this elsewhere, and shall not do so now. 140 I shall only say here that I do not believe that so able a man of science as william James meant all that he said to be taken quite literally. He was gifted with a sense of humour. This, some lack.

141 (c) People of genius are apt to be strongly individualistic and impatient of restraints. 142 We have seen that there is such a thing as a public conscience and a private conscience. The latter is only too often a whimsical thing. 143 Pragmatism appears to teach that any individual, as such, has a moral right to adopt any hypothesis live enough to appeal to own individual will. 144 One has only to call to mind the extraordinary assortment of guests collected by Signer Papini in his novel pragmatic "hotel." Can such, by any human ingenuity, be moulded into anything resembling an orderly community?

145 (d) In a later work, Professor James, realising that religion and theology are not identical, and strongly desirous of promoting

religion, deals severely with theology and the theologians.

146 One truth has been seen, but has not another been treated with some injustice? 147 Is it not inevitable that reflective people, who cherish beliefs, should endeavour to give a more or less clear and reasoned account of them? 148 What degree of success is to be looked for, and what emphasis should be laid upon such attempts, are questions which will probably divide people for a long time to come.

149 (2) Hence, I do not advocate Pragmatism at all, but I agree with it in so far, at least, as to recognise that belief is a phenomenon which concerns the will. 150 That it is so is a commonplace of psychology; and it was recognised dimly long before the psychologist, as such, came into being.

151 That it is so is rather readily overlooked where the evidence for certain beliefs is undeniable and overpowering. 152 I seem forced to believe that I am now writing. I do not seem forced in a similar manner to accept a particular metaphysical doctrine or a given system of theological dogma.

153 Intelligent people appear to be able to discuss such matters with each other and to agree to disagree. If they are tolerant, they can do this good-temperedly. It is worthwhile to keep several points clearly in mind:

154 (a) Beliefs are not a matter of indifference. Some evidently lead to palpable and speedy disaster. 155 If I elect to believe that I can fly, and leave my window-sill as lightly as does the sparrow I now see there, it is time for my friends to provide me with an attendant.

156 Other beliefs are not of this character. And that they will lead to ultimate disaster of any sort to myself or to others seems highly disputable.

157 (b) What may be called scientific evidence may be adduced for different beliefs with varying degrees of cogency. 158 Hegel tries to distinguish between the authority of the state and that of the church by attributing to the former something like infallibility. He maintains that religion "believes," but that the state "knows."

159 We have had abundant reason to see that the state does not

'know', but 'believes', and that it is very often mistaken in its beliefs.

160 Nevertheless, it does its best to keep order, to be as rational as it can, and to look a little way ahead. I think it ought to be admitted that it concerns itself with matters more 'terre-a-terre' than does the church; 161 and that it ought not to be taken as a general truth that the state should take its orders from the church. 162 It has to do with matters which, like our daily bread, must be assured, if certain other matters are to be considered at all. In so far Hegel was right. 163 There are those who forget this, and talk as if metaphysical systems and religious beliefs should be forced upon humans in spite of themselves, either by sheer force of wind-power or with the aid of the police.

164 To this it may be added that beliefs range from an unshakable and unthinking conviction to that degree of acquiescence which can scarcely be distinguished from mere loyalty. 165 It remains to be proved that the latter may not come under the head of belief, and is something to be condemned.

166 (c) Beliefs, being phenomena which concern the will, are at the mercy of many influences. Is there any scientific evidence open to the parallelist in psychology which is not also open to the interactionist? 167 Is the conviction that one's country is in the right a mere matter of scientific evidence? 168 Are the enlightened adherents of a given sect wholly ignorant of the tenets and of the arguments of another?

169 I maintain that tradition and loyalty have their claims. They are not the only claims that can be made, but they are worthy of serious consideration. 170 Human is human, whether you are dealing with things secular or with things religious. To see that such claims are recognised everywhere we have only to open our eyes. 171 It is absurd to believe that all the adherents of a political party are influenced only by the logical arguments published in the newspapers. 172 A newspaper that lived on logic alone would starve to death.

173 It is ridiculous to believe that all the members of a church are induced to become such only by

the arguments of the theologians, many of which arguments the mass of the members are not in a position to comprehend at all.

174 And learned people are humans, too. The philosopher who really kept the self free from all prepossessions would, if you did much serious reading, probably epitomise in own person a large part of the history of philosophy, falling out of one system and into another, like an acrobat.

175 But you are usually caught young and influenced by some teacher, or you are carried away by some book or by the spirit of the times. 176 As you are not an abnormal creature, you acts like other humans, becoming an adherent of a school, or, if you are ambitious, starting one.

177 (d) We have seen that the individual has duties toward the state. We have also seen that the state has duties toward the individual. 178 The state should not make it practically impossible for you to be a loyal citizen. 179 A somewhat similar duty appears to be incumbent upon the church.

A church that forces upon all of its members, as a condition of membership, intricate and abstract systems of metaphysics; 180 a church that does not teach good-will toward people, but makes walls of separation out of slight differences of opinion; 181 a church that lags behind the moral sense of the community in which it finds itself; a church that starves the religious life; these, and such as these, must expect to lose adherents. 182 It is not that people reject them; it is that they reject humans.

183 Those who read history have no reason to think that people, except here and there and under exceptional circumstances, will cease to regard religious duties as duties. 184 I have not ventured to offer any detailed solution of the problem of loyalty to the church. But neither have I ventured to offer any detailed solution of the problem of loyalty to the state. 185 In the one case, as in the other, I suggest as guides tradition, intuition and reflective reasoning. I can only counsel good sense and some degree of patience. 186 It may be said: You do not solve the difficulty for the individual. I admit it. Such difficulties every

thinking human must meet and solve for yourself.

THE LAST WORD

187 Those persons, whether students, or teachers, who dislike this final chapter, may omit it, without detriment to the rest of the book. 188 The doctrine of the Rational social-will is not founded upon this chapter. The latter is a mere appendix.

189 I regret that, in a work in which I have wished to avoid disputation, I have felt compelled to touch upon religious duties at all. 190 But they have played, and still play, so significant a role in the history of humankind, that the omission could scarcely have been made. 191 You are free to take them or leave them; but you are not free to take or leave the Rational social-will as the Moral Arbiter of the Destinies of Human.

The Book of Divine Panagogue called

MIND

WHAT IS THE MIND?
George Stuart Fullerton

PRIMITIVE NOTIONS OF MIND

1 The soul or mind, that something to which we refer sensations and ideas of all sorts, 2 is an object that humans do not seem to know very clearly and definitely, though they feel so sure of its existence that they regard it as the height of folly to call it in question. 3 That you have a mind, no human doubts; what your mind is, you may be quite unable to say.

4 We have seen that children, when quite young, can hardly be said to recognise that they have minds at all. This does not mean that what is mental is not given in their experience. 5 They know that they must open their eyes to see things, and must lay their hands upon them to feel them; they have had pains and pleasures, memories and fancies. 6 In short, they have within their reach all the materials needed in framing a conception of the mind, and in drawing clearly the distinction between their minds and external things.

7 Nevertheless, they are incapable of using these materials; their attention is engrossed with what is physical,-- 8 with their own bodies and the bodies of others, with the things that they can eat, with the toys with which they can play, and the like. 9 It is only later that there emerges even a tolerably clear conception of a self or mind different from the physical and contrasted with it.

10 Primitive human is almost as material in own thinking as is the young child. Of this we have traces in many of the words which have come to be applied to the mind.

11 Our word "spirit" is from the Latin ’spiritus’, originally a breeze. The Latin word for the soul, the word used by the great philosophers all through the Middle Ages, ‘anima’ (Greek, anemos), has the same significance. 12 In the Greek New Testament, the word used for spirit (pneuma) carries a similar suggestion. When we are told in the Book of Genesis that "human became a living soul," we may read the word literally "a breath."

13 What more natural than that the person who is just awakening to a consciousness of that elusive entity the mind should confuse it with that breath which is the most striking outward and visible sign that distinguishes a living human from a dead one?

14 That those who first tried to give some scientific account of the soul or mind conceived it as a material thing, and that it was sufficiently common to identify it with the breath, we know from direct evidence. 15 A glance at the Greek philosophy, to which we owe so much that is of value in our intellectual life, is sufficient to disclose how difficult it was for thinking humans to attain to a higher conception.

16 Thus, Anaximenes of Miletus, who lived in the sixth century before Christ, says that "our soul, which is air, rules us." 17 A little later, Heraclitus, a man much admired for the depth of his reflections, maintains that the soul is a fiery vapour, evidently identifying it with the warm breath of the living creature. 18 In the fifth century, B.C., Anaxagoras, who accounts for the ordering of the elements into a system of things by referring to the activity of Mind or Reason, calls mind "the finest of things," 19 and it seems clear that he did not conceive of it as very different in nature from the other elements which enter into the constitution of the world.

20 Democritus of Abdera (between 460 and 360 B.C.), that great investigator of Nature and brilliant writer, developed a materialistic doctrine that admits the existence of nothing save atoms and empty space. 21 He conceived the soul to consist of fine, smooth, round atoms, which are also atoms of fire. 22 These atoms are distributed through the whole body, but function differently in different places-- in the brain they give us thought, in the heart, anger, and in the liver, desire. 23 Life lasts just so long as we breathe in and breathe out such atoms.

24 The doctrine of Democritus was taken up by Epicurus, who founded his school three hundred years before Christ-- a school which lived and prospered for a very long time. 25 Those who are interested in seeing how a materialistic psychology can be

carried out in detail by an ingenious mind should read the curious account of the mind presented in his great poem, "On Nature," by the Roman poet Lucretius, an ardent Epicurean, who wrote in the first century B.C. 26 The school which we commonly think of contrasting with the Epicurean, and one which was founded at about the same time, is that of the Stoics. 27 Certainly the Stoics differed in many things from the Epicureans; their view of the world, and of the life of human, was a much nobler one; 28 but they were uncompromising materialists, nevertheless, and identified the soul with the warm breath that animates human.

THE MIND AS IMMATERIAL

29 It is scarcely too much to say that the Greek philosophy as a whole impresses the modern mind as representing the thought of a people to whom it was not unnatural to think of the mind as being a breath, a fire, a collection of atoms, a something material. 30 To be sure, we cannot accuse those twin stars that must ever remain the glory of literature and science, Plato and Aristotle, of being materialists. 31 Plato (427-347, B.C.) distributes, it is true, the three-fold soul, which he allows human, in various parts of the human body, in a way that at least suggests the Democritean distribution of mind-atoms. 32 The lowest soul is confined beneath the diaphragm; the one next in rank has its seat in the chest; and the highest, the rational soul, is enthroned in the head. 33 However, he has said quite enough about this last to indicate clearly that he conceived it to be free from all taint of materiality.

34 As for Aristotle (384-322, B.C.), who also distinguished between the lower psychical functions and the higher, we find him sometimes speaking of soul and body in such a way as to lead people to ask themselves whether he is really speaking of two things at all; 35 but when he specifically treats of the ‘nous’ or reason, he insists upon its complete detachment from everything material. 36 Human's reason is not subjected to the fate of the lower psychical

functions, which, as the "form" of the body, perish with the body; it enters from without, and it endures after the body has passed away. 37 It is interesting to note, however, an occasional lapse even in Aristotle. When he comes to speak of the relation to the world of the Divine Mind, the First Cause of Motion, which he conceives as pure Reason, 38 he represents it as ‘touching’ the world, although it remains itself ‘untouched’. We seem to find here just a flavor-- an inconsistent one-- of the material.

39 Such reflections as those of Plato and Aristotle bore fruit in later ages. 40 When we come down to Plotinus the Neo-Platonist (204-269, A.D.), we have left the conception of the soul as a warm breath, or as composed of fine round atoms, far behind. 41 It has become curiously abstract and incomprehensible. It is described as an immaterial substance. This substance is, in a sense, in the body, or, at least, it is present to the body. 42 But it is not in the body as material things are in this place or in that. ‘It is as a whole in the whole body, and it is as a whole in every part of the body’. 43 Thus the soul may be regarded as divisible, since it is distributed throughout the body; but it must also be regarded as indivisible, since it is wholly in every part.

44 Let the person to whom such sentences as these mean anything rejoice in the meaning that you are able to read into them! 45 If you can go as far as Plotinus, perhaps you can go as far as Cassiodorus (477-570, A.D.), and maintain that the soul is not merely as a whole in every part of the body, but is wholly in each of its own parts.

46 Upon reading such statements one's first impulse is to exclaim: How is it possible that people of sense should be led to speak in this irresponsible way? 47 And when they do speak thus, is it conceivable that other people should seriously occupy themselves with what they say?

48 But if one has the historic sense, and knows something of the setting in which such doctrines come to the birth, one cannot regard it as remarkable that people of sense should urge them. 49 No one coins them independently out of own brain; little by little humans are impelled along the

path that leads to such conclusions. 50 Plotinus was a careful student of the philosophers that preceded him. He saw that mind must be distinguished from matter, and he saw that what is given a location in space, in the usual sense of the words, is treated like a material thing. 51 On the other hand, he had the common experience that we all have of a relation between mind and body. How do justice to this relation, and yet not materialise mind?

52 What he tried to do is clear, and it seems equally clear that he had good reason for trying to do it. 53 But it appears to us now that what he actually did was to make of the mind or soul a something very like an inconsistent bit of matter, that is somehow in space, and yet not exactly in space, a something that can be in two places at once, a logical monstrosity. 54 That his doctrine did not meet with instant rejection was due to the fact, already alluded to, that our experience of the mind is something rather dim and elusive. 55 It is not easy for a person to say what it is, and, hence, it is not easy for a person to say what it is not.

56 The doctrine of Plotinus passed over to Saint Augustine, and from him it passed to the philosophers of the Middle Ages. 57 How extremely difficult it has been for the world to get away from it at all, is made clearly evident in the writings of that remarkable man Descartes.

58 Descartes wrote in the seventeenth century. The long sleep of the Middle Ages was past, and the several sciences had sprung into a vigorous and independent life. 59 It was not enough for Descartes to describe the relation of mind and body in the loose terms that had prevailed up to his time. 60 He had made a careful study of anatomy, and he realised that the brain is a central organ to which messages are carried by the nerves from all parts of the body. 61 He knew that an injury to the nerve might prevent the receipt of a message, i.e. he knew that a conscious sensation did not come into being until something happened in the brain.

62 Nor was he content merely to refer the mind to the brain in a general way. He found the "little pineal-gland" in the midst of the

brain to be in what he regarded as an admirable position to serve as the seat of the soul. 63 To this convenient little central office he relegated it; and he describes in a way that may to-day well provoke a smile the movements that the soul imparts to the pineal-gland, 64 making it incline itself in this direction and in that, and making it push the "animal spirits," the fluid contained in the cavities of the brain, towards various "pores."

65 Thus he writes: "Let us, then, conceive of the soul as having her chief seat in the little gland that is in the middle of the brain, 66 whence she radiates to all the rest of the body by means of the spirits, the nerves, and even the blood, which, participating in the impressions of the spirits, can carry them through the arteries to all the members."

67 And again: "Thus, when the soul wills to call anything to remembrance, this volition brings it about that the gland, inclining itself successively in different directions, 68 pushes the spirits towards divers parts of the brain, until they find the part which has the traces that the object which one wishes to recollect has left there."

69 We must admit that Descartes' scientific studies led him to make this mind that sits in the little pineal-gland something very material. 70 It is spoken of as though it pushed the gland about; it is affected by the motions of the gland, as though it were a bit of matter. 71 It seems to be a less inconsistent thing than the "all in the whole body" soul of Plotinus; but it appears to have purchased its comprehensibility at the expense of its immateriality.

72 Shall we say that Descartes frankly repudiated the doctrine that had obtained for so many centuries? We cannot say that; he still held to it. But how could he? 73 The reader has perhaps remarked above that he speaks of the soul as having her ‘chief’ seat in the pineal-gland. 74 It seems odd that he should do so, but he still held, even after he had come to his definite conclusions as to the soul's seat, to the ancient doctrine that the soul is united to all the parts of the body "conjointly." 75 He could not wholly repudiate a venerable tradition.

76 We have seen, thus, that people first conceived of the mind as material and later came to rebel against such a conception. But we have seen, also, that the attempt to conceive it as immaterial was not wholly successful. 77 It resulted in a something that we may describe as inconsistently material rather than as not material at all.

MODERN COMMON SENSE NOTIONS OF THE MIND

78 Under this heading I mean to sum up the opinions as to the nature of the mind usually held by the intelligent persons about us to-day who make no claim to be regarded as philosophers. 79 Is it not true that a great many of them believe:-- (1) That the mind is in the body? (2) That it acts and reacts with matter? (3) That it is a substance with attributes? (4) That it is non-extended and immaterial?

80 I must remark at the outset that this collection of opinions is by no means something gathered by the plain person from one's own experience. These opinions are the echoes of old philosophies. 81 They are a heritage from the past, and have become the common property of all intelligent persons who are even moderately well-educated. 82 Their sources have been indicated in the preceding sections; but most persons who cherish them have no idea of their origin.

83 People are apt to suppose that these opinions seem reasonable to them merely for the reason that they find in their own experience evidence of their truth. But this is not so. 84 Have we not seen above how long it took humans to discover that they must not think of the mind as being a breath, or a flame, or a collection of material atoms? 85 The people who erred in this way were abler than most of us can pretend to be, and they gave much thought to the matter. 86 And when at last it came to be realised that mind must not thus be conceived as material, those who endeavoured to conceive it as something else gave, after their best efforts, a very queer account of it indeed.

87 Is it in the face of such facts reasonable to suppose that our friends and acquaintances, who strike us as having reflective

powers in nowise remarkable, have independently arrived at the conception that the mind is a non-extended and immaterial substance? 88 Surely they have not thought all this out for themselves. They have taken up and appropriated unconsciously notions which were in the air, so to speak. 89 They have inherited their doctrines, not created them. It is well to remember this, for it may make us the more willing to take up and examine impartially what we have uncritically turned into articles of belief.

90 The first two articles, namely, that the mind is in the body and that it acts upon, and is acted upon by, material things, I shall discuss at length in the next chapter. 91 Here I pause only to point out that the plain person does not put the mind into the body quite unequivocally. 92 I think it would surprise you to be told that a line might be drawn through two heads in such a way as to transfix two minds. 93 And I remark, further, that you have no clear idea of what it means for mind to act upon body or body to act upon mind. 94 How does an immaterial thing set a material thing in motion? Can it touch it? Can it push it? Then what does it do?

95 But let us pass on to the last two articles of faith mentioned above. We all draw the distinction between 'substance' and its 'attributes' or 'qualities'. 96 The distinction was remarked and discussed many centuries ago, and much has been written upon it. 97 I take up the ruler on my desk; it is recognised at once as a bit of wood. How? It has such and such qualities. 98 My paper-knife is of silver. How do I know it? It has certain other qualities. 99 I speak of my mind. How do I know that I have a mind? I have sensations and ideas. If I experienced no mental phenomena of any sort, evidence of the existence of a mind would be lacking.

100 Now, whether I am concerned with the ruler, with the paper-knife, or with the mind, have I direct evidence of the existence of anything more than the whole group of qualities? Do I ever perceive the substance?

101 In the older philosophy, the substance 'substantia' was conceived to be a something not

directly perceived, but only inferred to exist-- a something underlying the qualities of things and, as it were, holding them together. 102 It was believed in by philosophers who were quite ready to admit that they could not tell anything about it. 103 For example, John Locke (1632-1704), the English philosopher, holds to it stoutly, and yet describes it as a mere "we know not what," whose function it is to hold together the bundles of qualities that constitute the things we know.

104 In the modern philosophy people still distinguish between substance and qualities. It is a useful distinction, and we could scarcely get on without it. 105 But an increasing number of thoughtful persons repudiate the old notion of substance altogether.

106 We may, they say, understand by the word "substance" the whole group of qualities ‘as a group’-- not merely the qualities that are revealed at a given time, but all those that we have reason to believe a fuller knowledge would reveal. 107 In short, we may understand by it just what is left when the "we know not what" of the Lockian has been discarded.

108 This notion of substance we may call the more modern one; yet we can hardly say that it is the notion of the plain person. 109 He does not make very clear to himself just what is in his thought, but I think we do him no injustice in maintaining that he is something of a Lockian, even if he has never heard of Locke. 110 The Lockian substance is, as the reader has seen, a sort of "unknowable."

111 And now for the doctrine that the mind is non-extended and immaterial.

With these affirmations we may heartily agree; but we must admit that the plain person enunciates them without having a very definite idea of what the mind is.

112 You regards as in your mind all your sensations and ideas, all your perceptions and mental images of things. 113 Now, suppose I close my eyes and picture to myself a barber's pole. Where is the image? We say, in the mind. Is it extended? We feel impelled to answer, No. 114 But it certainly ‘seems’ to be extended; the white and the red upon it

appear undeniably side by side. May I assert that this mental image has no extension whatever? Must I deny to it ‘parts’, or assert that its parts are not side by side?

115 It seems odd to maintain that a something as devoid of parts as is a mathematical point should yet appear to have parts and to be extended. 116 On the other hand, if we allow the image to be extended, how can we refer it to a non-extended mind?

117 To such questions as these, I do not think that the plain person has an answer. That they can be answered, I shall try to show in the last section of this chapter. 118 But one cannot answer them until one has attained to rather a clear conception of what is meant by the mind.

119 And until one has attained to such a conception, the statement that the mind is immaterial must remain rather vague and indefinite. 120 As we saw above, even the Plotinic soul was inconsistently material rather than immaterial. It was not excluded from space; it was referred to space in an absurd way. 121 The mind as common sense conceives it, is the successor of this Plotinic soul, and seems to keep a flavour of what is material after all. This will come out in the next chapter, where we shall discuss mind and body.

THE PSYCHOLOGIST AND THE MIND

122 When we ask how the psychologist conceives of the mind, we must not forget that psychologists are many and that they differ more or less from each other in their opinions. 123 When we say "the psychologist" believes this or that, we mean usually no more than that the opinion referred to is prevalent among people of that class, or that it is the opinion of those whom we regard as its more enlightened members.

124 Taking the words in this somewhat loose sense, I shall ask what the psychologist's opinion is touching the four points set forth in the preceding section. How far does you agree with the plain person?

125 (1) There can be no doubt that you refers the mind to the body in some way, although you may

shake your head over the use of the word "in."

126 (2) As to whether the mind acts and reacts with matter, in any sense of the words analogous to that in which they are commonly used, there is a division in the camp. 127 Some affirm such interaction; some deny it. The matter will be discussed in the next chapter.

128 (3) The psychologist-- the more modern one-- inclines to repudiate any substance or substratum of the sort accepted in the Middle Ages and believed in by many people now. 129 To you the mind is the whole complex of mental phenomena in their interrelations. 130 In other words, the mind is not an unknown and indescribable something that is merely inferred; it is something revealed in consciousness and open to observation.

131 (4) The psychologist is certainly not inclined to regard the mind or any idea belonging to it as material or as extended. But you does recognise implicitly, if not explicitly, that ideas are composite. 132 To you, as to the plain person, the image held in the memory or imagination ‘seems’ to be extended, and you can distinguish its parts. 133 You does not do much towards clearing away the difficulty alluded to at the close of the last section. It remains for the metaphysician to do what you can with it, and to you we must turn if we wish light upon this obscure subject.

THE METAPHYSICIAN AND THE MIND

134 I have reserved for the next chapter the first two points mentioned as belonging to the plain person's doctrine of the mind. 135 In what sense the mind may be said to be in the body, and how it may be conceived to be related to the body, are topics that deserve to be treated by themselves in a chapter on "Mind and Body." 136 Here I shall consider what the metaphysician has to say about the mind as substance, and about the mind as non-extended and immaterial.

137 It has been said that the Lockian substance is really an "unknowable." No one pretends to have experience of it; it is revealed

to no sense; 138 it is, indeed, a name for a mere nothing, for when we abstract from a thing, in thought, every single quality, we find that there is left to us nothing whatever.

139 We cannot say that the substance, in this sense of the word, is the ‘reality’ of which the qualities are ‘appearances’. 140 In the Panagogue book of Thoughts, we saw just what we may legitimately mean by realities and appearances, and it was made clear that an unknowable of any sort cannot possibly be the reality to which this or that appearance is referred. 141 Appearances and realities are experiences which are observed to be related in certain ways. 142 That which is not open to observation at all, that of which we have, and can have, no experience, we have no reason to call the reality of anything. 143 We have, in truth, no reason to talk about it at all, for we know nothing whatever about it; and when we do talk about it, it is because we are labouring under a delusion.

144 This is equally true whether we are concerned with the substance of material things or with the substance of minds. 145 An "unknowable" is an "unknowable" in any case, and we may simply discard it. 146 We lose nothing by so doing, for one cannot lose what one has never had, and what, by hypothesis, one can never have. The loss of a mere word should occasion us no regret.

147 Now, we have seen that we do not lose the world of real material things in rejecting the "Unknowable" (In the Panagogue book of Thoughts). 148 The things are complexes of qualities, of physical phenomena; and the more we know about these, the more do we know about real things.

149 But we have also seen (In the Panagogue book of Origin) that physical phenomena are not the only phenomena of which we have experience. 150 We are conscious of mental phenomena as well, of the phenomena of the subjective order, of sensations and ideas. 151 Why not admit that these ‘constitute’ the mind, as physical phenomena constitute the things which belong to the external world?

152 You who says this says no more than that the mind is known and is knowable. It is what it is perceived to be; and the more we know of mental phenomena, the more do we know of the mind.

153 Shall we call the mind as thus known a ‘substance’? 154 That depends on the significance which we give to this word. It is better, perhaps, to avoid it, for it is fatally easy to slip into the old use of the word, and then to say, as people have said, that we do not know the mind as it is, but only as it appears to us to be-- 155 that we do not know the reality, but only its appearances.

156 And if we keep clearly before us the view of the mind which I am advocating, we shall find an easy way out of the difficulties that seem to confront us when we consider it as non-extended and immaterial.

157 Certain complexes of mental phenomena-- for example, the barber's pole above alluded to-- certainly appear to be extended. Are they really extended? 158 If I imagine a tree a hundred feet high, is it really a hundred feet high? Has it any real size at all? Our problem melts away when we realise what we mean by this "real size." 159 In the Panagogue book of Thoughts, I have distinguished between apparent space and real space. Real space is, as was pointed out, the "plan" of the real physical world. 160 To occupy any portion of real space, a thing must be a real external thing; that is, the experiences constituting it must belong to the objective order, they must not be of the class called mental. 161 We all recognise this, in a way. We know that a real material foot rule cannot be applied to an imaginary tree. We say, How big did the tree seen in a dream ‘seem’; we do not say, How big was it ‘really’? 162 If we did ask such a question, we should be puzzled to know where to look for an answer.

163 And this for a very good reason. You who asks: How big was that imaginary tree really? asks, in effect: How much real space did the unreal tree fill? 164 The question is a foolish one. It assumes that phenomena not in the objective order are in the objective order. As well ask how a colour smells or how a sound looks. 165

MIND

When we are dealing with the material we are not dealing with the mental, and we must never forget this.

166 The tree imagined or seen in a dream seems extended. Its extension is ‘apparent’ extension, and this apparent extension has no place in the external world whatever. 167 But we must not confound this apparent extension with a real mathematical point, and call the tree non-extended in this sense. 168 If we do this we are still in the old error-- we have not gotten away from real space, but have substituted position in that space for extension in that space. 169 Nothing mental can have even a position in real space. To do that it would have to be a real thing in the sense indicated.

170 Let us, then, agree with the plain person in affirming that the mind is non-extended, but let us avoid misconception. 171 The mind is constituted of experiences of the subjective order. None of these are in space-- real space. But some of them have apparent extension, and we must not overlook all that this implies.

172 Now for the mind as immaterial. We need not delay long over this point. 173 If we mean by the mind the phenomena of the subjective order, and by what is material the phenomena of the objective order, surely we may and must say that the mind is immaterial. 174 The two classes of phenomena separate themselves out at once.

MIND AND BODY

George Stuart Fullerton

IS THE MIND IN THE BODY?

2 There was a time, as we have seen in the last chapter, when it did not seem at all out of the way to think of the mind as in the body, and very literally in the body. 2 You who believes the mind to be a breath, or a something composed of material atoms, can conceive it as being in the body as unequivocally as chairs can be in a room. 3 Breath can be inhaled and exhaled; atoms can be in the head, or in the chest, or the heart, or anywhere else in the animal economy.

4 There is nothing dubious about this sense of the preposition "in." But we have also seen that, as soon as humans began to realise that the mind is not material, the question of its presence in the body became a serious problem. 5 If I say that a chair is in a room, I say what is comprehensible to every one. It is assumed that it is in a particular place in the room and is not in some other place. 6 If, however, I say that the chair is, as a whole, in every part of the room at once, I seem to talk nonsense. This is what Plotinus and those who came after him said about the mind. 7 Are their statements any the less nonsensical because they are talking about minds? 8 When one speaks about things mental, one must not take leave of good sense and utter unmeaning phrases.

9 If minds are enough like material things to be in anything, they must be in things in some intelligible sense of the word. 10 It will not do to say: I use the word "in," but I do not really mean ‘in’. If the meaning has disappeared, why continue to use the word? It can only lead to mystification.

11 Descartes seemed to come back to something like an intelligible meaning when he put the mind in the pineal-gland in the brain. 12 Yet, as we have seen, he clung to the old conception. He could not go back to the frank materialisation of mind.

13 And the plain person to-day labours under the same difficulty. You puts the mind in the body, in the brain, but you does not put it there frankly and unequivocally. It is in the brain and yet not exactly in the brain. Let us see if this is not the case.

14 If we ask you: Does the person who wags your head move your mind about? Does you who mounts a step raise your mind some inches? Does you who sits down on a chair lower your mind? 15 I think we shall find that you hesitates in your answers. 16 And if we go on to say: Could a line be so drawn as to pass through your image of me and my image of you, and to measure their distance from one another? 17 I think you will say, No. You does not regard minds and their ideas as existing in space in this fashion.

18 Furthermore, it would not strike the plain person as absurd if we said to you: Were our senses far more acute than they are, it is conceivable that we should be able to perceive every atom in a given human body, and all its motions. 19 But would you be willing to admit that an increase in the sharpness of sense would reveal to us directly the mind connected with such a body? 20 It is not, then, in the body as the atoms are. It cannot be seen or touched under any conceivable circumstances. What can it mean, hence, to say that it is ‘there’? 21 Evidently, the word is used in a peculiar sense, and the plain person cannot help us to a clear understanding of it.

22 Your position becomes intelligible to us when we realise that you have inherited the doctrine that the mind is immaterial, 23 and that you struggles, at the same time, with the tendency so natural to human to conceive it after the analogy of things material. 24 You thinks of it as in the body, and, nevertheless, tries to dematerialise this "in." Your thought is sufficiently vague, and is inconsistent, as might be expected.

25 If we will bear in mind what was said in the closing section of the last chapter, we can help you over your difficulty. 26 That mind and body are related there can be no doubt. But should we use the word "in" to express this relation?

27 The body is a certain group of phenomena in the objective order; that is, it is a part of the external world. The mind consists of experiences in the subjective order. 28 We have seen that no mental phenomenon can occupy space-- real space, the space of the external world-- and that it cannot even have a position in space. 29 As mental, it is excluded from the objective order altogether. The mind is not, then, strictly speaking, ‘in’ the body, although it is related to it. 30 It remains, of course, to ask ourselves how we ought to conceive the relation. This we shall do later in the present chapter.

31 But, it may be said, it would sound odd to deny that the mind is in the body. Does not every one use the expression? What can we substitute for it? 32 I answer: If it

is convenient to use the expression let us continue to do so. Humans must talk so as to be understood. 33 But let us not perpetuate error, and, as occasion demands it, let us make clear to ourselves and to others what we have a right to understand by this ‘in’ when we use it.

THE DOCTRINE OF THE INTERACTIONIST

34 There is no human who does not know that your mind is related to your body as it is not to other material things. 35 We open our eyes, and we see things; we stretch out our hand, and we feel them; our body receives a blow, and we feel pain; we wish to move, and the muscles are set in motion.

36 These things are matters of common experience. We all perceive, in other words, that there is an interaction, in some sense of the term, between mind and body. 37 But it is important to realise that one may be quite well aware of all such facts, and yet may have very vague notions of what one means by body and by mind, and may have no definite theory at all of the sort of relation that obtains between them. 38 The philosophers tries to attain to a clearer conception of these things. Their task, be it remembered, is to analyse and explain, not to deny, the experiences which are the common property of humankind.

39 In the present day the two theories of the relation of mind and body that divide the field between them and stand opposed to each other are ‘interactionism’ and ‘parallelism’. 40 I have used the word "interaction" a little above in a loose sense to indicate our common experience of the fact that we become conscious of certain changes brought about in our body, and that our purposes realise themselves in action. 41 But every one who accepts this fact is not necessarily an interactionist. The latter is a person who holds a certain more or less definite theory as to what is implied by the fact. Let us take a look at this doctrine.

42 Physical things interact. A billiard ball in motion strikes one which has been at rest; the former loses its motion, the latter begins to roll away. 43 We explain the occurrence by a reference to the

laws of mechanics; that is to say, we point out that it is merely an instance of the uniform behaviour of matter in motion under such and such circumstances.

44 We distinguish between the state of things at one instant and the state of things at the next, and we call the former ‘cause’ and the latter ‘effect’.

45 It should be observed that both cause and effect here belong to the one order, the objective order. They have their place in the external world. 46 Both the balls are material things; their motion, and the space in which they move, are aspects of the external world.

47 If the balls did not exist in the same space, if the motion of the one could not be towards or away from the other, if contact were impossible, we would manifestly have no interaction ‘in the sense of the word employed above’. 48 As it is, the interaction of physical things is something that we can describe with a good deal of definiteness. 49 Things interact in that they stand in certain physical relations, and undergo changes of relations according to certain laws.

50 Now, to one who conceives the mind in a grossly material way, the relation of mind and body can scarcely seem to be a peculiar problem, different from the problem of the relation of one physical thing to another.

51 If my mind consists of atoms disseminated through my body, its presence in the body appears as unequivocal as the presence of a dinner in a person who has just risen from the table. 52 Nor can the interaction of mind and matter present any unusual difficulties, for mind is matter. 53 Atoms may be conceived to approach each other, to clash, to rearrange themselves. Interaction of mind and body is nothing else than an interaction of bodies. One is not forced to give a new meaning to the word.

54 When, however, one begins to think of the mind as immaterial, the case is very different. How shall we conceive an immaterial thing to be related to a material one?

55 Descartes placed the mind in the pineal-gland, and in so far he seemed to make its relation to the gland similar to that between two

material things. 56 When he tells us that the soul brings it about that the gland bends in different directions, we incline to view the occurrence as very natural-- is not the soul in the gland?

57 But, on the other hand, Descartes also taught that the essence of mind is ‘thought’ and the essence of body is ‘extension’. 58 He made the two natures so different from each other that people began to ask themselves how the two things could interact at all. 59 The mind wills, said one philosopher, but that volition does not set matter in motion; when the mind wills, God brings about the appropriate change in material things. 60 The mind perceives things, said another, but that is not because they affect it directly; it sees things in God. 61 Ideas and things, said a third, constitute two independent series; no idea can cause a change in things, and no thing can cause a change in ideas.

62 The interactionist is a person who refuses to take any such turn as these philosophers. Your doctrine is much nearer to that of Descartes than it is to any of theirs. 63 You uses the one word "interaction" to describe the relation between material things and also the relation between mind and body, nor does you dwell upon the difference between the two. 64 You insists that mind and matter stand in the one causal nexus; that a change in the outside world may be the ‘cause’ of a perception coming into being in a mind, and that a volition may be the ‘cause’ of changes in matter.

65 What shall we call the plain person? I think we may call you an interactionist in embryo. 66 The stick in your hand knocks an apple off of the tree; your hand seems to you to be set in motion because you wills it. 67 The relation between your volition and the motion of your hand appears to you to be of much the same sort as that between the motion of the stick and the fall of the apple. 68 In each case you thinks you have to do with the relation of cause and effect.

69 The opponent of the interactionist insists, however, that the plain person is satisfied with this view of the matter only because you have not completely stripped off the tendency to

conceive the mind as a material thing. 70 And you accuses the interactionist of having fallen a prey to the same weakness.

71 Certainly, it is not difficult to show that the interactionists write as though the mind were material, and could be somewhere in space. 72 The late Dr. McCosh fairly represents the thought of many, and he was capable of expressing himself as follows;

73 [1] "It may be difficult to ascertain the exact point or surface at which the mind and body come together and influence each other, in particular, how far into the body (Descartes without proof thought it to be in the pineal-gland), 74 but it is certain, that when they do meet mind knows body as having its essential properties of extension and resisting energy."

75 How can an immaterial thing be located at some point or surface within the body? 76 How can a material thing and an immaterial thing "come together" at a point or surface? 77 And if they cannot come together, what have we in mind when we say they interact?

78 The parallelist, for it is you who opposes interactionism, insists that we must not forget that mental phenomena do not belong to the same order as physical phenomena. 79 You points out that, when we make the word "interaction" cover the relations of mental phenomena to physical phenomena as well as the relations of the latter to each other, we are assimilating heedlessly facts of two different kinds and are obliterating an important distinction.

80 You makes the same objection to calling the relations between mental phenomena and physical phenomena ‘causal’. 81 If the relation of a volition to the movement of the arm is not the same as that of a physical cause to its physical effect, why, you argues, do you disguise the difference by calling them by the same name?

THE DOCTRINE OF THE PARALLELIST

82 Thus, the parallelist is a person who is so impressed by the gulf between physical facts and mental facts that you refuses to regard them as parts of the one order of

causes and effects. 83 You cannot, you claims, make a single chain out of links so diverse.

84 Some part of a human body receives a blow; a message is carried along a sensory nerve and reaches the brain; 85 from the brain a message is sent out along a motor nerve to a group of muscles; the muscles contract, and a limb is set in motion. 86 The immediate effects of the blow, the in-going message, the changes in the brain, the outgoing message, the contraction of the muscles-- all these are physical facts. One and all may be described as motions in matter.

87 But the person who received the blow becomes conscious that you was struck, and both interactionist and parallelist regard you as becoming conscious of it when the incoming message reaches some part of the brain. 88 What shall be done with this consciousness? The interactionist insists that it must be regarded as a link in the physical chain of causes and effects-- you breaks the chain to insert it. 89 The parallelist maintains that it is inconceivable that such an insertion should be made. You regards the physical series as complete in itself, and you places the consciousness, as it were, on a 'parallel' line.

90 It must not be supposed that you takes this figure literally. It is your effort to avoid materialising the mind that forces you to hold the position which you does. 91 To put the mind in the brain is to make of it a material thing; to make it parallel to the brain, in the literal sense of the word, would be just as bad. 92 All that we may understand you to mean is that mental phenomena and physical, although they are related, cannot be built into the one series of causes and effects. You are apt to speak of them as 'concomitant'.

93 We must not forget that neither parallelist nor interactionist ever dreams of repudiating our common experiences of the relations of mental phenomena and physical. 94 Neither one will, if you are a person of sense, abandon the usual ways of describing such experiences.

95 Whatever your theory, you will still say: I am suffering because I struck my hand against that table; I sat down because I chose to do so.

96 Your doctrine is not supposed to deny the truth contained in such statements; it is supposed only to give a fuller understanding of it. 97 Hence, we cannot condemn either doctrine simply by an uncritical appeal to such statements and to the experiences they represent. We must look much deeper.

98 Now, what can the parallelist mean by 'referring' sensations and ideas to the brain and yet denying that they are 'in' the brain? What is this reference?

99 Let us come back to the experiences of the physical and the mental as they present themselves to the plain person. They have been discussed at length in the Panagogue book of Origin. 100 It was there pointed out that every one distinguishes without difficulty between sensations and things, and that every one recognises explicitly or implicitly that a sensation is an experience referred in a certain way to the body.

101 When the eyes are open, we 'see'; when the ears are open, we 'hear'; when the hand is laid on things, we 'feel'. How do we know that we are experiencing sensations? 102 The setting tells us that. The experience in question is given together with an experience of the body. This is 'concomitance of the mental and the physical' as it appears in the experience of us all; 103 and from such experiences as these the philosopher who speaks of the concomitance of physical and mental phenomena must draw the whole meaning of the word.

104 Let us here sharpen a little the distinction between sensations and things. Standing at some distance from the tree, I see an apple fall to the ground. Were I only half as far away, my experience would not be exactly the same-- I should have somewhat different sensations. 105 As we have seen, the apparent sizes of things vary as we move, and this means that the quantity of sensation, when I observe the apple from a nearer point, is greater. 106 The person of science tells me that the image which the object looked at projects upon the retina of the eye grows larger as we approach objects. 107 The thing, then, may remain unchanged; our sensations will

vary according to the impression which is made upon our body.

108 Again. When I have learned something of physics, I am ready to admit that, although light travels with almost inconceivable rapidity, still, its journey through space does take time. 109 Hence the impression made upon my eye by the falling apple is not simultaneous with the fall itself; and if I stand far away it is made a little later than when I am near. 110 In the case in point the difference is so slight as to pass unnoticed, but there are cases in which it seems apparent even to the unlearned that sensations arise later than the occurrences of which we take them to be the report.

111 Thus, I stand on a hill and watch a labourer striking with his sledge upon the distant railway. I hear the sound of the blow while I see his tool raised above his head. 112 I account for this by saying that it has taken some time for the sound-waves to reach my ear, and I regard my sensation as arising only when this has been accomplished.

113 But this conclusion is not judged sufficiently accurate by the person of science. The investigations of the physiologist and the psychologist have revealed that the brain holds a peculiar place in the economy of the body. 114 If the nerve which connects the sense organ with the brain be severed, the sensation does not arise. Injuries to the brain affect the mental life as injuries to other parts of the body do not. 115 Hence, it is concluded that, to get the real time of the emergence of a sensation, we must not inquire merely when an impression was made upon the organ of sense, but must determine when the message sent along the nerve has reached some part of the brain. 116 The resulting brain change is regarded as the true concomitant of the sensation. If there is a brain change of a certain kind, there is the corresponding sensation. 117 It need hardly be said that no one knows as yet much about the brain motions which are supposed to be concomitants of sensations, although a good deal is said about them.

118 It is very important to remark that in all this no new meaning has been given to the word

"concomitance." 119 The plain person remarks that sensations and their changes must be referred to the body. With the body disposed in a certain way, you have sensations of a certain kind; with changes in the body, the sensations change. 120 You does not perceive the sensations to be in the body. 121 As I recede from a house I have a whole series of visual experiences differing from each other and ending in a faint speck which bears little resemblance to the experience with which I started. 122 I have had, as we say, a series of sensations, or groups of such. Did any single group, did the experience which I had at any single moment, seem to me to be 'in my body'? Surely not. Its relation to my body is other than that.

123 And when the person of science, instead of referring sensations vaguely to the body, refers them to the brain, the reference is of precisely the same nature. 124 From our common experience of the relation of the physical and the mental you starts out. You have no other ground on which to stand. You can only mark the reference with greater exactitude.

125 I have been speaking of the relation of sensations to the brain. It is scarcely necessary for me to show that all other mental phenomena must be referred to the brain as well, and that the reference must be of the same nature. 126 The considerations which lead us to refer ideas to the brain are set forth in our physiologies and psychologies. 127 The effects of cerebral disease, injuries to the brain, etc., are too well known to need mention; and it is palpably as absurd to put ideas in the brain as it is to put sensations there.

128 Now, the parallelist, if you be a wise person, will not attempt to 'explain' the reference of mental phenomena to the brain-- to 'explain' the relation between mind and matter. 129 The relation appears to be unique. Certainly it is not identical with the relation between two material things. 130 We explain things, in the common acceptation of the word, when we show that a case under consideration is an exemplification of some general law-- when we

show, in other words, that it does not stand alone. 131 But this does stand alone, and is admitted to stand alone. We admit as much when we say that the mind is immaterial, and yet hold that it is related to the body. We cannot, then, ask for an ‘explanation’ of the relation.

132 But this does not mean that the reference of mental phenomena to the body is a meaningless expression. 133 We can point to those experiences of concomitance that we all have, distinguish them carefully from relations of another kind, and say: This is what the word means, whether it be used by the plain person or by the person of science.

134 I have said above: "If there is a brain change of a certain kind, there is the corresponding sensation." 135 Perhaps the reader will feel inclined to say here: If you can say as much as this, why can you not go a little farther and call the brain change the ‘cause’ of the sensation?

136 But you who speaks thus, forgets what has been said above about the uniqueness of the relation. 137 In the objective order of our experiences, in the external world, we can distinguish between antecedents and consequents, between causes and their effects. 138 The causes and their effects belong to the one order, they stand in the same series. The relation of the physical to the mental is, as we have seen, a different relation. 139 Hence, the parallelist seems justified in objecting to the assimilation of the two. 140 You prefers the word "concomitance," just because it marks the difference. You does not mean to indicate that the relation is any the less uniform or dependable when you denies that it is causal.

IN WHAT SENSE MENTAL PHENOMENA HAVE A TIME AND PLACE

141 We have seen in the Panagogue book of Origin what space and time-- real space and time-- are. 142 They are the plan of the real external world and its changes; they are aspects of the objective order of experience.

143 To this order no mental phenomenon can belong. It cannot, as we have seen, occupy any

portion of space or even have a location in space. 144 It is equally true that no series of mental changes can occupy any portion of time, real time, or even fill a single moment in the stream of time. 145 There are many persons to whom this latter statement will seem difficult of acceptance; but the relation of mental phenomena to space and to time is of the same sort, and we can consider the two together. 146 Psychologists speak unhesitatingly of the localisation of sensations in the brain, and they talk as readily of the moment at which a sensation arises and of the duration of the sensation. What can they mean by such expressions?

147 We have seen that sensations are not in the brain, and their localisation means only the determination of their concomitant physical phenomena, of the corresponding brain-change. 148 And it ought to be clear even from what has been said above that, in determining the moment at which a sensation arises, we are determining only the time of the concomitant brain process. 149 Why do we say that a sensation arises later than the moment at which an impression is made upon the organ of sense and earlier than the resulting movement of some group of muscles? 150 Because the change in the brain, to which we refer the sensation, occurs later than the one and earlier than the other. 151 This has a place in real time, it belongs to that series of world changes whose succession constitutes real time. 152 If we ask ‘when’ anything happened, we always refer to this series of changes. We try to determine its place in the world order.

153 Thus, we ask: When was Julius Caesar born? We are given a year and a day. 154 How is the time which has elapsed since measured? By changes in the physical world, by revolutions of the earth about the sun. 155 We ask: When did hr conceive the plan of writing his Commentaries? If we get an answer at all, it must be an answer of the same kind--some point in the series of physical changes which occur in real time must be indicated. 156 Where else should we look for an answer? In point of fact, we never do look elsewhere.

157 Again. We have distinguished between apparent space and real space. We have seen that, when we deny that a mental image can occupy any portion of space, we need not think of it as losing its parts and shrivelling to a point. 158 We may still attribute to it apparent space; may affirm that it seems extended. Let us mark the same distinction when we consider time. 159 The psychologist speaks of the duration of a sensation. Has it real duration? It is not in time at all, and, of course, it cannot, strictly speaking, occupy a portion of time. 160 But we can try to measure the duration of the physical concomitant, and call this the real duration of the sensation.

161 We all distinguish between the real time of mental phenomena, in the sense indicated just above, and the apparent time. We know very well that the one may give us no true measure of the other.

162 A sermon 'seems' long; was it 'really' long? There is only one way of measuring its real length. We must refer to the clock, to the sun, to some change in the physical world. 163 We 'seem' to live years in a dream; was the dream 'really' a long one? The real length can only be determined, if at all, by a physical reference. 164 Those apparent years of the dream have no place in the real time which is measured by the clock. We do not have to cut it and insert them somewhere. 165 They belong to a different order, and cannot be inserted any more than the thought of a patch can be inserted in a rent in a real coat.

166 We see, thus, when we reflect upon the matter, that mental phenomena cannot, strictly speaking, be said to have a time and place. 167 You who attributes these to them materialises them. But their physical concomitants have a time and place, and mental phenomena can be ordered by a reference to these. 168 They can be assigned a time and place of existing in a special sense of the words not to be confounded with the sense in which we use them when we speak of the time and place of material things. 169 This makes it possible to relate every mental phenomenon to the world system in a definite way, and to

distinguish it clearly from every other, however similar.

170 We need not, when we come to understand this, change our usual modes of speech. We may still say: The pain I had two years ago is like the pain I have to-day; my sensation came into being at such a moment; my regret lasted two days. 171 We speak that we may be understood; and such phrases express a truth, even if they are rather loose and inaccurate. But we must not be deceived by such phrases, and assume that they mean what they have no right to mean.

OBJECTIONS TO PARALLELISM

172 What objections can be brought against parallelism? 173 It is sometimes objected by the interactionist that it abandons the plain human's notion of the mind as a substance with its attributes, and makes of it a mere collection of mental phenomena. 174 It must be admitted that the parallelist usually holds a view which differs rather widely from that of the unlearned.

175 But even supposing this objection well taken, it can no longer be regarded as an objection specifically to the doctrine of parallelism, 176 for the view of the mind in question is becoming increasingly popular, and it is now held by influential interactionists as well as by parallelists. 177 One may believe that the mind consists of ideas, and may still hold that ideas can cause motions in matter.

178 There is, however, another objection that predisposes many thoughtful persons to reject parallelism uncompromisingly. It is this. 179 If we admit that the chain of physical causes and effects, from a blow given to the body to the resulting muscular movements made in self-defense, is an unbroken one, what part can we assign to the mind in the whole transaction? 180 Has it ‘done’ anything? Is it not reduced to the position of a passive spectator? Must we not regard human as "a physical automaton with parallel psychical states"?

181 Such an account of human cannot fail to strike one as repugnant; and yet it is the parallelist whom we must thank

for introducing us to it. The account is not a caricature from the pen of an opponent. 182 "An automaton," writes Professor Clifford, [2] "is a thing that goes by itself when it is wound up, and we go by ourselves when we have had food. 183 Excepting the fact that other humans are conscious, there is no reason why we should not regard the human body as merely an exceedingly complicated machine which is wound up by putting food into the mouth. 184 But it is not ‘merely’ a machine, because consciousness goes with it. The mind, then, is to be regarded as a stream of feelings which runs parallel to, and simultaneous with, a certain part of the action of the body, 185 that is to say, that particular part of the action of the brain in which the cerebrum and the sensory tracts are excited."

186 The saving statement that the body is not ‘merely’ a machine, because consciousness goes with it, does not impress one as being sufficient to redeem the illustration. 187 Who wants to be an automaton with an accompanying consciousness? Who cares to regard your mind as an "epiphenomenon"-- a thing that exists, but whose existence or nonexistence makes no difference to the course of affairs?

188 The plain person's objection to such an account of yourself seems to be abundantly justified. As I have said earlier in this chapter, neither interactionist nor parallelist has the intention of repudiating the experience of world and mind common to us all. 189 We surely have evidence enough to prove that minds count for something. No house was ever built, no book was ever written, by a creature without a mind; and the better the house or book, the better the mind. 190 ‘That’ there is a fixed and absolutely dependable relation between the planning mind and the thing accomplished, no person of any school has the right to deny. 191 The only legitimate question is: ‘What is the nature’ of the relation? Is it ‘causal’, or should it be conceived to be ‘something else’?

192 The whole matter will be more fully discussed in Chapter-4. This chapter I shall close with a brief summary of the points which the

reader will do well to bear in mind when you occupies yourself with parallelism.

193 (1) Parallelism is a protest against the interactionist's tendency to materialise the mind.

194 (2) The name is a figurative expression, and must not be taken literally. The true relation between mental phenomena and physical is given in certain common experiences that have been indicated, and it is a unique relation.

195 (3) It is a fixed and absolutely dependable relation. It is impossible that there should be a particular mental fact without its corresponding physical fact; and it is impossible that this physical fact should occur without its corresponding mental fact.

196 (4) The parallelist objects to calling this relation ‘causal’, because this obscures the distinction between it and the relation between facts both of which are physical. You prefers the word "concomitance."

197 (5) Such objections to parallelism as that cited above assume that the concomitance of which the parallelist speaks is analogous to physical concomitance.

198 The chemist puts together a volume of hydrogen gas and a volume of chlorine gas, and the result is two volumes of hydrochloric acid gas. 199 We regard it as essential to the result that there should be the two gases and that they should be brought together. 200 But the fact that the chemist has red hair we rightly look upon as a concomitant phenomenon of no importance. The result would be the same if had black hair or were bald. 201 But this is not the concomitance that interests the parallelist. The two sorts of concomitance are alike only in the one point. Some phenomenon is regarded as excluded from the series of causes and effects under discussion. 202 On the other hand, the difference between the two is all-important; in the one case, the concomitant phenomenon is an accidental circumstance that might just as well be absent; 203 in the other, it is nothing of the sort; it ‘cannot’ be absent-- the mental fact ‘must’ exist if the brain-change in question exists.

204 It is quite possible that, on reading this list of points, one may be inclined to make two protests. First: Is a parallelism so carefully guarded as this properly called ‘parallelism’ at all?

205 To this I answer: The name matters little. I have used it because I have no better term. Certainly, it is not the parallelism which is sometimes brought forward, and which peeps out from the citation from Clifford. 206 It is nothing more than an insistence upon the truth that we should not treat the mind as though it were a material thing. 207 If any one wishes to take the doctrine and discard the name, I have no objection. As so guarded, the doctrine is, I think, true.

208 Second: If it is desirable to avoid the word "cause," in speaking of the relation of the mental and the physical, on the ground that otherwise we give the word a double sense, why is it not desirable to avoid the word "concomitance"? 209 Have we not seen that the word is ambiguous? I admit the inconsistency and plead in excuse only that I have chosen the lesser of two evils. 210 It is fatally easy to slip into the error of thinking of the mind as though it were material and had a place in the physical world. 211 In using the word "concomitance" I enter a protest against this. But I have, of course, no right to use it without showing just what kind of concomitance I mean.

HOW WE KNOW THERE ARE OTHER MINDS

George Stuart Fullerton

IS IT CERTAIN THAT WE KNOW IT

3 I suppose there is no person in own sober senses who seriously believes that no other mind than one’s own exists. 2 There is, to be sure, an imaginary being more or less discussed by those interested in philosophy, a creature called the Solipsist, who is credited with this doctrine.

3 But people do not become solipsists, though they certainly say things now and then that other people think logically lead to some such unnatural view of things; 4 and more rarely they say things that sound as if the speaker, in some moods, at least, might actually harbour such a view. 5

Thus the philosopher Fichte (1762-1814) talks in certain of his writings as though he believed himself to be the universe, and his words cause Jean Paul Richter, the inimitable, to break out in his characteristic way: 6 "The very worst of it all is the lazy, aimless, aristocratic, insular life that a god must lead; he has no one to go with. 7 If I am not to sit still for all time and eternity, if I let myself down as well as I can and make myself finite, that I may have something in the way of society, still I have, like petty princes, only my own creatures to echo my words. . . . 8 Every being, even the highest Being, wishes something to love and to honour. But the Fichtean doctrine that I am my own body-maker leaves me with nothing whatever-- 9 with not so much as the beggar's dog or the prisoner's spider. . . . Truly I wish that there were humans, and that I were one of them. . . . 10 If there exists, as I very much fear, no one but myself, unlucky dog that I am, then there is no one at such a pass as I."

11 Just how much Fichte's words meant to the person who wrote them may be a matter for dispute. Certainly no one has shown a greater moral earnestness or a greater regard for own fellowmen than this philosopher, and we must not hastily accuse any one of being a solipsist. 12 But that to certain people, and, indeed, to many people, there have come thoughts that have seemed to point in this direction-- that not a few have had doubts as to their ability to ‘prove’ the existence of other minds-- this we must admit.

13 It appears somewhat easier for a person to have doubts upon this subject when you have fallen into the idealistic error of regarding the material world, which seems to be revealed to you, as nothing else than your "ideas" or "sensations" or "impressions." 14 If we will draw the whole "telephone exchange" into the clerk, there seems little reason for not including all the subscribers as well. 15 If other people's bodies are my sensations, may not other people's minds be my imaginings? 16 But doubts may be felt also by those who are willing to admit a real external world. How do we know that our inference to the

existence of other minds is a justifiable inference? Can there be such a thing as ‘verification’ in this field?

17 For we must remember that no human is directly conscious of any mind except one’s own. Humans cannot exhibit their minds to their neighbours as they exhibit their wigs. 18 However close may seem to us to be our intercourse with those about us, do we ever attain to anything more than our ideas of the contents of their minds? 19 We do not experience these contents; we picture them, we represent them by certain proxies. 20 To be sure, we believe that the originals exist, but can we be quite sure of it? Can there be a ‘proof’ of this right to make the leap from one consciousness to another? 21 We seem to assume that we can make it, and then we make it again and again; but suppose, after all, that there were nothing there. Could we ever find out our error? 22 And in a field where it is impossible to prove error, must it not be equally impossible to prove truth?

23 The doubt has seemed by no means a gratuitous one to certain very sensible practical people. 24 "It is wholly impossible," writes Professor Huxley, [1] "absolutely to prove the presence or absence of consciousness in anything but one's own brain, though by analogy, we are justified in assuming its existence in other people." 25 "The existence of my conception of you in my consciousness," says Clifford, [2] "carries with it a belief in the existence of you outside of my consciousness. . . . 26 How this inference is justified, how consciousness can testify to the existence of anything outside of itself, I do not pretend to say: I need not untie a knot which the world has cut for me long ago. 27 It may very well be that I myself am the only existence, but it is simply ridiculous to suppose that anybody else is. 28 The position of absolute idealism may, therefore, be left out of count, although each individual may be unable to justify own dissent from it."

29 These are writers belonging to our own modern age, and they are people of science. Both of them deny that the existence of other minds is a thing that can be ‘proved’; 30 but the one tells us

that we are "justified in assuming" their existence, and the other informs us that, although "it may very well be" that no other mind exists, we may leave that possibility out of count.

31 Neither position seems a sensible one. Are we justified in assuming what cannot be proved? Or is the argument "from analogy" really a proof of some sort? 32 Is it right to close our eyes to what "may very well be," just because we choose to do so? 33 The fact is that both of these writers had the conviction, shared by us all, that there are other minds, and that we know something about them; and yet neither of them could see that the conviction rested upon an unshakable foundation.

34 Now, I have no desire to awake in the mind of any one a doubt of the existence of other minds. 35 But I think we must all admit that the person who recognises that such minds are not directly perceived, and who harbours doubts as to the nature of the inference which leads to their assumption, may, perhaps, be able to say that ‘he feels certain’ that there are other minds; 36 but must we not at the same time admit that you are scarcely in a position to say: ‘it is certain’ that there are other minds? 37 The question will keep coming back again: May there not, after all, be a legitimate doubt on the subject?

38 To set this question at rest there seems to be only one way, and that is this: to ascertain the nature of the inference which is made, and to see clearly what can be meant by ‘proof’ when one is concerned with such matters as these. 39 If it turns out that we have proof, in the only sense of the word in which it is reasonable to ask for proof, our doubt falls away of itself.

THE ARGUMENT FOR OTHER MINDS

40 I have said early in this volume that the plain person perceives that other humans act very much as one does, and that you attributes to them minds more or less like your own. 41 You reasons from like to like-- other bodies present phenomena which, in the case of your own body, you perceives to be indicative of mind, and you accepts them as indicative of mind

there also. 42 The psychologists makes constant use of this inference; indeed, they could not develop their science without it.

43 John Stuart Mill (1806-1873), whom it is always a pleasure to read because he is so clear and straightforward, presents this argument in the following form: 44 [3]-- "By what evidence do I know, or by what considerations am I led to believe, that there exist other sentient creatures; 45 that the walking and speaking figures which I see and hear, have sensations and thoughts, or, in other words, possess Minds? 46 The most strenuous Intuitionist does not include this among the things that I know by direct intuition. I conclude it from certain things, which my experience of my own states of feeling proves to me to be marks of it. 47 These marks are of two kinds, antecedent and subsequent; the previous conditions requisite for feeling, and the effects or consequences of it. 48 I conclude that other human beings have feelings like me, because, first, they have bodies like me, which I know, in my own case, to be the antecedent condition of feelings; 49 and because, secondly, they exhibit the acts, and other outward signs, which in my own case I know by experience to be caused by feelings. 50 I am conscious in myself of a series of facts connected by a uniform sequence, of which the beginning is modifications of my body, the middle is feelings, the end is outward demeanour. 51 In the case of other human beings I have the evidence of my senses for the first and last links of the series, but not for the intermediate link. 52 I find, however, that the sequence between the first and last is as regular and constant in those other cases as it is in mine. 53 In my own case I know that the first link produces the last through the intermediate link, and could not produce it without. 54 Experience, therefore, obliges me to conclude that there must be an intermediate link; which must either be the same in others as in myself, or a different one. 55 I must either believe them to be alive, or to be automatons; and by believing them to be alive, that is, by supposing the link to be of the same nature as

in the case of which I have experience, 56 and which is in all respects similar, I bring other human beings, as phenomena, under the same generalisations which I know by experience to be the true theory of my own existence. 57 And in doing so I conform to the legitimate rules of experimental inquiry. The process is exactly parallel to that by which Newton proved that the force which keeps the planets in their orbits is identical with that by which an apple falls to the ground. 58 It was not incumbent on Newton to prove the impossibility of its being any other force; he was thought to have made out his point when he had simply shown that no other force need be supposed. 59 We know the existence of other beings by generalisation from the knowledge of our own; 60 the generalisation merely postulates that what experience shows to be a mark of the existence of something within the sphere of our consciousness, may be concluded to be a mark of the same thing beyond that sphere."

61 Now, the plain person accepts the argument from analogy, here insisted upon, every day of your life. You are continually forming an opinion as to the contents of other minds on a basis of the bodily manifestations presented to your view. 62 The process of inference is so natural and instinctive that we are tempted to say that it hardly deserves to be called an inference. 63 Certainly the person is not conscious of distinct steps in the process; you perceives certain phenomena, and they are at once illuminated by their interpretation. 64 You reads other people as we read a book--the signs on the paper are scarcely attended to, our whole thought is absorbed in that for which they stand. As I have said above, the psychologist accepts the argument, and founds own conclusions upon it.

65 Upon what ground can one urge that this inference to other minds is a doubtful one? 66 It is made universally. We have seen that even those who have theoretic objections against it, do not hesitate to draw it, as a matter of fact. 67 It appears unnatural in the extreme to reject it. What can

induce people to regard it with suspicion?

68 I think the answer to this question is rather clearly suggested in the sentence already quoted from Professor Huxley: 69 "It is wholly impossible absolutely to prove the presence or absence of consciousness in anything but one's own brain, though, by analogy, we are justified in assuming its existence in other people."

70 Here Professor Huxley admits that we have something like a proof, for he regards the inference as ‘justified’. 71 But he does not think that we have ‘absolute proof’-- the best that we can attain to appears to be a degree of probability falling short of the certainty which we should like to have.

72 Now, it should be remarked that the discredit cast upon the argument for other minds has its source in the fact that it does not satisfy a certain assumed standard. 73 What is that standard? It is the standard of proof which we may look for and do look for where we are concerned to establish the existence of material things with the highest degree of certainty.

74 There are all sorts of indirect ways of proving the existence of material things. We may read about them in a newspaper, and regard them as highly doubtful; 75 we may have the word of a person whom, on the whole, we regard as veracious; we may infer their existence, because we perceive that certain other things exist, and are to be accounted for. 76 Under certain circumstances, however, we may have proof of a different kind: we may see and touch the things themselves.

77 Material things are open to direct inspection. Such a direct inspection constitutes ‘absolute proof’, so far as material things are concerned.

78 But we have no right to set this up as our standard of absolute proof, when we are talking about other minds. In this field it is not proof at all. Anything that can be directly inspected is not another mind. 79 We cannot cast a doubt upon the existence of colours by pointing to the fact that we cannot smell them. If they could be smelt, they would not be colours. We

must in each case seek a proof of the appropriate kind.

80 What have we a right to regard as absolute proof of the existence of another mind? 81 Only this: the analogy upon which we depend in making our inference must be a very close one. As we shall see in the next section, the analogy is sometimes very remote, and we draw the inference with much hesitation, or, perhaps, refuse to draw it at all. 82 It is not, however, the 'kind of inference' that makes the trouble; it is the lack of detailed information that may serve as a basis for inference. 83 Our inference to other minds is unsatisfactory only in so far as we are ignorant of our own minds and bodies and of other bodies. 84 Were our knowledge in these fields complete, we should know without fail the signs of mind, and should know whether an inference were or were not justified.

85 And 'justified' here means proved-- proved in the only sense in which we have a right to ask for proof. No single fact is known that can discredit such a proof. Our doubt is, then, gratuitous and can be dismissed. 86 We may claim that we have 'verification' of the existence of other minds. Such verification, however, must consist in showing that, in any given instance, the signs of mind really are present. 87 It cannot consist in presenting minds for inspection as though they were material things.

88 One more matter remains to be touched upon in this section. It has doubtless been observed that Mill, in the extract given above, seems to place "feelings," in other words, mental phenomena, between one set of bodily motions and another. 89 He makes them the middle link in a chain whose first and third links are material. The parallelist cannot treat mind in this way. He claims that to make mental phenomena effects or causes of bodily motions is to make them material.

90 Must, then, the parallelist abandon the argument for other minds? Not at all. 91 The force of the argument lies in interpreting the phenomena presented by other bodies as one knows by experience the phenomena of one's own body must be interpreted. 92 You who concludes that the relation between your own mind and your

own body can best be described as a "parallelism," must judge that other people's minds are related to their bodies in the same way. 93 You must treat your neighbour as you treats yourself. The argument from analogy remains the same.

WHAT OTHER MINDS ARE THERE?

94 That other humans have minds nobody really doubts, as we have seen above. 95 They resemble us so closely, their actions are so analogous to our own, that, although we sometimes give ourselves a good deal of trouble to ascertain what sort of minds they have, we never think of asking ourselves whether they have minds.

96 Nor does it ever occur to the person who owns a dog, or who drives a horse, to ask oneself whether the creature has a mind. 97 You may complain that it has not much of a mind, or you may marvel at its intelligence-- your attitude will depend upon the expectations which you have been led to form. 98 But regard the animal as you would regard a bicycle or an automobile, you will not. The brute is not precisely like us, but its actions bear an unmistakable analogy to our own; 99 pleasure and pain, hope and fear, desire and aversion, are so plainly to be read into them that we feel that a human must be "high gravel blind" not to see their significance.

100 Nevertheless, it has been possible for human, under the prepossession of a mistaken philosophical theory, to assume the whole brute creation to be without consciousness. 101 When Descartes had learned something of the mechanism of the human body, and had placed the human soul-- ‘hospes comesque corporis’-- in the little pineal-gland in the midst of the brain, 102 the conception in his mind was not unlike that which we have when we picture to ourselves a locomotive engine with an engineer in its cab. 103 The person gives intelligent direction; but, under some circumstances, the machine can do a good deal in the absence of the person; if it is started, it can run of itself, and to

do this, it must go through a series of complicated motions.

104 Descartes knew that many of the actions performed by the human body are not the result of conscious choice, and that some of them are in direct contravention of the will's commands. 105 The eye protects itself by dropping its lid, when the hand is brought suddenly before it; the foot jerks away from the heated object which it has accidentally touched. 106 The body was seen to be a mechanism relatively independent of the mind, and one rather complete in itself. 107 Joined with a soul, the circle of its functions was conceived to be widened; 108 but even without the assistance of the soul, it was thought that it could keep itself busy, and could do many things that the unreflective might be inclined to attribute to the efficiency of the mind.

109 The bodies of the brutes Descartes regarded as mechanisms of the same general nature as the human body. 110 He was unwilling to allow a soul to any creature below human, so nothing seemed left to him save to maintain that the brutes are machines without consciousness, 111 and that their apparently purposive actions are to be classed with such human movements as the sudden closing of the eye when it is threatened with the hand. 112 The melancholy results of this doctrine made themselves evident among his followers. Even the mild and pious Malebranche could be brutal to a dog which fawned upon him, under the mistaken notion that it did not really hurt a dog to kick it.

113 All this reasoning humans have long ago set aside. For one thing, it has come to be recognised that there may be consciousness, 114 perhaps rather dim, blind, and fugitive, but still consciousness, which does not get itself recognised as do our clearly conscious purposes and volitions. 115 Many of the actions of human which Descartes was inclined to regard as unaccompanied by consciousness may not, in fact, be really unconscious. 116 And, in the second place, it has come to be realised that we have no right to class all the actions of the brutes with those reflex actions in human which we are accustomed to regard as automatic.

117 The belief in animal automatism has passed away, it is to be hoped, never to return. That lower animals have minds we must believe. But what sort of minds have they?

118 It is hard enough to gain an accurate notion of what is going on in a human mind. Humans resemble each other more or less closely, but no two are precisely alike, and no two have had exactly the same training. 119 I may misunderstand even the person who lives in the same house with me and is nearly related to me. Does you really suffer and enjoy as acutely as you seems to? Or must your words and actions be accepted with a discount? 120 The greater the difference between us, the more danger that I shall misjudge you. It is to be expected that men should misunderstand women; that men and women should misunderstand children; 121 that those who differ in social station, in education, in traditions and habits of life, should be in danger of reading each other as one reads a book in a tongue imperfectly mastered. 122 When these differences are very great, the task is an extremely difficult one. 123 What are the emotions, if he has any, of the Chinaman in the laundry near by? His face seems as difficult of interpretation as are the hieroglyphics that he has pasted up on his window.

124 When we come to the brutes, the case is distinctly worse. We think that we can attain to some notion of the minds to be attributed to such animals as the ape, the dog, the cat, the horse, and it is not nonsense to speak of an animal psychology. 125 But who will undertake to tell us anything definite of the mind of a fly, a grasshopper, a snail, or a cuttlefish? That they have minds, or something like minds, we must believe; 126 what their minds are like, a prudent person scarcely even attempts to say. In our distribution of minds may we stop short of even the very lowest animal organisms? It seems arbitrary to do so.

127 More than that; some thoughtful people have been led by the analogy between plant life and animal life to believe that something more or less remotely like the consciousness which we

attribute to animals must be attributed also to plants. 128 Upon this belief I shall not dwell, for here we are evidently at the limit of our knowledge, and are making the vaguest of guesses. 129 No one pretends that we have even the beginnings of a plant psychology. At the same time, we must admit that organisms of all sorts do bear some analogy to each other, even if it be a remote one; 130 and we must admit also that we cannot 'prove' plants to be wholly devoid of a rudimentary consciousness of some sort.

131 As we begin with human and descend the scale of beings, we seem, in the upper part of the series, to be in no doubt that minds exist. Our only question is as to the precise contents of those minds. 132 Further down we begin to ask ourselves whether anything like mind is revealed at all. That this should be so is to be expected. 133 Our argument for other minds is the argument from analogy, and as we move down the scale our analogy grows more and more remote until it seems to fade out altogether. 134 You who harbours doubts as to whether the plants enjoy some sort of psychic life, may well find those doubts intensified when you turns to study the crystal; 135 and when you contemplates inorganic matter you should admit that the thread of your argument has become so attenuated that you cannot find it at all.

THE DOCTRINE OF MIND-STUFF

136 Nevertheless, there have been those who have attributed something like consciousness even to inorganic matter. 137 If the doctrine of evolution be true, argues Professor Clifford, [4] "we shall have along the line of the human pedigree a series of imperceptible steps connecting inorganic matter with ourselves.

138 To the later members of that series we must undoubtedly ascribe consciousness, although it must, of course, have been simpler than our own. But where are we to stop? 139 In the case of organisms of a certain complexity, consciousness is inferred. As we go back along the line, the complexity of the organism and of

its nerve-action insensibly diminishes; 140 and for the first part of our course we see reason to think that the complexity of consciousness insensibly diminishes also. 141 But if we make a jump, say to the tunicate mollusks, we see no reason there to infer the existence of consciousness at all. 142 Yet not only is it impossible to point out a place where any sudden break takes place, but it is contrary to all the natural training of our minds to suppose a breach of continuity so great."

143 We must not, says Clifford, admit any breach of continuity. We must assume that consciousness is a complex of elementary feelings, "or rather of those remoter elements which cannot even be felt, but of which the simplest feeling is built up." 144 We must assume that such elementary facts go along with the action of every organism, however simple; 145 but we must assume also that it is only when the organism has reached a certain complexity of nervous structure that the complex of psychic facts reaches the degree of complication that we call Consciousness.

146 So much for the assumption of something like mind in the mollusk, where Clifford cannot find direct evidence of mind. But the argument does not stop here: 147 "As the line of ascent is unbroken, and must end at last in inorganic matter, we have no choice but to admit that every motion of matter is simultaneous with some . . . fact or event which might be part of a consciousness." 148 Of the universal distribution of the elementary constituents of mind Clifford writes as follows: "That element of which, as we have seen, even the simplest feeling is a complex, I shall call ‘Mind-stuff’. 149 A moving molecule of inorganic matter does not possess mind or consciousness; but it possesses a small piece of mind-stuff. 150 When molecules are so combined together as to form the film on the under side of a jellyfish, the elements of mind-stuff which go along with them are so combined as to form the faint beginnings of Sentience. 151 When the molecules are so combined as to form the

brain and nervous system of a vertebrate, the corresponding elements of mind-stuff are so combined as to form some kind of consciousness; 152 that is to say, changes in the complex which take place at the same time get so linked together that the repetition of one implies the repetition of the other. 153 When matter takes the complex form of a living human brain, the corresponding mind-stuff takes the form of a human consciousness, having intelligence and volition."

154 This is the famous mind-stuff doctrine. It is not a scientific doctrine, for it rests on wholly unproved assumptions. 155 It is a play of the speculative fancy, and has its source in the author's strong desire to fit mental phenomena into some general evolutionary scheme. 156 As he is a parallelist, and cannot make of physical phenomena and of mental one single series of causes and effects, he must attain his end by making the mental series complete and independent in itself. 157 To do this, he is forced to make several very startling assumptions:-- (1) We have seen that there is evidence that there is consciousness somewhere-- it is revealed by certain bodies. 158 Clifford assumes consciousness, or rather its raw material, 'mind-stuff', to be everywhere. 159 For this assumption we have not a whit of evidence.

160 (2) To make of the stuff thus attained a satisfactory evolutionary series, he is compelled to assume that mental phenomena are related to each other much as physical phenomena are related to each other. 161 This notion he had from Spinoza, who held that, just as all that takes place in the physical world must be accounted for by a reference to physical causes, so all happenings in the world of ideas must be accounted for by a reference to mental causes, i.e. to ideas. 162 For this assumption there is no more evidence than for the former.

163 (3) Finally, to bring the mental phenomena we are familiar with, sensations of colour, sound, touch, taste, etc., into this evolutionary scheme, 164 he is forced to assume that all such mental phenomena are made up of elements which do not belong to these classes at all,

of something that "cannot even be felt." 165 For this assumption there is as little evidence as there is for the other two.

166 The fact is that the ‘mind-stuff’ doctrine is a castle in the air. It is too fanciful and arbitrary to take seriously. 167 It is much better to come back to a more sober view of things, and to hold that there is evidence that other minds exist, but no evidence that every material thing is animated. 168 If we cannot fit this into our evolutionary scheme, perhaps it is well to reexamine our evolutionary scheme, and to see whether some misconception may not attach to that.

OTHER PROBLEMS OF WORLD AND MIND

George Stuart Fullerton

IS THE MATERIAL WORLD A MECHANISM?

4 So far we have concerned ourselves with certain leading problems touching the external world and the mind,-- problems which seem to present themselves unavoidably to those who enter upon the path of reflection. 2 And we have seen, I hope, that there is much truth, as well as some misconception, contained in the rather vague opinions of the plain person.

3 But the problems that we have taken up by no means exhaust the series of those that present themselves to one who thinks with patience and persistency. 4 When we have decided that people are not mistaken in believing that an external world is presented in their experience; 5 when we have corrected our first crude notions of what this world is, and have cleared away some confusions from our conceptions of space and time; 6 when we have attained to a reasonably clear view of the nature of the mind, and of the nature of its connection with the body; 7 when we have escaped from a tumble into the absurd doctrine that no mind exists save our own, and have turned our backs upon the rash speculations of the adherents of "mind-stuff"; 8 there still remain many points upon which we should like to have definite information.

9 In the present chapter I shall take up and turn over a few of these,

but it must not be supposed that one can get more than a glimpse of them within such narrow limits. 10 First of all we will raise the question whether it is permissible to regard the material world, which we accept, as through and through a mechanism.

11 There can be little doubt that there is a tendency on the part of people of science at the present day so to regard it. 12 It should, of course, be frankly admitted that no one is in a position to prove that, from the cosmic mist, in which we grope for the beginnings of our universe, to the organised whole in which vegetable and animal bodies have their place, 13 there is an unbroken series of changes all of which are explicable by a reference to mechanical laws. 14 Chemistry, physics, and biology are still separate and distinct realms, and it is at present impossible to find for them a common basis in mechanics. 15 The belief of the person of science must, hence, be regarded as a faith; the doctrine of the mechanism of Nature is a working hypothesis, and it is unscientific to assume that it is anything more.

16 There can be no objection to a frank admission that we are not here walking in the light of established knowledge. 17 But it does seem to savour of dogmatism for a person to insist that no increase in our knowledge can ever reveal that the physical world is an orderly system throughout, 18 and that all the changes in material things are explicable in terms of the one unified science. 19 Earnest objections have, however, been made to the tendency to regard Nature as a mechanism. 20 To one of the most curious of them we have been treated lately by Dr. Ward in his book on "Naturalism and Agnosticism."

21 It is there ingeniously argued that, when we examine with care the fundamental concepts of the science of mechanics, we find them to be self-contradictory and absurd. It follows that we are not justified in turning to them for an explanation of the order of Nature.

22 The defense of the concepts of mechanics we may safely leave to the person of science; remembering, of course, that, when a science is in the making, it is to be expected that the concepts

of which it makes use should undergo revision from time to time. 23 But there is one general consideration that it is not well to leave out of view when we are contemplating such an assault upon the notion of the world as mechanism as is made by Dr. Ward. It is this.

24 Such attacks upon the conception of mechanism are not purely destructive in their aim. The man who makes them wishes to destroy one view of the system of things in order that he may set up another. 25 If the changes in the system of material things cannot be accounted for mechanically, it is argued, we are compelled to turn for our explanation to the action and interaction of minds. 26 This seems to give mind a very important place in the universe, and is believed to make for a view of things that guarantees the satisfaction of the highest hopes and aspirations of human.

27 That a recognition of the mechanical order of Nature is incompatible with such a view of things as is just above indicated, I should be the last to admit. 28 The notion that it is so is, I believe, a dangerous error. 29 It is an error that tends to put a person out of sympathy with the efforts of science to discover that the world is an orderly whole, and tempts you to rejoice in the contemplation of human ignorance.

30 But the error is rather a common one; and see to what injustice it may lead one. 31 It is concluded that the conception of 'matter' is an obscure one; that we do not know clearly what we mean when we speak of the 'mass' of a body; 32 that there are disputes as to proper significance to be given to the words 'cause' and 'effect'; that the 'laws of motion', as they are at present formulated, do not seem to account satisfactorily for the behaviour of all material particles. 33 From this it is inferred that we must give up the attempt to explain mechanically the order of physical things.

34 Now, suppose that it were considered a dangerous and heterodox doctrine, that the changes in the system of things are due to the activities of minds. 35 Would not those who now love to point out the shortcomings of the science of mechanics discover a

fine field for their destructive criticism? 36 Are there no disputes as to the ultimate nature of mind? Are people agreed touching the relations of mind and matter? 37 What science even attempts to tell us how a mind, by an act of volition, sets material particles in motion or changes the direction of their motion? 38 How does one mind act upon another, and what does it mean for one mind to act upon another?

39 If the science of mechanics is not in all respects as complete a science as it is desirable that it should be, surely we must admit that when we turn to the field of mind we are not dealing with what is clear and free from difficulties. 40 Only a strong emotional bias can lead a person to dwell with emphasis upon the difficulties to be met with in the one field, and to pass lightly over those with which one meets in the other.

41 One may, however, refuse to admit that the order of Nature is throughout mechanical, without taking any such unreasonable position as this. 42 One may hold that many of the changes in material things do not 'appear' to be mechanical, and that it is too much of an assumption to maintain that they are such, even as an article of faith. 43 Thus, when we pass from the world of the inorganic to that of organic life, we seem to make an immense step. 44 No one has even begun to show us that the changes that take place in vegetable and animal organisms are all mechanical changes. How can we dare to assume that they are?

45 With one who reasons thus we may certainly feel a sympathy. The most ardent advocate of mechanism must admit that your doctrine is a working hypothesis, and not 'proved' to be true. 46 Its acceptance would, however, be a genuine convenience from the point of view of science, for it does introduce, at least provisionally, a certain order into a vast number of facts, and gives a direction to investigation. 47 Perhaps the wisest thing to do is, not to combat the doctrine, but to accept it tentatively and to examine carefully what conclusions it may seem to carry with it-- how it may affect our outlook upon the world as a whole.

MIND

THE PLACE OF MIND IN NATURE

48 One of the very first questions which we think of asking when we contemplate the possibility that the physical world is throughout a mechanical system is this: How can we conceive minds to be related to such a system? 49 That minds, and many minds, do exist, it is not reasonable to doubt. What shall we do with them?

50 One must not misunderstand the mechanical view of things. When we use the word "machine," we call before our minds certain gross and relatively simple mechanisms constructed by human. 51 Between such and a flower, a butterfly, and a human body, the difference is enormous. 52 You who elects to bring the latter under the title of mechanism cannot mean that you discerns no difference between them and a steam engine or a printing press. 53 You can only mean that you believes you might, could you attain to a glimpse into their infinite complexity, find an explanation of the physical changes which take place in them, 54 by a reference to certain general laws which describe the behaviour of material particles everywhere.

55 And the person who, having extended own notion of mechanism, is inclined to overlook the fact that animals and humans have minds, 56 that thought and feeling, plan and purpose, have their place in the world, may justly be accused of a headlong and heedless enthusiasm. 57 Whatever may be our opinion on the subject of the mechanism of Nature, we have no right to minimise the significance of thought and feeling and will. 58 Between that which has no mind and that which has a mind there is a difference which cannot be obliterated by bringing both under the concept of mechanism. 59 It is a difference which furnishes the material for the sciences of psychology and ethics, and gives rise to a whole world of distinctions which find no place in the realm of the merely physical.

60 There are, then, minds as well as bodies; what place shall we assign to these minds in the system of Nature?

61 Several centuries ago it occurred to the person of science

that the material world should be regarded as a system in which there is constant transformation, but in which nothing is created. 62 This way of looking at things expressed itself formerly in the statement that, through all the changes that take place in the world, the quantity of matter and motion remains the same. 63 To-day the same idea is better expressed in the doctrine of the eternity of mass and the conservation of energy. 64 In plain language, this doctrine teaches that every change in every part of the physical world, every motion in matter, must be preceded by physical conditions which may be regarded as the equivalent of the change in question.

65 But this makes the physical world a closed system, a something complete in itself. Where is there room in such a system for minds?

66 It does indeed seem hard to find in such a system a place for minds, if one conceives of minds as does the interactionist. 67 We have seen that the interactionist makes the mind act upon matter very much as one particle of matter is supposed to act upon another. 68 Between the physical and the mental you assumes that there are 'causal' relations; i.e. physical changes must be referred to mental causes sometimes, and mental changes to physical. 69 This means that you finds a place for mental facts by inserting them as links in the one chain of causes and effects with physical facts. If you are not allowed to break the chain and insert them, you does not know what to do with them.

70 The parallelist has not the same difficulty to face. You who holds that mental phenomena must not be built into the one series of causes and effects with physical phenomena may freely admit that physical phenomena form a closed series, an orderly system of their own, 71 and you may yet find a place in the world for minds. You refuses to regard them as a part of the world-mechanism, but you 'relates' them to physical things, conceiving them as 'parallel to' the physical in the sense described (Chapter-2;V.82-211). 72 You insists that, even if we hold that there are gaps in the physical order of causes and effects, we cannot

conceive these gaps to be filled by mental phenomena, simply because they are mental phenomena. 73 They belong to an order of their own. Hence, the assumption that the physical series is unbroken does not seem to you to crowd mental phenomena out of their place in the world at all. 74 They must, in any case, occupy the place that is appropriate to them (Chapter-2; V.141-171).

75 It will be noticed that this doctrine that the chain of physical causes and effects is nowhere broken, and that mental phenomena are related to it as the parallelist conceives them to be, makes the world-system a very orderly one. 76 Every phenomenon has its place in it, and can be accounted for, whether it be physical or mental. 77 To some, the thought that the world is such an orderly thing is in the highest degree repugnant. They object that, in such a world, there is no room for ‘free-will’; and they object, further, that there is no room for the ‘activity of minds’. 78 Both of these objections I shall consider in this chapter.

But first, I must say a few words about a type of doctrine lately insisted upon, 79 which bears some resemblance to interactionism as we usually meet with it, and, nevertheless, tries to hold on to the doctrine of the conservation of energy. It is this:--80 The concept of energy is stretched in such a way as to make it cover mental phenomena as well as physical. 81 It is claimed that mental phenomena and physical phenomena are alike "manifestations of energy," and that the coming into being of a consciousness is a mere "transformation," 82 a something to be accounted for by the disappearance from the physical world of a certain equivalent--perhaps of some motion. 83 It will be noticed that this is one rather subtle way of obliterating the distinction between mental phenomena and physical. In so far it resembles the interactionist's doctrine.

84 In criticism of it we may say that you who accepts it has wandered away from a rather widely recognised scientific hypothesis, and has substituted for

it a very doubtful speculation for which there seems to be no whit of evidence. 85 It is, moreover, a speculation repugnant to the scientific mind, when its significance is grasped. 86 Shall we assume without evidence that, when a person wakes in the morning and enjoys a mental life suspended or diminished during the night, your thoughts and feelings have come into being at the expense of your body? 87 Shall we assume that the mass of your body has been slightly diminished, or that motions have disappeared in a way that cannot be accounted for by a reference to the laws of matter in motion? 88 This seems an extraordinary assumption, and one little in harmony with the doctrine of the eternity of mass and the conservation of energy as commonly understood. We need not take it seriously so long as it is quite unsupported by evidence.

THE ORDER OF NATURE AND "FREE-WILL."

89 In a world as orderly as, in the previous section, this world is conceived to be, is there any room for freedom? 90 What if the person of science is right in suspecting that the series of physical causes and effects is nowhere broken? Must we then conclude that we are never free?

91 To many people it has seemed that we are forced to draw this conclusion, and it is not surprising that they view the doctrine with dismay. 92 They argue: Mental phenomena are made parallel with physical, and the order of physical phenomena seems to be determined throughout, for nothing can happen in the world of matter unless there is some adequate cause of its happening. 93 If, then, I choose to raise my finger, that movement must be admitted to have physical causes, and those causes other causes, and so on without end. 94 If such a movement must always have its place in a causal series of this kind, how can it be regarded as a free movement? It is determined, and not free.

95 Now, it is far from a pleasant thing to watch the person of science busily at work trying to prove that the physical world is an orderly system, and all the while to

feel in one's heart that the success of your efforts condemns one to slavery. 96 It can hardly fail to make one's attitude towards science that of alarm and antagonism. From this I shall try to free the reader by showing that our freedom is not in the least danger, and that we may look on unconcerned.

97 When we approach that venerable dispute touching the freedom of the will, which has inspired people to such endless discussions, and upon which they have written with such warmth and even acrimony, 98 the very first thing to do is to discover what we have a right to mean when we call a person ‘free’. As long as the meaning of the word is in doubt, the very subject of the dispute is in doubt. 99 When may we, then, properly call a person free? What is the normal application of the term?

100 I raise my finger. Every person of sense must admit that, under normal conditions, I can raise my finger or keep it down, ‘as I please’. There is no ground for a difference of opinion so far. 101 But there is a further point upon which humans differ. One holds that my "pleasing" and the brain-change that corresponds to it have their place in the world-order; that is, you maintains that every volition can be ‘accounted for’. 102 Another holds that, under precisely the same circumstances, one may "please" or not "please"; which means that the "pleasing" cannot be wholly accounted for by anything that has preceded. 103 The first person is a ‘determinist’, and the second a "free-willist." I beg the reader to observe that the word "free-willist" is in quotation marks, and not to suppose that it means simply a believer in the freedom of the will.

104 When in common life we speak of a person as free, what do we understand by the word? Usually we mean that you are free from external compulsion. 105 If my finger is held by another, I am not free to raise it. But I may be free in this sense, and yet one may demur to the statement that I am a free person. 106 If a pistol be held to my head with the remark, "Hands up!" my finger will mount very quickly, and the bystanders will maintain that I had no choice.

107 We speak in somewhat the same way of people under the influence of intoxicants, of people crazed by some passion and unable to take into consideration the consequences of their acts, and of people bound by the spell of hypnotic suggestion. 108 Indeed, whenever a person is in such a condition that you are glaringly incapable of leading a normal human life and of being influenced by the motives that commonly move humans, we are inclined to say that you are not free.

109 But does it ever occur to us to maintain that, in general, the possession of a character and the capacity of being influenced by considerations make it impossible for a person to be free? 110 Surely not. If I am a prudent person, I will invest my money in good securities. Is it sensible to say that I cannot have been free in refusing a twenty per cent investment, ‘because I am by nature prudent’? 111 Am I a slave ‘because I eat when I am hungry’, and can I partake of a meal freely, only when there is no reason why I should eat at all?

112 You who calls me free only when my acts do violence to my nature or cannot be justified by a reference to anything whatever has strange notions of freedom. 113 Patriots, poets, moralists, have had much to say of freedom; humans have lived for it, and have died for it; humans love it as they love their own souls. Is the object of all this adoration the metaphysical absurdity indicated above?

114 To insist that a person is free only in so far as your actions are unaccountable is to do violence to the meaning of a word in very common use, and to mislead people by perverting it to strange and unwholesome uses. Yet this is done by the "free-willist." 115 You keeps insisting that human is free, and then goes on to maintain that you cannot be free unless you are "free." 116 You does not, unfortunately, supply the quotation marks, and you profits by the natural mistake in identity. As you defines freedom it becomes "freedom," which is a very different thing.

117 What is this "freedom"? It is not freedom from external constraint. It is not freedom from

overpowering passion. 118 It is freedom from all the motives, good as well as bad, that we can conceive of as influencing human, and freedom also from oneself.

119 It is well to get this quite clear. The "free-willist" maintains that, in so far as a human is "free," your actions cannot be accounted for by a reference to the order of causes at all-- 120 not by a reference to your character, hereditary or acquired; not by a reference to your surroundings. 121 "Free" actions, in so far as they are "free," have, so to speak, sprung into being out of the void. What follows from such a doctrine?

122 Listen:--

(1) It follows that, in so far as I am "free," I am not the author of what appear to be my acts; who can be the cause of causeless actions?

123 (2) It follows that no amount of effort on my part can prevent the appearance of "free" acts of the most deplorable kind. If one can condition their appearance or non-appearance, they are not "free" acts.

124 (3) It follows that there is no reason to believe that there will be any congruity between my character and my "free" acts. I may be a saint by nature, and "freely" act like a scoundrel.

125 (4) It follows that I can deserve no credit for "free" acts. I am not their author.

126 (5) It follows that, in so far as I am "free," it is useless to praise me, to blame me, to punish me, to endeavour to persuade me. 127 I must be given over to unaccountable sainthood or to a reprobate mind, as it happens to happen. 128 I am quite beyond the pale of society, for my neighbour cannot influence my "free" acts any more than I can.

129 (6) It follows that, in so far as I am "free," I am in something very like a state of slavery; and yet, curiously enough, it is a slavery without a master. 130 In the old stories of Fate, people were represented as puppets in the hand of a power outside themselves. 131 Here I am a puppet in no hand; but I am a puppet just the same, for I am the passive spectator of what appear to be my acts. 132 I do not do the things I seem to do. They are done for me or in me-- or, rather, they are not done, but just happen.

133 Such "freedom" is a wretched thing to offer to a person who longs for freedom; for the freedom to act out your own impulses, to guide your life according to your own ideals. 134 It is a mere travesty on freedom, a fiction of the philosophers, which inspires respect only so long as one has not pierced the disguise of its respectable name.

135 True freedom is not a thing to be sought in a disorderly and chaotic world, in a world in which actions are inexplicable and character does not count. 136 Let us rinse our minds free of misleading verbal associations, and let us realise that a "free-will" neighbour would certainly not be to us an object of respect. 137 You would be as offensive an object to have in our vicinity as a "free-will" gun or a "free-will" pocketknife. You would not be a rational creature.

138 Our only concern need be for freedom, and this is in no danger in an orderly world. We all recognise this truth, in a way. 139 We hold that a person of good character freely chooses the good, and a person of evil character freely chooses evil. Is not this a recognition of the fact that the choice is a thing to be accounted for, and is, nevertheless, a free choice?

140 I have been considering above the world as it is conceived to be by the parallelist, but, to the reader who may not incline towards parallelism, I wish to point out that these reasonings touching the freedom of the will concern the interactionist just as closely. 141 They have no necessary connection with parallelism. The interactionist, as well as the parallelist, may be a determinist, a believer in freedom, or you may be a "free-willist."

142 You regards mental phenomena and physical phenomena as links in the one chain of causes and effects. Shall you hold that certain mental links are "free-will" links, that they are wholly unaccountable? 143 If you does, all that has been said above about the "free-willist" applies to you. You believes in a disorderly world, and you should accept the consequences of your doctrine.

THE PHYSICAL WORLD AND THE MORAL WORLD

144 I have said a little way back that, when we think of bodies as having minds, we are introduced to a world of distinctions which have no place in the realm of the merely physical. 145 One of the objections made to the orderly world of the parallelist was that in it there is no room for the activity of minds. 146 Before we pass judgment on this matter, we should try to get some clear notion of what we may mean by the word "activity." 147 The science of ethics must go by the board, if we cannot think of people as ‘doing’ anything, as acting rightly or acting wrongly.

148 Let us conceive a billiard ball in motion to come into collision with one at rest. We commonly speak of the first ball as active, and of the second as the passive subject upon which it exercises its activity. Are we justified in thus speaking?

149 In one sense, of course, we are. As I have several times had occasion to remark, we are, in common life, justified in using words rather loosely, provided that it is convenient to do so, and that it does not give rise to misunderstandings.

150 But, in a stricter sense, we are not justified in thus speaking, for in doing so we are carrying over into the sphere of the merely physical a distinction which does not properly belong there, but has its place in another realm. 151 The student of mechanics tells us that the second ball has affected the first quite as much as the first has affected the second. 152 We cannot simply regard the first as cause and the second as effect, nor may we regard the motion of the first as cause and the subsequent motion of the second as its effect alone. 153 ‘The whole situation at the one instant’-- both balls, their relative positions and their motion and rest-- must be taken as the cause of ‘the whole situation at the next instant’, and in this whole situation the condition of the second ball has its place as well as that of the first.

154 If, then, we insist that to have causal efficiency is the same thing as to be active, we should also admit that the second ball was active, and quite as active as the

first. 155 It has certainly had as much to do with the total result. But it offends us to speak of it in this way. We prefer to say that the first was active and the second was acted upon. What is the source of this distinction?

156 Its original source is to be found in the judgments we pass upon conscious beings, bodies with minds; 157 and it could never have been drawn if people had not taken into consideration the relations of minds to the changes in the physical world. 158 As carried over to inanimate things it is a transferred distinction; and its transference to this field is not strictly justifiable, as has been indicated above.

159 I must make this clear by an illustration. I hurry along a street towards the university, because the hour for my lecture is approaching. I am struck down by a falling tile. 160 In my advance up the street I am regarded as active; in my fall to the ground I am regarded as passive.

161 Now, looking at both occurrences from the purely physical point of view, we have nothing before us but a series of changes in the space relations of certain masses of matter; 162 and in all those changes both my body and its environment are concerned. As I advance, my body cannot be regarded as the sole cause of the changes which are taking place. 163 My progress would be impossible without the aid of the ground upon which I tread. Nor can I accuse the tile of being the sole cause of my demolition. 164 Had I not been what I was and where I was, the tile would have fallen in vain. I must be regarded as a concurrent cause of my own disaster, and my unhappy state is attributable to me as truly as it is to the tile.

165 Why, then, am I in the one case regarded as active and in the other as passive? In each case I am a cause of the result. 166 How does it happen that, in the first instance, I seem to most humans to be ‘the’ cause, and in the second to be not a cause at all? 167 The rapidity of my motion in the first instance cannot account for this judgment. You who rides in the police van and you who is thrown from the car of a balloon may move with

great rapidity and yet be regarded as passive.

168 People speak as they do because they are not content to point out the physical antecedents of this and that occurrence and stop with that. 169 They recognise that, between my advance up the street and my fall to the ground there is one very important difference. 170 In the first case what is happening ‘may be referred to an idea in my mind’. Were the idea not there, I should not do what I am doing. In the second case, what has happened ‘cannot be referred to an idea in my mind’.

171 Here we have come to the recognition that there are such things as ‘purposes’ and ‘ends’; that an idea and some change in the external world may be related as ‘plan’ and ‘accomplishment’. 172 In other words, we have been brought face to face with what has been given the somewhat misleading name of ‘final cause’. 173 In so far as that in the bringing about of which I have had a share is my ‘end’, I am ‘active’; in so far as it is not my end, but comes upon me as something not planned, I am ‘passive’. 174 The enormous importance of the distinction may readily be seen; it is only in so far as I am a creature who can have purposes, that ‘desire’ and ‘will’, ‘foresight’ and ‘prudence’, ‘right’ and ‘wrong’, can have a significance for me.

175 I have dwelt upon the meaning of the words "activity" and "passivity," and have been at pains to distinguish them from cause and effect, 176 because the two pairs of terms have often been confounded with each other, and this confusion has given rise to a peculiarly unfortunate error. 177 It is this error that lies at the foundation of the objection referred to at the beginning of this section.

178 We have seen that certain people of science are inclined to look upon the physical world as a great system, all the changes in which may be accounted for by an appeal to physical causes. 179 And we have seen that the parallelist regards ideas, not as links in this chain, but as parallel with physical changes.

180 It is argued by some that, if this is a true view of things, we must embrace the conclusion that

'the mind cannot be active at all', that it can 'accomplish nothing'. 181 We must look upon the mind as an "epiphenomenon," a useless decoration; and must regard human as "a physical automaton with parallel psychical states."

182 Such abuse of one's fellow-human seems unchristian, and it is wholly uncalled for on any hypothesis. Our first answer to it is that it seems to be sufficiently refuted by the experiences of common life. 183 We have abundant evidence that human's minds do count for something. I conclude that I want a coat, and I order one of my tailor; he believes that I will pay for it, he wants the money, and he makes the coat; his man desires to earn his wages and he delivers it. 184 If I had not wanted the coat, if the tailor had not wanted my money, if the man had not wanted to earn his wages, the end would not have been attained. No philosopher has the right to deny these facts.

185 Ah! but, it may be answered, these three "wants" are not supposed to be the 'causes' of the motions in matter which result in my appearing well-dressed on Sunday. They are only 'concomitant phenomena'.

186 To this I reply: What of that? We must not forget what is meant by such concomitance (Chapter-2; V.172-211). We are dealing with a fixed and necessary relation, not with an accidental one. 187 If these "wants" had been lacking, there would have been no coat. 188 So my second answer to the objector is, that, on the hypothesis of the parallelist, the relations between mental phenomena and physical phenomena are just as dependable as that relation between physical phenomena which we call that of cause and effect. 189 Moreover, since activity and causality are not the same thing, there is no ground for asserting that the mind cannot be active, merely because it is not material and, hence, cannot be, strictly speaking, a cause of motions in matter.

190 The plain person is entirely in the right in thinking that minds are active. The truth is that 'nothing can be active except as it has a mind'. 191 The relation of purpose and end is the one we have in view when we speak of the activity of minds.

192 It is, thus, highly unjust to a person to tell you that you are "a physical automaton with parallel psychical states," and that you are wound up by putting food into your mouth. 193 You who hears this may be excused if you feels it your duty to emit steam, walk with a jerk, and repudiate all responsibility for your actions. 194 Creatures that think, form plans, and ‘act’, are not what we call automata. It is an abuse of language to call them such, and it misleads us into looking upon them as we have no right to look upon them. 195 If people really were automata in the proper sense of the word, we could not look upon them as wise or unwise, good or bad; in short, the whole world of moral distinctions would vanish.

196 Perhaps, in spite of all that has been said in this and in the preceding section, some will feel a certain repugnance to being assigned a place in a world as orderly as our world is in this chapter conceived to be-- 197 a world in which every phenomenon, whether physical or mental, has its definite place, and all are subject to law. 198 But I suppose our content or discontent will not be independent of our conception of what sort of a world we conceive ourselves to be inhabiting.

199 If we conclude that we are in a world in which God is revealed, if the orderliness of it is but another name for Divine Providence, we can scarcely feel the same as we would if we discovered in the world nothing of the Divine. 200 I have in the last few pages been discussing the doctrine of purposes and ends, teleology, but I have said nothing of the significance of that doctrine for Theism. 201 The reader can easily see that it lies at the very foundation of our belief in God. 202 The only arguments for theism that have had much weight with humankind have been those which have maintained there are revealed in the world generally evidences of a plan and purpose at least analogous to what we discover when we scrutinise the actions of our fellow-human. 203 Such arguments are not at the mercy of either interactionist or parallelist. On either hypothesis they stand unshaken.

204 With this brief survey of some of the most interesting problems that confront the philosopher, I must content myself here. 205 Now let us turn and see how some of the fundamental problems treated in previous chapters have been approached by people belonging to certain well-recognised schools of thought.

206 And since it is peculiarly true in philosophy that, to understand the present, one must know something of the past, 207 we shall begin by taking a look at the historical background of the types of philosophical doctrine to which reference is constantly made in the books and journals of the day.

ON THE NATURE AND ORIGIN OF THE MIND

Benedict de Spinoza

5 I now pass on to explaining the results, which must necessarily follow from the essence of God, or of the eternal and infinite being; 2 not, indeed, all of them, but only those which are able to lead us, as it were by the hand, to the knowledge of the human mind and its highest blessedness.

DEFINITIONS

3 (I.) By 'body' I mean a mode which expresses in a certain determinate manner the essence of God, in so far as He is considered as an extended thing.

4 (II.) I consider as belonging to the essence of a thing that, which being given, the thing is necessarily given also, and, which being removed, the thing is necessarily removed also; 5 in other words, that without which the thing, and which itself without the thing, can neither be nor be conceived.

6 (III.) By 'idea,' I mean the mental conception which is formed by the mind as a thinking thing.

EXPLANATION

7 I say 'conception' rather than perception, because the word perception seems to imply that the mind is passive in respect to the object; whereas conception seems to express an activity of the mind.

8 (IV.) By 'an adequate idea,' I mean an idea which, in so far as it is considered in itself, without relation to the object, has all the properties or intrinsic marks of a true idea.

EXPLANATION

9 I say 'intrinsic,' in order to exclude that mark which is extrinsic, namely, the agreement between the idea and its object (ideatum).

10 (V.) 'Duration' is the indefinite continuance of existing.

EXPLANATION

11 I say 'indefinite,' because it cannot be determined through the existence itself of the existing thing, or by its efficient cause, which necessarily gives the existence of the thing, but does not take it away.

12 (VI.) 'Reality' and 'perfection' I use as synonymous terms.

13 (VII.) By 'particular things,' I mean things which are finite and have a conditioned existence; but if several individual things concur in one action, so as to be all simultaneously the effect of one cause, I consider them all, so far, as one particular thing.

AXIOMS

14 (I.) The essence of human does not involve necessary existence, that is, it may, in the order of Nature, come to pass that this or that person does or does not exist.

15 (II.) Human thinks.

16 (III.) Modes of thinking, such as love, desire, or any other of the passions, do not take place, unless there be in the same individual an idea of the thing loved, desired, etc. But the idea can exist without the presence of any other mode of thinking.

17 (IV.) We perceive that a certain body is affected in many ways.

18 (V.) We feel and perceive no particular things, save bodies and modes of thought.

PROPOSITIONS

19 (I.) Thought is an attribute of God, or God is a thinking thing.

PROOF

20 Particular thoughts, or this and that thought, are modes which, in a certain conditioned manner, express the nature of God. 21 God therefore possesses the attribute of which the concept is involved in all particular thoughts, which latter are conceived thereby. 22 Thought, therefore, is one of the infinite attributes of God, which express God's eternal and infinite essence. In other words, God is a thinking thing.

Note

23 This proposition is also evident from the fact, that we are able to conceive an infinite thinking

being. 24 For, in proportion as a thinking being is conceived as thinking more thoughts, so is it conceived as containing more reality or perfection. 25 Therefore a being, which can think an infinite number of things in an infinite number of ways, is, necessarily, in respect of thinking, infinite. 26 As, therefore, from the consideration of thought alone, we conceive an infinite being, thought is necessarily one of the infinite attributes of God, as we were desirous of showing.

27 (II.) Extension is an attribute of God, or God is an extended thing.

PROOF

28 The proof of this proposition is similar to that of the last.

III. In God there is necessarily the idea not only of His essence, but also of all things which necessarily follow from His essence.

PROOF

29 God can think an infinite number of things in infinite ways, or can form the idea of His essence, and of all things which necessarily follow therefrom. 30 Now all that is in the power of God necessarily is. Therefore, such an idea as we are considering necessarily is, and in God alone.

Note

31 The multitude understand by the power of God the free-will of God, and the right over all things that exist, which latter are accordingly generally considered as contingent. 32 For it is said that God has the power to destroy all things, and to reduce them to nothing. 33 Further, the power of God is very often likened to the power of kings. But this doctrine we have refuted, and we have shown that God acts by the same necessity, as that by which He understands Himself; 34 in other words, as it follows from the necessity of the divine Nature (as all admit), that God understands Himself, so also does it follow by the same necessity, that God performs infinite acts in infinite ways. 35 We further showed, that God's power is identical with God's essence in action; therefore it is as impossible for us to conceive God as not acting, as to conceive Him as non-existent. 36 If we might pursue the subject further, I could point out, that the power which is commonly attributed to God is not only human (as showing that God is

conceived by the multitude as a man, or in the likeness of a man), but involves a negation of power. 37 No one will be able to follow my meaning, unless you are scrupulously careful not to confound the power of God with the human power and right of kings.

38 (IV.) The idea of God, from which an infinite number of things follow in infinite ways, can only be one.

PROOF

39 Infinite intellect comprehends nothing save the attributes of God and His modifications. Now God is one. Therefore the idea of God, wherefrom an infinite number of things follow in infinite ways, can only be one.

40 (V.) The actual being of ideas owns God as its cause, only in so far as He is considered as a thinking thing, not in so far as He is unfolded in any other attribute; 41 that is, the ideas both of the attributes of God and of particular things do not own as their efficient cause their objects (ideata) or the things perceived, but God Himself in so far as He is a thinking thing.

.PROOF

42 This proposition is evident from Proposition iii. of this Part. We there drew the conclusion, that God can form the idea of His essence, and of all things which follow necessarily therefrom, solely because He is a thinking thing, and not because He is the object of His own idea. 43 Wherefore the actual being of ideas owns for cause God, in so far as He is a thinking thing. 44 It may be differently proved as follows: the actual being of ideas is (obviously) a mode of thought, that is, a mode which expresses in a certain manner the nature of God, 45 in so far as He is a thinking thing, and therefore involves the conception of no other attribute of God, and consequently is not the effect of any attribute save thought. 46 Therefore the actual being of ideas owns God as its cause, in so far as He is considered as a thinking thing.

47 (VI.) The modes of any given attribute are caused by God, in so far as He is considered through the attribute of which they are modes, and not in so far as He is

considered through any other attribute.

PROOF

48 Each attribute is conceived through itself, without any other part; wherefore the modes of each attribute involve the conception of that attribute, but not of any other. 49 Thus they are caused by God, only in so far as He is considered through the attribute whose modes they are, and not in so far as He is considered through any other.

COROLLARY

50 Hence the actual being of things, which are not modes of thought, does not follow from the divine Nature, because that nature has prior knowledge of the things. 51 Things represented in ideas follow, and are derived from their particular attribute, in the same manner, and with the same necessity as ideas follow (according to what we have shown) from the attribute of thought.

52 (VII.) The order and connection of ideas is the same as the order and connection of things.

PROOF

53 For the idea of everything that is caused depends on a knowledge of the cause, whereof it is an effect.

COROLLARY

54 Hence God's power of thinking is equal to His realised power of action-- 55 that is, whatsoever follows from the infinite nature of God in the world of extension (formaliter), follows without exception in the same order and connection from the idea of God in the world of thought (objective).

Note

56 Before going any further, I wish to recall to mind what has been pointed out above-- namely, that whatsoever can be perceived by the infinite intellect as constituting the essence of substance, belongs altogether only to one substance: 57 consequently, substance thinking and substance extended are one and the same substance, comprehended now through one attribute, now through the other. 58 So, also, a mode of extension and the idea of that mode are one and the same thing, though expressed in two ways. 59 This truth seems to have been dimly recognised by those Jews who maintained that God, God's intellect, and the things understood

by God are identical. 60 For instance, a circle existing in Nature, and the idea of a circle existing, which is also in God, are one and the same thing displayed through different attributes. 61 Thus, whether we conceive Nature under the attribute of extension, or under the attribute of thought, or under any other attribute, we shall find the same order, or one and the same chain of causes-- that is, the same things following in either case.

62 I said that God is the cause of an idea-- for instance, of the idea of a circle,-- in so far as He is a thinking thing; 63 and of a circle, in so far as He is an extended thing, simply because the actual being of the idea of a circle can only be perceived as a proximate cause through another mode of thinking, and that again through another, and so on to infinity; 64 so that, so long as we consider things as modes of thinking, we must explain the order of the whole of Nature, or the whole chain of causes, through the attribute of thought only. 65 And, in so far as we consider things as modes of extension, we must explain the order of the whole of Nature through the attributes of extension only; and so on, in the case of the other attributes. 66 Wherefore of things as they are in themselves God is really the cause, inasmuch as He consists of infinite attributes. I cannot for the present explain my meaning more clearly.

67 (VIII.) The ideas of particular things, or of modes, that do not exist, must be comprehended in the infinite idea of God, in the same way as the formal essences of particular things or modes are contained in the attributes of God.

PROOF

68 This proposition is evident from the last; it is understood more clearly from the preceding note.

COROLLARY

69 Hence, so long as particular things do not exist, except in so far as they are comprehended in the attributes of God, their representations in thought or ideas do not exist, except in so far as the infinite idea of God exists; 70 and when the particular things are said to exist, not only in so far as they are involved in the attributes of God, but also in so far as they are said to continue, their ideas will also involve existence,

through which they are said to continue.

Note

71 If anyone desires an example to throw more light on this question, I shall, I fear, not be able to give you any, which adequately explains the thing of which I here speak, inasmuch as it is unique; 72 however, I will endeavour to illustrate it as far as possible. The nature of a circle is such that if any number of straight lines intersect within it, the rectangles formed by their segments will be equal to one another; 73 thus, infinite equal rectangles are contained in a circle. Yet none of these rectangles can be said to exist, except in so far as the circle exists; 74 nor can the idea of any of these rectangles be said to exist, except in so far as they are comprehended in the idea of the circle. 75 Let us grant that, from this infinite number of rectangles, two only exist. The ideas of these two not only exist, in so far as they are contained in the idea of the circle, but also as they involve the existence of those rectangles; 76 wherefore they are distinguished from the remaining ideas of the remaining rectangles.

77 (IX.) The idea of an individual thing actually existing is caused by God, 78 not in so far as He is infinite, but in so far as He is considered as affected by another idea of a thing actually existing, of which He is the cause, in so far as He is affected by a third idea, and so on to infinity.

PROOF

79 The idea of an individual thing actually existing is an individual mode of thinking, and is distinct from other modes; thus it is caused by God, in so far only as He is a thinking thing. 80 But not in so far as He is a thing thinking absolutely, only in so far as He is considered as affected by another mode of thinking; and He is the cause of this latter, as being affected by a third, and so on to infinity. 81 Now, the order and connection of ideas is the same as the order and connection of causes. 82 Therefore of a given individual idea another individual idea, or God, in so far as He is considered as modified by that idea, is the cause; 83 and of this second idea God is the cause, in

so far as he is affected by another idea, and so on to infinity.

COROLLARY

84 Whatsoever takes place in the individual object of any idea, the knowledge thereof is in God, in so far only as He has the idea of the object.

PROOF

85 Whatsoever takes place in the object of any idea, its idea is in God , not in so far as He is infinite, but in so far as He is considered as affected by another idea of an individual thing; 86 but the order and connection of ideas is the same as the order and connection of things. 87 The knowledge, therefore, of that which takes place in any individual object will be in God, in so far only as He has the idea of that object.

88 (X.) The being of substance does not appertain to the essence of human-- in other words, substance does not constitute the actual being (forma) of human.

PROOF

89 The being of substance involves necessary existence. If, therefore, the being of substance appertains to the essence of human, substance being granted, human would necessarily be granted also, and, consequently, human would necessarily exist, which is absurd.

Note

90 This proposition may also be proved from, in which it is shown that there cannot be two substances of the same nature; for as there may be many humans, the being of substance is not that which constitutes the actual being of human. 91 Again, the proposition is evident from the other properties of substance-- namely, that substance is in its nature infinite, immutable, indivisible, as anyone may see for yourself.

COROLLARY

92 Hence it follows, that the essence of human is constituted by certain modifications of the attributes of God. For the being of substance does not belong to the essence of human. 93 That essence therefore is something which is in God, and which without God can neither be nor be conceived, whether it be a modification, or a mode which expresses God's nature in a certain conditioned manner.

Note

94 Everyone must surely admit, that nothing can be or be conceived without God. 95 All people agree that God is the one and only cause of all things, both of their essence and of their existence; 96 that is, God is not only the cause of things in respect to their being made (secundum fieri), but also in respect to their being (secundum esse). 97 At the same time many assert, that that, without which a thing cannot be nor be conceived, belongs to the essence of that thing; 98 wherefore they believe that either the nature of God appertains to the essence of created things, or else that created things can be or be conceived without God; or else, as is more probably the case, they hold inconsistent doctrines. 99 I think the cause for such confusion is mainly, that they do not keep to the proper order of philosophic thinking. 100 The nature of God, which should be reflected on first, inasmuch as it is prior both in the order of knowledge and the order of Nature, they have taken to be last in the order of knowledge, and have put into the first place what they call the objects of sensation; 101 hence, while they are considering natural phenomena, they give no attention at all to the divine Nature, 102 and, when afterwards they apply their mind to the study of the divine Nature, they are quite unable to bear in mind the first hypotheses, with which they have overlaid the knowledge of natural phenomena, inasmuch as such hypotheses are no help towards understanding the divine Nature. 103 So that it is hardly to be wondered at, that these persons contradict themselves freely.

104 However, I pass over this point. My intention here was only to give a reason for not saying, that that, without which a thing cannot be or be conceived, belongs to the essence of that thing: 105 individual things cannot be or be conceived without God, yet God does not appertain to their essence. 106 I said that "I considered as belonging to the essence of a thing that, which being given, the thing is necessarily given also, and which being removed, the thing is necessarily removed also; 107 or that without which the thing, and

which itself without the thing can neither be nor be conceived."

108 (XI.) The first element, which constitutes the actual being of the human mind, is the idea of some particular thing actually existing.

PROOF

109 The essence of human is constituted by certain modes of the attributes of God, namely, by the modes of thinking, of all which the idea is prior in Nature, 110 and, when the idea is given, the other modes (namely, those of which the idea is prior in Nature) must be in the same individual (by the same Axiom). 111 Therefore an idea is the first element constituting the human mind. But not the idea of a non-existent thing, for then the idea itself cannot be said to exist; 112 it must therefore be the idea of something actually existing. But not of an infinite thing. For an infinite thing, must always necessarily exist; this would involve an absurdity.

113 Therefore the first element, which constitutes the actual being of the human mind, is the idea of something actually existing.

COROLLARY

114 Hence it follows, that the human mind is part of the infinite intellect of God; 115 thus when we say, that the human mind perceives this or that, we make the assertion, that God has this or that idea, 116 not in so far as He is infinite, but in so far as He is displayed through the nature of the human mind, or in so far as He constitutes the essence of the human mind; 117 and when we say that God has this or that idea, not only in so far as He constitutes the essence of the human mind, but also in so far as He, simultaneously with the human mind, has the further idea of another thing, 118 we assert that the human mind perceives a thing in part or inadequately.

Note

119 Here, I doubt not, readers will come to a stand, and will call to mind many things which will cause them to hesitate; 120 I therefore beg them to accompany me slowly, step by step, and not to pronounce on my statements, till they have read to the end.

121 (XII.) Whatsoever comes to pass in the object of the idea, which constitutes the human mind, must be perceived by the human mind, or there will

necessarily be an idea in the human mind of the said occurrence. 122 That is, if the object of the idea constituting the human mind be a body, nothing can take place in that body without being perceived by the mind.

PROOF

123 Whatsoever comes to pass in the object of any idea, the knowledge thereof is necessarily in God, in so far as He is considered as affected by the idea of the said object, that is, in so far as He constitutes the mind of anything.

124 Therefore, whatsoever takes place in the object constituting the idea of the human mind, the knowledge thereof is necessarily in God, in so far as He constitutes the essence of the human mind; 125 that is the knowledge of the said thing will necessarily be in the mind, in other words the mind perceives it.

126 (XIII.) The object of the idea constituting the human mind is the body, in other words a certain mode of extension which actually exists, and nothing else.

PROOF

127 If indeed the body were not the object of the human mind, the ideas of the modifications of the body would not be in God in virtue of His constituting our mind, but in virtue of His constituting the mind of something else; 128 that is, the ideas of the modifications of the body would not be in our mind: nor we do possess the idea of the modifications of the body. 129 Therefore the object of the idea constituting the human mind is the body, and the body as it actually exists. 130 Further, if there were any other object of the idea constituting the mind besides body, then, as nothing can exist from which some effect does not follow there would necessarily have to be in our mind an idea, which would be the effect of that other object; 131 but there is no such idea. Wherefore the object of our mind is the body as it exists, and nothing else.

Note

132 We thus comprehend, not only that the human mind is united to the body, but also the nature of the union between mind and body. 133 However, no one will be able to grasp this adequately or distinctly, unless you first has adequate knowledge of the nature of our

body. 134 The propositions we have advanced hitherto have been entirely general, applying not more to humans than to other individual things, all of which, though in different degrees, are animated (animata). 135 For of everything there is necessarily an idea in God, of which God is the cause, in the same way as there is an idea of the human body; 136 thus whatever we have asserted of the idea of the human body must necessarily also be asserted of the idea of everything else. 137 Still, on the other hand, we cannot deny that ideas, like objects, differ one from the other, one being more excellent than another and containing more reality, 138 just as the object of one idea is more excellent than the object of another idea, and contains more reality.

139 Wherefore, in order to determine, wherein the human mind differs from other things, and wherein it surpasses them, it is necessary for us to know the nature of its object, that is, of the human body. 140 What this nature is, I am not able here to explain, nor is it necessary for the proof of what I advance, that I should do so. 141 I will only say generally, that in proportion as any given body is more fitted than others for doing many actions or receiving many impressions at once, so also is the mind, of which it is the object, more fitted than others for forming many simultaneous perceptions; 142 and the more the actions of the body depend on itself alone, and the fewer other bodies concur with it in action, the more fitted is the mind of which it is the object for distinct comprehension. 143 We may thus recognise the superiority of one mind over others, and may further see the cause, why we have only a very confused knowledge of our body, and also many kindred questions, which I will, in the following propositions, deduce from what has been advanced. 144 Wherefore I have thought it worthwhile to explain and prove more strictly my present statements. In order to do so, I must premise a few propositions concerning the nature of bodies.

AXIOM

145 I. All bodies are either in motion or at rest.

146 (II.) Every body is moved sometimes more slowly, sometimes more quickly.

Lemma I.

147 Bodies are distinguished from one another in respect of motion and rest, quickness and slowness, and not in respect of substance.

PROOF

148 The first part of this proposition is, I take it, self-evident. That bodies are not distinguished in respect of substance.

Lemma II.

149 All bodies agree in certain respects.

PROOF

150 All bodies agree in the fact, that they involve the conception of one and the same attribute. Further, in the fact that they may be moved less or more quickly, and may be absolutely in motion or at rest.

Lemma III.

151 A body in motion or at rest must be determined to motion or rest by another body, which other body has been determined to motion or rest by a third body, and that third again by a fourth, and so on to infinity.

PROOF

152 Bodies are individual things, which are distinguished one from the other in respect to motion and rest; 153 thus each must necessarily be determined to motion or rest by another individual thing, namely by another body, which other body is also in motion or at rest. 154 And this body again can only have been set in motion or caused to rest by being determined by a third body to motion or rest. This third body again by a fourth, and so on to infinity.

COROLLARY

155 Hence it follows, that a body in motion keeps in motion, until it is determined to a state of rest by some other body; and a body at rest remains so, until it is determined to a state of motion by some other body. 156 This is indeed self-evident. For when I suppose, for instance, that a given body, A, is at rest, and do not take into consideration other bodies in motion, I cannot affirm anything concerning the body A, except that it is at rest. 157 If it afterwards comes to pass that A is in motion, this cannot have resulted from its having been at rest, for no other

consequence could have been involved than its remaining at rest. 158 If, on the other hand, A be given in motion, we shall, so long as we only consider A, be unable to affirm anything concerning it, except that it is in motion. 159 If A is subsequently found to be at rest, this rest cannot be the result of A's previous motion, for such motion can only have led to continued motion; 160 the state of rest therefore must have resulted from something, which was not in A, namely, from an external cause determining A to a state of rest.

AXIOM I

161 All modes, wherein one body is affected by another body, follow simultaneously from the nature of the body affected and the body affecting; 162 so that one and the same body may be moved in different modes, according to the difference in the nature of the bodies moving it; 163 on the other hand, different bodies may be moved in different modes by one and the same body.

AXIOM II

164 When a body in motion impinges on another body at rest, which it is unable to move, it recoils, in order to continue its motion, 165 and the angle made by the line of motion in the recoil and the plane of the body at rest, whereon the moving body has impinged, will be equal to the angle formed by the line of motion of incidence and the same plane.

166 So far we have been speaking only of the most simple bodies, which are only distinguished one from the other by motion and rest, quickness and slowness. We now pass on to compound bodies.

DEFINITION

167 When any given bodies of the same or different magnitude are compelled by other bodies to remain in contact, or if they be moved at the same or different rates of speed, so that their mutual movements should preserve among themselves a certain fixed relation, 168 we say that such bodies are 'in union,' and that together they compose one body or individual, which is distinguished from other bodies by the fact of this union.

AXIOM III

169 In proportion as the parts of an individual, or a compound body, are in contact over a greater or less superficies, they will with greater or less difficulty admit of

being moved from their position; 170 consequently the individual will, with greater or less difficulty, be brought to assume another form. 171 Those bodies, whose parts are in contact over large superficies, are called 'hard;' those, whose parts are in contact over small superficies, are called 'soft;' those, whose parts are in motion among one another, are called 'fluid.

Lemma IV.

172 If from a body or individual, compounded of several bodies, certain bodies be separated, and if, at the same time, an equal number of other bodies of the same nature take their place, the individual will preserve its nature as before, without any change in its actuality (forma).

PROOF

173 Bodies are not distinguished in respect of substance: that which constitutes the actuality (formam) of an individual consists in a union of bodies; 174 but this union, although there is a continual change of bodies, will (by our hypothesis) be maintained; the individual, therefore, will retain its nature as before, both in respect of substance and in respect of mode.

Lemma V.

175 If the parts composing an individual become greater or less, but in such proportion, that they all preserve the same mutual relations of motion and rest, the individual will still preserve its original nature, and its actuality will not be changed.

Lemma VI.

176 If certain bodies composing an individual be compelled to change the motion, which they have in one direction, for motion in another direction, 177 but in such a manner, that they be able to continue their motions and their mutual communication in the same relations as before, the individual will retain its own nature without any change of its actuality.

PROOF

178 This proposition is self-evident, for the individual is supposed to retain all that, which, in its definition, we spoke of as its actual being.

Lemma VII.

179 Furthermore, the individual thus composed preserves its nature, whether it be, as a whole,

in motion or at rest, whether it be moved in this or that direction; so long as each part retains its motion, and preserves its communication with other parts as before.

Note

180 We thus see, how a composite individual may be affected in many different ways, and preserve its Nature notwithstanding. 181 Thus far we have conceived an individual as composed of bodies only distinguished one from the other in respect of motion and rest, speed and slowness; that is, of bodies of the most simple character. 182 If, however, we now conceive another individual composed of several individuals of diverse natures, we shall find that the number of ways in which it can be affected, without losing its nature, will be greatly multiplied. 183 Each of its parts would consist of several bodies, and therefore (by Lemma vi.) each part would admit, without change to its nature, of quicker or slower motion, and would consequently be able to transmit its motions more quickly or more slowly to the remaining parts. 184 If we further conceive a third kind of individuals composed of individuals of this second kind, we shall find that they may be affected in a still greater number of ways without changing their actuality. 185 We may easily proceed thus to infinity, and conceive the whole of Nature as one individual, whose parts, that is, all bodies, vary in infinite ways, without any change in the individual as a whole. 186 I should feel bound to explain and demonstrate this point at more length, if I were writing a special treatise on body. 187 But I have already said that such is not my object; I have only touched on the question, because it enables me to prove easily that which I have in view.

POSTULATES

188 I The human body is composed of a number of individual parts, of diverse nature, each one of which is in itself extremely complex.

189 (II.) Of the individual parts composing the human body some are fluid, some soft, some hard.

190 (III.) The individual parts composing the human body, and consequently the human body

itself, are affected in a variety of ways by external bodies.

191 (IV.) The human body stands in need for its preservation of a number of other bodies, by which it is continually, so to speak, regenerated.

192 (V.) When the fluid part of the human body is determined by an external body to impinge often on another soft part, it changes the surface of the latter, and, as it were, leaves the impression thereupon of the external body which impels it.

193 (VI.) The human body can move external bodies, and arrange them in a variety of ways.

PROPOSITIONS XIV.

194 The human mind is capable of perceiving a great number of things, and is so in proportion as its body is capable of receiving a great number of impressions.

PROOF

195 The human body is affected in very many ways by external bodies, and is capable in very many ways of affecting external bodies. 196 But the human mind must perceive all that takes place in the human body; the human mind is, therefore, capable of perceiving a great number of things, and is so in proportion.

197 (XV.) The idea, which constitutes the actual being of the human mind, is not simple, but compounded of a great number of ideas.

PROOF

198 The idea constituting the actual being of the human mind is the idea of the body, which is composed of a great number of complex individual parts. 199 But there is necessarily in God the idea of each individual part whereof the body is composed; therefore the idea of the human body is composed of each of these numerous ideas of its component parts.

200 (XVI.) The idea of every mode, in which the human body is affected by external bodies, must involve the nature of the human body, and also the nature of the external body.

PROOF

201 All the modes, in which any given body is affected, follow from the nature of the body affected, and also from the nature of the affecting body, wherefore their idea is also necessarily involves the nature of both bodies;

202 therefore, the idea of every mode, in which the human body is affected by external bodies, involves the nature of the human body and of the external body.

COROLLARY I

203 Hence it follows, first, that the human mind perceives the nature of a variety of bodies, together with the nature of its own.

COROLLARY II

204 It follows, secondly, that the ideas, which we have of external bodies, indicate rather the constitution of our own body than the nature of external bodies.

205 (XVII.) If the human body is affected in a manner which involves the nature of any external body, the human mind will regard the said external body as actually existing, 206 or as present to itself, until the human body be affected in such a way, as to exclude the existence or the presence of the said external body.

PROOF

207 This proposition is self-evident, for so long as the human body continues to be thus affected, so long will the human mind regard this modification of the body-- 208 that is (by the last Proposition.), it will have the idea of the mode as actually existing, and this idea involves the nature of the external body; therefore the mind will regard the external body as actually existing, until it is affected.

COROLLARY

209 The mind is able to regard as present external bodies, by which the human body has once been affected, even though they be no longer in existence or present.

PROOF

210 When external bodies determine the fluid parts of the human body, so that they often impinge on the softer parts, they change the surface of the last named (Postulate. v); 211 hence they are refracted therefrom in a different manner from that which they followed before such change; 212 and, further, when afterwards they impinge on the new surfaces by their own spontaneous movement, they will be refracted in the same manner, as though they had been impelled towards those surfaces by external bodies; 213 consequently, they will, while they continue to be thus refracted, affect the human body in the same manner, whereof the mind will again take cognisance-- 214 that is,

the mind will again regard the external body as present, and will do so, as often as the fluid parts of the human body impinge on the aforesaid surfaces by their own spontaneous motion.

215 Wherefore, although the external bodies, by which the human body has once been affected, be no longer in existence, the mind will nevertheless regard them as present, as often as this action of the body is repeated.

Note

216 We thus see how it comes about, as is often the case, that we regard as present many things which are not. 217 It is possible that the same result may be brought about by other causes; but I think it suffices for me here to have indicated one possible explanation, just as well as if I had pointed out the true cause. 218 Indeed, I do not think I am very far from the truth, for all my assumptions are based on postulates, which rest, almost without exception, on experience, that cannot be controverted by those who have shown, as we have, that the human body, as we feel it, exists. 219 Furthermore, we clearly understand what is the difference between the idea, say, of Peter, which constitutes the essence of Peter's mind, and the idea of the said Peter, which is in another human, say, Paul. 220 The former directly answers to the essence of Peter's own body, and only implies existence so long as Peter exists; 221 the latter indicates rather the disposition of Paul's body than the nature of Peter, and, therefore, while this disposition of Paul's body lasts, Paul's mind will regard Peter as present to itself, even though he no longer exists. 222 Further, to retain the usual phraseology, the modifications of the human body, of which the ideas represent external bodies as present to us, we will call the images of things, though they do not recall the figure of things. 223 When the mind regards bodies in this fashion, we say that it imagines. I will here draw attention to the fact, in order to indicate where error lies, that the imaginations of the mind, looked at in themselves, do not contain error. 224 The mind does not err in the mere act of imagining, but only in so far as it

is regarded as being without the idea, which excludes the existence of such things as it imagines to be present to it. 225 If the mind, while imagining non-existent things as present to it, is at the same time conscious that they do not really exist, this power of imagination must be set down to the efficacy of its nature, and not to a fault, 226 especially if this faculty of imagination depend solely on its own nature-- that is, if this faculty of imagination be free.

227 (XVIII.) If the human body has once been affected by two or more bodies at the same time, when the mind afterwards imagines any of them, it will straightway remember the others also.

PROOF

228 The mind imagines any given body, because the human body is affected and disposed by the impressions from an external body, in the same manner as it is affected when certain of its parts are acted on by the said external body; 229 but (by our hypothesis) the body was then so disposed, that the mind imagined two bodies at once; 230 therefore, it will also in the second case imagine two bodies at once, and the mind, when it imagines one, will straightway remember the other.

Note

231 We now clearly see what 'Memory' is. It is simply a certain association of ideas involving the nature of things outside the human body, which association arises in the mind according to the order and association of the modifications (affectiones) of the human body. 232 I say, first, it is an association of those ideas only, which involve the nature of things outside the human body: not of ideas which answer to the nature of the said things: 233 ideas of the modifications of the human body are, strictly speaking those which involve the nature both of the human body and of external bodies.

234 I say, secondly, that this association arises according to the order and association of the modifications of the human body, in order to distinguish it from that association of ideas, which arises from the order of the intellect, 235 whereby the mind perceives things through their primary causes, and which is in all humans the same.

236 And hence we can further clearly understand, why the mind from the thought of one thing, should straightway arrive at the thought of another thing, which has no similarity with the first; 237 for instance, from the thought of the word 'pomum' (an apple), a Roman would straightway arrive at the thought of the fruit apple, 238 which has no similitude with the articulate sound in question, nor anything in common with it, except that the body of the human has often been affected by these two things; 239 that is, that the person has often heard the word 'pomum,' while you was looking at the fruit; similarly every person will go on from one thought to another, according as own habit has ordered the images of things in own body. 240 For a soldier, for instance, when you sees the tracks of a horse in sand, will at once pass from the thought of a horse to the thought of a horseman, and thence to the thought of war; while a countryman will proceed from the thought of a horse to the thought of a plough, a field. 241 Thus every human will follow this or that train of thought, according as you have been in the habit of conjoining and associating the mental images of things in this or that manner.

242 (XIX.) The human mind has no knowledge of the body, and does not know it to exist, save through the ideas of the modifications whereby the body is affected.

PROOF

243 The human mind is the very idea or knowledge of the human body, which is in God, in so far as He is regarded as affected by another idea of a particular thing actually existing: 244 or, inasmuch as (Postulate. iv.) the human body stands in need of very many bodies whereby it is, as it were, continually regenerated; 245 and the order and connection of ideas is the same as the order and connection of causes; this idea will therefore be in God, in so far as He is regarded as affected by the ideas of very many particular things. 246 Thus God has the idea of the human body, or knows the human body, in so far as He is affected by very many other ideas, and not in so far as He constitutes the nature of the human mind; that is, the human mind does not know

the human body. 247 But the ideas of the modifications of body are in God, in so far as He constitutes the nature of the human mind, 248 or the human mind perceives those modifications, and consequently the human body itself, and as actually existing; therefore the mind perceives thus far only the human body.

249 (XX.) The idea or knowledge of the human mind is also in God, following in God in the same manner, and being referred to God in the same manner, as the idea or knowledge of the human body.

PROOF

250 Thought is an attribute of God; therefore there must necessarily be in God the idea both of thought itself and of all its modifications, consequently also of the human mind. 251 Further, this idea or knowledge of the mind does not follow from God, in so far as He is infinite, but in so far as He is affected by another idea of an individual thing. 252 But the order and connection of ideas is the same as the order and connection of causes; 253 therefore this idea or knowledge of the mind is in God and is referred to God, in the same manner as the idea or knowledge of the body.

254 (XXI.) This idea of the mind is united to the mind in the same way as the mind is united to the body.

PROOF

255 That the mind is united to the body we have shown from the fact, that the body is the object of the mind; 256 and so for the same reason the idea of the mind must be united with its object, that is, with the mind in the same manner as the mind is united to the body.

Note

257 This proposition is comprehended much more clearly from what we have said in the note to II. Vii. 258 We there showed that the idea of body and body, that is, mind and body, are one and the same individual conceived now under the attribute of thought, now under the attribute of extension; 259 wherefore the idea of the mind and the mind itself are one and the same thing, which is conceived under one and the same attribute, namely, thought.

260 The idea of the mind, I repeat, and the mind itself are in God by the same necessity and follow

from Him from the same power of thinking. 261 Strictly speaking, the idea of the mind, that is, the idea of an idea, is nothing but the distinctive quality (forma) of the idea in so far as it is conceived as a mode of thought without reference to the object; 262 if a person knows anything, you, by that very fact, knows that you knows it, and at the same time knows that you knows that you knows it, and so on to infinity.

263 (XXII.) The human mind perceives not only the modifications of the body, but also the ideas of such modifications.

PROOF

264 The ideas of the ideas of modifications follow in God in the same manner, and are referred to God in the same manner, as the ideas of the said modifications. 265 But the ideas of the modifications of the body are in the human mind, that is, in God, in so far as He constitutes the essence of the human mind; 266 therefore the ideas of these ideas will be in God, in so far as He has the knowledge or idea of the human mind, that is, they will be in the human mind itself, which therefore perceives not only the modifications of the body, but also the ideas of such modifications.

267 (XXIII.) The mind does not know itself, except in so far as it perceives the ideas of the modifications of the body.

PROOF

268 The idea or knowledge of the mind follows in God in the same manner, and is referred to God in the same manner, as the idea or knowledge of the body. 269 But since the human mind does not know the human body itself, that is, since the knowledge of the human body is not referred to God, in so far as He constitutes the nature of the human mind; 270 therefore, neither is the knowledge of the mind referred to God, in so far as He constitutes the essence of the human mind; therefore, the human mind thus far has no knowledge of itself. 271 Further the ideas of the modifications, whereby the body is affected, involve the nature of the human body itself, that is, they agree with the nature of the mind; 272 wherefore the knowledge of these ideas necessarily involves knowledge of the mind; but (by

the last Proposition.) the knowledge of these ideas is in the human mind itself; 273 wherefore the human mind thus far only has knowledge of itself.

274 (XXIV.) The human mind does not involve an adequate knowledge of the parts composing the human body.

PROOF

275 The parts composing the human body do not belong to the essence of that body, except in so far as they communicate their motions to one another in a certain fixed relation, not in so far as they can be regarded as individuals without relation to the human body. 276 The parts of the human body are highly complex individuals, whose parts can be separated from the human body without in any way destroying the nature and distinctive quality of the latter, and they can communicate their motions to other bodies in another relation; 277 therefore the idea or knowledge of each part will be in God, inasmuch as He is regarded as affected by another idea of a particular thing, which particular thing is prior in the order of Nature to the aforesaid part. 278 We may affirm the same thing of each part of each individual composing the human body; 279 therefore, the knowledge of each part composing the human body is in God, in so far as He is affected by very many ideas of things, and not in so far as He has the idea of the human body only, 280 in other words, the idea which constitutes the nature of the human mind; therefore, the human mind does not involve an adequate knowledge of the human body.

281 (XXV.) The idea of each modification of the human body does not involve an adequate knowledge of the external body.

PROOF

282 We have shown that the idea of a modification of the human body involves the nature of an external body, in so far as that external body conditions the human body in a given manner. 283 But, in so far as the external body is an individual, which has no reference to the human body, the knowledge or idea thereof is in God, 284 in so far as God is regarded as affected by the idea of a further thing, which is naturally prior to the said external body. 285 Wherefore an

adequate knowledge of the external body is not in God, in so far as He has the idea of the modification of the human body; 286 in other words, the idea of the modification of the human body does not involve an adequate knowledge of the external body.

287 (XXVI.) The human mind does not perceive any external body as actually existing, except through the ideas of the modifications of its own body.

PROOF

288 If the human body is in no way affected by a given external body, then neither is the idea of the human body, in other words, the human mind, affected in any way by the idea of the existence of the said external body, nor does it in any manner perceive its existence. 289 But, in so far as the human body is affected in any way by a given external body, thus far it perceives that external body.

COROLLARY

290 In so far as the human mind imagines an external body, it has not an adequate knowledge thereof.

PROOF

291 When the human mind regards external bodies through the ideas of the modifications of its own body, we say that it imagines; now the mind can only imagine external bodies as actually existing. 292 Therefore, in so far as the mind imagines external bodies, it has not an adequate knowledge of them.

293 (XXVII.) The idea of each modification of the human body does not involve an adequate knowledge of the human body itself.

PROOF

294 Every idea of a modification of the human body involves the nature of the human body, in so far as the human body is regarded as affected in a given manner. 295 But inasmuch as the human body is an individual which may be affected in many other ways, the idea of the said modification.

296 (XXVIII.) The ideas of the modifications of the human body, in so far as they have reference only to the human mind, are not clear and distinct, but confused.

PROOF

297 The ideas of the modifications of the human body involve the nature both of the human body and of external bodies; 298 they must involve the nature not only of

the human body but also of its parts; for the modifications are modes, whereby the parts of the human body, and, consequently, the human body as a whole are affected. 299 But the adequate knowledge of external bodies, as also of the parts composing the human body, is not in God, in so far as He is regarded as affected by the human mind, but in so far as He is regarded as affected by other ideas.

300 These ideas of modifications, in so far as they are referred to the human mind alone, are as consequences without premises, in other words, confused ideas.

Note

301 The idea which constitutes the nature of the human mind is, in the same manner, proved not to be, when considered in itself and alone, clear and distinct; 302 as also is the case with the idea of the human mind, and the ideas of the ideas of the modifications of the human body, in so far as they are referred to the mind only, as everyone may easily see.

303 (XXIX.) The idea of the idea of each modification of the human body does not involve an adequate knowledge of the human mind.

PROOF

304 The idea of a modification of the human body does not involve an adequate knowledge of the said body, in other words, does not adequately express its nature; 305 that is, it does not agree with the nature of the mind adequately; therefore the idea of this idea does not adequately express the nature of the human mind, or does not involve an adequate knowledge thereof.

COROLLARY

306 Hence it follows that the human mind, when it perceives things after the common order of nature, has not an adequate but only a confused and fragmentary knowledge of itself, of its own body, and of external bodies. 307 For the mind does not know itself, except in so far as it perceives the ideas of the modifications of body. 308 It only perceives its own body through the ideas of the modifications of body. It only perceives its own body through the ideas of the modifications, and only perceives external bodies through the same means; 309 thus, in so far as it has such ideas of

modification, it has not an adequate knowledge of itself, nor of its own body, nor of external bodies, but only a fragmentary and confused knowledge thereof.

Note

310 I say expressly, that the mind has not an adequate but only a confused knowledge of itself, its own body, and of external bodies, whenever it perceives things after the common order of nature; 311 that is, whenever it is determined from without, namely, by the fortuitous play of circumstance, to regard this or that; 312 not at such times as it is determined from within, that is, by the fact of regarding several things at once, to understand their points of agreement, difference, and contrast. 313 Whenever it is determined in anywise from within, it regards things clearly and distinctly, as I will show below.

314 (XXX.) We can only have a very inadequate knowledge of the duration of our body.

PROOF

315 The duration of our body does not depend on its essence, nor on the absolute nature of God. 316 But it is conditioned to exist and operate by causes, which in their turn are conditioned to exist and operate in a fixed and definite relation by other causes, these last again being conditioned by others, and so on to infinity. 317 The duration of our body therefore depends on the common order of nature, or the constitution of things. 318 Now, however a thing may be constituted, the adequate knowledge of that thing is in God, in so far as He has the ideas of all things, and not in so far as He has the idea of the human body only. 319 Wherefore the knowledge of the duration of our body is in God very inadequate, in so far as He is only regarded as constituting the nature of the human mind; that is, this knowledge is very inadequate to our mind.

320 (XXXI.) We can only have a very inadequate knowledge of the duration of particular things external to ourselves.

PROOF

321 Every particular thing, like the human body, must be conditioned by another particular thing to exist and operate in a fixed and definite relation; this other particular thing

must likewise be conditioned by a third, and so on to infinity. 322 As we have shown in the foregoing proposition, from this common property of particular things, we have only a very inadequate knowledge of the duration of our body; 323 we must draw a similar conclusion with regard to the duration of particular things, namely, that we can only have a very inadequate knowledge of the duration thereof.

COROLLARY

324 Hence it follows that all particular things are contingent and perishable. 325 For we can have no adequate idea of their duration, and this is what we must understand by the contingency and perishableness of things. For, except in this sense, nothing is contingent.

326 (XXXII.) All ideas, in so far as they are referred to God, are true.

PROOF

327 All ideas which are in God agree in every respect with their objects, therefore they are all true.

328 (XXXII.) There is nothing positive in ideas, which causes them to be called false.

PROOF

329 If this be denied, conceive, if possible, a positive mode of thinking, which should constitute the distinctive quality of falsehood. 330 Such a mode of thinking cannot be in God; external to God it cannot be or be conceived. Therefore there is nothing positive in ideas which causes them to be called false.

331 (XXXIV.) Every idea, which in us is absolute or adequate and perfect, is true.

PROOF

332 When we say that an idea in us is adequate and perfect, we say, in other words, that the idea is adequate and perfect in God, in so far as He constitutes the essence of our mind; consequently, we say that such an idea is true.

333 (XXXV.) Falsity consists in the privation of knowledge, which inadequate, fragmentary, or confused ideas involve.

PROOF

334 There is nothing positive in ideas, which causes them to be called false; but falsity cannot consist in simple privation (for minds, not bodies, are said to err and to be mistaken), 335 neither can it consist in absolute

ignorance, for ignorance and error are not identical; 336 wherefore it consists in the privation of knowledge, which inadequate, fragmentary, or confused ideas involve.

Note

337 In the note to II. xvii. I explained how error consists in the privation of knowledge, but in order to throw more light on the subject I will give an example. 338 For instance, humans are mistaken in thinking themselves free; their opinion is made up of consciousness of their own actions, and ignorance of the causes by which they are conditioned. 339 Their idea of freedom, therefore, is simply their ignorance of any cause for their actions. 340 As for their saying that human actions depend on the will, this is a mere phrase without any idea to correspond thereto. 341 What the will is, and how it moves the body, they none of them know; those who boast of such knowledge, and feign dwellings and habitations for the soul, are wont to provoke either laughter or disgust. 342 So, again, when we look at the sun, we imagine that it is distant from us about two hundred feet; this error does not lie solely in this fancy, but in the fact that, while we thus imagine, we do not know the sun's true distance or the cause of the fancy. 343 For although we afterwards learn, that the sun is distant from us more than six hundred of the earth's diameters, we none the less shall fancy it to be near; 344 for we do not imagine the sun as near us, because we are ignorant of its true distance, but because the modification of our body involves the essence of the sun, in so far as our said body is affected thereby.

345 (XXXVI.) Inadequate and confused ideas follow by the same necessity, as adequate or clear and distinct ideas.

PROOF

346 All ideas are in God, and in so far as they are referred to God are true and adequate; 347 therefore there are no ideas confused or inadequate, except in respect to a particular mind; therefore all ideas, whether adequate or inadequate, follow by the same necessity.

348 (XXXVII.) That which is common to all, and which is

equally in a part and in the whole, does not constitute the essence of any particular thing.

PROOF

349 If this be denied, conceive, if possible, that it constitutes the essence of some particular thing; for instance, the essence of B. Then it cannot without B either exist or be conceived; but this is against our hypothesis.

350 Therefore it does not appertain to B's essence, nor does it constitute the essence of any particular thing.

351 (XXXVIII.) Those things, which are common to all, and which are equally in a part and in the whole, cannot be conceived except adequately.

PROOF

352 Let A be something, which is common to all bodies, and which is equally present in the part of any given body and in the whole. 353 I say A cannot be conceived except adequately. For the idea thereof in God will necessarily be adequate, both in so far as God has the idea of the human body, 354 and also in so far as He has the idea of the modifications of the human body, which involve in part the nature of the human body and the nature of external bodies; 355 that is, the idea in God will necessarily be adequate, both in so far as He constitutes the human mind, and in so far as He has the ideas, which are in the human mind. 356 Therefore the mind necessarily perceives A adequately, and has this adequate perception, both in so far as it perceives itself, and in so far as it perceives its own or any external body, nor can A be conceived in any other manner.

COROLLARY

357 Hence it follows that there are certain ideas or notions common to all humans; for all bodies agree in certain respects, which (by the foregoing Proposition.) must be adequately or clearly and distinctly perceived by all.

358 (XXXIX.) That, which is common to and a property of the human body and such other bodies as are wont to affect the human body, 359 and which is present equally in each part of either, or in the whole, will be represented by an adequate idea in the mind.

PROOF

360 If A be that, which is common to and a property of the human

body and external bodies, and equally present in the human body and in the said external bodies, in each part of each external body and in the whole, there will be an adequate idea of A in God, 361 both in so far as He has the idea of the human body, and in so far as He has the ideas of the given external bodies. 362 Let it now be granted, that the human body is affected by an external body through that, which it has in common therewith, namely, A; 363 the idea of this modification will involve the property A, and therefore the idea of this modification, in so far as it involves the property A, will be adequate in God, in so far as God is affected by the idea of the human body; 364 that is, in so far as He constitutes the nature of the human mind; therefore this idea is also adequate in the human mind.

COROLLARY

365 Hence it follows that the mind is fitted to perceive adequately more things, in proportion as its body has more in common with other bodies.

366 (XL.) Whatsoever ideas in the mind follow from ideas which are therein adequate, are also themselves adequate.

PROOF

367 This proposition is self-evident. For when we say that an idea in the human mind follows from ideas which are therein adequate, we say, in other words, that an idea is in the divine intellect, whereof God is the cause, 368 not in so far as He is infinite, nor in so far as He is affected by the ideas of very many particular things, but only in so far as He constitutes the essence of the human mind.

Note I

369 I have thus set forth the cause of those notions, which are common to all humans, and which form the basis of our ratiocinations. 370 But there are other causes of certain axioms or notions, which it would be to the purpose to set forth by this method of ours; 371 for it would thus appear what notions are more useful than others, and what notions have scarcely any use at all. 372 Furthermore, we should see what notions are common to all humans, and what notions are only clear and distinct to those

who are unshackled by prejudice, and we should detect those which are ill-founded. 373 Again we should discern whence the notions called "secondary" derived their origin, and consequently the axioms on which they are founded, and other points of interest connected with these questions. 374 But I have decided to pass over the subject here, partly because I have set it aside for another treatise, partly because I am afraid of wearying the reader by too great prolixity.

375 Nevertheless, in order not to omit anything necessary to be known, I will briefly set down the causes, whence are derived the terms styled "transcendental," such as Being, Thing, Something. 376 These terms arose from the fact, that the human body, being limited, is only capable of distinctly forming a certain number of images (what an image is I explained in the II. xvii. note) within itself at the same time; 377 if this number be exceeded, the images will begin to be confused; if this number of images, of which the body is capable of forming distinctly within itself, be largely exceeded, all will become entirely confused one with another. 378 This being so, it is evident that the human mind can distinctly imagine as many things simultaneously, as its body can form images simultaneously. 379 When the images become quite confused in the body, the mind also imagines all bodies confusedly without any distinction, and will comprehend them, as it were, under one attribute, namely, under the attribute of Being, Thing. 380 The same conclusion can be drawn from the fact that images are not always equally vivid, and from other analogous causes, which there is no need to explain here; 381 for the purpose which we have in view it is sufficient for us to consider one only. All may be reduced to this, that these terms represent ideas in the highest degree confused. 382 From similar causes arise those notions, which we call "general," such as human, horse, dog, etc. They arise, to wit, from the fact that so many images, for instance, of humans, are formed simultaneously in the human mind, 383 that the powers

of imagination break down, not indeed utterly, but to the extent of the mind losing count of small differences between individuals (e.g. colour, size, etc) and their definite number, 384 and only distinctly imagining that, in which all the individuals, in so far as the body is affected by them, agree; 385 for that is the point, in which each of the said individuals chiefly affected the body; this the mind expresses by the name human, and this it predicates of an infinite number of particular individuals. 386 For, as we have said, it is unable to imagine the definite number of individuals. We must, however, bear in mind, that these general notions are not formed by all humans in the same way, 387 but vary in each individual according as the point varies, whereby the body has been most often affected and which the mind most easily imagines or remembers. 388 For instance, those who have most often regarded with admiration the stature of human, will by the name of human understand an animal of erect stature; 389 those who have been accustomed to regard some other attribute, will form a different general image of human, for instance, that human is a laughing animal, a two-footed animal without feathers, a rational animal, 390 and thus, in other cases, everyone will form general images of things according to the habit of own body.

391 It is thus not to be wondered at, that among philosophers, who seek to explain things in Nature merely by the images formed of them, so many controversies should have arisen.

Note II

392 From all that has been said above it is clear, that we, in many cases, perceive and form our general notions:--

393 (1.) From particular things represented to our intellect fragmentarily, confusedly, and without order through our senses; I have settled to call such perceptions by the name of knowledge from the mere suggestions of experience.

394 (2.) From symbols, e.g., from the fact of having read or heard certain words we remember things and form certain ideas concerning them, similar to those through

which we imagine things. 395 I shall call both these ways of regarding things "knowledge of the first kind," "opinion," or "imagination."

396 (3.) From the fact that we have notions common to all humans, and adequate ideas of the properties of things; this I call "reason" and "knowledge of the second kind." 397 Besides these two kinds of knowledge, there is, as I will hereafter show, a third kind of knowledge, which we will call intuition. 398 This kind of knowledge proceeds from an adequate idea of the absolute essence of certain attributes of God to the adequate knowledge of the essence of things. 399 I will illustrate all three kinds of knowledge by a single example. Three numbers are given for finding a fourth, which shall be to the third as the second is to the first. 400 Tradesmen without hesitation multiply the second by the third, and divide the product by the first; 401 either because they have not forgotten the rule which they received from a master without any proof, or because they have often made trial of it with simple numbers, 402 or by virtue of the proof of the nineteenth proposition of the seventh book of Euclid, namely, in virtue of the general property of proportionals.

403 But with very simple numbers there is no need of this. For instance, one, two, three being given, everyone can see that the fourth proportional is six; 404 and this is much clearer, because we infer the fourth number from an intuitive grasping of the ratio, which the first bears to the second.

405 (XLI.) Knowledge of the first kind is the only source of falsity, knowledge of the second and third kinds is necessarily true.

PROOF

406 To knowledge of the first kind we have (in the foregoing note) assigned all those ideas, which are inadequate and confused; therefore this kind of knowledge is the only source of falsity. 407 Furthermore, we assigned to the second and third kinds of knowledge those ideas which are adequate; therefore these kinds are necessarily true.

408 (XLII.) Knowledge of the second and third kinds, not

knowledge of the first kind, teaches us to distinguish the true from the false.

PROOF

409 This proposition is self-evident. You, who knows how to distinguish between true and false, must have an adequate idea of true and false. 410 That is, you must know the true and the false by the second or third kind of knowledge.

411 (XLIII.) You, who has a true idea, simultaneously knows that you have a true idea, and cannot doubt of the truth of the thing perceived.

PROOF

412 A true idea in us is an idea which is adequate in God, in so far as He is displayed through the nature of the human mind. 413 Let us suppose that there is in God, in so far as He is displayed through the human mind, an adequate idea, A. The idea of this idea must also necessarily be in God, and be referred to Him in the same way as the idea A. 414 But the idea A is supposed to be referred to God, in so far as He is displayed through the human mind; 415 therefore, the idea of the idea A must be referred to God in the same manner; that is, the adequate idea of the idea A will be in the mind, which has the adequate idea A; 416 therefore you, who has an adequate idea or knows a thing truly, must at the same time have an adequate idea or true knowledge of His knowledge; that is, obviously, you must be assured.

Note

417 I explained in the note to II. xxi. what is meant by the idea of an idea; but we may remark that the foregoing proposition is in itself sufficiently plain. 418 No one, who has a true idea, is ignorant that a true idea involves the highest certainty. 419 For to have a true idea is only another expression for knowing a thing perfectly, or as well as possible. 420 No one, indeed, can doubt of this, unless you thinks that an idea is something lifeless, like a picture on a panel, and not a mode of thinking-- namely, the very act of understanding. 421 And who, I ask, can know that you understands anything, unless you do first understand it? 422 In other words, who can know that you are sure of a thing, unless you be first sure of that thing? 423 Further, what can there be more clear, and more

certain, than a true idea as a standard of truth? 424 Even as light displays both itself and darkness, so is truth a standard both of itself and of falsity. 425 I think I have thus sufficiently answered these questions-- namely, if a true idea is distinguished from a false idea, only in so far as it is said to agree with its object, a true idea has no more reality or perfection than a false idea (since the two are only distinguished by an extrinsic mark); 426 consequently, neither will a person who has a true idea have any advantage over you who has only false ideas. 427 Further, how comes it that people have false ideas? Lastly, how can anyone be sure, that you have ideas which agree with their objects?

428 These questions, I repeat, I have, in my opinion, sufficiently answered. The difference between a true idea and a false idea is plain: from what was said in II. xxxv., the former is related to the latter as being is to not-being. 429 The causes of falsity I have set forth very clearly in II. xix. and II. Xxxv. with the note. 430 From what is there stated, the difference between a human who has true ideas, and a human who has only false ideas, is made apparent. 431 As for the last question-- as to how a human can be sure that you have ideas that agree with their objects, I have just pointed out, with abundant clearness, that your knowledge arises from the simple fact, that you have an idea which corresponds with its object-- 432 in other words, that truth is its own standard. We may add that our mind, in so far as it perceives things truly, is part of the infinite intellect of God; 433 therefore, the clear and distinct ideas of the mind are as necessarily true as the ideas of God.

434 (XLIV.) It is not in the nature of reason to regard things as contingent, but as necessary.

PROOF

435 It is in the nature of reason to perceive things truly, namely, as they are in themselves-- that is, not as contingent, but as necessary.

COROLLARY I

436 Hence it follows, that it is only through our imagination that we consider things, whether in respect to the future or the past, as contingent.

Note

437 How this way of looking at things arises, I will briefly explain. We have shown above that the mind always regards things as present to itself, even though they be not in existence, until some causes arise which exclude their existence and presence. 438 Further, we showed that, if the human body has once been affected by two external bodies simultaneously, the mind, when it afterwards imagines one of the said external bodies, will straightway remember the other-- 439 that is, it will regard both as present to itself, unless there arise causes which exclude their existence and presence.

440 Further, no one doubts that we imagine time, from the fact that we imagine bodies to be moved some more slowly than others, some more quickly, some at equal speed. 441 Thus, let us suppose that a child yesterday saw Peter for the first time in the morning, Paul at noon, and Simon in the evening; then, that today the child again sees Peter in the morning. 442 It is evident, from II. Prop. xviii., that, as soon as the child sees the morning light, the child will imagine that the sun will traverse the same parts of the sky, as it did when saw it on the preceding day; 443 in other words, the child will imagine a complete day, and, together with own imagination of the morning, the child will imagine Peter; with noon, will imagine Paul; and with evening, will imagine Simon-- 444 that is, the child will imagine the existence of Paul and Simon in relation to a future time; on the other hand, if sees Simon in the evening, will refer Peter and Paul to a past time, by imagining them simultaneously with the imagination of a past time. 445 If it should at any time happen, that on some other evening the child should see James instead of Simon, will, on the following morning, associate with own imagination of evening sometimes Simon, sometimes James, not both together: 446 for the child is supposed to have seen, at evening, one or other of them, not both together. Own imagination will therefore waver; 447 and, with the imagination of future evenings, will associate first one, then the

other-- that is, will imagine them in the future, neither of them as certain, but both as contingent. 448 This wavering of the imagination will be the same, if the imagination be concerned with things which we thus contemplate, standing in relation to time past or time present: 449 consequently, we may imagine things as contingent, whether they be referred to time present, past, or future.

COROLLARY II

500 It is in the nature of reason to perceive things under a certain form of eternity (sub quadam aeternitatis specie).

PROOF

501 It is in the nature of reason to regard things, not as contingent, but as necessary. 502 Reason perceives this necessity of things truly-- that is, as it is in itself. But this necessity of things is the very necessity of the eternal nature of God; 503 therefore, it is in the nature of reason to regard things under this form of eternity. We may add that the bases of reason are the notions, which answer to things common to all, and which do not answer to the essence of any particular thing: 504 which must therefore be conceived without any relation to time, under a certain form of eternity.

505 (XLV.) Every idea of every body, or of every particular thing actually existing, necessarily involves the eternal and infinite essence of God.

PROOF

506 The idea of a particular thing actually existing necessarily involves both the existence and the essence of the said thing. 507 Now particular things cannot be conceived without God; 508 but, inasmuch as they have God for their cause, in so far as He is regarded under the attribute of which the things in question are modes, their ideas must necessarily involve the conception of the attributes of those ideas-- that is, the eternal and infinite essence of God.

Note

509 By existence I do not here mean duration-- that is, existence in so far as it is conceived abstractedly, and as a certain form of quantity. 510 I am speaking of the very nature of existence, which is assigned to particular things, because they follow in infinite

numbers and in infinite ways from the eternal necessity of God's nature. 511 I am speaking, I repeat, of the very existence of particular things, in so far as they are in God. 512 For although each particular thing be conditioned by another particular thing to exist in a given way, yet the force whereby each particular thing perseveres in existing follows from the eternal necessity of God's nature.

513 (XLVI.) The knowledge of the eternal and infinite essence of God which every idea involves is adequate and perfect.

PROOF

514 The proof of the last proposition is universal; and whether a thing be considered as a part or a whole, the idea thereof, whether of the whole or of a part, will involve God's eternal and infinite essence. 515 Wherefore, that, which gives knowledge of the eternal and infinite essence of God, is common to all, and is equally in the part and in the whole; therefore this knowledge will be adequate.

516 (XLVII.) The human mind has an adequate knowledge of the eternal and infinite essence of God.

PROOF

517 The human mind has ideas, from which it perceives itself and its own body and external bodies as actually existing; therefore it has an adequate knowledge of the eternal and infinite essence of God.

Note

518 Hence we see, that the infinite essence and the eternity of God are known to all. Now as all things are in God, and are conceived through God, 519 we can from this knowledge infer many things, which we may adequately know, and we may form that third kind of knowledge of which we spoke in the note to II. xl., and of the excellence and use of which we shall have occasion to speak. 520 Humans have not so clear a knowledge of God as they have of general notions, because they are unable to imagine God as they do bodies, 521 and also because they have associated the name God with images of things that they are in the habit of seeing, as indeed they can hardly avoid doing, being, as they are, humans, and

continually affected by external bodies. 522 Many errors, in truth, can be traced to this head, namely, that we do not apply names to things rightly. 523 For instance, when a person says that the lines drawn from the centre of a circle to its circumference are not equal, you then, at all events, assuredly attaches a meaning to the word circle different from that assigned by mathematicians. 524 So again, when people make mistakes in calculation, they have one set of figures in their mind, and another on the paper. 525 If we could see into their minds, they do not make a mistake; they seem to do so, because we think, that they have the same numbers in their mind as they have on the paper. 526 If this were not so, we should not believe them to be in error, any more than I thought that a human was in error, whom I lately heard exclaiming that own entrance hall had flown into a neighbour's hen, for own meaning seemed to me sufficiently clear. 527 Very many controversies have arisen from the fact, that humans do not rightly explain their meaning, or do not rightly interpret the meaning of others. 528 For, as a matter of fact, as they flatly contradict themselves, they assume now one side, now another, of the argument, so as to oppose the opinions, which they consider mistaken and absurd in their opponents.

529 (XLVIII.) In the mind there is no absolute or free-will; but the mind is determined to wish this or that by a cause, which has also been determined by another cause, and this last by another cause, and so on to infinity.

PROOF

530 The mind is a fixed and definite mode of thought, therefore it cannot be the free cause of its actions; 531 in other words, it cannot have an absolute faculty of positive or negative volition; but it must be determined by a cause, which has also been determined by another cause, and this last by another.

Note

532 In the same way it is proved, that there is in the mind no absolute faculty of understanding, desiring, loving. 533 Whence it follows, that these and similar faculties are either entirely

fictitious, or are merely abstract and general terms, such as we are accustomed to put together from particular things. 534 Thus the intellect and the will stand in the same relation to this or that idea, or this or that volition, as "lapidity" to this or that stone, or as "human" to Peter and Paul.

535 But, before I proceed further, I would here remark that, by the will to affirm and decide, I mean the faculty, not the desire. 536 I mean, I repeat, the faculty, whereby the mind affirms or denies what is true or false, not the desire, wherewith the mind wishes for or turns away from any given thing. 537 After we have proved, that these faculties of ours are general notions, which cannot be distinguished from the particular instances on which they are based, we must inquire whether volitions themselves are anything besides the ideas of things. 538 We must inquire, I say, whether there is in the mind any affirmation or negation beyond that, which the idea, in so far as it is an idea, involves. 539 For by ideas I do not mean images such as are formed at the back of the eye, or in the midst of the brain, but the conceptions of thought.

540 (XLIX.) There is in the mind no volition or affirmation and negation, save that which an idea, inasmuch as it is an idea, involves.

PROOF

541 There is in the mind no absolute faculty of positive or negative volition, but only particular volitions, namely, this or that affirmation, and this or that negation. 542 Now let us conceive a particular volition, namely, the mode of thinking whereby the mind affirms, that the three interior angles of a triangle are equal to two right angles. 543 This affirmation involves the conception or idea of a triangle, that is, without the idea of a triangle it cannot be conceived. 544 It is the same thing to say, that the concept A must involve the concept B, as it is to say, that A cannot be conceived without B. 545 Further, this affirmation cannot be made without the idea of a triangle.

Therefore, this affirmation can neither be nor be conceived, without the idea of a triangle. 546 Again, this idea of a triangle must

involve this same affirmation, namely, that its three interior angles are equal to two right angles. 547 Wherefore, and vice versa, this idea of a triangle can neither be nor be conceived without this affirmation, therefore, this affirmation belongs to the essence of the idea of a triangle, and is nothing besides. 548 What we have said of this volition (inasmuch as we have selected it at random) may be said of any other volition, namely, that it is nothing but an idea.

COROLLARY

549 Will and understanding are one and the same.

PROOF

550 Will and understanding are nothing beyond the individual volitions and ideas. But a particular volition and a particular idea are one and the same; therefore, will and understanding are one and the same.

Note

551 We have thus removed the cause which is commonly assigned for error. For we have shown above, that falsity consists solely in the privation of knowledge involved in ideas which are fragmentary and confused. 552 Wherefore, a false idea, inasmuch as it is false, does not involve certainty. 553 When we say, then, that a person acquiesces in what is false, and that you have no doubts on the subject, we do not say that you are certain, but only that you does not doubt, 554 or that you acquiesces in what is false, inasmuch as there are no reasons, which should cause your imagination to waver. 555 Thus, although the person be assumed to acquiesce in what is false, we shall never say that you are certain. For by certainty we mean something positive, not merely the absence of doubt.

556 However, in order that the foregoing proposition may be fully explained, I will draw attention to a few additional points, and I will furthermore answer the objections which may be advanced against our doctrine. 557 Lastly, in order to remove every scruple, I have thought it worthwhile to point out some of the advantages, which follow therefrom. I say "some," for they will be better appreciated from what we shall set forth.

558 I begin, then, with the first point, and warn my readers to

make an accurate distinction between an idea, or conception of the mind, and the images of things which we imagine. 559 It is further necessary that they should distinguish between idea and words, whereby we signify things. 560 These three-- namely, images, words, and ideas-- are by many persons either entirely confused together, or not distinguished with sufficient accuracy or care, and hence people are generally in ignorance, 561 how absolutely necessary is a knowledge of this doctrine of the will, both for philosophic purposes and for the wise ordering of life. 562 Those who think that ideas consist in images which are formed in us by contact with external bodies, persuade themselves that the ideas of those things, whereof we can form no mental picture, are not ideas, but only figments, which we invent by the free decree of our will; 563 they thus regard ideas as though they were inanimate pictures on a panel, and, filled with this misconception, do not see that an idea, inasmuch as it is an idea, involves an affirmation or negation.

564 Again, those who confuse words with ideas, or with the affirmation which an idea involves, think that they can wish something contrary to what they feel, affirm, or deny. 565 This misconception will easily be laid aside by one, who reflects on the nature of knowledge, and seeing that it in no wise involves the conception of extension, 566 will therefore clearly understand, that an idea (being a mode of thinking) does not consist in the image of anything, nor in words. 567 The essence of words and images is put together by bodily motions, which in no wise involve the conception of thought.

568 These few words on this subject will suffice: I will therefore pass on to consider the objections, which may be raised against our doctrine. 569 Of these, the first is advanced by those, who think that the will has a wider scope than the understanding, and that therefore it is different therefrom.

570 The reason for their holding the belief, that the will has wider scope than the understanding, is that they assert, that they have no

need of an increase in their faculty of assent, 571 that is of affirmation or negation, in order to assent to an infinity of things which we do not perceive, but that they have need of an increase in their faculty of understanding. 572 The will is thus distinguished from the intellect, the latter being finite and the former infinite.

573 Secondly, it may be objected that experience seems to teach us especially clearly, that we are able to suspend our judgment before assenting to things which we perceive; 574 this is confirmed by the fact that no one is said to be deceived, in so far as you perceives anything, but only in so far as you assents or dissents.

575 For instance, you who feigns a winged horse, does not therefore admit that a winged horse exists; that is, you are not deceived, unless you admits in addition that a winged horse does exist. 576 Nothing therefore seems to be taught more clearly by experience, than that the will or faculty of assent is free and different from the faculty of understanding.

577 Thirdly, it may be objected that one affirmation does not apparently contain more reality than another; 578 in other words, that we do not seem to need for affirming, that what is true is true, any greater power than for affirming, that what is false is true. 579 We have, however, seen that one idea has more reality or perfection than another, 580 for as objects are some more excellent than others, so also are the ideas of them some more excellent than others; this also seems to point to a difference between the understanding and the will.

581 Fourthly, it may be objected, if human does not act from free-will, what will happen if the incentives to action are equally balanced, as in the case of Buridan's ass? Will you perish of hunger and thirst? 582 If I say that you would not, you would then determine your own action, and would consequently possess the faculty of going and doing whatever you liked. 583 Other objections might also be raised, but, as I am not bound to put in evidence everything that anyone may dream, I will only set myself to the task of refuting those I have

mentioned, and that as briefly as possible.

584 To the first objection I answer, that I admit that the will has a wider scope than the understanding, if by the understanding be meant only clear and distinct ideas; 585 but I deny that the will has a wider scope than the perceptions, and the faculty of forming conceptions; nor do I see why the faculty of volition should be called infinite, any more than the faculty of feeling: 586 for, as we are able by the same faculty of volition to affirm an infinite number of things (one after the other, for we cannot affirm an infinite number simultaneously), so also can we, by the same faculty of feeling, feel or perceive (in succession) an infinite number of bodies. 587 If it be said that there is an infinite number of things which we cannot perceive, I answer, that we cannot attain to such things by any thinking, nor, consequently, by any faculty of volition.

588 But, it may still be urged, if God wished to bring it about that we should perceive them, He would be obliged to endow us with a greater faculty of perception, but not a greater faculty of volition than we have already. 589 This is the same as to say that, if God wished to bring it about that we should understand an infinite number of other entities, it would be necessary for Him to give us a greater understanding, 590 but not a more universal idea of entity than that which we have already, in order to grasp such infinite entities. 591 We have shown that will is a universal entity or idea, whereby we explain all particular volitions-- in other words, that which is common to all such volitions.

592 As, then, our opponents maintain that this idea, common or universal to all volitions, is a faculty, it is little to be wondered at that they assert, that such a faculty extends itself into the infinite, beyond the limits of the understanding: 593 for what is universal is predicated alike of one, of many, and of an infinite number of individuals.

594 To the second objection I reply by denying, that we have a free power of suspending our judgment: 595 for, when we say

that anyone suspends own judgment, we merely mean that you sees, that you does not perceive the matter in question adequately. 596 Suspension of judgment is, therefore, strictly speaking, a perception, and not free-will.

597 In order to illustrate the point, let us suppose a boy imagining a horse, and perceive nothing else. 598 Inasmuch as this imagination involves the existence of the horse, and the boy does not perceive anything which would exclude the existence of the horse, he will necessarily regard the horse as present: 599 he will not be able to doubt of its existence, although he be not certain thereof.

600 We have daily experience of such a state of things in dreams; and I do not suppose that there is anyone, who would maintain that, while you are dreaming, you have the free power of suspending your judgment concerning the things in your dream, 601 and bringing it about that you should not dream those things, which you dreams that you sees; yet it happens, notwithstanding, that even in dreams we suspend our judgment, namely, when we dream that we are dreaming.

602 Further, I grant that no one can be deceived, so far as actual perception extends-- that is, I grant that the mind's imaginations, regarded in themselves, do not involve error; 603 but I deny, that a person does not, in the act of perception, make any affirmation. 604 For what is the perception of a winged horse, save affirming that a horse has wings? If the mind could perceive nothing else but the winged horse, it would regard the same as present to itself: 605 it would have no reasons for doubting its existence, nor any faculty of dissent, unless the imagination of a winged horse be joined to an idea which precludes the existence of the said horse, 606 or unless the mind perceives that the idea which it possess of a winged horse is inadequate, in which case it will either necessarily deny the existence of such a horse, or will necessarily be in doubt on the subject.

607 I think that I have anticipated my answer to the third objection, namely, that the will is something universal which is predicated of all

ideas, 608 and that it only signifies that which is common to all ideas, namely, an affirmation, whose adequate essence must, therefore, in so far as it is thus conceived in the abstract, be in every idea, 609 and be, in this respect alone, the same in all, not in so far as it is considered as constituting the idea's essence: for, in this respect, particular affirmations differ one from the other, as much as do ideas.

610 For instance, the affirmation which involves the idea of a circle, differs from that which involves the idea of a triangle, as much as the idea of a circle differs from the idea of a triangle.

611 Further, I absolutely deny, that we are in need of an equal power of thinking, to affirm that that which is true is true, and to affirm that that which is false is true. 612 These two affirmations, if we regard the mind, are in the same relation to one another as being and not-being; for there is nothing positive in ideas, which constitutes the actual reality of falsehood.

613 We must therefore conclude, that we are easily deceived, when we confuse universals with singulars, and the entities of reason and abstractions with realities.

614 As for the fourth objection, I am quite ready to admit, that a person placed in the equilibrium described (namely, as perceiving nothing but hunger and thirst, a certain food and a certain drink, each equally distant from you) would die of hunger and thirst. 615 If I am asked, whether such an one should not rather be considered an ass than a human; I answer, that I do not know, neither do I know how a human should be considered, who hangs the self, or how we should consider children, fools, madmen, etc.

616 It remains to point out the advantages of a knowledge of this doctrine as bearing on conduct, and this may be easily gathered from what has been said. 617 The doctrine is good,

(1.) Inasmuch as it teaches us to act solely according to the decree of God, and to be partakers in the Divine Nature, and so much the more, as we perform more perfect actions and more and more understand God. 618 Such a doctrine not only completely

tranquilises our spirit, but also shows us where our highest happiness or blessedness is, namely, solely in the knowledge of God, whereby we are led to act only as love and piety shall bid us. 619 We may thus clearly understand, how far astray from a true estimate of virtue are those who expect to be decorated by God with high rewards for their virtue, and their best actions, as for having endured the direst slavery; 620 as if virtue and the service of God were not in itself happiness and perfect freedom.

621 (2.) Inasmuch as it teaches us, how we ought to conduct ourselves with respect to the gifts of fortune, or matters which are not in our power, and do not follow from our nature. 622 For it shows us, that we should await and endure fortune's smiles or frowns with an equal mind, seeing that all things follow from the eternal decree of God by the same necessity, as it follows from the essence of a triangle, that the three angles are equal to two right angles.

623 (3.) This doctrine raises social life, inasmuch as it teaches us to hate no human, neither to despise, to deride, to envy, or to be angry with any. 624 Further, as it tells us that each should be content with your own, and helpful to your neighbour, not from any womanish pity, favour, or superstition, but solely by the guidance of reason, according as the time and occasion demand.

625 (4.) Lastly, this doctrine confers no small advantage on the commonwealth; for it teaches how citizens should be governed and led, not so as to become slaves, but so that they may freely do whatsoever things are best.

626 I have thus fulfilled the promise made at the beginning of this note, and I thus bring the second part of my treatise to a close. 627 I think I have therein explained the nature and properties of the human mind at sufficient length, and, considering the difficulty of the subject, with sufficient clearness. 628 I have laid a foundation, whereon may be raised many excellent conclusions of the highest utility and most necessary to be known, as will, in what follows, be partly made plain.

The Book of Divine Panagogue called

DESIRES

ON THE ORIGIN AND NATURE
OF THE EMOTIONS
Benedict de Spinoza

1 Most writers on the emotions and on human conduct seem to be treating rather of matters outside Nature than of natural phenomena following Nature's general laws. 2 They appear to conceive human to be situated in Nature as a kingdom within a kingdom: 3 for they believe that you disturbs rather than follows Nature's order, that you have absolute control over your actions, and that you are determined solely by yourself. 4 They attribute human infirmities and fickleness, not to the power of Nature in general, but to some mysterious flaw in the nature of human, which accordingly they bemoan, deride, despise, or, as usually happens, abuse: 5 you, who succeeds in hitting off the weakness of the human mind more eloquently or more acutely than your fellows, is looked upon as a seer. 6 Still there has been no lack of very excellent people (to whose toil and industry I confess myself much indebted), who have written many noteworthy things concerning the right way of life, and have given much sage advice to humankind. 7 But no one, so far as I know, has defined the nature and strength of the emotions, and the power of the mind against them for their restraint.

8 I do not forget, that the illustrious Descartes, though he believed, that the mind has absolute power over its actions, strove to explain human emotions by their primary causes, 9 and, at the same time, to point out a way, by which the mind might attain to absolute dominion over them. 10 However, in my opinion, he accomplishes nothing beyond a display of the acuteness of his own great intellect, as I will show in the proper place. 11 For the present I wish to revert to those, who would rather abuse or deride human emotions than understand them. Such persons will, doubtless think it strange that I should attempt to treat of human vice and folly geometrically, 12 and should wish to set forth with rigid reasoning those matters which they cry out

against as repugnant to reason, frivolous, absurd, and dreadful.

13 However, such is my plan. Nothing comes to pass in Nature, which can be set down to a flaw therein; for Nature is always the same, and everywhere one and the same in Her efficacy and power of action; 14 that is, Nature's laws and ordinances, whereby all things come to pass and change from one form to another, are everywhere and always the same; 15 so that there should be one and the same method of understanding the nature of all things whatsoever, namely, through Nature's universal laws and rules. 16 Thus the passions of hatred, anger, envy, and so on, considered in themselves, follow from this same necessity and efficacy of Nature; 17 they answer to certain definite causes, through which they are understood, and possess certain properties as worthy of being known as the properties of anything else, whereof the contemplation in itself affords us delight. 18 I shall, therefore, treat of the nature and strength of the emotions according to the same method, as I employed heretofore in my investigations concerning God and the mind. 19 I shall consider human actions and desires in exactly the same manner, as though I were concerned with lines, planes, and solids.

DEFINITIONS

20 (I.) By an 'adequate' cause, I mean a cause through which its effect can be clearly and distinctly perceived. By an 'inadequate' or partial cause, I mean a cause through which, by itself, its effect cannot be understood.

21 (II.) I say that we 'act' when anything takes place, either within us or externally to us, whereof we are the adequate cause; 22 that is (by the foregoing definition) when through our nature something takes place within us or externally to us, which can through our nature alone be clearly and distinctly understood. 23 On the other hand, I say that we are passive as regards something when that something takes place within us, or follows from our nature externally, we being only the partial cause.

24 (III.) By 'emotion' I mean the modifications of the body,

whereby the active power of the said body is increased or diminished, aided or constrained, and also the ideas of such modifications.

25 Note Well. If we can be the adequate cause of any of these modifications, I then call the emotion an activity, otherwise I call it a passion, or state wherein the mind is passive.

POSTULATES

26 (I.) The human body can be affected in many ways, whereby its power of activity is increased or diminished, and also in other ways which do not render its power of activity either greater or less.

27 (II.) The human body can undergo many changes, and, nevertheless, retain the impressions or traces of objects, and, consequently, the same images of things.

PROPOSITIONS

28 I. Our mind is in certain cases active, and in certain cases passive. In so far as it has adequate ideas it is necessarily active, and in so far as it has inadequate ideas, it is necessarily passive.

PROOF

29 In every human mind there are some adequate ideas, and some ideas that are fragmentary and confused. 30 Those ideas which are adequate in the mind are adequate also in God, inasmuch as He constitutes the essence of the mind, 31 and those which are inadequate in the mind are likewise adequate in God, not inasmuch as He contains in Himself the essence of the given mind alone, but as He, at the same time, contains the minds of other things. 32 Again, from any given idea some effect must necessarily follow; of this effect God is the adequate cause, not inasmuch as He is infinite, but inasmuch as He is conceived as affected by the given idea. 33 But of that effect whereof God is the cause, inasmuch as He is affected by an idea which is adequate in a given mind, of that effect, I repeat, the mind in question is the adequate cause. 34 Therefore our mind, in so far as it has adequate ideas, is in certain cases necessarily active; this was our first point.

35 Again, whatsoever necessarily follows from the idea which is adequate in God, not by virtue of His possessing in Himself the mind of one human only, but by

virtue of His containing, together with the mind of that one human, the minds of other things also, 36 of such an effect the mind of the given human is not an adequate, but only a partial cause; 37 thus the mind, inasmuch as it has inadequate ideas, is in certain cases necessarily passive; this was our second point. 38 Therefore our mind.

COROLLARY

Hence it follows that the mind is more or less liable to be acted upon, in proportion as it possesses inadequate ideas, and, contrariwise, is more or less active in proportion as it possesses adequate ideas.

39 II. Body cannot determine mind to think, neither can mind determine body to motion or rest or any state different from these, if such there be.

PROOF

40 All modes of thinking have for their cause God, by virtue of His being a thinking thing, and not by virtue of His being displayed under any other attribute. 41 That, therefore, which determines the mind to thought is a mode of thought, and not a mode of extension; that is, it is not body. This was our first point.

42 Again, the motion and rest of a body must arise from another body, which has also been determined to a state of motion or rest by a third body, 43 and absolutely everything which takes place in a body must spring from God, in so far as He is regarded as affected by some mode of extension, and not by some mode of thought; 44 that is, it cannot spring from the mind, which is a mode of thought. This was our second point. Therefore body cannot determine mind.

NOTE

45 This is made more clear by what was said in the note to II. vii., namely, that mind and body are one and the same thing, conceived first under the attribute of thought, secondly, under the attribute of extension. 46 Thus it follows that the order or concatenation of things is identical, whether Nature be conceived under the one attribute or the other; 47 consequently the order of states of activity and passivity in our body is simultaneous in Nature with the order of states of activity and

passivity in the mind. 48 The same conclusion is evident from the manner in which we proved II. xii.

49 Nevertheless, though such is the case, and though there be no further room for doubt, I can scarcely believe, until the fact is proved by experience, that people can be induced to consider the question calmly and fairly, 50 so firmly are they convinced that it is merely at the bidding of the mind, that the body is set in motion or at rest, or performs a variety of actions depending solely on the mind's will or the exercise of thought. 51 However, no one has hitherto laid down the limits to the powers of the body, that is, no one has as yet been taught by experience what the body can accomplish solely by the laws of Nature, in so far as She is regarded as extension. 52 No one hitherto has gained such an accurate knowledge of the bodily mechanism, that you can explain all its functions; 53 nor need I call attention to the fact that many actions are observed in the lower animals, which far transcend human sagacity, 54 and that somnambulists do many things in their sleep, which they would not venture to do when awake: 55 these instances are enough to show, that the body can by the sole laws of its nature do many things which the mind wonders at.

56 Again, no one knows how or by what means the mind moves the body, nor how many various degrees of motion it can impart to the body, nor how quickly it can move it.

57 Thus, when people say that this or that physical action has its origin in the mind, which latter has dominion over the body, they are using words without meaning, or are confessing in specious phraseology that they are ignorant of the cause of the said action, and do not wonder at it.

58 But, they will say, whether we know or do not know the means whereby the mind acts on the body, we have, at any rate, experience of the fact that unless the human mind is in a fit state to think, the body remains inert. 59 Moreover, we have experience, that the mind alone can determine whether we speak or are silent, and a variety of similar states which, accordingly, we say depend on the

mind's decree. 60 But, as to the first point, I ask such objectors, whether experience does not also teach, that if the body be inactive the mind is simultaneously unfitted for thinking? 61 For when the body is at rest in sleep, the mind simultaneously is in a state of torpor also, and has no power of thinking, such as it possesses when the body is awake. 62 Again, I think everyone's experience will confirm the statement, that the mind is not at all times equally fit for thinking on a given subject, 63 but according as the body is more or less fitted for being stimulated by the image of this or that object, so also is the mind more or less fitted for contemplating the said object.

64 But, it will be urged, it is impossible that solely from the laws of Nature considered as extended substance, we should be able to deduce the causes of buildings, pictures, and things of that kind, which are produced only by human art; 65 nor would the human body, unless it were determined and led by the mind, be capable of building a single temple.

66 However, I have just pointed out that the objectors cannot fix the limits of the body's power, or say what can be concluded from a consideration of its sole nature, 67 whereas they have experience of many things being accomplished solely by the laws of Nature, which they would never have believed possible except under the direction of mind: 68 such are the actions performed by somnambulists while asleep, and wondered at by their performers when awake. 69 I would further call attention to the mechanism of the human body, which far surpasses in complexity all that has been put together by human art, 70 not to repeat what I have already shown, namely, that from Nature, under whatever attribute She be considered, infinite results follow. 71 As for the second objection, I submit that the world would be much happier, if humans were as fully able to keep silence as they are to speak.

72 Experience abundantly shows that humans can govern anything more easily than their tongues, and restrain anything more easily than their appetites; 73 when it comes

about that many believe, that we are only free in respect to objects which we moderately desire, because our desire for such can easily be controlled by the thought of something else frequently remembered, 74 but that we are by no means free in respect to what we seek with violent emotion, for our desire cannot then be allayed with the remembrance of anything else. 75 However, unless such persons had proved by experience that we do many things which we afterwards repent of, and again that we often, when assailed by contrary emotions, see the better and follow the worse, there would be nothing to prevent their believing that we are free in all things. 76 Thus an infant believes that of its own free-will it desires milk, an angry child believes that it freely desires to run away; 77 further, a drunken man believes that he utters from the free decision of his mind words which, when he is sober, he would willingly have withheld: 78 thus, too, a delirious man, a garrulous woman, a child, and others of like complexion, believe that they speak from the free decision of their mind, when they are in reality unable to restrain their impulse to talk. 79 Experience teaches us no less clearly than reason, that humans believe themselves to be free, simply because they are conscious of their actions, and unconscious of the causes whereby those actions are determined; 80 and, further, it is plain that the dictates of the mind are but another name for the appetites, and therefore vary according to the varying state of the body. 81 Everyone shapes own actions according to own emotion, those who are assailed by conflicting emotions know not what they wish; those who are not attacked by any emotion are readily swayed this way or that. 82 All these considerations clearly show that a mental decision and a bodily appetite, or determined state, are simultaneous, or rather are one and the same thing, which we call decision, 83 when it is regarded under and explained through the attribute of thought, and a conditioned state, when it is regarded under the attribute of extension, and deduced from the laws of motion and rest. 84 This

will appear yet more plainly in the sequel. For the present I wish to call attention to another point, namely, that we cannot act by the decision of the mind, unless we have a remembrance of having done so. 85 For instance, we cannot say a word without remembering that we have done so. 86 Again, it is not within the free power of the mind to remember or forget a thing at will. Therefore the freedom of the mind must in any case be limited to the power of uttering or not uttering something which it remembers.

87 But when we dream that we speak, we believe that we speak from a free decision of the mind, yet we do not speak, or, if we do, it is by a spontaneous motion of the body. 88 Again, we dream that we are concealing something, and we seem to act from the same decision of the mind as that, whereby we keep silence when awake concerning something we know.

89 Lastly, we dream that from the free decision of our mind we do something, which we should not dare to do when awake.

90 Now I should like to know whether there be in the mind two sorts of decisions, one sort illusive, and the other sort free?

91 If our folly does not carry us so far as this, we must necessarily admit, that the decision of the mind, which is believed to be free, is not distinguishable from the imagination or memory, and is nothing more than the affirmation, which an idea, by virtue of being an idea, necessarily involves.

92 Wherefore these decisions of the mind arise in the mind by the same necessity, as the ideas of things actually existing.

93 Therefore those who believe, that they speak or keep silence or act in any way from the free decision of their mind, do but dream with their eyes open.

94 (III.) The activities of the mind arise solely from adequate ideas; the passive states of the mind depend solely on inadequate ideas.

PROOF

95 The first element, which constitutes the essence of the mind, is nothing else but the idea of the actually existent body, which is compounded of many other ideas, whereof some are

adequate and some inadequate. 96 Whatsoever therefore follows from the nature of mind, and has mind for its proximate cause, through which it must be understood, must necessarily follow either from an adequate or from an inadequate idea. 97 But in so far as the mind has inadequate ideas, it is necessarily passive: wherefore the activities of the mind follow solely from adequate ideas, and accordingly the mind is only passive in so far as it has inadequate ideas.

Note

98 Thus we see, that passive states are not attributed to the mind, except in so far as it contains something involving negation, or in so far as it is regarded as a part of Nature, which cannot be clearly and distinctly perceived through itself without other parts: 99 I could thus show, that passive states are attributed to individual things in the same way that they are attributed to the mind, and that they cannot otherwise be perceived, but my purpose is solely to treat of the human mind.

100 (IV.) Nothing can be destroyed, except by a cause external to itself.

PROOF

101 This proposition is self-evident, for the definition of anything affirms the essence of that thing, but does not negative it; 102 in other words, it postulates the essence of the thing, but does not take it away. 103 So long therefore as we regard only the thing itself, without taking into account external causes, we shall not be able to find in it anything which could destroy it.

104 (V.) Things are naturally contrary, that is, cannot exist in the same object, in so far as one is capable of destroying the other.

PROOF

105 If they could agree together or co-exist in the same object, there would then be in the said object something which could destroy it; but this, by the foregoing proposition, is absurd, therefore things.

106 VI. Everything, in so far as it is in itself, endeavours to persist in its own being.

PROOF

107 Individual things are modes whereby the attributes of God are expressed in a given determinate manner; 108 that is, they are things which express in a given

determinate manner the power of God, whereby God is and acts; 109 now no thing contains in itself anything whereby it can be destroyed, or which can take away its existence; but contrariwise it is opposed to all that could take away its existence. 110 Therefore, in so far as it can, and in so far as it is in itself, it endeavours to persist in its own being.

111 (VII.) The endeavour, wherewith everything endeavours to persist in its own being, is nothing else but the actual essence of the thing in question.

PROOF

112 From the given essence of any thing certain consequences necessarily follow, nor have things any power save such as necessarily follows from their nature as determined; 113 wherefore the power of any given thing, or the endeavour whereby, either alone or with other things, it acts, or endeavours to act, 114 that is, the power or endeavour, wherewith it endeavours to persist in its own being, is nothing else but the given or actual essence of the thing in question.

115 (VIII.) The endeavour, whereby a thing endeavours to persist in its own being, involves no finite time, but an indefinite time.

PROOF

116 If it involved a limited time, which should determine the duration of the thing, it would then follow solely from that power whereby the thing exists, that the thing could not exist beyond the limits of that time, but that it must be destroyed; but this is absurd. 117 Wherefore the endeavour wherewith a thing exists involves no definite time; but, contrariwise, since it will by the same power whereby it already exists always continue to exist, unless it be destroyed by some external cause, this endeavour involves an indefinite time.

118 (IX.) The mind, both in so far as it has clear and distinct ideas, and also in so far as it has confused ideas, endeavours to persist in its being for an indefinite period, and of this endeavour it is conscious.

PROOF

119 The essence of the mind is constituted by adequate and inadequate ideas, therefore, both in so far as it possesses the former,

and in so far as it possesses the latter, it endeavours to persist in its own being, and that for an indefinite time. 120 Now as the mind is necessarily conscious of itself through the ideas of the modifications of the body, the mind is therefore conscious of its own endeavour.

Note

121 This endeavour, when referred solely to the mind, is called "will," when referred to the mind and body in conjunction it is called "appetite"; 122 it is, in fact, nothing else but human's essence, from the nature of which necessarily follow all those results which tend to its preservation; and which human has thus been determined to perform.

123 Further, between appetite and desire there is no difference, except that the term desire is generally applied to humans, in so far as they are conscious of their appetite, 124 and may accordingly be thus defined: "Desire is appetite with consciousness thereof." 125 It is thus plain from what has been said, that in no case do we strive for, wish for, long for, or desire anything, because we deem it to be good, 126 but on the other hand we deem a thing to be good, because we strive for it, wish for it, long for it, or desire it.

127 (X.) An idea, which excludes the existence of our body, cannot be postulated in our mind, but is contrary thereto.

PROOF

128 Whatsoever can destroy our body, cannot be postulated therein. Therefore neither can the idea of such a thing occur in God, in so far as He has the idea of our body; 129 that is, the idea of that thing cannot be postulated as in our mind, but contrariwise, since the first element, that constitutes the essence of the mind, is the idea of the human body as actually existing, 130 it follows that the first and chief endeavour of our mind is the endeavour to affirm the existence of our body: thus, an idea, which negatives the existence of our body, is contrary to our mind.

131 (XI.) Whatsoever increases or diminishes, helps or hinders the power of activity in our body, the idea thereof increases or diminishes, helps or hinders the power of thought in our mind.

Note

132 Thus we see, that the mind can undergo many changes, and can pass sometimes to a state of greater perfection, sometimes to a state of lesser perfection. 133 These passive states of transition explain to us the emotions of pleasure and pain. 134 By "pleasure" therefore in the following propositions I shall signify "a passive state wherein the mind passes to a greater perfection." 135 By "pain" I shall signify "a passive state wherein the mind passes to a lesser perfection."

136 Further, the emotion of pleasure in reference to the body and mind together I shall call "stimulation" (titillatio) or "merriment" (hilaritas), the emotion of pain in the same relation I shall call "suffering" or "melancholy." 137 But we must bear in mind, that stimulation and suffering are attributed to human, when one part of your nature is more affected than the rest, merriment and melancholy, when all parts are alike affected. 138 What I mean by desire I have explained in the note to Proposition. ix. of this part; beyond these three I recognise no other primary emotion; I will show as I proceed, that all other emotions arise from these three. 139 But, before I go further, I should like here to explain at greater length Proposition. x. of this part, in order that we may clearly understand how one idea is contrary to another.

140 In the note to II. xvii. we showed that the idea, which constitutes the essence of mind, involves the existence of body, so long as the body itself exists. 141 Again, it follows from what we pointed out in the corollary to II. viii., that the present existence of our mind depends solely on the fact, that the mind involves the actual existence of the body. 142 Lastly, we showed that the power of the mind, whereby it imagines and remembers things, also depends on the fact, that it involves the actual existence of the body. 143 Whence it follows, that the present existence of the mind and its power of imagining are removed, as soon as the mind ceases to affirm the present existence of the body. 144 Now the

cause, why the mind ceases to affirm this existence of the body, cannot be the mind itself, nor again the fact that the body ceases to exist. 145 For the cause, why the mind affirms the existence of the body, is not that the body began to exist; therefore, for the same reason, it does not cease to affirm the existence of the body, because the body ceases to exist; 146 but this result follows from another idea, which excludes the present existence of our body and, consequently, of our mind, and which is therefore contrary to the idea constituting the essence of our mind.

147 (XII.) The mind, as far as it can, endeavours to conceive those things, which increase or help the power of activity in the body.

PROOF

148 So long as the human body is affected in a mode, which involves the nature of any external body, the human mind will regard that external body as present, 149 and consequently, so long as the human mind regards an external body as present, that is, conceives it, the human body is affected in a mode, which involves the nature of the said external body; 150 thus so long as the mind conceives things, which increase or help the power of activity in our body, the body is affected in modes which increase or help its power of activity; 151 consequently the mind's power of thinking is for that period increased or helped. Thus the mind, as far as it can, endeavours to imagine such things.

152 (XIII.) When the mind conceives things which diminish or hinder the body's power of activity, it endeavours, as far as possible, to remember things which exclude the existence of the first-named things.

PROOF

153 So long as the mind conceives anything of the kind alluded to, the power of the mind and body is diminished or constrained; 154 nevertheless it will continue to conceive it, until the mind conceives something else, which excludes the present existence thereof; 155 that is (as I have just shown), the power of the mind and of the body is diminished, or constrained, until the mind conceives something else, which excludes the existence of the

former thing conceived: 156 therefore the mind, as far as it can, will endeavour to conceive or remember the latter.

COROLLARY

157 Hence it follows that the mind shrinks from conceiving those things, which diminish or constrain the power of itself and of the body.

Note

158 From what has been said we may clearly understand the nature of Love and Hate. "Love" is nothing else but "pleasure accompanied by the idea of an external cause." 159 We further see, that you who loves necessarily endeavours to have, and to keep present to you, the object of your love; while you who hates endeavours to remove and destroy the object of your hatred. But I will treat of these matters at more length hereafter.

160 (XIV.) If the mind has once been affected by two emotions at the same time, it will, whenever it is afterwards affected by one of these two, be also affected by the other.

PROOF

161 If the human body has once been affected by two bodies at once, whenever afterwards the mind conceives one of them, it will straightway remember the other also. 162 But the mind's conceptions indicate rather the emotions of our body than the nature of external bodies; 163 therefore, if the body, and consequently the mind has been once affected by two emotions at the same time, it will, whenever it is afterwards affected by one of the two, be also affected by the other.

164 XV. Anything can, accidentally, be the cause of pleasure, pain, or desire.

PROOF

165 Let it be granted that the mind is simultaneously affected by two emotions, of which one neither increases nor diminishes its power of activity, and the other does either increase or diminish the said power. 166 From the foregoing proposition it is evident that, whenever the mind is afterwards affected by the former, through its true cause, which (by hypothesis) neither increases nor diminishes its power of action, 167 it will be at the same time affected by the latter, which does increase or

diminish its power of activity, that is it will be affected with pleasure or pain. 168 Thus the former of the two emotions will, not through itself, but accidentally, be the cause of pleasure or pain. 169 In the same way also it can be easily shown, that a thing may be accidentally the cause of desire.

COROLLARY

170 Simply from the fact that we have regarded a thing with the emotion of pleasure or pain, though that thing be not the efficient cause of the emotion, we can either love or hate it.

PROOF

171 For from this fact alone it arises, that the mind afterwards conceiving the said thing is affected with the emotion of pleasure or pain, 172 that is, according as the power of the mind and body may be increased or diminished; and consequently, according as the mind may desire or shrink from the conception of it, in other words, according as it may love or hate the same.

Note

173 Hence we understand how it may happen, that we love or hate a thing without any cause for our emotion being known to us; merely, as a phrase is, from "sympathy" or "antipathy." 174 We should refer to the same category those objects, which affect us pleasurably or painfully, simply because they resemble other objects which affect us in the same way. This I will show in the next Proposition. 176 I am aware that certain authors, who were the first to introduce these terms "sympathy" and "antipathy," wished to signify thereby some occult qualities in things; 177 nevertheless I think we may be permitted to use the same terms to indicate known or manifest qualities.

178 (XVI.) Simply from the fact that we conceive, that a given object has some point of resemblance with another object which is wont to affect the mind pleasurably or painfully, 179 although the point of resemblance be not the efficient cause of the said emotions, we shall still regard the first-named object with love or hate.

PROOF

180 The point of resemblance was in the object (by hypothesis), when we regarded it with pleasure or

pain, thus, when the mind is affected by the image thereof, it will straightway be affected by one or the other emotion, 181 and consequently the thing, which we perceive to have the same point of resemblance, will be accidentally a cause of pleasure or pain. 182 Thus (by the foregoing corollary), although the point in which the two objects resemble one another be not the efficient cause of the emotion, we shall still regard the first-named object with love or hate.

183 (XVII.) If we conceive that a thing, which is wont to affect us painfully, has any point of resemblance with another thing which is wont to affect us with an equally strong emotion of pleasure we shall hate the first-named thing, and at the same time we shall love it.

PROOF

184 The given thing is (by hypothesis) in itself a cause of pain, and, in so far as we imagine it with this emotion, we shall hate it: 185 further, inasmuch as we conceive that it has some point of resemblance to something else, which is wont to affect us with an equally strong emotion of pleasure, we shall with an equally strong impulse of pleasure love it; thus we shall both hate and love the same thing.

Note

186 This disposition of the mind, which arises from two contrary emotions, is called "vacillation"; it stands to the emotions in the same relation as doubt does to the imagination; 187 vacillation and doubt do not differ one from the other, except as greater differs from less. 188 But we must bear in mind that I have deduced this vacillation from causes, which give rise through themselves to one of the emotions, and to the other accidentally. 189 I have done this, in order that they might be more easily deduced from what went before; but I do not deny that vacillation of the disposition generally arises from an object, which is the efficient cause of both emotions.

190 The human body is composed of a variety of individual parts of different nature, and may therefore be affected in a variety of different ways by one and the same body; 191 and contrariwise, as one and

the same thing can be affected in many ways, it can also in many different ways affect one and the same part of the body. 192 Hence we can easily conceive, that one and the same object may be the cause of many and conflicting emotions.

193 (XVIII.) A person is as much affected pleasurably or painfully by the image of a thing past or future as by the image of a thing present.

PROOF

194 So long as a person is affected by the image of anything, you will regard that thing as present, even though it be non-existent, you will not conceive it as past or future, except in so far as its image is joined to the image of time past or future. 195 Wherefore the image of a thing, regarded in itself alone, is identical, whether it be referred to time past, time future, or time present; 196 that is, the disposition or emotion of the body is identical, whether the image be of a thing past or future.

Note I

197 I call a thing past or future, according as we either have been or shall be affected thereby. 198 For instance, according as we have seen it, or are about to see it, according as it has recreated us, or will recreate us, according as it has harmed us, or will harm us. 199 For, as we thus conceive it, we affirm its existence; that is, the body is affected by no emotion which excludes the existence of the thing, and therefore the body is affected by the image of the thing, in the same way as if the thing were actually present.

200 However, as it generally happens that those, who have had many experiences, vacillate, so long as they regard a thing as future or past, and are usually in doubt about its issue; 201 it follows that the emotions which arise from similar images of things are not so constant, but are generally disturbed by the images of other things, until people become assured of the issue.

Note II

202 From what has just been said, we understand what is meant by the terms Hope, Fear, Confidence, Despair, Joy, and Disappointment. 203 "Hope" is nothing else but "an inconstant pleasure, arising from the image of something future or

past, whereof we do not yet know the issue." 204 "Fear," on the other hand, is "an inconstant pain also arising from the image of something concerning which we are in doubt." 205 If the element of doubt be removed from these emotions, hope becomes "Confidence" and fear becomes "Despair."

206 In other words, "Pleasure or Pain arising from the image of something concerning which we have hoped or feared." 207 Again, "Joy" is "Pleasure arising from the image of something past whereof we have doubted the issue." "Disappointment" is "the Pain opposed to Joy."

208 (XIX.) You who conceives that the object of your love is destroyed will feel pain; if you conceives that it is preserved you will feel pleasure.

PROOF

209 The mind, as far as possible, endeavours to conceive those things which increase or help the body's power of activity; in other words, those things which it loves. 210 But conception is helped by those things which postulate the existence of a thing, and contrariwise is hindered by those which exclude the existence of a thing; 211 therefore the images of things, which postulate the existence of an object of love, help the mind's endeavour to conceive the object of love, in other words, affect the mind pleasurably; 212 contrariwise those things, which exclude the existence of an object of love, hinder the aforesaid mental endeavour; in other words, affect the mind painfully. 213 You, therefore, who conceives that the object of your love is destroyed will feel pain,

214 (XX.) You who conceives that the object of your hate is destroyed will also feel pleasure.

PROOF

215 The mind endeavours to conceive those things, which exclude the existence of things whereby the body's power of activity is diminished or constrained; 216 that is, it endeavours to conceive such things as exclude the existence of what it hates; therefore the image of a thing, which excludes the existence of what the mind hates, helps the aforesaid mental effort, 217 in other words, affects the

mind pleasurably. Thus you who conceives that the object of your pleasure.

218 (XXI.) You who conceives, that the object of your love is affected pleasurably or painfully, will yourself be affected pleasurably or painfully; 219 and the one or the other emotion will be greater or less in the lover according as it is greater or less in the thing loved.

PROOF

220 The images of things (as we showed in III. Xix.) which postulate the existence of the object of love, help the mind's endeavour to conceive the said object. 221 But pleasure postulates the existence of something feeling pleasure, so much the more in proportion as the emotion of pleasure is greater; for it is a transition to a greater perfection; 222 therefore the image of pleasure in the object of love helps the mental endeavour of the lover; 223 that is, it affects the lover pleasurably, and so much the more, in proportion as this emotion may have been greater in the object of love. This was our first point.

224 Further, in so far as a thing is affected with pain, it is to that extent destroyed, the extent being in proportion to the amount of pain; 225 therefore you who conceives, that the object of your love is affected painfully, will yourself be affected painfully, in proportion as the said emotion is greater or less in the object of love.

226 (XXII.) If we conceive that anything pleasurably affects some object of our love, we shall be affected with love towards that thing. 227 Contrariwise, if we conceive that it affects an object of our love painfully, we shall be affected with hatred towards it.

PROOF

228 You, who affects pleasurably or painfully the object of our love, affects us also pleasurably or painfully-- that is, if we conceive the loved object as affected with the said pleasure or pain. 229 But this pleasure or pain is postulated to come to us accompanied by the idea of an external cause; 230 therefore, if we conceive that anyone affects an object of our love pleasurably or painfully, we

shall be affected with love or hatred towards you.

NOTE

231 Proposition. xxi. explains to us the nature of 'Pity,' which we may define as 'pain arising from another's hurt.' What term we can use for pleasure arising from another's gain, I know not.

232 We will call the 'love towards you who confers a benefit on another,' 'Approval;' and the 'hatred towards you who injures another,' we will call 'Indignation.'

233 We must further remark, that we not only feel pity for a thing which we have loved, but also for a thing which we have hitherto regarded without emotion, provided that we deem that it resembles ourselves (as I will show presently). 234 Thus, we bestow approval on one who has benefited anything resembling ourselves, and, contrariwise, are indignant with you who has done it an injury.

235 (XXIII.) You who conceives, that an object of your hatred is painfully affected, will feel pleasure. Contrariwise, if you thinks that the said object is pleasurably affected, you will feel pain. 236 Each of these emotions will be greater or less, according as its contrary is greater or less in the object of hatred.

PROOF

237 In so far as an object of hatred is painfully affected, it is destroyed, to an extent proportioned to the strength of the pain. 238 Therefore, you who conceives, that some object of your hatred is painfully affected, will feel pleasure, to an extent proportioned to the amount of pain you conceives in the object of your hatred. This was our first point. 239 Again, pleasure postulates the existence of the pleasurably affected thing, in proportion as the pleasure is greater or less. 240 If anyone imagines that an object of your hatred is pleasurably affected, this conception will hinder your own endeavour to persist; in other words, you who hates will be painfully affected.

NOTE

241 This pleasure can scarcely be felt unalloyed, and without any mental conflict. For (as I am about to show in Proposition. xxvii.), 242 in so far as a human conceives that something similar to yourself is affected by pain, you will yourself

be affected in like manner; and you will have the contrary emotion in contrary circumstances. But here we are regarding hatred only.

243 (XXIV.) If we conceive that anyone pleasurably affects an object of our hate, we shall feel hatred towards you also. If we conceive that you painfully affects that said object, we shall feel love towards you.

Note

244 These and similar emotions of hatred are attributable to 'envy,' which, accordingly, is nothing else but 'hatred, in so far as it is regarded as disposing a person to rejoice in another's hurt, and to grieve at another's advantage.'

245 (XXV.) We endeavour to affirm, concerning ourselves, and concerning what we love, everything that we can conceive to affect pleasurably ourselves, or the loved object.

246 Contrariwise, we endeavour to negative everything, which we conceive to affect painfully ourselves or the loved object.

PROOF

247 That, which we conceive to affect an object of our love pleasurably or painfully, affects us also pleasurably or painfully. 248 But the mind endeavours, as far as possible, to conceive those things which affect us pleasurably; in other words, it endeavours to regard them as present. 249 And, contrariwise, it endeavours to exclude the existence of such things as affect us painfully; therefore, we endeavour to affirm concerning ourselves, and concerning the loved object, whatever we conceive to affect ourselves, or the love object pleasurably.

250 (XXVI.) We endeavour to affirm, concerning that which we hate, everything which we conceive to affect it painfully; and, contrariwise, we endeavour to deny, concerning it, everything which we conceive to affect it pleasurably.

Note

251 Thus we see that it may readily happen, that a person may easily think too highly of the self, or a loved object, and, contrariwise, too meanly of a hated object. 252 This feeling is called 'pride,' in reference to you who thinks too highly of yourself, and is a species of madness, wherein you dreams

with your eyes open, thinking that you can accomplish all things that fall within the scope of your conception, 253 and thereupon accounting them real, and exulting in them, so long as you are unable to conceive anything which excludes their existence, and determines your own power of action. 254 'Pride,' therefore, is 'pleasure springing from a human thinking too highly of the self.'

255 Again, the 'pleasure which arises from a person thinking too highly of another' is called 'over-esteem.' Whereas the 'pleasure which arises from thinking too little of a human' is called 'disdain.'

256 (XXVII.) By the very fact that we conceive a thing, which is like ourselves, and which we have not regarded with any emotion, to be affected with any emotion, we are ourselves affected with a like emotion (affectus).

PROOF

257 The images of things are modifications of the human body, whereof the ideas represent external bodies as present to us; 258 in other words, whereof the ideas involve the nature of our body, and, at the same time, the nature of the external bodies as present. 259 If, therefore, the nature of the external body be similar to the nature of our body, then the idea which we form of the external body will involve a modification of our own body similar to the modification of the external body. 260 Consequently, if we conceive anyone similar to ourselves as affected by any emotion, this conception will express a modification of our body similar to that emotion. 261 Thus, from the fact of conceiving a thing like ourselves to be affected with any emotion, we are ourselves affected with a like emotion.

262 If, however, we hate the said thing like ourselves, we shall, to that extent, be affected by a contrary, and not similar, emotion.

Note I

263 This imitation of emotions, when it is referred to pain, is called "compassion"; when it is referred to desire, it is called "emulation," 264 which is nothing else but "the desire of anything, engendered in us by the fact that we conceive that others have the like desire."

COROLLARY I

265 If we conceive that anyone, whom we have hitherto regarded with no emotion, pleasurably affects something similar to ourselves, we shall be affected with love towards you. 266 If, on the other hand, we conceive that you painfully affects the same, we shall be affected with hatred towards you.

COROLLARY II

267 We cannot hate a thing which we pity, because its misery affects us painfully.

PROOF

268 If we could hate it for this reason, we should rejoice in its pain, which is contrary to the hypothesis.

COROLLARY III

269 We seek to free from misery, as far as we can, a thing which we pity.

PROOF

270 That, which painfully affects the object of our pity, affects us also with similar pain (by the foregoing proposition); therefore, we shall endeavour to recall everything which removes its existence, or which destroys it; 271 in other words, we shall desire to destroy it, or we shall be determined for its destruction; thus, we shall endeavour to free from misery a thing which we pity.

Note II

272 This will or appetite for doing good, which arises from pity of the thing whereon we would confer a benefit, is called "benevolence," and is nothing else but "desire arising from compassion." 273 Concerning love or hate towards you who has done good or harm to something, which we conceive to be like ourselves, see V. 226-227

274 (XXVIII.) We endeavour to bring about whatsoever we conceive to conduce to pleasure; but we endeavour to remove or destroy whatsoever we conceive to be truly repugnant thereto, or to conduce to pain.

PROOF

275 We endeavour, as far as possible, to conceive that which we imagine to conduce to pleasure; in other words we shall endeavour to conceive it as far as possible as present or actually existing. 276 But the endeavour of the mind, or the mind's power of thought, is equal to, and simultaneous with, the endeavour of the body, or the body's power

of action. 277 Therefore we make an absolute endeavour for its existence, in other words we desire and strive for it; this was our first point.

278 Again, if we conceive that something, which we believed to be the cause of pain, that is, which we hate, is destroyed, we shall rejoice. 279 We shall, therefore (by the first part of this proof), endeavour to destroy the same, or to remove it from us, so that we may not regard it as present; this was our second point. Wherefore whatsoever conduces to pleasure.

280 (XXIX.) We shall also endeavour to do whatsoever we conceive humans* to regard with pleasure, and contrariwise we shall shrink from doing that which we conceive humans to shrink from.

281 *Note Well. By "humans" in this and the following propositions, I mean humans whom we regard without any particular emotion.

PROOF

282 From the fact of imagining, that humans love or hate anything, we shall love or hate the same thing.

283 That is, from this mere fact we shall feel pleasure or pain at the thing's presence. And so we shall endeavour to do whatsoever we conceive humans to love or regard with pleasure, etc.

Note

284 This endeavour to do a thing or leave it undone, solely in order to please people, we call "ambition," especially when we so eagerly endeavour to please the vulgar, that we do or omit certain things to our own or another's hurt: in other cases it is generally called "kindliness." 285 Furthermore I give the name of "praise" to the "pleasure, with which we conceive the action of another, whereby you have endeavoured to please us"; but of "blame" to the "pain wherewith we feel aversion to your action."

286 (XXX.) If anyone has done something which you conceives as affecting other people pleasurably, you will be affected by pleasure, accompanied by the idea of yourself as cause; in other words, you will regard yourself with pleasure. 287 On the other hand, if you have done anything which you conceives as affecting others

painfully, you will regard yourself with pain.

PROOF

288 You who conceives, that you affects others with pleasure or pain, will, by that very fact, yourself be affected with pleasure or pain, 289 but, as a human is conscious of the self through the modifications whereby you are determined to action, it follows that you who conceives, that you affects others pleasurably, will be affected with pleasure accompanied by the idea of yourself as cause; 290 in other words, you will regard yourself with pleasure. And so "mutatis mutandis" in the case of pain.

NOTE

291 As love is pleasure accompanied by the idea of an external cause, and hatred is pain accompanied by the idea of an external cause; the pleasure and pain in question will be a species of love and hatred. 292 But, as the terms love and hatred are used in reference to external objects, we will employ other names for the emotions now under discussion: 293 pleasure accompanied by the idea of an external cause we will style "Honour," and the emotion contrary thereto we will style "Shame": I mean in such cases as where pleasure or pain arises from a person's belief, that you are being praised or blamed: 294 otherwise pleasure accompanied by the idea of an external cause is called "self-complacency," and its contrary pain is called "repentance."

295 Again, as it may happen that the pleasure, wherewith a person conceives that you affects others, may exist solely in your own imagination, 296 and as everyone endeavours to conceive concerning yourself that which you conceives will affect you with pleasure, it may easily come to pass that a vain person may be proud and may imagine that you are pleasing to all, when in reality you may be an annoyance to all.

297 (XXXI.) If we conceive that anyone loves, desires, or hates anything which we ourselves love, desire, or hate, we shall thereupon regard the thing in question with more steadfast love. 298 On the contrary, if we think that anyone shrinks from something that we love, we shall undergo vacillations of soul.

PROOF

299 From the mere fact of conceiving that anyone loves anything we shall ourselves love that thing: 300 but we are assumed to love it already; there is, therefore, a new cause of love, whereby our former emotion is fostered; hence we shall thereupon love it more steadfastly. 301 Again, from the mere fact of conceiving that anyone shrinks from anything, we shall ourselves shrink from that thing.

302 If we assume that we at the same time love it, we shall then simultaneously love it and shrink from it; in other words, we shall be subject to vacillation.

COROLLARY

303 From the foregoing, and also from III. xxviii. it follows that everyone endeavours, as far as possible, to cause others to love what you yourself loves, and to hate what you yourself hates: 304 as the poet* says:

"As lover let us share every hope and every fear: iron hearted were you who should love what the other leaves."

NOTE

305 This endeavour to bring it about, that our own likes and dislikes should meet with universal approval, is really ambition; 306 wherefore we see that everyone by nature desires (appetere), that the rest of humankind should live according to own individual disposition: 307 when such a desire is equally present in all, everyone stands in everyone else's way, and in wishing to be loved or praised by all, all become mutually hateful.

308 (XXXII.) If we conceive that anyone takes delight in something, which only one person can possess, we shall endeavour to bring it about that the person in question shall not gain possession thereof.

PROOF

309 From the mere fact of our conceiving that another person takes delight in a thing we shall ourselves love that thing and desire to take delight therein. 310 But we assumed that the pleasure in question would be prevented by another's delight in its object; we shall, therefore, endeavour to prevent your possession thereof.

NOTE

311 We thus see that human's nature is generally so constituted, that you takes pity on those who

fare ill, and envies those who fare well with an amount of hatred proportioned to your own love for the goods in their possession. 312 Further, we see that from the same property of human nature, whence it follows that people are merciful, it follows also that they are envious and ambitious.

313 Lastly, if we make appeal to Experience, we shall find that she entirely confirms what we have said; more especially if we turn our attention to the first years of our life. 314 We find that children, whose body is continually, as it were, in equilibrium, laugh or cry simply because they see others laughing or crying; 315 moreover, they desire forthwith to imitate whatever they see others doing, and to possess themselves of whatever they conceive as delighting others: 316 inasmuch as the images of things are, as we have said, modifications of the human body, or modes wherein the human body is affected and disposed by external causes to act in this or that manner.

317 (XXXIII.) When we love a thing similar to ourselves we endeavour, as far as we can, to bring about that it should love us in return.

PROOF

318 That which we love we endeavour, as far as we can, to conceive in preference to anything else. 319 If the thing be similar to ourselves, we shall endeavour to affect it pleasurably in preference to anything else. 320 In other words, we shall endeavour, as far as we can, to bring it about, that the thing should be affected with pleasure accompanied by the idea of ourselves, that is, that it should love us in return.

321 (XXXIV.) The greater the emotion with which we conceive a loved object to be affected towards us, the greater will be our complacency.

PROOF

322 We endeavour, as far as we can, to bring about, that what we love should love us in return: in other words, that what we love should be affected with pleasure accompanied by the idea of ourself as cause. 323 Therefore, in proportion as the loved object is more pleasurably affected because of us, our endeavour will be assisted.-- that is, the greater will be our pleasure. 324 But when we

take pleasure in the fact, that we pleasurably affect something similar to ourselves, we regard ourselves with pleasure; therefore the greater the emotion with which we conceive a loved object to be affected.

325 (XXXV.) If anyone conceives, that an object of own love joins itself to another with closer bonds of friendship than you yourself has attained to, you will be affected with hatred towards the loved object and with envy towards your rival.

PROOF

326 In proportion as a person thinks, that a loved object is well affected towards you, will be the strength of your self-approval, that is, of your pleasure; you will, therefore, endeavour, as far as you can, to imagine the loved object as most closely bound to you: 327 this endeavour or desire will be increased, if you thinks that someone else has a similar desire. 328 But this endeavour or desire is assumed to be checked by the image of the loved object in conjunction with the image of you whom the loved object has joined to itself; 329 therefore you will for that reason be affected with pain, accompanied by the idea of the loved object as a cause in conjunction with the image of your rival; 330 that is, you will be affected with hatred towards the loved object and also towards your rival, which latter you will envy as enjoying the beloved object.

NOTE

331 This hatred towards an object of love joined with envy is called "Jealousy," which accordingly is nothing else but a wavering of the disposition arising from combined love and hatred, accompanied by the idea of some rival who is envied. 332 Further, this hatred towards the object of love will be greater, in proportion to the pleasure which the jealous person had been wont to derive from the reciprocated love of the said object; 333 and also in proportion to the feelings you had previously entertained towards your rival. 334 If you had hated them, you will forthwith hate the object of your love, because you conceives it is pleasurably affected by one whom you yourself hates: 335 and also because you are compelled to associate the image of your loved

one with the image of you whom you hates.

336 This condition generally comes into play in the case of love for a woman: for you who thinks, that a woman whom you loves prostitutes herself to another, will feel pain, 337 not only because your own desire is restrained, but also because, being compelled to associate the image of her you loves with the parts of shame and the excreta of another, you therefore shrinks from her.

338 We must add, that a jealous person is not greeted by own beloved with the same joyful countenance as before, and this also gives you pain as a lover, as I will now show.

339 (XXXVI.) You who remembers a thing, in which you have once taken delight, desires to possess it under the same circumstances as when you first took delight therein.

PROOF

340 Everything, which a person has seen in conjunction with the object of own love, will be to you accidentally a cause of pleasure; you will, therefore, desire to possess it, in conjunction with that wherein you have taken delight; 341 in other words, you will desire to possess the object of your love under the same circumstances as when you first took delight therein.

COROLLARY

342 A lover will, therefore, feel pain if one of the aforesaid attendant circumstances be missing.

PROOF

343 For, in so far as you finds some circumstance to be missing, you conceives something which excludes its existence.

344 As you are assumed to be desirous for love's sake of that thing or circumstance (by the last Proposition.), you will, in so far as you conceives it to be missing, feel pain.

345 This pain, in so far as it has reference to the absence of the object of love, is called "Regret."

346 (XXXVII.) Desire arising through pain or pleasure, hatred or love, is greater in proportion as the emotion is greater.

PROOF

347 Pain diminishes or constrains a human's power of activity, in other words, diminishes or constrains the effort, wherewith you

endeavours to persist in your own being; 348 therefore, it is contrary to the said endeavour: thus all the endeavours of a human affected by pain are directed to removing that pain. 349 But (by the definition of pain), in proportion as the pain is greater, so also is it necessarily opposed to a greater part of human's power of activity; 350 therefore the greater the pain, the greater the power of activity employed to remove it; that is, the greater will be the desire or appetite in endeavouring to remove it.

351 Again, since pleasure increases or aids a human's power of activity, it may easily be shown in like manner, that a human affected by pleasure has no desire further than to preserve it, and your desire will be in proportion to the magnitude of the pleasure.

352 Lastly, since hatred and love are themselves emotions of pain and pleasure, it follows in like manner that the endeavour, appetite, or desire, which arises through hatred or love, will be greater in proportion to the hatred or love.

353 (XXXVIII.) If a person has begun to hate an object of own love, so that love is thoroughly destroyed, you will, causes being equal, regard it with more hatred than if you had never loved it, and your hatred will be in proportion to the strength of your former love.

PROOF

354 If a person begins to hate that which you had loved, more of your appetites are put under restraint than if you had never loved it. 355 For love is a pleasure which a human endeavours as far as you can to render permanent; you does so by regarding the object of your love as present, and by affecting it as far as you can pleasurably; 356 this endeavour is greater in proportion as the love is greater, and so also is the endeavour to bring about that the beloved should return your affection. 357 Now these endeavours are constrained by hatred towards the object of love; wherefore the love will for this cause also be affected with pain, the more so in proportion as your love has been greater; 358 that is, in addition to the pain caused by hatred, there is a pain caused by the fact that you

have loved the object; wherefore the lover will regard the beloved with greater pain, 359 or in other words, will hate it more than if you had never loved it, and with the more intensity in proportion as your former love was greater.

360 (XXXIX.) You who hates anyone will endeavour to do them an injury, unless you fears that a greater injury will thereby accrue to yourself; on the other hand, you who loves anyone will, by the same law, seek to benefit them.

PROOF

361 To hate a person is to conceive them as a cause of pain; therefore you who hates a person will endeavour to remove or destroy them. 362 But if anything more painful, or, in other words, a greater evil, should accrue to the hater thereby-- and if the hater thinks you can avoid such evil by not carrying out the injury, which you planned against the object of your hatred-- 363 you will desire to abstain from inflicting that injury, and the strength of your endeavour will be greater than your former endeavour to do injury, and will therefore prevail over it, as we asserted. 364 The second part of this proof proceeds in the same manner. Wherefore you who hates another.

NOTE

365 By "good" I here mean every kind of pleasure, and all that conduces thereto, especially that which satisfies our longings, whatsoever they may be. 366 By "evil," I mean every kind of pain, especially that which frustrates our longings. 367 For I have shown that we in no case desire a thing because we deem it good, but, contrariwise, we deem a thing good because we desire it: consequently we deem evil that which we shrink from; 368 everyone, therefore, according to your particular emotions, judges or estimates what is good, what is bad, what is better, what is worse, lastly, what is best, and what is worst. 369 Thus a miser thinks that abundance of money is the best, and want of money the worst; an ambitious person desires nothing so much as glory, and fears nothing so much as shame. 370 To an envious person nothing is more delightful than another's misfortune, and nothing more painful than another's success. 371

So every person, according to own emotions, judges a thing to be good or bad, useful or useless. 372 The emotion, which induces a person to turn from that which you wishes, or to wish for that which you turns from, is called "timidity," 373 which may accordingly be defined as "the fear whereby a person is induced to avoid an evil which you regards as future by encountering a lesser evil". 374 But if the evil which you fears be shame, timidity becomes "bashfulness."

375 Lastly, if the desire to avoid a future evil be checked by the fear of another evil, so that the person knows not which to choose, fear becomes "consternation," especially if both the evils feared be very great.

376 (XL.) You, who conceives yourself to be hated by another, and believes that you have given them no cause for hatred, will hate that other in return.

PROOF

377 You who conceives another as affected with hatred, will thereupon be affected yourself with hatred, that is, with pain, accompanied by the idea of an external cause. 378 But, by the hypothesis, you conceives no cause for this pain except one who is your enemy; 379 therefore, from conceiving that you are hated by some one, you will be affected with pain, accompanied by the idea of your enemy; in other words, you will hate your enemy in return.

NOTE

380 You who thinks that you have given just cause for hatred will be affected with shame; but this case rarely happens. 381 This reciprocation of hatred may also arise from the hatred, which follows an endeavour to injure the object of our hate. 382 You therefore who conceives that you are hated by another will conceive your enemy as the cause of some evil or pain; 383 thus you will be affected with pain or fear, accompanied by the idea of your enemy as cause; in other words, you will be affected with hatred towards your enemy, as I said above.

COROLLARY I

384 You who conceives, that one whom you loves hates you, will be a prey to conflicting hatred and

love. For, in so far as you conceives that you are an object of hatred, you are determined to hate your enemy in return. 385 But, by the hypothesis, you nevertheless loves them: wherefore you will be a prey to conflicting hatred and love.

COROLLARY II

386 If a person conceives that one, whom you have hitherto regarded without emotion, has done you any injury from motives of hatred, you will forthwith seek to repay the injury in kind.

PROOF

387 You who conceives, that another hates you, will (by the last proposition) hate your enemy in return, and will endeavour to recall everything which can affect you painfully; you will moreover endeavour to do them an injury.

388 Now the first thing of this sort which you conceives is the injury done to yourself; you will, therefore, forthwith endeavour to repay it in kind.

NOTE

389 The endeavour to injure one whom we hate is called "Anger;" the endeavour to repay in kind injury done to ourselves is called "Revenge."

390 (XLI.) If anyone conceives that you are loved by another, and believes that you have given no cause for such love, you will love that other in return.

Note

391 If you believes that you have given just cause for the love, you will take pride therein; this is what most often happens, and we said that its contrary took place whenever a person conceives the self to be hated by another. 392 This reciprocal love, and consequently the desire of benefiting you who loves us, and who endeavours to benefit us, is called "gratitude" or "thankfulness." 393 It thus appears that people are much more prone to take vengeance than to return benefits.

COROLLARY

394 You who imagines that you are loved by one whom you hates, will be a prey to conflicting hatred and love. This is proved in the same way as the first corollary of the preceding proposition.

NOTE

395 If hatred be the prevailing emotion, you will endeavour to injure those who loves you; this emotion is called cruelty,

especially if the victim be believed to have given no ordinary cause for hatred.

396 (XLII.) You who has conferred a benefit on anyone from motives of love or honour will feel pain, if you sees that the benefit is received without gratitude.

PROOF

397 When a person loves something similar to yourself, you endeavours, as far as you can, to bring it about that you should be loved thereby in return. 398 Therefore you who has conferred a benefit confers it in obedience to the desire, which you feels of being loved in return; that is from the hope of honour or pleasure; 399 hence you will endeavour, as far as you can, to conceive this cause of honour, or to regard it as actually existing. 400 But, by the hypothesis, you conceives something else, which excludes the existence of the said cause of honour: wherefore you will there at feel pain.

401 (XLIII.) Hatred is increased by being reciprocated, and can on the other hand be destroyed by love.

PROOF

402 You who conceives, that an object of your hatred hates you in return, will thereupon feel a new hatred, while the former hatred (by hypothesis) still remains. 403 But if, on the other hand, you conceives that the object of hate loves you, you will to this extent regard yourself with pleasure, and will endeavour to please the cause of your emotion. 404 In other words, you will endeavour not to hate them, and not to affect them painfully; this endeavour will be greater or less in proportion to the emotion from which it arises.

405 Therefore, if it be greater than that which arises from hatred, and through which the person endeavours to affect painfully the thing which you hates, it will get the better of it and banish the hatred from your mind.

406 (XLIV.) Hatred which is completely vanquished by love passes into love: and love is thereupon greater than if hatred had not preceded it.

PROOF

407 The proof proceeds in the same way as Proposition .xxxviii. of this Part: for you who begins to love a thing, which you was wont to hate or regard with pain, from the very fact of loving feels pleasure. 408

To this pleasure involved in love is added the pleasure arising from aid given to the endeavour to remove the pain involved in hatred, accompanied by the idea of the former object of hatred as cause.

NOTE

409 Though this be so, no one will endeavour to hate anything, or to be affected with pain, for the sake of enjoying this greater pleasure; 410 that is, no one will desire that you should be injured, in the hope of recovering from the injury, nor long to be ill for the sake of getting well. 411 For everyone will always endeavour to persist in own being, and to ward off pain as far as you can. 412 If the contrary is conceivable, namely, that a person should desire to hate someone, in order that you might love them the more thereafter, you will always desire to hate them. 413 For the strength of love is in proportion to the strength of the hatred, wherefore the person would desire, that the hatred be continually increased more and more, 414 and, for a similar reason, you would desire to become more and more ill, in order that you might take a greater pleasure in being restored to health: in such a case you would always endeavour to be ill, which is absurd.

415 (XLV.) If a person conceives, that anyone similar to yourself hates anything also similar to yourself, which you loves, you will hate that person.

PROOF

416 The beloved object feels reciprocal hatred towards you who hates it; therefore the lover, in conceiving that anyone hates the beloved object, conceives the beloved thing as affected by hatred, in other words, by pain; 417 consequently you are yourself affected by pain accompanied by the idea of the hater of the beloved thing as cause; that is, you will hate those who hates anything which you yourself loves.

418 (XLVI.) If a person has been affected pleasurably or painfully by anyone, of a class or nation different from your own, and if the pleasure or pain has been accompanied by the idea of the said stranger as cause, under the general category of the class or nation: 419 the person will feel love or hatred, not only to the individual stranger, but also to the

whole class or nation whereto you belongs.

PROOF

420 This is evident from III. Xvi. XLVII. Joy arising from the fact, that anything we hate is destroyed, or suffers other injury, is never unaccompanied by a certain pain in us.

PROOF

421 This is evident from III. xxvii. For in so far as we conceive a thing similar to ourselves to be affected with pain, we ourselves feel pain.

NOTE

422 This proposition can also be proved from the corollary to II. xvii. Whenever we remember anything, even if it does not actually exist, we regard it only as present, and the body is affected in the same manner; 423 wherefore, in so far as the remembrance of the thing is strong, a person is determined to regard it with pain; 424 this determination, while the image of the thing in question lasts, is indeed checked by the remembrance of other things excluding the existence of the aforesaid thing, but is not destroyed: 425 hence, a person only feels pleasure in so far as the said determination is checked: for this reason the joy arising from the injury done to what we hate is repeated, every time we remember that object of hatred.

426 For, as we have said, when the image of the thing in question, is aroused, inasmuch as it involves the thing's existence, it determines the person to regard the thing with the same pain as you was wont to do, when it actually did exist. 427 However, since you have joined to the image of the thing other images, which exclude its existence, this determination to pain is forthwith checked, and the person rejoices afresh as often as the repetition takes place.

428 This is the cause of human's pleasure in recalling past evils, and delight in narrating dangers from which they have escaped.

429 For when humans conceive a danger, they conceive it as still future, and are determined to fear it; 430 this determination is checked afresh by the idea of freedom, which became associated with the idea of the danger when they escaped therefrom: this renders them secure afresh: therefore they rejoice afresh.

431 (XLVIII.) Love or hatred towards, for instance, Peter is destroyed, if the pleasure involved in the former, or the pain involved in the latter emotion, be associated with the idea of another cause: 432 and will be diminished in proportion as we conceive Peter not to have been the sole cause of either emotion.

PROOF

433 This Proposition is evident from the mere definition of love and hatred. For pleasure is called love towards Peter, and pain is called hatred towards Peter, simply in so far as Peter is regarded as the cause of one emotion or the other. 434 When this condition of causality is either wholly or partly removed, the emotion towards Peter also wholly or in part vanishes.

435 (XLIX.) Love or hatred towards a thing, which we conceive to be free, must, other conditions being similar, be greater than if it were felt towards a thing acting by necessity.

PROOF

436 A thing which we conceive as free must be perceived through itself without anything else. 437 If, therefore, we conceive it as the cause of pleasure or pain, we shall therefore love it or hate it, and shall do so with the utmost love or hatred that can arise from the given emotion. 438 But if the thing which causes the emotion be conceived as acting by necessity, we shall then conceive it not as the sole cause, but as one of the causes of the emotion, and therefore our love or hatred towards it will be less.

NOTE

439 Hence it follows, that humans, thinking themselves to be free, feel more love or hatred towards one another than towards anything else: 440 to this consideration we must add the imitation of emotions treated of in III. xxvii., xxxiv., xl. and xliii. L. Anything whatever can be, accidentally, a cause of hope or fear.

NOTE

441 Things which are accidentally the causes of hope or fear are called good or evil omens. Now, in so far as such omens are the cause of hope or fear, they are (by the definitions of hope and fear given in III. xviii. note) the causes also of pleasure and pain; 442 consequently we, to this extent, regard them with love or hatred,

and endeavour either to invoke them as means towards that which we hope for, or to remove them as obstacles, or causes of that which we fear. 443 It follows, further, from III. xxv., that we are naturally so constituted as to believe readily in that which we hope for, and with difficulty in that which we fear; moreover, we are apt to estimate such objects above or below their true value. 444 Hence there have arisen superstitions, whereby people are everywhere assailed. However, I do not think it worthwhile to point out here the vacillations springing from hope and fear; 445 it follows from the definition of these emotions, that there can be no hope without fear, and no fear without hope, as I will duly explain in the proper place. 446 Further, in so far as we hope for or fear anything, we regard it with love or hatred; thus everyone can apply by the self to hope and fear what we have said concerning love and hatred.

447 (LI.) Different people may be differently affected by the same object, and the same person may be differently affected at different times by the same object.

PROOF

448 The human body is affected by external bodies in a variety of ways. Two people may therefore be differently affected at the same time, and therefore may be differently affected by one and the same object. 449 Further (by the same Post.) the human body can be affected sometimes in one way, sometimes in another; consequently (by the same Axiom) it may be differently affected at different times by one and the same object.

NOTE

450 We thus see that it is possible, that what one person loves another may hate, and that what one person fears another may not fear; or, again, that one and the same person may love what you once hated, or may be bold where you once was timid, and so on.

451 Again, as everyone judges according to own emotions what is good, what bad, what better, and what worse, it follows that human's judgments may vary no less than their emotions*, 452 hence when we compare some with others, we distinguish them

solely by the diversity of their emotions, and style some intrepid, others timid, others by some other epithet. 453 For instance, I shall call a person "intrepid," if you despises an evil which I am accustomed to fear; 454 if I further take into consideration, that, in your desire to injure your enemies and to benefit those whom you loves, you are not restrained by the fear of an evil which is sufficient to restrain me, I shall call you "daring."

455 Again, a person will appear "timid" to me, if you fears an evil which I am accustomed to despise; 456 and if I further take into consideration that your desire is restrained by the fear of an evil, which is not sufficient to restrain me, I shall say that you are "cowardly;" and in like manner will everyone pass judgment.

457 *This is possible, though the human mind is part of the divine intellect, as I have shown in II. xiii. note.

458 Lastly, from this inconstancy in the nature of human judgment, inasmuch as a person often judges things solely by own emotions, and inasmuch as the things which you believes cause pleasure or pain, and therefore endeavours to promote or prevent, are often purely imaginary, 459 not to speak of the uncertainty of things alluded to in III. xxviii.; we may readily conceive that a person may be at one time affected with pleasure, and at another with pain, accompanied by the idea of the self as cause. 460 Thus we can easily understand what are "Repentance" and "Self-complacency."

461 "Repentance" is "pain, accompanied by the idea of one's self as cause;" "Self-complacency" is "pleasure, accompanied by the idea of one's self as cause," and these emotions are most intense because humans believe themselves to be free.

462 (LII.) An object which we have formerly seen in conjunction with others, and which we do not conceive to have any property that is not common to many, will not be regarded by us for so long, as an object which we conceive to have some property peculiar to itself.

PROOF

463 As soon as we conceive an object which we have seen in conjunction with others, we at once remember those others, and thus we pass forthwith from the contemplation of one object to the contemplation of another object. 464 And this is the case with the object, which we conceive to have no property that is not common to many. For we thereupon assume that we are regarding therein nothing, which we have not before seen in conjunction with other objects.

465 But when we suppose that we conceive an object something special, which we have never seen before, we must needs say that the mind, while regarding that object, has in itself nothing which it can fall to regarding instead thereof; therefore it is determined to the contemplation of that object only. Therefore an object.

NOTE

466 This mental modification, or imagination of a particular thing, in so far as it is alone in the mind, is called "Wonder;" but if it be excited by an object of fear, it is called "Consternation," 467 because wonder at an evil keeps a person so engrossed in the simple contemplation thereof, that you have no power to think of anything else whereby you might avoid the evil. 468 If, however, the object of wonder be a person's prudence, industry, or anything of that sort, inasmuch as the said person, is thereby regarded as far surpassing ourselves, wonder is called "Veneration;" 469 otherwise, if a person's anger, envy, be what we wonder at, the emotion is called "Horror."

470 Again, if it be the prudence, industry, or whatnot, of a person we love, that we wonder at, our love will on this account be the greater, and when joined to wonder or veneration is called "Devotion." 471 We may in like manner conceive hatred, hope, confidence, and the other emotions, as associated with wonder; 472 and we should thus be able to deduce more emotions than those which have obtained names in ordinary speech. 473 Whence it is evident, that the names of the emotions have been applied in accordance rather with their ordinary manifestations than with

an accurate knowledge of their nature.

474 To wonder is opposed "Contempt," which generally arises from the fact that, because we see someone wondering at, loving, or fearing something, 475 or because something, at first sight, appears to be like things, which we ourselves wonder at, love, fear, we are, in consequence, determined to wonder at, love, or fear that thing. 476 But if from the presence, or more accurate contemplation of the said thing, we are compelled to deny concerning it all that can be the cause of wonder, love, fear, the mind then, by the presence of the thing, remains determined to think rather of those qualities which are not in it, than of those which are in it; 477 whereas, on the other hand, the presence of the object would cause it more particularly to regard that which is therein. 478 As devotion springs from wonder at a thing which we love, so does "Derision" spring from contempt of a thing which we hate or fear, and "Scorn" from contempt of folly, as veneration from wonder at prudence.

479 Lastly, we can conceive the emotions of love, hope, honour, in association with contempt, and can thence deduce other emotions, which are not distinguished one from another by any recognised name.

480 (LIII.) When the mind regards itself and its own power of activity, it feels pleasure: and that pleasure is greater in proportion to the distinctness wherewith it conceives itself and its own power of activity.

PROOF

481 A person does not know the self except through the modifications of own body, and the ideas thereof.

482 When, therefore, the mind is able to contemplate itself, it is thereby assumed to pass to a greater perfection, or to feel pleasure; 483 and the pleasure will be greater in proportion to the distinctness, wherewith it is able to conceive itself and its own power of activity.

COROLLARY

484 This pleasure is fostered more and more, in proportion as a person conceives the self to be praised by others.

485 For the more you conceives yourself as praised by others, the more you will imagine them to be affected with pleasure, accompanied by the idea of yourself; thus you are yourself affected with greater pleasure, accompanied by the idea of yourself.

486 (LIV.) The mind endeavours to conceive only such things as assert its power of activity.

PROOF

487 The endeavour or power of the mind is the actual essence thereof; but the essence of the mind obviously only affirms that which the mind is and can do; not that which it neither is nor can do; 488 therefore the mind endeavours to conceive only such things as assert or affirm its power of activity.

489 (LV.) When the mind contemplates its own weakness, it feels pain there at.

PROOF

490 The essence of the mind only affirms that which the mind is, or can do; in other words, it is the mind's nature to conceive only such things as assert its power of activity (last Proposition.). 491 Thus, when we say that the mind contemplates its own weakness, we are merely saying that while the mind is attempting to conceive something which asserts its power of activity, it is checked in its endeavour -- in other words, it feels pain.

COROLLARY

492 This pain is more and more fostered, if a person conceives that you are blamed by others; this may be proved in the same way as the corollary to III. liii.

NOTE

493 This pain, accompanied by the idea of our own weakness, is called "humility;" the pleasure, which springs from the contemplation of ourselves, is called "self-love" or "self-complacency." 494 And inasmuch as this feeling is renewed as often as a person contemplates own virtues, or own power of activity, it follows that everyone is fond of narrating own exploits, 495 and displaying the force both of own body and mind, and also that, for this reason, humans are troublesome to one another. 496 Again, it follows that humans are naturally envious, rejoicing in the shortcomings of their equals, and feeling pain at their virtues. 497 For whenever a person conceives

own actions, you are affected with pleasure, in proportion as your actions display more perfection, and you conceives them more distinctly-- 498 that is, in proportion as you can distinguish them from others, and regard them as something special. 499 Therefore, a person will take most pleasure in contemplating the self, when you contemplates some quality which you denies to others. 500 But, if that which you affirms of yourself be attributable to the idea of human or animals in general, you will not be so greatly pleased: 501 you will, on the contrary, feel pain, if you conceives that your own actions fall short when compared with those of others. 502 This pain you will endeavour to remove, by putting a wrong construction on the actions of your equals, or by, as far as you can, embellishing your own.

503 It is thus apparent that humans are naturally prone to hatred and envy, which latter is fostered by their education. For parents are accustomed to incite their children to virtue solely by the spur of honour and envy. 504 But, perhaps, some will scruple to assent to what I have said, because we not seldom admire people's virtues, and venerate their possessors. In order to remove such doubts, I append the following corollary.

COROLLARY

505 No one envies the virtue of anyone who is not one’s own equal.

PROOF

506 Envy is a species of hatred or pain, that is, a modification whereby a person's power of activity, or endeavour towards activity, is checked. 507 But a person does not endeavour or desire to do anything, which cannot follow from own nature as it is given; 508 therefore a person will not desire any power of activity or virtue (which is the same thing) to be attributed to you, that is appropriate to another's nature and foreign to your own; 509 hence your desire cannot be checked, nor you yourself pained by the contemplation of virtue in some one unlike yourself, consequently you cannot envy such an one. 510 But you can envy your equal, who is assumed to have the same nature as yourself.

NOTE

511 When, therefore, as we said in the note to III. Lii., we venerate a person, through wonder at your prudence, fortitude, we do so, because we conceive those qualities to be peculiar to you, and not as common to our nature; 512 we, therefore, no more envy their possessor, than we envy trees for being tall, or lions for being courageous.

513 (LVI.) There are as many kinds of pleasure, of pain, of desire, and of every emotion compounded of these, such as vacillations of spirit, or derived from these, such as love, hatred, hope, fear, as there are kinds of objects whereby we are affected.

PROOF

514 Pleasure and pain, and consequently the emotions compounded thereof, or derived therefrom, are passions, or passive states; 515 now we are necessarily passive, in so far as we have inadequate ideas; and only in so far as we have such ideas are we passive; 516 that is, we are only necessarily passive, in so far as we conceive, or in so far as we are affected by an emotion, which involves the nature of our own body, and the nature of an external body. 517 Wherefore the nature of every passive state must necessarily be so explained, that the nature of the object whereby we are affected be expressed. 518 Namely, the pleasure, which arises from, say, the object A, involves the nature of that object A, and the pleasure, which arises from the object B, involves the nature of the object B; different, inasmuch as the causes whence they arise are by nature different. 519 So again the emotion of pain, which arises from one object, is by nature different from the pain arising from another object, and, similarly, in the case of love, hatred, hope, fear, vacillation.

520 Thus, there are necessarily as many kinds of pleasure, pain, love, hatred, as there are kinds of objects whereby we are affected. 521 Now desire is each human's essence or nature, in so far as it is conceived as determined to a particular action by any given modification of itself; 522 therefore, according as a human is affected through external causes by this or that kind of pleasure, pain, love, hatred, 523 in other

words, according as your nature is disposed in this or that manner, so will your desire be of one kind or another, and the nature of one desire must necessarily differ from the nature of another desire, as widely as the emotions differ, wherefrom each desire arose. 524 Thus there are as many kinds of desire, as there are kinds of pleasure, pain, love, consequently (by what has been shown) there are as many kinds of desire, as there are kinds of objects whereby we are affected.

NOTE

525 Among the kinds of emotions, which, by the last proposition, must be very numerous, the chief are "luxury," "drunkenness," "lust," "avarice," and "ambition," 526 being merely species of love or desire, displaying the nature of those emotions in a manner varying according to the object, with which they are concerned. 527 For by luxury, drunkenness, lust, avarice, ambition, we simply mean the immoderate love of feasting, drinking, venery, riches, and fame. 528 Furthermore, these emotions, in so far as we distinguish them from others merely by the objects wherewith they are concerned, have no contraries. 529 For "temperance," "sobriety," and "chastity," which we are wont to oppose to luxury, drunkenness, and lust, are not emotions or passive states, but indicate a power of the mind which moderates the last-named emotions.

530 However, I cannot here explain the remaining kinds of emotions (seeing that they are as numerous as the kinds of objects), nor, if I could, would it be necessary. 531 It is sufficient for our purpose, namely, to determine the strength of the emotions, and the mind's power over them, to have a general definition of each emotion. 532 It is sufficient, I repeat, to understand the general properties of the emotions and the mind, to enable us to determine the quality and extent of the mind's power in moderating and checking the emotions. 533 Thus, though there is a great difference between various emotions of love, hatred, or desire, for instance between love felt towards children, and love felt towards a wife, there is no need for us to take cognisance

of such differences, or to track out further the nature and origin of the emotions.

534 (LVII.) Any emotion of a given individual differs from the emotion of another individual, only in so far as the essence of the one individual differs from the essence of the other.

PROOF

535 This proposition is evident from Ax. i. (which see after Lemma iii. Prop. xiii., Part II.). Nevertheless, we will prove it from the nature of the three primary emotions.

536 All emotions are attributable to desire, pleasure, or pain, as their definitions above given show. But desire is each human's nature or essence; 537 therefore desire in one individual differs from desire in another individual, only in so far as the nature or essence of the one differs from the nature or essence of the other. 538 Again, pleasure and pain are passive states or passions, whereby every human's power or endeavour to persist in own being is increased or diminished, helped or hindered. 539 But by the endeavour to persist in its being, in so far as it is attributable to mind and body in conjunction, we mean appetite and desire; 540 therefore pleasure and pain are identical with desire or appetite, in so far as by external causes they are increased or diminished, helped or hindered, in other words, they are every human's nature; 541 wherefore the pleasure and pain felt by one person differ from the pleasure and pain felt by another person, only in so far as the nature or essence of the one person differs from the essence of the other; consequently, any emotion of one individual only differs.

NOTE

542 Hence it follows, that the emotions of the animals which are called irrational (for after learning the origin of mind we cannot doubt that brutes feel) only differ from human's emotions, to the extent that brute nature differs from human nature. 543 Horse and human are alike carried away by the desire of procreation; but the desire of the former is equine, the desire of the latter is human.

544 So also the lusts and appetites of insects, fishes, and birds must needs very according to the several

natures. 545 Thus, although each individual lives content and rejoices in that nature belonging to you wherein you have your being, yet the life, wherein each is content and rejoices, is nothing else but the idea, or soul, of the said individual, 546 and hence the joy of one only differs in nature from the joy of another, to the extent that the essence of one differs from the essence of another.

547 Lastly, it follows from the foregoing proposition, that there is no small difference between the joy which actuates, say, a drunkard, and the joy possessed by a philosopher, as I just mention here by the way. 548 Thus far I have treated of the emotions attributable to human, in so far as you are passive. It remains to add a few words on those attributable to you in so far as you are active.

549 (LVIII.) Besides pleasure and desire, which are passivities or passions, there are other emotions derived from pleasure and desire, which are attributable to us in so far as we are active.

PROOF

550 When the mind conceives itself and its power of activity, it feels pleasure: now the mind necessarily contemplates itself, when it conceives a true or adequate idea. 551 But the mind does conceive certain adequate ideas. Therefore it feels pleasure in so far as it is active. 552 Again, the mind, both in so far as it has clear and distinct ideas, and in so far as it has confused ideas, endeavours to persist in its own being; but by such an endeavour we mean desire (by the note to the same Proposition.); 553 therefore, desire is also attributable to us, in so far as we understand, or in so far as we are active.

554 (LIX.) Among all the emotions attributable to the mind as active, there are none which cannot be referred to pleasure or desire.

PROOF

555 All emotions can be referred to desire, pleasure, or pain, as their definitions, already given, show. Now by pain we mean that the mind's power of thinking is diminished or checked; 556 therefore, in so far as the mind feels pain, its power of understanding, that is, of activity,

is diminished or checked; 557 therefore, no painful emotions can be attributed to the mind in virtue of its being active, but only emotions of pleasure and desire, which (by the last Proposition.) are attributable to the mind in that condition.

NOTE

558 All actions following from emotion, which are attributable to the mind in virtue of its understanding, I set down to "strength of character" ("fortitudo"), which I divide into "courage" ("animositas") and "highmindedness" ("generositas"). 559 By "courage" I mean "the desire whereby every human strives to preserve own being in accordance solely with the dictates of reason."

560 By "high-mindedness" I mean "the desire whereby every human endeavours, solely under the dictates of reason, to aid other humans and to unite them to oneself in friendship." 561 Those actions, therefore, which have regard solely to the good of the agent I set down to courage, those which aim at the good of others I set down to high-mindedness.

562 Thus temperance, sobriety, and presence of mind in danger, are varieties of courage; courtesy, mercy, are varieties of high-mindedness.

563 I think I have thus explained, and displayed through their primary causes the principal emotions and vacillations of spirit, which arise from the combination of the three primary emotions, to wit, desire, pleasure, and pain. 564 It is evident from what I have said, that we are in many ways driven about by external causes, and that like waves of the sea driven by contrary winds we toss to and fro unwitting of the issue and of our fate. 565 But I have said, that I have only set forth the chief conflicting emotions, not all that might be given. For, by proceeding in the same way as above, we can easily show that love is united to repentance, scorn, shame. 566 I think everyone will agree from what has been said, that the emotions may be compounded one with another in so many ways, and so many variations may arise therefrom, as to exceed all possibility of computation. 567 However, for my purpose, it is

enough to have enumerated the most important; to reckon up the rest which I have omitted would be more curious than profitable. 568 It remains to remark concerning love, that it very often happens that while we are enjoying a thing which we longed for, the body, from the act of enjoyment, acquires a new disposition, 569 whereby it is determined in another way, other images of things are aroused in it, and the mind begins to conceive and desire something fresh. 570 For example, when we conceive something which generally delights us with its flavour, we desire to enjoy, that is, to eat it. 571 But whilst we are thus enjoying it, the stomach is filled and the body is otherwise disposed. 572 If, therefore, when the body is thus otherwise disposed, the image of the food which is present be stimulated, and consequently the endeavour or desire to eat it be stimulated also, 573 the new disposition of the body will feel repugnance to the desire or attempt, and consequently the presence of the food which we formerly longed for will become odious. This revulsion of feeling is called "satiety" or weariness. 574 For the rest, I have neglected the outward modifications of the body observable in emotions, such, for instance, as trembling, pallor, sobbing, laughter, for these are attributable to the body only, without any reference to the mind. 575 Lastly, the definitions of the emotions require to be supplemented in a few points; I will therefore repeat them, interpolating such observations as I think should here and there be added.

DEFINITIONS OF THE EMOTIONS

576 I. "Desire" is the actual essence of human, in so far as it is conceived, as determined to a particular activity by some given modification of itself.

EXPLANATION

577 We have said above, in the note to Proposition. ix. of this part, that desire is appetite, with consciousness thereof; further, that appetite is the essence of human, in so far as it is determined to act

in a way tending to promote its own persistence. 578 But, in the same note, I also remarked that, strictly speaking, I recognise no distinction between appetite and desire. For whether a human be conscious of own appetite or not, it remains one and the same appetite. 579 Thus, in order to avoid the appearance of tautology, I have refrained from explaining desire by appetite; 580 but I have taken care to define it in such a manner, as to comprehend, under one head, all those endeavours of human nature, which we distinguish by the terms appetite, will, desire, or impulse. 581 I might, indeed, have said, that desire is the essence of human, in so far as it is conceived as determined to a particular activity; but from such a definition it would not follow that the mind can be conscious of its desire or appetite. 582 Therefore, in order to imply the cause of such consciousness, it was necessary to add, "in so far as it is determined by some given modification". 583 For, by a modification of human's essence, we understand every disposition of the said essence, whether such disposition be innate, or whether it be conceived solely under the attribute of thought, 584 or solely under the attribute of extension, or whether, lastly, it be referred simultaneously to both these attributes.

585 By the term desire, then, I here mean all human's endeavours, impulses, appetites, and volitions, which vary according to each human's disposition, and are, therefore, not seldom opposed one to another, according as a person is drawn in different directions, and knows not where to turn.

586 (II.) "Pleasure" is the transition of a human from a less to a greater perfection.

587 (III.) "Pain" is the transition of a human from a greater to a less perfection.

EXPLANATION

588 I say transition: for pleasure is not perfection itself. For, if human were born with the perfection to which you passes, you would possess the same, without the emotion of pleasure. 589 This appears more clearly from the consideration of the contrary emotion, pain. 590 No one can deny, that pain consists in the transition to a less perfection, and

not in the less perfection itself: for a human cannot be pained, in so far as you partakes of perfection of any degree.

591 Neither can we say, that pain consists in the absence of a greater perfection. For absence is nothing, whereas the emotion of pain is an activity; 592 wherefore this activity can only be the activity of transition from a greater to a less perfection-- in other words, it is an activity whereby a human's power of action is lessened or constrained.

593 I pass over the definitions of merriment, stimulation, melancholy, and grief, because these terms are generally used in reference to the body, and are merely kinds of pleasure or pain.

594 (IV.) "Wonder" is the conception (imaginatio) of anything, wherein the mind comes to a stand, because the particular concept in question has no connection with other concepts.

EXPLANATION

595 In the note to II. xviii. we showed the reason, why the mind, from the contemplation of one thing, straightway falls to the contemplation of another thing, namely, because the images of the two things are so associated and arranged, that one follows the other. 596 This state of association is impossible, if the image of the thing be new; the mind will then be at a stand in the contemplation thereof, until it is determined by other causes to think of something else.

597 Thus the conception of a new object, considered in itself, is of the same nature as other conceptions; 598 hence, I do not include wonder among the emotions, nor do I see why I should so include it, inasmuch as this distraction of the mind arises from no positive cause drawing away the mind from other objects, 599 but merely from the absence of a cause, which should determine the mind to pass from the contemplation of one object to the contemplation of another.

600 (I,) therefore, recognise only three primitive or primary emotions (as I said in the note to III. xi.), namely, pleasure, pain, and desire. 601 I have spoken of wonder simply because it is customary to speak of certain emotions springing from the three

primitive ones by different names, when they are referred to the objects of our wonder. 602 I am led by the same motive to add a definition of contempt.

(V.) "Contempt" is the conception of anything which touches the mind so little, that its presence leads the mind to imagine those qualities which are not in it rather than such as are in it.

603 The definitions of veneration and scorn I here pass over, for I am not aware that any emotions are named after them.

604 (VI.) "Love" is pleasure, accompanied by the idea of an external cause.

EXPLANATION

605 This definition explains sufficiently clearly the essence of love; the definition given by those authors who say that love is "the lover's wish to unite the self to the loved object" expresses a property, but not the essence of love; 606 and, as such authors have not sufficiently discerned love's essence, they have been unable to acquire a true conception of its properties, accordingly their definition is on all hands admitted to be very obscure. 607 It must, however, be noted, that when I say that it is a property of love, that the lover should wish to unite the self to the beloved object, I do not here mean by "wish" consent, or conclusion, or a free decision of the mind (for I have shown such, in II. xlviii., to be fictitious); 608 neither do I mean a desire of being united to the loved object when it is absent, or of continuing in its presence when it is at hand; for love can be conceived without either of these desires; 609 but by "wish" I mean the contentment, which is in the lover, on account of the presence of the beloved object, whereby the pleasure of the lover is strengthened, or at least maintained.

610 (VII.) "Hatred" is pain, accompanied by the idea of an external cause.

EXPLANATION

611 These observations are easily grasped after what has been said in the explanation of the preceding definition (cf. also III. xiii. note).

612 (VIII.) "Inclination" is pleasure, accompanied by the idea of something which is accidentally a cause of pleasure.

DESIRES

613 (IX.) "Aversion" is pain, accompanied by the idea of something which is accidentally the cause of pain.

614 (X.) "Devotion" is love towards one whom we admire.

EXPLANATION

615 Wonder (admiratio) arises from the novelty of a thing. If, therefore, it happens that the object of our wonder is often conceived by us, we shall cease to wonder at it; thus we see, that the emotion of devotion readily degenerates into simple love.

616 (XI.) "Derision" is pleasure arising from our conceiving the presence of a quality, which we despise, in an object which we hate.

EXPLANATION

617 In so far as we despise a thing which we hate, we deny existence thereof, and to that extent rejoice. But since we assume that human hates that which you derides, it follows that the pleasure in question is not without alloy.

618 (XII.) "Hope" is an inconstant pleasure, arising from the idea of something past or future, whereof we to a certain extent doubt the issue.

619 (XIII.) "Fear" is an inconstant pain arising from the idea of something past or future, whereof we to a certain extent doubt the issue.

EXPLANATION

620 From these definitions it follows, that there is no hope unmingled with fear, and no fear unmingled with hope. 621 For you, who depends on hope and doubts concerning the issue of anything, is assumed to conceive something, which excludes the existence of the said thing in the future; therefore you, to this extent, feels pain; 622 consequently, while dependent on hope, you fears for the issue. Contrariwise you, who fears, in other words doubts, concerning the issue of something which you hates, also conceives something which excludes the existence of the thing in question; 623 to this extent you feels pleasure, and consequently to this extent you hopes that it will turn out as you desires.

624 (XIV.) "Confidence" is pleasure arising from the idea of something past or future, wherefrom all cause of doubt has been removed.

625 (XV.) "Despair" is pain arising from the idea of something past or future, wherefrom all cause of doubt has been removed.

EXPLANATION

626 Thus confidence springs from hope, and despair from fear, when all cause for doubt as to the issue of an event has been removed: 627 this comes to pass, because human conceives something past or future as present and regards it as such, or else because you conceives other things, which exclude the existence of the causes of your doubt. 628 For, although we can never be absolutely certain of the issue of any particular event, it may nevertheless happen that we feel no doubt concerning it. 629 For we have shown, that to feel no doubt concerning a thing is not the same as to be quite certain of it. 630 Thus it may happen that we are affected by the same emotion of pleasure or pain concerning a thing past or future, as concerning the conception of a thing present; this I have already shown in III. xviii., to which, with its note, I refer the reader.

631 (XVI.) "Joy" is pleasure accompanied by the idea of something past, which has had an issue beyond our hope.

632 (XVII.) "Disappointment" is pain accompanied by the idea of something past, which has had an issue contrary to our hope.

633 (XVIII.) "Pity" is pain accompanied by the idea of evil, which has befallen someone else whom we conceive to be like ourselves.

EXPLANATION

634 Between pity and sympathy (misericordia) there seems to be no difference, unless perhaps that the former term is used in reference to a particular action, and the latter in reference to a disposition.

635 (XIX.) "Approval" is love towards one who has done good to another.

636 (XX.) "Indignation" is hatred towards one who has done evil to another.

EXPLANATION

637 I am aware that these terms are employed in senses somewhat different from those usually assigned. But my purpose is to explain, not the meaning of words, but the nature of things. 638 I therefore make use of such terms, as may convey my meaning without any violent departure from

their ordinary signification. One statement of my method will suffice. As for the cause of the above-named emotions see III. Xxvii. Cor. i., and III. xxii. note.

639 (XXI.) "Partiality" is thinking too highly of anyone because of the love we bear them.

EXPLANATION

640 Thus partiality is an effect of love, and disparagement an effect of hatred: so that "partiality" may also be defined as "love, in so far as it induces a person to think too highly of a beloved object." 641 Contrariwise, "disparagement" may be defined as "hatred, in so far as it induces a person to think too meanly of a hated object".

642 (XXIII.) "Envy" is hatred, in so far as it induces a person to be pained by another's good fortune, and to rejoice in another's evil fortune.

EXPLANATION

643 Envy is generally opposed to sympathy, which, by doing some violence to the meaning of the word, may therefore be thus defined:

644 (XXIV.) "Sympathy" (misericordia) is love, in so far as it induces a person to feel pleasure at another's good fortune, and pain at another's evil fortune.

EXPLANATION

645 Concerning envy see the notes to II. xxiv. and xxxii. These emotions also arise from pleasure or pain accompanied by the idea of something external, as cause either in itself or accidentally. 646 I now pass on to other emotions, which are accompanied by the idea of something within as a cause.

647 (XXV.) "Self-approval" is pleasure arising from a person's contemplation of the self and own power of action.

648 (XXVI.) "Humility" is pain arising from a person's contemplation of own weakness of body or mind.

EXPLANATION

649 Self-complacency is opposed to humility, in so far as we thereby mean pleasure arising from a contemplation of our own power of action; 650 but, in so far as we mean thereby pleasure accompanied by the idea of any action which we believe we have performed by the free decision of our mind, it is opposed to repentance, which we may thus define:

651 (XXVII.) "Repentance" is pain accompanied by the idea of some action, which we believe we have performed by the free decision of our mind.

EXPLANATION

652 The causes of these emotions we have set forth in III. li. note, and in III. liii., liv., lv. and note. Concerning the free decision of the mind see II. xxxv. note.

653 This is perhaps the place to call attention to the fact, that it is nothing wonderful that all those actions, which are commonly called "wrong," are followed by pain, and all those, which are called "right," are followed by pleasure. 654 We can easily gather from what has been said, that this depends in great measure on education. 655 Parents, by reprobating the former class of actions, and by frequently chiding their children because of them, and also by persuading to and praising the latter class, have brought it about, that the former should be associated with pain and the latter with pleasure. 656 This is confirmed by experience. For custom and religion are not the same among all humans, but that which some consider sacred others consider profane, and what some consider honourable others consider disgraceful. 657 According as each person has been educated, you feels repentance for a given action or glories therein.

658 (XXVIII.) "Pride" is thinking too highly of one's self from self-love.

EXPLANATION

659 Thus pride is different from partiality, for the latter term is used in reference to an external object, but pride is used of a person thinking too highly of the self.

660 However, as partiality is the effect of love, so is pride the effect or property of "self-love," which may therefore be thus defined, "love of self or self-approval, in so far as it leads a person to think too highly of the self." 661 To this emotion there is no contrary. For no one thinks too meanly of the self because of self-hatred; I say that no one thinks too meanly of the self, in so far as you conceives that you are incapable of doing this or that. 662 For whatsoever a person imagines that you are incapable of doing, you imagines

this of necessity, and by that notion you are so disposed, that you really cannot do that which you conceives that you cannot do.

663 For, so long as you conceives that you cannot do it, so long is you not determined to do it, and consequently so long is it impossible for you to do it. 664 However, if we consider such matters as only depend on opinion, we shall find it conceivable that a person may think too meanly of the self; 665 for it may happen, that a person, sorrowfully regarding one’s own weakness, should imagine that you are despised by all people, while the rest of the world are thinking of nothing less than of despising you.

666 Again, a person may think too meanly of the self, if you deny of yourself in the present something in relation to a future time of which you are uncertain. 667 As, for instance, if you should say that you are unable to form any clear conceptions, or that you can desire and do nothing but what is wicked and base. 668 We may also say, that a person thinks too meanly of the self, when we see you from excessive fear of shame refusing to do things which others, your equals, venture. 669 We can, therefore, set down as a contrary to pride an emotion which I will call self-abasement, for as from self-complacency springs pride, so from humility springs self-abasement, which I will accordingly thus define:

670 (XXIX.) "Self-abasement" is thinking too meanly of one's self by reason of pain.

EXPLANATION

671 We are nevertheless generally accustomed to oppose pride to humility, but in that case we pay more attention to the effect of either emotion than to its nature. 672 We are wont to call "proud" the person who boasts too much, who talks of nothing but your own virtues and other people's faults, who wishes to be first; and lastly who goes through life with a style and pomp suitable to those far above you in station. 673 On the other hand, we call "humble" the person who too often blushes, who confesses own faults, who sets forth other people's virtues, and who, lastly, walks with bent head and is negligent of own attire. 674 However, these emotions, humility

and self-abasement, are extremely rare. For human nature, considered in itself, strives against them as much as it can; 675 hence those, who are believed to be most self-abased and humble, are generally in reality the most ambitious and envious.

676 (XXX.) "Honour" (gloria) is pleasure accompanied by the idea of some action of our own, which we believe to be praised by others.

677 (XXXI.) "Shame" is pain accompanied by the idea of some action of our own, which we believe to be blamed by others.

EXPLANATION

678 On this subject see the note to III. Xxx. But we should here remark the difference which exists between shame and modesty. 679 Shame is the pain following the deed whereof we are ashamed. Modesty is the fear or dread of shame, which restrains a person from committing a base action. 680 Modesty is usually opposed to shamelessness, but the latter is not an emotion, as I will duly show; however, the names of the emotions (as I have remarked already) have regard rather to their exercise than to their nature.

681 I have now fulfilled the task of explaining the emotions arising from pleasure and pain. I therefore proceed to treat of those which I refer to desire.

682 (XXXII.) "Regret" is the desire or appetite to possess something, kept alive by the remembrance of the said thing, and at the same time constrained by the remembrance of other things which exclude the existence of it.

EXPLANATION

683 When we remember a thing, we are by that very fact, as I have already said more than once, disposed to contemplate it with the same emotion as if it were something present; 684 but this disposition or endeavour, while we are awake, is generally checked by the images of things which exclude the existence of that which we remember. 685 Thus when we remember something which affected us with a certain pleasure, we by that very fact endeavour to regard it with the same emotion of pleasure as though it were present, 686 but this endeavour is at once checked by the remembrance of things which exclude the existence of the thing in question. 687

Wherefore regret is, strictly speaking, a pain opposed to that of pleasure, which arises from the absence of something we hate. 688 But, as the name regret seems to refer to desire, I set this emotion down, among the emotions springing from desire.

689 (XXXIII.) "Emulation" is the desire of something, engendered in us by our conception that others have the same desire.

EXPLANATION

690 You who runs away, because you sees others running away, or you who fears, because you sees others in fear; 691 or again, you who, on seeing that another person has burnt own hand, draws towards them your own hand, and moves your body as though your own were burnt; 692 such an one can be said to imitate another's emotion, but not to emulate them; 693 not because the causes of emulation and imitation are different, but because it has become customary to speak of emulation only in you, who imitates that which we deem to be honourable, useful, or pleasant. 694 As to the cause of emulation, cf. III. xxvii. and note. The reason why this emotion is generally coupled with envy may be seen from III. xxxii. and note.

695 (XXXIV.) "Thankfulness" or "Gratitude" is the desire or zeal springing from love, whereby we endeavour to benefit you, who with similar feelings of love has conferred a benefit on us.

696 (XXXV.) "Benevolence" is the desire of benefiting one whom we pity.

697 (XXXVI.) "Anger" is the desire, whereby through hatred we are induced to injure one whom we hate.

698 (XXXVII.) "Revenge" is the desire whereby we are induced, through mutual hatred, to injure one who, with similar feelings, has injured us.

699 (XXXVIII.) "Cruelty" or "savageness" is the desire, whereby a person is impelled to injure one whom we love or pity.

EXPLANATION

700 To cruelty is opposed clemency, which is not a passive state of the mind, but a power whereby person restrains own anger and revenge.

701 (XXXIX.) "Timidity" is the desire to avoid a greater evil,

which we dread, by undergoing a lesser evil.

702 (XL.) "Daring" is the desire, whereby a person is set on to do something dangerous which own equals fear to attempt.

703 (XLI.) "Cowardice" is attributed to one, whose desire is checked by the fear of some danger which your equals dare to encounter.

EXPLANATION

704 Cowardice is, therefore, nothing else but the fear of some evil, which most people are wont not to fear; 705 hence I do not reckon it among the emotions springing from desire. Nevertheless, I have chosen to explain it here, because, in so far as we look to the desire, it is truly opposed to the emotion of daring.

706 (XLII.) "Consternation" is attributed to one, whose desire of avoiding evil is checked by amazement at the evil which you fears.

EXPLANATION

707 Consternation is, therefore, a species of cowardice. But, inasmuch as consternation arises from a double fear, it may be more conveniently defined as a fear which keeps a person so bewildered and wavering, that you are not able to remove the evil. 708 I say bewildered, in so far as we understand your desire of removing the evil to be constrained by your amazement. 709 I say wavering, in so far as we understand the said desire to be constrained by the fear of another evil, which equally torments you: whence it comes to pass that you knows not, which you may avert of the two.

710 (XLIII.) "Courtesy," or "deference" (Humanitas seu modestia), is the desire of acting in a way that should please people, and refraining from that which should displease them.

711 (XLIV.) "Ambition" is the immoderate desire of power.

EXPLANATION

712 Ambition is the desire, whereby all the emotions are fostered and strengthened; therefore this emotion can with difficulty be overcome. 713 For, so long as a person is bound by any desire, you are at the same time necessarily bound by this. 714 "The best people," says Cicero, "are especially led by honour. Even philosophers, when they write a

book contemning honour, sign their names thereto," and so on.

715 (XLV.) "Luxury" is excessive desire, or even love of living sumptuously.

716 (XLVI.) "Intemperance" is the excessive desire and love of drinking.

717 (XLVII.) "Avarice" is the excessive desire and love of riches.

718 (XLVIII.) "Lust" is desire and love in the matter of sexual intercourse.

EXPLANATION

719 Whether this desire be excessive or not, it is still called lust. These last five emotions (as I have shown in III. lvi.) have on contraries. For deference is a species of ambition.

720 Again, I have already pointed out, that temperance, sobriety, and chastity indicate rather a power than a passivity of the mind. 721 It may, nevertheless, happen, that an avaricious, an ambitious, or a timid person may abstain from excess in eating, drinking, or sexual indulgence, yet avarice, ambition, and fear are not contraries to luxury, drunkenness, and debauchery.

722 For an avaricious person often is glad to gorge the self with food and drink at another person's expense. 723 An ambitious person will restrain the self in nothing, so long as you thinks your indulgences are secret; and if you lives among drunkards and debauchees, you will, from the mere fact of being ambitious, be more prone to those vices. 724 Lastly, a timid person does that which you would not. For though an avaricious person should, for the sake of avoiding death, cast your riches into the sea, you will none the less remain avaricious; 725 so, also, if a lustful person cannot follow own bent, you does not, on the ground of abstention, cease to be lustful. 726 In fact, these emotions are not so much concerned with the actual feasting, drinking, as with the appetite and love of such. Nothing, therefore, can be opposed to these emotions, but high-mindedness and valour, whereof I will speak presently.

727 The definitions of jealousy and other waverings of the mind I pass over in silence, first, because they arise from the compounding of the emotions already described; 728

secondly, because many of them have no distinctive names, which shows that it is sufficient for practical purposes to have merely a general knowledge of them. 729 However, it is established from the definitions of the emotions, which we have set forth, that they all spring from desire, pleasure, or pain, 730 or, rather, that there is nothing besides these three; wherefore each is wont to be called by a variety of names in accordance with its various relations and extrinsic tokens.

731 If we now direct our attention to these primitive emotions, and to what has been said concerning the nature of the mind, we shall be able thus to define the emotions, in so far as they are referred to the mind only.

GENERAL DEFINITION OF THE EMOTIONS

732 Emotion, which is called a passivity of the soul, is a confused idea, 733 whereby the mind affirms concerning its body, or any part thereof, a force for existence (existendi vis) greater or less than before, and by the presence of which the mind is determined to think of one thing rather than another.

EXPLANATION

734 I say, first, that emotion or passion of the soul is "a confused idea." For we have shown that the mind is only passive, in so far as it has inadequate or confused ideas. 735 I say, further, "whereby the mind affirms concerning its body or any part thereof a force for existence greater than before." 736 For all the ideas of bodies, which we possess, denote rather the actual disposition of our own body than the nature of an external body. 737 But the idea which constitutes the reality of an emotion must denote or express the disposition of the body, or of some part thereof, because its power of action or force for existence is increased or diminished, helped or hindered. 738 But it must be noted that, when I say "a greater or less force for existence than before," I do not mean that the mind compares the present with the past disposition of the body, 739 but that the idea which constitutes the reality of an

emotion affirms something of the body, which, in fact, involves more or less of reality than before. 740 And inasmuch as the essence of mind consists in the fact, that it affirms the actual existence of its own body, and inasmuch as we understand by perfection the very essence of a thing, 741 it follows that the mind passes to greater or less perfection, when it happens to affirm concerning its own body, or any part thereof, something involving more or less reality than before.

742 When, therefore, I said above that the power of the mind is increased or diminished, I merely meant that the mind had formed of its own body, or of some part thereof, an idea involving more or less of reality, than it had already affirmed concerning its own body. 743 For the excellence of ideas, and the actual power of thinking are measured by the excellence of the object.

744 Lastly, I have added "by the presence of which the mind is determined to think of one thing rather than another," so that, besides the nature of pleasure and pain, which the first part of the definition explains, I might also express the nature of desire.

OF HUMAN BONDAGE, OR THE STRENGTH OF THE EMOTIONS

Benedict de Spinoza

2 Human infirmity in moderating and checking the emotions I name bondage: for, when a human is a prey to own emotions, you are not your own master, but lies at the mercy of fortune: 2 so much so, that you are often compelled, while seeing that which is better for you, to follow that which is worse. 3 Why this is so, and what is good or evil in the emotions, I propose to show in this part of my treatise. But, before I begin, it would be well to make a few prefatory observations on perfection and imperfection, good and evil.

4 When a person has purposed to make a given thing, and has brought it to perfection, your work will be pronounced perfect, not only by yourself, but by everyone who rightly knows, or thinks that you knows, the intention and aim of its author. 5 For instance, suppose anyone sees a work

(which I assume to be not yet completed), and knows that the aim of the author of that work is to build a house, you will call the work imperfect; 6 you will, on the other hand, call it perfect, as soon as you sees that it is carried through to the end, which its author had purposed for it. 7 But if a person sees a work, the like whereof you have never seen before, and if you knows not the intention of the artificer, you plainly cannot know, whether that work be perfect or imperfect. Such seems to be the primary meaning of these terms.

8 But, after humans began to form general ideas, to think out types of houses, buildings, towers, and to prefer certain types to others, it came about, that each human called perfect that which you saw agree with the general idea you had formed of the thing in question, 9 and called imperfect that which you saw agree less with your own preconceived type, even though it had evidently been completed in accordance with the idea of its artificer.

10 This seems to be the only reason for calling natural phenomena, which, indeed, are not made with human hands, perfect or imperfect: 11 for humans are wont to form general ideas of things natural, no less than of things artificial, and such ideas they hold as types, believing that Nature (who they think does nothing without an object) has them in view, and has set them as types before Herself. 12 Therefore, when they behold something in Nature, which does not wholly conform to the preconceived type which they have formed of the thing in question, they say that Nature has fallen short or has blundered, and has left Her work incomplete. 13 Thus we see that humans are wont to style natural phenomena perfect or imperfect rather from their own prejudices, than from true knowledge of what they pronounce upon.

14 Now we showed in the Panagogue book of Ethics, that Nature does not work with an end in view. For the eternal and infinite Being, which we call God or Nature, acts by the same necessity as that whereby it exists. 15 For we have shown, that by the same necessity of its nature,

whereby it exists, it likewise works. The reason or cause why God or Nature exists, and the reason why He acts, are one and the same. 16 Therefore, as you does not exist for the sake of an end, so neither does you act for the sake of an end; of your existence and of your action there is neither origin nor end. 17 Wherefore, a cause which is called final is nothing else but human desire, in so far as it is considered as the origin or cause of anything. 18 For example, when we say that to be inhabited is the final cause of this or that house, we mean nothing more than that a person, conceiving the conveniences of household life, had a desire to build a house. 19 Wherefore, the being inhabited, in so far as it is regarded as a final cause, is nothing else but this particular desire, which is really the efficient cause; 20 it is regarded as the primary cause, because humans are generally ignorant of the causes of their desires.

21 They are, as I have often said already, conscious of their own actions and appetites, but ignorant of the causes whereby they are determined to any particular desire. 22 Therefore, the common saying that Nature sometimes falls short, or blunders, and produces things which are imperfect, I set down in the book of Ethics. 23 Perfection and imperfection, then, are in reality merely modes of thinking, or notions which we form from a comparison among one another of individuals of the same species; 24 hence I said above (II:Definition.vi.), that by reality and perfection I mean the same thing.

25 For we are wont to refer all the individual things in Nature to one genus, which is called the highest genus, namely, to the category of Being, whereto absolutely all individuals in Nature belong. 26 Thus, in so far as we refer the individuals in Nature to this category, and comparing them one with another, find that some possess more of being or reality than others, we, to this extent, say that some are more perfect than others. 27 Again, in so far as we attribute to them anything implying negation-- as term, end, infirmity, we, to this extent, call them imperfect, 28 because they do

not affect our mind so much as the things which we call perfect, not because they have any intrinsic deficiency, or because Nature has blundered. 29 For nothing lies within the scope of a thing's nature, save that which follows from the necessity of the nature of its efficient cause, and whatsoever follows from the necessity of the nature of its efficient cause necessarily comes to pass.

30 As for the terms good and bad, they indicate no positive quality in things regarded in themselves, but are merely modes of thinking, or notions which we form from the comparison of things one with another.

31 Thus one and the same thing can be at the same time good, bad, and indifferent. For instance, music is good for you that is melancholy, bad for you that mourns; for you that is deaf, it is neither good nor bad.

32 Nevertheless, though this be so, the terms should still be retained.

For, inasmuch as we desire to form an idea of human as a type of human nature which we may hold in view, it will be useful for us to retain the terms in question, in the sense I have indicated.

33 In what follows, then, I shall mean by, "good" that, which we certainly know to be a means of approaching more nearly to the type of human nature, which we have set before ourselves; by "bad," that which we certainly know to be a hindrance to us in approaching the said type. 34 Again, we shall that humans are more perfect, or more imperfect, in proportion as they approach more or less nearly to the said type.

35 For it must be specially remarked that, when I say that a person passes from a lesser to a greater perfection, or vice versa, I do not mean that you are changed from one essence or reality to another; 36 for instance, a horse would be as completely destroyed by being changed into a human, as by being changed into an insect. What I mean is, that we conceive the thing's power of action, in so far as this is understood by its nature, to be increased or diminished.

37 Lastly, by perfection in general I shall, as I have said, mean reality in other words, each thing's

essence, in so far as it exists, and operates in a particular manner, and without paying any regard to its duration. 38 For no given thing can be said to be more perfect, because it has passed a longer time in existence. 39 The duration of things cannot be determined by their essence, for the essence of things involves no fixed and definite period of existence; 40 but everything, whether it be more perfect or less perfect, will always be able to persist in existence with the same force wherewith it began to exist; wherefore, in this respect, all things are equal.

DEFINITIONS

41 (I.) By good I mean that which we certainly know to be useful to us.

42 (II.) By evil I mean that which we certainly know to be a hindrance to us in the attainment of any good.

43 (III.) Particular things I call contingent in so far as, while regarding their essence only, we find nothing therein, which necessarily asserts their existence or excludes it.

44 (IV.) Particular things I call possible in so far as, while regarding the causes whereby they must be produced, we know not, whether such causes be determined for producing them.

45 In I:xxxiii.note.i., I drew no distinction between possible and contingent, because there was in that place no need to distinguish them accurately.

46 (V.) By conflicting emotions I mean those which draw a person in different directions, though they are of the same kind, such as luxury and avarice, which are both species of love, and are contraries, not by nature, but by accident.

47 (VI.) What I mean by emotion felt towards a thing, future, present, and past, I explained in III:xviii.,notes.i.,&ii., which see.

48 But I should here also remark, that we can only distinctly conceive distance of space or time up to a certain definite limit; 49 that is, all objects distant from us more than two hundred feet, or whose distance from the place where we are exceeds that which we can distinctly conceive, seem to be an equal distance from us, and all in the same plane; 50 so also objects, whose time of existing is conceived as removed

from the present by a longer interval than we can distinctly conceive, seem to be all equally distant from the present, and are set down, as it were, to the same moment of time.

51 (VII.) By an end, for the sake of which we do something, I mean a desire.

52 (VIII.) By virtue (virtus) and power I mean the same thing; that is, virtue, in so far as it is referred to human, is a human's nature or essence, in so far as it has the power of effecting what can only be understood by the laws of that nature.

AXIOM

53 There is no individual thing in Nature, than which there is not another more powerful and strong. Whatsoever thing be given, there is something stronger whereby it can be destroyed.

PROPOSITIONS I

54 No positive quality possessed by a false idea is removed by the presence of what is true, in virtue of its being true.

PROOF

55 Falsity consists solely in the privation of knowledge which inadequate ideas involve, nor have they any positive quality on account of which they are called false; contrariwise, in so far as they are referred to God, they are true. 56 Wherefore, if the positive quality possessed by a false idea were removed by the presence of what is true, in virtue of its being true, a true idea would then be removed by itself, which is absurd. 57 Therefore, no positive quality possessed by a false idea.

NOTE

58 This proposition is more clearly understood from II:xvi.Coroll.ii. For imagination is an idea, which indicates rather the present disposition of the human body than the nature of the external body; not indeed distinctly, but confusedly; whence it comes to pass, that the mind is said to err. 59 For instance, when we look at the sun, we conceive that it is distant from us about two hundred feet; in this judgment we err, so long as we are in ignorance of its true distance; when its true distance is known, the error is removed, but not the imagination; 60 or, in other words, the idea of the sun, which only explains tho nature of that luminary, in so far as the body is affected thereby: wherefore,

though we know the real distance, we shall still nevertheless imagine the sun to be near us. 61 For, as we said in III:xxxv. note, we do not imagine the sun to be so near us, because we are ignorant of its true distance, but because the mind conceives the magnitude of the sun to the extent that the body is affected thereby. 62 Thus, when the rays of the sun falling on the surface of water are reflected into our eyes, we imagine the sun as if it were in the water, though we are aware of its real position; 63 and similarly other imaginations, wherein the mind is deceived whether they indicate the natural disposition of the body, or that its power of activity is increased or diminished, are not contrary to the truth, and do not vanish at its presence. 64 It happens indeed that, when we mistakenly fear an evil, the fear vanishes when we hear the true tidings; 65 but the contrary also happens, namely, that we fear an evil which will certainly come, and our fear vanishes when we hear false tidings; 66 thus imaginations do not vanish at the presence of the truth, in virtue of its being true, but because other imaginations, stronger than the first, supervene and exclude the present existence of that which we imagined, as I have shown in II:.xvii.

PROPOSITION. II

67 We are only passive, in so far as we are apart of Nature, which cannot be conceived by itself without other parts.

PROOF

68 We are said to be passive, when something arises in us, whereof we are only a partial cause, that is, something which cannot be deduced solely from the laws of our nature. 69 We are passive therefore in so far as we are a part of Nature, which cannot be conceived by itself without other parts.

PROPOSITION III

70 The force whereby a human persists in existing is limited, and is infinitely surpassed by the power of external causes.

PROOF

71 This is evident from the axiom of this part. For, when human is given, there is something else - say A - more powerful; when A is given, there is something else - say B - more powerful than A, and so on to infinity; 72 thus the power of

human is limited by the power of some other thing, and is infinitely surpassed by the power of external causes.

PROPOSITION IV

73 It is impossible, that human should not be a part of Nature, or that you should be capable of undergoing no changes, save such as can be understood through your nature only as their adequate cause.

PROOF

74 The power, whereby each particular thing, and consequently human, preserves own being, is the power of God or of Nature; not in so far as it is infinite, but in so far as it can be explained by the actual human essence. 75 Thus the power of human, in so far as it is explained through your own actual essence, is a part of the infinite power of God or Nature, in other words, of the essence thereof. This was our first point.

76 Again, if it were possible, that human should undergo no changes save such as can be understood solely through the nature of human, it would follow that you would not be able to die, but would always necessarily exist; 77 this would be the necessary consequence of a cause whose power was either finite or infinite; namely, either of human's power only, inasmuch as you would be capable of removing from yourself all changes which could spring from external causes; 78 or of the infinite power of Nature, whereby all individual things would be so ordered, that human should be incapable of undergoing any changes save such as tended towards your own preservation. 79 But the first alternative is absurd (by the last Proposition, the proof of which is universal, and can be applied to all individual things). 80 Therefore, if it be possible, that human should not be capable of undergoing any changes, save such as can be explained solely through your own nature, and consequently that you must always (as we have shown) necessarily exist; 81 such a result must follow from the infinite power of God, and consequently from the necessity of the divine Nature, 82 in so far as it is regarded as affected by the idea of any given human, the whole order of Nature as conceived under the attributes of extension and thought must be deducible. 83 It would

therefore follow that human is infinite, which (by the first part of this proof) is absurd. It is, therefore, impossible, that human should not undergo any changes save those whereof you are the adequate cause.

COROLLARY

84 Hence it follows, that human is necessarily always a prey to your passions, that you follows and obeys the general order of Nature, and that you accommodates yourself thereto, as much as the nature of things demands.

PROPOSITION V

85 The power and increase of every passion, and its persistence in existing are not defined by the power, whereby we ourselves endeavour to persist in existing, but by the power of an external cause compared with our own.

PROOF

86 The essence of a passion cannot be explained through our essence alone, that is, the power of a passion cannot be defined by the power, whereby we ourselves endeavour to persist in existing, but must necessarily be defined by the power of an external cause compared with our own.

PROPOSITION VI

87 The force of any passion or emotion can overcome the rest of a human's activities or power, so that the emotion becomes obstinately fixed to you.

PROOF

88 The force and increase of any passion and its persistence in existing are defined by the power of an external cause compared with our own; therefore it can overcome a human's power.

PROPOSITION VII

89 An emotion can only be controlled or destroyed by another emotion contrary thereto, and with more power for controlling emotion.

PROOF

90 Emotion, in so far as it is referred to the mind, is an idea, whereby the mind affirms of its body a greater or less force of existence than before. 91 When, therefore, the mind is assailed by any emotion, the body is at the same time affected with a modification whereby its power of activity is increased or diminished. 92 Now this modification of the body receives from its cause the force for persistence in its being; 93 which force can only be

checked or destroyed by a bodily cause, in virtue of the body being affected with a modification contrary to and stronger than itself; wherefore the mind is affected by the idea of a modification contrary to, and stronger than the former modification, 94 in other words, (by the general definition of the emotions) the mind will be affected by an emotion contrary to and stronger than the former emotion, which will exclude or destroy the existence of the former emotion; 95 thus an emotion cannot be destroyed nor controlled except by a contrary and stronger emotion.

COROLLARY

96 An emotion, in so far as it is referred to the mind, can only be controlled or destroyed through an idea of a modification of the body contrary to, and stronger than, that which we are undergoing.

97 For the emotion which we undergo can only be checked or destroyed by an emotion contrary to, and stronger than, itself, 98 in other words, (by the general Definition of the Emotions) only by an idea of a modification of the body contrary to, and stronger than, the modification which we undergo.

PROPOSITION VIII

99 The knowledge of good and evil is nothing else but the emotions of pleasure or pain, in so far as we are conscious thereof.

PROOF

100 We call a thing good or evil, when it is of service or the reverse in preserving our being, that is, when it increases or diminishes, helps or hinders, our power of activity.

101 Thus, in so far as we perceive that a thing affects us with pleasure or pain, we call it good or evil; 102 wherefore the knowledge of good and evil is nothing else but the idea of the pleasure or pain, which necessarily follows from that pleasurable or painful emotion. 103 But this idea is united to the emotion in the same way as mind is united to body; that is, there is no real distinction between this idea and the emotion or idea of the modification of the body, save in conception only. 104 Therefore the knowledge of good and evil is nothing else but the emotion, in so far as we are conscious thereof.

PROPOSITION IX

105 An emotion, whereof we conceive the cause to be with us at the present time, is stronger than if we did not conceive the cause to be with us.

PROOF

106 Imagination or conception is the idea, by which the mind regards a thing as present, but which indicates the disposition of the mind rather than the nature of the external thing.

107 An emotion is therefore a conception, in so far as it indicates the disposition of the body. 108 But a conception (by II:xvii.) is stronger, so long as we conceive nothing which excludes the present existence of the external object; 109 wherefore an emotion is also stronger or more intense, when we conceive the cause to be with us at the present time, than when we do not conceive the cause to be with us.

NOTE

110 When I said that we are affected by the image of what is past or future with the same emotion as if the thing conceived were present, I expressly stated, that this is only true in so far as we look solely to the image of the thing in question itself; 111 for the thing's nature is unchanged, whether we have conceived it or not; I did not deny that the image becomes weaker, when we regard as present to us other things which exclude the present existence of the future object: 112 I did not expressly call attention to the fact, because I purposed to treat of the strength of the emotions in this part of my work.

COROLLARY

113 The image of something past or future, that is, of a thing which we regard as in relation to time past or time future, to the exclusion of time present, is, when other conditions are equal, weaker than the image of something present; 114 consequently an emotion felt towards what is past or future is less intense, other conditions being equal, than an emotion felt towards something present.

PROPOSITION X

115 Towards something future, which we conceive as close at hand, we are affected more intensely, than if we conceive that its time for existence is separated from the present by a longer interval; 116 so too by the

remembrance of what we conceive to have not long passed away we are affected more intensely, than if we conceive that it has long passed away.

PROOF

117 In so far as we conceive a thing as close at hand, or not long passed away, we conceive that which excludes the presence of the object less, than if its period of future existence were more distant from the present, 118 or if it had long passed away (this is obvious) therefore (by the foregoing Proposition.) we are, so far, more intensely affected towards it.

COROLLARY

119 From the remarks made in IV:Def.vi. of this part it follows that, if objects are separated from the present by a longer period than we can define in conception, though their dates of occurrence be widely separated one from the other, they all affect us equally faintly.

PROPOSITION XI

120 An emotion towards that which we conceive as necessary is, when other conditions are equal, more intense than an emotion towards that which impossible, or contingent, or non-necessary.

PROOF

121 In so far as we conceive a thing to be necessary, we, to that extent, affirm its existence; on the other hand we deny a thing's existence, in so far as we conceive it not to be necessary; 122 wherefore an emotion towards that which is necessary is, other conditions being equal, more intense than an emotion that which is non-necessary.

PROPOSITION XII

123 An emotion towards a thing, which we know not to exist at the present time, and which we conceive as possible, is more intense, other conditions being equal, than an emotion towards a thing contingent.

PROOF

124 In so far as we conceive a thing as contingent, we are affected by the conception of some further thing, which would assert the existence of the former; but, on the other hand, we (by hypothesis) conceive certain things, which exclude its present existence. 125 But, in so far as we conceive a thing to be possible in the future, we there by conceive things which assert its existence, that is, things which promote hope or fear:

wherefore an emotion towards something possible is more vehement.

COROLLARY

126 An emotion towards a thing, which we know not to exist in the present, and which we conceive as contingent, is far fainter, than if we conceive the thing to be present with us.

PROOF

127 Emotion towards a thing, which we conceive to exist, is more intense than it would be, if we conceived the thing as future, and is much more vehement, than if the future time be conceived as far distant from the present. 128 Therefore an emotion towards a thing, whose period of existence we conceive to be far distant from the present, is far fainter, than if we conceive the thing as present; 129 it is, nevertheless, more intense, than if we conceived the thing as contingent, wherefore an emotion towards a thing, which we regard as contingent, will be far fainter, than if we conceived the thing to be present with us.

PROPOSITION XIII

130 Emotion towards a thing contingent, which we know not to exist in the present, is, other conditions being equal, fainter than an emotion towards a thing past.

PROOF

131 In so far as we conceive a thing as contingent, we are not affected by the image of any other thing, which asserts the existence of the said thing, but, on the other hand (by hypothesis), we conceive certain things excluding its present existence. 132 But, in so far as we conceive it in relation to time past, we are assumed to conceive something, which recalls the thing to memory, or excites the image thereof, which is so far the same as regarding it as present. 133 Therefore an emotion towards a thing contingent, which we know does not exist in the present, is fainter, other conditions being equal, than an emotion towards a thing past.

PROPOSITION XIV

134 A true knowledge of good and evil cannot check any emotion by virtue of being true, but only in so far as it is considered as an emotion.

PROOF

135 An emotion is an idea, whereby the mind affirms of its body a greater or less force of

existing than before (by the general Definition of the Emotions); 136 therefore it has no positive quality, which can be destroyed by the presence of what is true; consequently the knowledge of good and evil cannot, by virtue of being true, restrain any emotion.

137 But, in so far as such knowledge is an emotion if it have more strength for restraining emotion, it will to that extent be able to restrain the given emotion.

PROPOSITION XV

138 Desire arising from the knowledge of good and bad can be quenched or checked by many of the other desires arising from the emotions whereby we are assailed.

PROOF

139 From the true knowledge of good and evil, in so far as it is an emotion, necessarily arises desire, the strength of which is proportioned to the strength of the emotion wherefrom it arises. 140 But, inasmuch as this desire arises (by hypothesis) from the fact of our truly understanding anything, it follows that it is also present with us, in so far as we are active, 141 and must therefore be understood through our essence only; consequently its force and increase can be defined solely by human power.

142 Again, the desires arising from the emotions whereby we are assailed are stronger, in proportion as the said emotions are more vehement; 143 wherefore their force and increase must be defined solely by the power of external causes, which, when compared with our own power, indefinitely surpass it; 144 hence the desires arising from like emotions may be more vehement, than the desire which arises from a true knowledge of good and evil, and may, consequently, control or quench it.

PROPOSITION XVI

145 Desire arising from the knowledge of good and evil, in so far as such knowledge regards what is future, may be more easily controlled or quenched, than the desire for what is agreeable at the present moment.

PROOF

146 Emotion towards a thing, which we conceive as future, is fainter than emotion towards a thing that is present. 147 But desire, which arises from the true knowledge of good and evil,

though it be concerned with things which are good at the moment, can be quenched or controlled by any headstrong desire (by the last Proposition, the proof whereof is of universal application). 148 Wherefore desire arising from such knowledge, when concerned with the future, can be more easily controlled or quenched.

PROPOSITION XVII

149 Desire arising from the true knowledge of good and evil, in so far as such knowledge is concerned with what is contingent, can be controlled far more easily still, than desire for things that are present.

NOTE

150 I think I have now shown the reason, why humans are moved by opinion more readily than by true reason, why it is that the true knowledge of good and evil stirs up conflicts in the soul, and often yields to every kind of passion. 151 This state of things gave rise to the exclamation of the poet: (Ov. Met. vii.20, "Video meliora proboque, Deteriora sequor.")

The better path I gaze at
and approve,
The worse - I follow."

152 Ecclesiastes seems to have had the same thought in his mind, when he says, "He who increaseth knowledge increaseth sorrow." 153 I have not written the above with the object of drawing the conclusion, that ignorance is more excellent than knowledge, or that a wise person is on a par with a fool in controlling own emotions, 154 but because it is necessary to know the power and the infirmity of our nature, before we can determine what reason can do in restraining the emotions, and what is beyond her power. 155 I have said, that in the present part I shall merely treat of human infirmity. The power of reason over the emotions I have settled to treat separately.

PROPOSITION XVIII

156 Desire arising from pleasure is, other conditions being equal, stronger than desire arising from pain.

PROOF

157 Desire is the essence of a human, that is, the endeavour whereby a human endeavours to persist in one’s own being. 158 Wherefore desire arising from pleasure is, by the fact of pleasure being felt, increased or helped; 159 on the contrary, desire arising

from pain is, by the fact of pain being felt, diminished or hindered; 160 hence the force of desire arising from pleasure must be defined by human power together with the power of an external cause, whereas desire arising from pain must be defined by human power only. Thus the former is the stronger of the two.

NOTE

161 In these few remarks I have explained the causes of human infirmity and inconstancy, and shown why humans do not abide by the precepts of reason.

162 It now remains for me to show what course is marked out for us by reason, which of the emotions are in harmony with the rules of human reason, and which of them are contrary thereto.

163 But, before I begin to prove my Propositions in detailed geometrical fashion, it is advisable to sketch them briefly in advance, so that everyone may more readily grasp my meaning.

164 As reason makes no demands contrary to Nature, it demands, that every human should love the self, should seek that which is useful to you - 165 I mean, that which is really useful to you, should desire everything which really brings human to greater perfection, and should, each for yourself, endeavour as far as you can to preserve your own being. This is as necessarily true, as that a whole is greater than its part.

166 Again, as virtue is nothing else but action in accordance with the laws of one's own nature, and as no one endeavours to preserve one’s own being, except in accordance with the laws of your own nature, 167 it follows, first, that the foundation of virtue is the endeavour to preserve one's own being, and that happiness consists in human's power of preserving, your own being; 168 secondly, that virtue is to be desired for its own sake, and that there is nothing more excellent or more useful to us, for the sake of which we should desire it; 169 thirdly and lastly that suicides are weak-minded, and are overcome by external causes repugnant to their nature. 170 Further, it follows from Postulate iv.(In the Panagogie book of MIND: Chapter-5; v.191) that we can never arrive at doing without all external things for the

preservation of our being or living, so as to have no relations with things which are outside ourselves. 171 Again, if we consider our mind, we see that our intellect would be more imperfect, if mind were alone, and could understand nothing besides itself. 172 There are, then, many things outside ourselves, which are useful to us, and are, therefore, to be desired.

173 Of such none can be discerned more excellent, than those which are in entire agreement with our nature. 174 For if, for example, two individuals of entirely the same nature are united, they form a combination twice as powerful as either of them singly.

175 Therefore, to human there is nothing more useful than human-- nothing, I repeat, more excellent for preserving their being can be wished for by humans, than that all should so in all points agree, 176 that the minds and bodies of all should form, as it were, one single mind and one single body, and that all should, with one consent, as far as they are able, endeavour to preserve their being, and all with one consent seek what is useful to them all. 177 Hence, humans who are governed by reason-- that is, who seek what is useful to them in accordance with reason, desire for themselves nothing, which they do not also desire for the rest of humankind, and, consequently, are just, faithful, and honourable in their conduct.

178 Such are the dictates of reason, which I purposed thus briefly to indicate, before beginning to prove them in greater detail. 179 I have taken this course, in order, if possible, to gain the attention of those who believe, that the principle that every human is bound to seek what is useful for the self is the foundation of impiety, rather than of piety and virtue.

180 Therefore, after briefly showing that the contrary is the case, I go on to prove it by, the same method, as that whereby I have hitherto proceeded.

PROPOSITION XIX

181 Every human, by the laws of your nature, necessarily desires or shrinks from that which you deems to be good or bad.

PROOF

182 The knowledge of good and evil is the emotion of pleasure or pain, in so far as we are conscious

thereof; therefore, every human necessarily desires what you thinks good, and shrinks from what you thinks bad. 183 Now this appetite is nothing else but human's nature or essence. Therefore, every human, solely by the laws of your nature, desires the one, and shrinks from the other.

PROPOSITION XX

184 The more every human endeavours, and is able to seek what is useful to you-- in other words, to preserve your own being-- the more is you endowed with virtue; 185 on the contrary, in proportion as a person neglects to seek what is useful to you, that is, to preserve your own being, you are wanting in power.

PROOF

186 Virtue is human power, which is defined solely by human's essence, that is, which is defined solely by the endeavour made by human to persist in one’s own being. 187 Wherefore, the more a person endeavours, and is able to preserve own being, the more is you endowed with virtue, 188 and, consequently, in so far as a person neglects to preserve own being, you are wanting in power.

NOTE

189 No one, therefore, neglects seeking own good, or preserving own being, unless you be overcome by causes external and foreign to your nature. 190 No one, I say, from the necessity of your own nature, or otherwise than under compulsion from external causes, shrinks from food, or kills yourself: which latter may be done in a variety of ways. 191 A person, for instance, kills the self under the compulsion of another person, who twists round your right hand, wherewith you happened to have taken up a sword, and forces you to turn the blade against your own heart; 192 or, again, you may be compelled, like Seneca, by a tyrant's command, to open your own veins-- that is, to escape a greater evil by incurring, a lesser; 193 or, lastly, latent external causes may so disorder your imagination, and so affect your body, that it may assume a nature contrary to its former one, and whereof the idea cannot exist in the mind. 194 But that a human, from the necessity of your own nature, should endeavour to become non-existent, is as impossible as that

something should be made out of nothing, as everyone will see for the self, after a little reflection.

PROPOSITION XXI

195 No one can desire to be blessed, to act rightly, and to live rightly, without at the same time wishing to be, act, and to live-- in other words, to actually exist.

PROOF

196 The proof of this proposition, or rather the proposition itself, is self-evident, and is also plain from the definition of desire. 197 For the desire of living, acting, blessedly or rightly, is the essence of human-- that is, the endeavour made by everyone to preserve own being. Therefore, no one can desire.

PROPOSITION XXII

198 No virtue can be conceived as prior to this endeavour to preserve one's own being.

PROOF

199 The effort for self-preservation is the essence of a thing; therefore, if any virtue could be conceived as prior thereto, the essence of a thing would have to be conceived as prior to itself, which is obviously absurd. Therefore no virtue.

COROLLARY

200 The effort for self-preservation is the first and only foundation of virtue. For prior to this principle nothing can be conceived, and without it no virtue can be conceived.

PROPOSITION XXIII

201 Human, in so far as you are determined to a particular action because you have inadequate ideas, cannot be absolutely said to act in obedience to virtue; you can only be so described, in so far as you are determined for the action because you understands.

PROOF

202 In so far as a person is determined to an action through having inadequate ideas, you are passive, that is, you does something, which cannot be perceived solely through your essence, that is, which does not follow from your virtue. 203 But, in so far as you are determined for an action because you understands, you are active; that is, you does something, which is perceived through your essence alone, or which adequately follows from your virtue.

PROPOSITION XXIV

204 To act absolutely in obedience to virtue is in us the same thing as to act, to live, or to preserve one's being (these three terms are identical in meaning) in accordance with the dictates of reason on the basis of seeking what is useful to one's self.

PROOF

205 To act absolutely in obedience to virtue is nothing else but to act according to the laws of one's own nature. 206 But we only act, in so far as we understand: therefore to act in obedience to virtue is in us nothing else but to act, to live, or to preserve one's being in obedience to reason, and that on the basis of seeking what is useful for us.

PROPOSITION XXV

207 No one wishes to preserve his being for the sake of anything else.

PROOF

208 The endeavour, wherewith everything endeavours to persist in its being, is defined solely by the essence of the thing itself; 209 from this alone, and not from the essence of anything else, it necessarily follows that everyone endeavours to preserve own being.

210 Moreover, this proposition is plain from IV:xxii.Coroll., for if a person should endeavour to preserve own being for the sake of anything else, the last-named thing would obviously be the basis of virtue, which, by the foregoing corollary, is absurd. Therefore no one.

PROPOSITION XXVI

211 Whatsoever we endeavour in obedience to reason is nothing further than to understand; 212 neither does the mind, in so far as it makes use of reason, judge anything to be useful to it, save such things as are conducive to understanding.

PROOF

213 The effort for self-preservation is nothing else but the essence of the thing in question, which, in so far as it exists such as it is, is conceived to have force for continuing in existence and doing such things as necessarily follow from its given nature. 214 But the essence of reason is nought else but our mind, in so far as it clearly and distinctly understands; therefore whatsoever we endeavour in obedience to reason is nothing else but to understand. 215 Again, since this effort of the

mind wherewith the mind endeavours, in so far as it reasons, to preserve its own being is nothing else but understanding; 216 this effort at understanding is the first and single basis of virtue, nor shall we endeavour to understand things for the sake of any ulterior object; 217 on the other hand, the mind, in so far as it reasons, will not be able to conceive any good for itself, save such things as are conducive to understanding.

PROPOSITION XXVII

218 We know nothing to be certainly good or evil, save such things as really conduce to understanding, or such as are able to hinder us from understanding.

PROOF

219 The mind, in so far as it reasons, desires nothing beyond understanding, and judges nothing to be useful to itself, save such things as conduce to understanding (by the foregoing Proposition.). 220 But the mind cannot possess certainty concerning anything, except in so far as it has adequate ideas, or in so far as it reasons. Therefore we know nothing to be good or evil save such things as really conduce.

PROPOSITION XXVIII

221 The mind's highest good is the knowledge of God, and the mind's highest virtue is to know God.

PROOF

222 The mind is not capable of understanding anything higher than God, that is, than a Being absolutely infinite, and without which nothing can either be or be conceived; therefore, the mind's highest utility or good is the knowledge of God. 223 Again, the mind is active, only in so far as it understands, and only to the same extent can it be said absolutely to act virtuously. 224 The mind's absolute virtue is therefore to understand. Now, as we have already shown, the highest that the mind can understand is God; therefore the highest virtue of the mind is to understand or to know God.

PROPOSITION XXIX

225 No individual thing, which is entirely different from our own nature, can help or check our power of activity, and absolutely nothing can do us good or harm, unless it has something in common with our nature.

PROOF

226 The power of every individual thing, and consequently the power of human, whereby you exists and operates, can only be determined by an individual thing, whose nature must be understood through the same nature as that, through which human nature is conceived.

227 Therefore our power of activity, however it be conceived, can be determined and consequently helped or hindered by the power of any other individual thing, which has something in common with us, 228 but not by the power of anything, of which the nature is entirely different from our own; 229 and since we call good or evil that which is the cause of pleasure or pain, that is, which increases or diminishes, helps or hinders, our power of activity; therefore, that which is entirely, different from our nature can neither be to us good nor bad.

PROPOSITION XXX

230 A thing cannot be bad for us through the quality which it has in common with our nature, but it is bad for us in so far as it is contrary to our nature.

PROOF

231 We call a thing bad when it is the cause of pain, that is, when it diminishes or checks our power of action. 232 Therefore, if anything were bad for us through that quality which it has in common with our nature, it would be able itself to diminish or check that which it has in common with our nature, which is absurd. 233 Wherefore nothing can be bad for us through that quality which it has in common with us, but, on the other hand, in so far as it is bad for us, that is (as we have just shown), in so far as it can diminish or check our power of action, it is contrary to our nature.

PROPOSITION XXXI

234 In so far as a thing is in harmony with our nature, it is necessarily good.

PROOF

235 In so far as a thing is in harmony with our nature, it cannot be bad for it. It will therefore necessarily be either good or indifferent.

236 If it be assumed that it be neither good nor bad, nothing will follow from its nature, which tends to the preservation of our nature, that is (by the hypothesis), which

tends to the preservation of the thing itself; but this is absurd; 237 therefore, in so far as a thing is in harmony with our nature, it is necessarily good.

COROLLARY

238 Hence it follows, that, in proportion as a thing is in harmony with our nature, so is it more useful or better for us, and vice versa, in proportion as a thing is more useful for us, so is it more in harmony with our nature. 239 For, in so far as it is not in harmony with our nature, it will necessarily be different therefrom or contrary thereto. 240 If different, it can neither be good nor bad; if contrary, it will be contrary to that which is in harmony with our nature, that is, contrary to what is good-- in short, bad. 241 Nothing, therefore, can be good, except in so far as it is in harmony with our nature; and hence a thing is useful, in proportion as it is in harmony with our nature, and vice versa.

PROPOSITION XXXII

242 In so far as humans are a prey to passion, they cannot, in that respect, be said to be naturally in harmony.

PROOF

243 Things, which are said to be in harmony naturally, are understood to agree in power, not in want of power or negation, and consequently not in passion; 244 wherefore humans, in so far as they are a prey to their passions, cannot be said to be naturally in harmony.

NOTE

245 This is also self-evident; for, if we say that white and black only agree in the fact that neither is red, we absolutely affirm that they do not agree in any respect. 246 So, if we say that a person and a stone only agree in the fact that both are finite-- wanting in power, not existing by the necessity of their own nature, or, lastly, indefinitely surpassed by the power of external causes-- we should certainly affirm that a person and a stone are in no respect alike; 247 therefore, things which agree only in negation, or in qualities which neither possess, really agree in no respect.

PROPOSITION XXXIII

248 Humans can differ in nature, in so far as they are assailed by those emotions, which are passions, or passive states; and to this extent

one and the same person is variable and inconstant.

PROOF

249 The nature or essence of the emotions cannot be explained solely through our essence or nature, but it must be defined by the power, that is, by the nature of external causes in comparison with our own; 250 hence it follows, that there are as many kinds of each emotion as there are external objects whereby we are affected, and that humans may be differently affected by one and the same object, and to this extent differ in nature; 251 lastly, that one and the same person may be differently affected towards the same object, and may therefore be variable and inconstant.

PROPOSITION XXXIV

252 In so far as humans are assailed by emotions which are passions, they can be contrary one to another.

PROOF

253 A person, for instance Peter, can be the cause of Paul's feeling pain, because he (Peter) possesses something similar to that which Paul hates, or because Peter has sole possession of a thing which Paul also loves, or for other causes; 254 it may therefore happen that Paul should hate Peter, consequently it may easily happen also, that Peter should hate Paul in return, and that each should endeavour to do the other an injury, that is, that they should be contrary one to another. 255 But the emotion of pain is always a passion or passive state; hence humans, in so far as they are assailed by emotions which are passions, can be contrary one to another.

NOTE

256 I said that Paul may hate Peter, because he conceives that Peter possesses something which he (Paul) also loves; 257 from this it seems, at first sight, to follow, that these two men, through both loving the same thing, and, consequently, through agreement of their respective natures, stand in one another's way; if this were so, II:xxx. and II:xxxi. would be untrue.

258 But if we give the matter our unbiased attention, we shall see that the discrepancy vanishes. For the two men are not in one another's way in virtue of the agreement of their natures, that is,

through both loving the same thing, but in virtue of one differing from the other. 259 For, in so far as each loves the same thing, the love of each is fostered thereby, that is the pleasure of each is fostered thereby. 260 Wherefore it is far from being the case, that they are at variance through both loving the same thing, and through the agreement in their natures. 261 The cause for their opposition lies, as I have said, solely in the fact that they are assumed to differ. For we assume that Peter has the idea of the loved object as already in his possession, while Paul has the idea of the loved object as lost. 262 Hence the one man will be affected with pleasure, the other will be affected with pain, and thus they will be at variance one with another. 263 We can easily show in like manner, that all other causes of hatred depend solely on differences, and not on the agreement between human's natures.

PROPOSITION XXXV

264 In so far only as humans live in obedience to reason, do they always necessarily agree in nature.

.PROOF

265 In so far as humans are assailed by emotions that are passions, they can be different in nature, and at variance one with another.

266 But humans are only said to be active, in so far as they act in obedience to reason; therefore, what so ever follows from human nature in so far as it is defined by reason must be understood solely through human nature as its proximate cause. 267 But, since every human by the laws of own nature desires that which you deems good, and endeavours to remove that which you deems bad; 268 and further, since that which we, in accordance with reason, deem good or bad, necessarily is good or bad; 269 it follows that humans, in so far as they live in obedience to reason, necessarily do only such things as are necessarily good for human nature, and consequently for each individual person; in other words, such things as are in harmony with each human's nature.

270 Therefore, humans in so far as they live in obedience to reason,

necessarily live always in harmony one with another.

COROLLARY I

271 There is no individual thing in Nature, which is more useful to human, than a person who lives in obedience to reason. For that thing is to human most useful, which is most in harmony with own nature; that is, obviously, human. 272 But human acts absolutely according to the laws of own nature, when you lives in obedience to reason, and to this extent only is always necessarily in harmony with the nature of another human (by the last Proposition); 273 wherefore among individual things nothing is more useful to human, than a human who lives in obedience to reason.

COROLLARY II

274 As every human seeks most that which is useful to you, so are humans most useful one to another. 275 For the more a human seeks what is useful to oneself and endeavours to preserve the self, the more is you endowed with virtue, or, what is the same thing, the more is you endowed with power to act according to the laws of your own nature, that is to live in obedience to reason. 276 But humans are most in natural harmony, when they live in obedience to reason (by the last Proposition); therefore (by the foregoing Corollary.) humans will be most useful one to another, when each seeks most that which is useful to oneself.

NOTE

277 What we have just shown is attested by experience so conspicuously, that it is in the mouth of nearly everyone: "Human is to human a God." 278 Yet it rarely happens that humans live in obedience to reason, for things are so ordered among them, that they are generally envious and troublesome one to another. 279 Nevertheless they are scarcely able to lead a solitary life, so that the definition of human as a social animal has met with general assent; in fact, humans do derive from social life much more convenience than injury.

280 Let satirists then laugh their fill at human affairs, let theologians rail, and let misanthropes praise to their utmost the life of untutored rusticity, let them heap contempt on humans and praises on beasts;

281 when all is said, they will find that humans can provide for their wants much more easily by mutual help, and that only by uniting their forces can they escape from the dangers that on every side beset them: 282 not to say how much more excellent and worthy of our knowledge it is, to study the actions of humans than the actions of beasts. But I will treat of this more at length elsewhere.

PROPOSITION XXXVI

283 The highest good of those who follow virtue is common to all, and therefore all can equally rejoice therein.

PROOF

284 To act virtuously is to act in obedience with reason, and whatsoever we endeavour to do in obedience to reason is to understand; 285 therefore the highest good for those who follow after virtue is to know God; that is a good which is common to all and can be possessed. by all humans equally, in so far as they are of the same nature.

NOTE

286 Someone may ask how it would be, if the highest good of those who follow after virtue were not common to all? 287 Would it not then follow, as above, that humans living in obedience to reason, that is, humans in so far as they agree in nature, would be at variance one with another? 288 To such an inquiry, I make answer, that it follows not accidentally but from the very nature of reason, that main's highest good is common to all, inasmuch as it is deduced from the very essence of human, in so far as defined by reason; 289 and that a person could neither be, nor be conceived without the power of taking pleasure in this highest good. 290 For it belongs to the essence of the human mind, to have an adequate knowledge of the eternal and infinite essence of God.

PROPOSITION XXXVII

291 The good which every human, who follows after virtue, desires for the self you will also desire for other people, and so much the more, in proportion as you have a greater knowledge of God.

PROOF

292 Humans, in so far as they live in obedience to reason, are most useful to their fellow humans; therefore, we shall in obedience to reason necessarily endeavour to bring about that humans should

live in obedience to reason. 293 But the good which every human, in so far as you are guided by reason, or, in other words, follows after virtue, desires for yourself, is to understand; 294 wherefore the good, which each follower of virtue seeks for the self, you will desire also for others.

295 Again, desire, in so far as it is referred to the mind, is the very essence of the mind; now the essence of the mind consists in knowledge, which involves the knowledge of God, and without it, can neither be, nor be conceived; 296 therefore, in proportion as the mind's essence involves a greater knowledge of God, so also will be greater the desire of the follower of virtue, that other people should possess that which you seeks as good for yourself.

PROOF

297 The good, which a person desires for the self and loves, you will love more constantly, if you sees that others love it also; you will therefore endeavour that others should love it also; 298 and as the good in question is common to all, and therefore all can rejoice therein, you will endeavour, for the same reason, to bring about that all should rejoice therein, and this you will do the more, in proportion as your own enjoyment of the good is greater.

NOTE 1

299 You who, guided by emotion only, endeavours to cause others to love what you loves yourself, and to make the rest of the world live according to your own fancy, acts solely by impulse, and is, therefore, hateful, especially, to those who take delight in something different, 300 and accordingly study and, by similar impulse, endeavour, to make humans live in accordance with what pleases themselves.

301 Again, as the highest good sought by humans under the guidance of emotion is often such, that it can only be possessed by a single individual, it follows that those who love it are not consistent in their intentions, but, while they delight to sing its praises, fear to be believed. 302 But you, who endeavours to lead humans by reason, does not act by impulse but courteously and kindly, and your intention is always consistent.

DESIRES

303 Again, whatsoever we desire and do, whereof we are the cause in so far as we possess the idea of God, or know God, I set down to Religion. 304 The desire of well-doing, which is engendered by a life according to reason, I call piety. 305 Further, the desire, whereby a person living according to reason is bound to associate others with the self in friendship, I call honour (Honestas); 306 by honourable I mean that which is praised by people living according to reason, and by base I mean that which is repugnant to the gaining of friendship. 307 I have also shown in addition what are the foundations of a state; and the difference between true ,virtue and infirmity may be readily gathered from what I have said; 308 namely, that true virtue is nothing else but living in accordance with reason; while infirmity is nothing else but human's allowing yourself to be led by things which are external to yourself, 309 and to be by them determined to act in a manner demanded by the general disposition of things rather than by your own nature considered solely in itself.

310 Such are the matters which I engaged to prove in IV:xviii., whereby it is plain that the law against the slaughtering of animals is founded rather on vain superstition and womanish pity than on sound reason. 311 The rational quest of what is useful to us further teaches us the necessity of associating ourselves with our fellow humans, but-- not with beasts, or things, whose nature is different from our own; we have the same rights in respect to them as they have in respect to us.

312 Nay, as everyone's right is defined by own virtue, or power, humans have far greater rights over beasts than beasts have over humans. 313 Still I do not deny that beasts feel: what I deny is, that we may not consult our own advantage and use them as we please, treating them in the way which best suits us; for their nature is not like ours, and their emotions are naturally different from human emotions. 314 It remains for me to explain what I mean by, just and unjust, sin and merit. On these points see the following note.

NOTE II

315 In the book of Ethics. I undertook to explain praise and blame, merit and sin, justice and injustice. Concerning praise and blame I have spoken in III:xxix.Note: the time has now come to treat of the remaining terms. 316 But I must first say a few words concerning human in the state of nature and in society.

317 Every human exists by sovereign natural right, and, consequently, by sovereign natural right performs those actions which follow from the necessity of your own nature; 318 therefore by sovereign natural right every human judges what is good and what is bad, takes care of own advantage according to own disposition, avenges the wrongs done to you, and endeavours to preserve that which you loves and to destroy-- that which you hates. 319 Now, if humans lived under the guidance of reason, everyone would remain in possession of this your right, without any injury being done to your neighbour.

320 But seeing that they are a prey to their emotions, which far surpass human power or virtue, they are often drawn in different directions, and being at variance one with another, stand in need of mutual help. 321 Wherefore, in order that humans may live together in harmony, and may aid one another, it is necessary that they should forego their natural right, and, for the sake of security, refrain from all actions which can injure their fellow-humans. 322 The way in which this end can be obtained, so that people who are necessarily a prey to their emotions, inconstant, and diverse, should be able to render each other mutually secure, and feel mutual trust, is evident from IV:vii. And III:xxxix. 323 It is there shown, that an emotion can only be restrained by an emotion stronger than, and contrary to itself, and that humans avoid inflicting injury through fear of incurring a greater injury themselves.

324 On this law society can be established, so long as it keeps in its own hand the right, possessed by everyone, of avenging injury, and pronouncing on good and evil; 325 and provided it also possesses the power to lay down a general rule of conduct, and to pass laws

sanctioned, not by reason, which is powerless in restraining emotion, but by threats. 326 Such a society established with laws and the power of preserving itself is called a State, while those who live under its protection are called citizens. 327 We may readily understand that there is in the state of Nature nothing, which by universal consent is pronounced good or bad; 328 for in the state of Nature everyone thinks solely of own advantage, and according to own disposition, with reference only to own individual advantage, decides what is good or bad, being bound by no law to anyone besides oneself.

329 In the state of Nature, therefore, sin is inconceivable; it can only exist in a state, where good and evil are pronounced on by common consent, and where everyone is bound to obey the State authority. 330 Sin, then, is nothing else but disobedience, which is therefore punished by the right of the State only. 331 Obedience, on the other hand, is set down as merit, inasmuch as a person is thought worthy of merit, if you takes delight in the advantages which a State provides. 332 Again, in the state of Nature, no one is by common consent master of anything, nor is there anything in Nature, which can be said to belong to one person rather than another: all things are common to all. 333 Hence, in the state of Nature, we can conceive no wish to render to every human your own, or to deprive a person of that which belongs to you; 334 in other words, there is nothing in the state of Nature answering to justice and injustice. Such ideas are only possible in a social state, when it is decreed by common consent what belongs to one person and what to another.

335 From all these considerations it is evident, that justice and injustice, sin and merit, are extrinsic ideas, and not attributes which display the nature of the mind. But I have said enough.

PROPOSITION XXXVIII

336 Whatsoever disposes the human body, so as to render it capable of being affected in an increased number of ways, or of affecting external bodies in an increased number of ways, is

useful to human; 337 and is so, in proportion as the body is thereby rendered more capable of being affected or affecting other bodies in an increased number of ways; contrariwise, whatsoever renders the body less capable in this respect is hurtful to human.

PROOF

338 Whatsoever thus increases the capabilities of the body increases also the mind's capability of perception; therefore, whatsoever thus disposes the body and thus renders it capable, is necessarily good or useful; 339 and is so in proportion to the extent to which it can render the body capable; contrariwise, it is hurtful, if it renders the body in this respect less capable.

PROPOSITION XXXIX

340 Whatsoever brings about the preservation of the proportion of motion and rest, which the parts of the human body mutually possess, is good; contrariwise, whatsoever causes a change in such proportion is bad.

PROOF

341 The human body needs many other bodies for its preservation. But that which constitutes the specific reality (forma) of a human body is, that its parts communicate their several motions one to another in a certain fixed proportion.

342 Therefore, whatsoever brings about the preservation of the proportion between motion and rest, which the parts of the human body mutually possess, preserves the specific reality of the human body, 343 and consequently renders the human body capable of being affected in many ways and of affecting external bodies in many ways; consequently it is good (by the last Proposition.).

344 Again, whatsoever brings about a change in the aforesaid proportion causes the human body to assume another specific character, in other words, to be destroyed, and consequently totally incapable of being affected in an increased numbers of ways; therefore it is bad.

NOTE

345 The extent to which such causes can injure or be of service to the mind will be explained in the Panagogue book of FREEDOM.

346 But I would here remark that I consider that a body undergoes death, when the proportion of

motion and rest which obtained mutually among its several parts is changed. 347 For I do not venture to deny that a human body, while keeping the circulation of the blood and other properties, wherein the life of a body is thought to consist, may none the less be changed into another nature totally different from its own. 348 There is no reason, which compels me to maintain that a body does not die, unless it becomes a corpse; nay, experience would seem to point to the opposite conclusion. 349 It sometimes happens, that a person undergoes such changes, that I should hardly call you the same. 350 As I have heard tell of a certain Spanish poet, who had been seized with sickness, and though he recovered therefrom yet remained so oblivious of his past life, that he would not believe the plays and tragedies he had written to be his own: 351 indeed, he might have been taken for a grown-up child, if he had also forgotten his native tongue. 352 If this instance seems incredible, what shall we say of infants? A person of ripe age deems their nature so unlike your own, that you can only be persuaded that you too has been an infant by the analogy of other people. 353 However, I prefer to leave such questions undiscussed, lest I should give ground to the superstitious for raising new issues.

PROPOSITION XL

354 Whatsoever conduces to human's social life, or causes people to live together in harmony, is useful, whereas whatsoever brings discord into a State is bad.

PROOF

355 For whatsoever causes humans to live together in harmony also causes them to live according to reason, and is therefore good, and (for the same reason) whatsoever brings about discord is bad.

PROPOSITION XLI

356 Pleasure in itself is not bad but good: contrariwise, pain in itself is bad.

PROOF

357 Pleasure is emotion, whereby the body's power of activity is increased or helped; pain is emotion, whereby the body's power of activity is diminished or checked; therefore pleasure in itself is good.

PROPOSITION XLII

358 Mirth cannot be excessive, but is always good; contrariwise, Melancholy is always bad.

PROOF

359 Mirth is pleasure. which, in so far as it is referred to the body, consists in all parts of the body being affected equally: 360 that is, the body's power of activity is increased or aided in such a manner, that the several parts maintain their former proportion of motion and rest; therefore Mirth is always good, and cannot be excessive. 361 But Melancholy is pain, which, in so far as it is referred to the body, consists in the absolute decrease or hindrance of the body's power of activity; therefore it is always bad.

PROPOSITION XLIII

362 Stimulation may be excessive and bad; on the other hand, grief may be good, in so far as stimulation or pleasure is bad.

PROOF

363 Localised pleasure or stimulation (titillatio) is pleasure, which, in so far as it is referred to the body, consists in one or some of its parts being affected more than the rest; 364 the power of this emotion may be sufficient to overcome other actions of the body, and may remain obstinately fixed therein, thus rendering it incapable of being affected in a variety of other ways: therefore it may be bad.

365 Again, grief, which is pain, cannot as such be good. But, as its force and increase is defined by the power of an external cause compared with our own, we can conceive infinite degrees and modes of strength in this emotion; 366 we can, therefore, conceive it as capable of restraining stimulation, and preventing its becoming excessive, and hindering the body's capabilities; thus, to this extent, it will be good.

PROPOSITION XLIV

367 Love and desire may be excessive.

PROOF

368 Love is pleasure, accompanied by the idea of an external cause; therefore stimulation, accompanied by the idea of an external cause is love; hence love maybe excessive.

369 Again, the strength of desire varies in proportion to the emotion from which it arises. Now emotion may overcome all the rest of human's actions; 370 so, therefore,

can desire, which arises from the same emotion, overcome all other desires, and become excessive, as we showed in the last proposition concerning stimulation.

NOTE

371 Mirth, which I have stated to be good, can be conceived more easily than it can be observed. 372 For the emotions, whereby we are daily assailed, are generally referred to some part of the body which is affected more than the rest; 373 hence the emotions are generally excessive, and so fix the mind in the contemplation of one object, that it is unable to think of others; 374 and although humans, as a rule, are a prey to many emotions-- and very few are found who are always assailed by one and the same-- yet there are cases, where one and the same emotion remains obstinately fixed. 375 We sometimes see people so absorbed in one object, that, although it be not present, they think they have it before them; 376 when this is the case with a person who is not asleep, we say you are delirious or mad; 377 nor are those persons who are inflamed with love, and who dream all night and all day about nothing but their mistress, or some woman, considered as less mad, for they are made objects of ridicule. 378 But when a miser thinks of nothing but gain or money, or when an ambitious person thinks of nothing but glory, they are not reckoned to be mad, because they are generally harmful, and are thought worthy of being hated. 379 But, in reality, Avarice, Ambition, Lust, are species of madness, though they may not be reckoned among diseases.

PROPOSITION XLV

380 Hatred can never be good.

PROOF

381 When we hate a person, we endeavour to destroy them, that is, we endeavour to do something that is bad. Therefore.

382 Note Well. Here, and in what follows, I mean by hatred only hatred towards humans.

COROLLARY I

383 Envy, derision, contempt, anger, revenge, and other emotions attributable to hatred, or arising therefrom, are bad; this is evident from III:xxxix. and IV:xxxvii.

COROLLARY II

384 Whatsoever we desire from motives of hatred is base, and in a

State unjust. This also is evident from III:xxxix., and from the definitions of baseness and injustice in IV:xxxvii.Note.

NOTE

385 Between derision and laughter I recognise a great difference. For laughter, as also jocularity, is merely pleasure; therefore, so long as it be not excessive, it is in itself good. 386 Assuredly nothing forbids human to enjoy the self, save grim and gloomy superstition. For why is it more lawful to satiate one's hunger and thirst than to drive away one's melancholy? 387 I reason, and have convinced myself as follows: No deity, nor anyone else, save the envious, takes pleasure in my infirmity and discomfort, nor sets down to my virtue the tears, sobs, fear, and the like, which axe signs of infirmity of spirit; 388 on the contrary, the greater the pleasure wherewith we are affected, the greater the perfection whereto we pass; in other words, the more must we necessarily partake of the divine Nature.

389 Therefore, to make use of what comes in our way, and to enjoy it as much as possible (not to the point of satiety, for that would not be enjoyment) is the part of a wise person. 390 I say it is the part of a wise person to refresh and recreate the self with moderate and pleasant food and drink, and also with perfumes, with the soft beauty of growing plants, with dress, with music, with many sports, with theatres, and the like, 391 such as every human may make use of without injury to own neighbour. 392 For the human body is composed of very numerous parts, of diverse nature, which continually stand in need of fresh and varied nourishment, so that the whole body may be equally capable of performing all the actions, which follow from the necessity of its own nature; 393 and, consequently, so that the mind may also be equally capable of-- understanding many things simultaneously. 394 This way of life, then, agrees best with our principles, and also with general practice; therefore, if there be any question of another plan, the plan we have mentioned is the best, and in every way to be commended.

PROPOSITION XLVI

395 You, who lives under the guidance of reason, endeavours, as far as possible, to render back love, or kindness, for other people's hatred, anger, contempt, towards you.

PROOF

396 All emotions of hatred are bad; therefore you who lives under the guidance of reason will endeavour, as far as possible, to avoid being assailed by, such emotions; consequently, you will also endeavour to prevent others being so aspect. 397 But hatred is increased by being reciprocated, and can be quenched by love, so that hatred may pass into love; therefore you who lives under the guidance of reason will endeavour to repay hatred with love, that is, with kindness.

NOTE

398 You who chooses to avenge wrongs with hatred is assuredly, wretched. But you, who strives to conquer hatred with love, fights your battle in joy and confidence; you withstands many as easily as one, and has very little need of fortune's aid. 399 Those whom you vanquishes yield joyfully, not through failure, but through increase in their powers; 400 all these consequences follow so plainly from the mere definitions of love and understanding, that I have no need to prove them in detail.

PROPOSITION XLVII

401 Emotions of hope and fear cannot be in themselves good.

PROOF

402 Emotions of hope and fear cannot exist without pain. For fear is pain, and hope cannot exist without fear; therefore these emotions cannot be good in themselves, but only in so far as they can restrain excessive pleasure.

NOTE

403 We may add, that these emotions show defective knowledge and an absence of power in the mind; for the same reason confidence, despair, joy, and disappointment are signs of a want of mental power. 404 For although confidence and joy are pleasurable emotions, they, nevertheless imply a preceding, pain, namely, hope and fear. 405 Wherefore the more we endeavour to be guided by reason, the less do we depend on hope; 406 we endeavour to free ourselves from

fear, and, as far as we can, to dominate fortune, directing our actions by the sure counsels of wisdom.

PROPOSITION XLVIII

407 The emotions of over-esteem and disparagement are always bad.

PROOF

408 These emotions are repugnant to reason; and are therefore bad.

PROPOSITION XLIX

409 Over-esteem is apt to render its object proud.

PROOF

410 If we see that any one rates us too highly, for love's sake, we are apt to become elated, or to be pleasurably affected; 411 the good which we hear of ourselves we readily believe; and therefore, for love's sake, rate ourselves too highly; in other words, we are apt to become proud.

PROPOSITION L

412 Pity, in a person who lives under the guidance of reason, is in itself bad and useless.

PROOF

413 Pity is a pain, and therefore is in itself bad. The good effect which follows, namely, our endeavour to free the object of our pity from misery, is an action which we desire to do solely at the dictation of reason; 414 only at the dictation of reason are we able to perform any action, which we know for certain to be good; thus, in a person who lives under the guidance of reason, pity in itself is useless and bad.

NOTE

415 You who rightly realises, that all things follow from the necessity of the divine Nature, and come to pass in accordance with the eternal laws and rules of Nature, will not find anything worthy of hatred, derision, or contempt, 416 nor will you bestow pity on anything, but to the utmost extent of human virtue you will endeavour to do well, as the saying is, and to rejoice.

417 We may add, that you, who is easily touched with compassion, and is moved by another's sorrow or tears, often does something which you afterwards regrets; 418 partly because we can never be sure that an action caused by emotion is good, partly because we are easily deceived by false tears. 419 I am in this place expressly speaking of a person living under the guidance of reason. You who is moved to help others neither by reason nor by

compassion, is rightly styled inhuman, for you seems unlike a human.

PROPOSITION LI

420 Approval is not repugnant to reason, but can agree therewith and arise therefrom.

PROOF

421 Approval is love towards one who has done good to another; therefore it may be referred to the mind, in so far as the latter is active, that is, in so far as it understands; therefore, it is in agreement with reason.

PROOF

422 You, who lives under the guidance of reason, desires for others the good which you seeks for yourself; wherefore from seeing someone doing good to own fellow your own endeavour to do good is aided; 423 in other words, you will feel pleasure accompanied by the idea of the benefactor. Therefore you approves of them.

NOTE

424 Indignation as we defined it is necessarily evil; 425 we may, however, remark that, when the sovereign power for the sake of preserving peace punishes a citizen who has injured another, it should not be said to be indignant with the criminal, for it is not incited by hatred to ruin them, it is led by a sense of duty to punish them.

PROPOSITION LII

426 Self-approval may arise from reason, and that which arises from reason is the highest possible.

PROOF

427 Self-approval is pleasure arising from a person's contemplation of the self and your own power of action. 428 But a human's true power of action-- or virtue is reason herself, as the said person clearly and distinctly contemplates her; therefore self-approval arises from reason. 429 Again, when a person is contemplating the self, you only perceived clearly and distinctly or adequately, such things as follow from your power of action, that is, from your power of understanding; therefore in such contemplation alone does the highest possible self-approval arise.

NOTE

430 Self-approval is in reality the highest object for which we can hope. 431 For no one endeavours to preserve own being for the sake of any ulterior object, and, as this

approval is more and more fostered and strengthened by praise, and on the contrary is more and more disturbed by blame, 432 fame becomes the most powerful of incitements to action, and life under disgrace is almost unendurable.

PROPOSITION LIII

433 Humility is not a virtue, or does not arise from reason.

PROOF

434 Humility is pain arising from a human's contemplation of your own infirmities. 435 But, in so far as a person knows the self by true reason, you are assumed to understand your essence, that is, your power. 436 Wherefore, if a person in self-contemplation perceives any infirmity in the self, it is not by virtue of own understanding yourself, but by virtue of your power of activity being checked. 437 But, if we assume that a person perceives own infirmity by virtue of understanding something stronger than the self, by the knowledge of which you determines your own power of activity, 438 this is the same as saying that we conceive that a person understands the self distinctly because *(Land reads: "Quod ipsius agendi potentia juvatur"- which I have translated above. He - suggests as alternative readings to `quod', 'quo' (= whereby) and 'quodque' (= and that).)* your power of activity is aided. 439 Wherefore humility, or the pain which arises from a human's contemplation of own infirmity, does not arise from the contemplation or reason, and is not a virtue but a passion.

PROPOSITION LIV

440 Repentance is not a virtue, or does not arise from reason; but you who repents of an action is doubly wretched or infirm.

PROOF

441 The first part of this proposition is proved like the foregoing one. The second part is proved from the mere definition of the emotion in question. 442 For the person allows the self to be overcome, first, by evil desires; secondly, by pain.

NOTE

443 As humans seldom live under the guidance of reason, these two emotions, namely, Humility and Repentance, as also Hope and Fear, bring more good than harm; hence, as we must sin, we had better sin in that direction.

444 For, if all humans who are a prey to emotion were all equally

proud, they would shrink from nothing, and would fear nothing; how then could they be joined and linked together in bonds of union? 445 The crowd plays the tyrant, when it is not in fear; hence we need not wonder that the prophets, who consulted the good, not of a few, but of all, so strenuously commended Humility, Repentance, and Reverence. 446 Indeed those who are a prey to these emotions may be led much more easily than others to live under the guidance of reason, that is, to become free and to enjoy the life of the blessed.

PROPOSITION LV

447 Extreme pride or dejection indicates extreme ignorance of self.

PROPOSITION LVI

448 Extreme pride or dejection indicates extreme infirmity of spirit.

PROOF

449 The first foundation of virtue is self-preservation under the guidance of reason. You, therefore, who is ignorant of yourself, is ignorant of the foundation of all virtues, and consequently of all virtues.

450 Again, to act virtuously is merely to act under the guidance of reason: now you, that acts under the guidance of reason, must necessarily know that you so acts. 451 Therefore you who is in extreme ignorance of yourself, and consequently of all virtues, acts least in obedience to virtue; in other words, is most infirm of spirit. 452 Thus extreme pride or dejection indicates extreme infirmity of spirit.

COROLLARY

453 Hence it most clearly follows, that the proud and the dejected specially fall a prey to the emotions.

NOTE

454 Yet dejection can be more easily corrected than pride; for the latter being a pleasurable emotion, and the former a painful emotion, the pleasurable is stronger than the painful.

PROPOSITION LVII

455 The proud person delights in the company of flatterers and parasites, but hates the company of the high-minded.

PROOF

456 Pride is pleasure arising from a human's over estimation of the self; this estimation the proud

person will endeavour to foster by all the means in own power; 457 you will therefore delight in the company of flatterers and parasites (whose character is too well known to need definition here), and will avoid the company of high-minded people, who value you according to your deserts.

Note

458 It would be too long a task to enumerate here all the evil results of pride, inasmuch as the proud are a prey to all the emotions, though to none of them less than to love and pity.

459 I cannot, however, pass over in silence the fact, that a human may be called proud from own underestimation of other people; 460 and, therefore, pride in this sense may be defined as pleasure arising from the false opinion, whereby a person may consider the self superior to own fellows. 461 The dejection, which is the opposite quality to this sort of pride, may be defined as pain arising from the false opinion, whereby a person may think the self inferior to own fellows.

462 Such being the ease, we can easily see that a proud person is necessarily envious, and only takes pleasure in the company, who fool own weak mind to the top of own bent, and make you insane instead of merely foolish.

463 Though dejection is the emotion contrary to pride, yet is the dejected person very near akin to the proud person. 464 For, inasmuch as your pain arises from a comparison between your own infirmity and other people's power or virtue, it will be removed, 465 or, in other words, you will feel pleasure, if your imagination be occupied in contemplating other people's faults; whence arises the proverb, "The unhappy are comforted by finding fellow-sufferers."

466 Contrariwise, you will be the more pained in proportion as you thinks yourself inferior to others; 467 hence none are so prone to envy as the dejected, they are specially keen in observing human's actions, with a view to fault-finding rather than correction, in order to reserve their praises for dejection, and to glory therein, though all the time with a dejected air. 468 These effects follow as necessarily from the said

emotion, as it follows from the nature of a triangle, that the three angles are equal to two right angles. 469 I have already said that I call these and similar emotions bad, solely in respect to what is useful to human.

470 The laws of Nature have regard to Nature's general order, whereof human is but a part. 471 I mention this, in passing, lest any should think that I have wished to set forth the faults and irrational deeds of humans rather than the nature and properties of things. 472 For, as I said in the book of ETHICS regard human emotions and their properties as on the same footing with other natural phenomena. 473 Assuredly human emotions indicate the power and ingenuity, of Nature, if not of human nature, quite as fully, as other things which we admire, and which we delight to contemplate.

474 But I pass on to note those qualities in the emotions, which bring advantage to human, or inflict injury upon you.

PROPOSITION LVIII

475 Honour (gloria) is not repugnant to reason, but may arise therefrom.

.NOTE

476 Empty honour, as it is styled, is self- approval, fostered only by the good opinion of the populace; when this good opinion ceases there ceases also the self-approval, in other words, the highest object of each human's love; 477 consequently, you whose honour is rooted in popular approval must, day by day, anxiously strive, act, and scheme in order to retain your reputation. 478 For the populace is variable and inconstant, so that, if a reputation be not kept up, it quickly withers away. 479 Everyone wishes to catch popular applause for the self, and readily represses the fame of others. 480 The object of the strife being estimated as the greatest of all goods, each combatant is seized with a fierce desire to put down own rivals in every possible way, till you who at last comes out victorious is more proud of having done harm to others than of having done good to yourself. 481 This sort of honour, then, is really empty, being nothing.

482 The points to note concerning shame (pudor) may easily be inferred from what was said on the

subject of mercy and repentance. 483 I will only add that shame, like compassion, though not a virtue, is yet good, in so far as it shows, that the feeler of shame is really imbued with the desire to live honourably; in the same way as suffering is good, as showing that the injured part is not mortified. 484 Therefore, though a person who feels shame is sorrowful, you are yet more perfect than those, who is shameless, and has no desire to live honourably.

485 Such are the points which I undertook to remark upon concerning the emotions of pleasure and pain; as for the desires, they are good or bad according as they spring from good or evil emotions. 486 But all, in so far as they are engendered in us by, emotions wherein the mind is passive, are blind, and would be useless, if people could easily, be induced to live by the guidance of reason only, as I will now briefly, show.

PROPOSITION LIX

487 To all the actions, whereto we are determined by emotion wherein the mind is passive; we can be determined without emotion by reason.

PROOF

488 To act rationally, is nothing else but to perform those actions, which follow from the necessity, of our nature {to persist} considered in itself alone. 489 But pain is bad, in so far as it diminishes or checks the power of action; wherefore we cannot by pain be determined to any action, which we should be unable to perform under the guidance of reason.

490 Again, pleasure is bad only in so far as it hinders a person's capability for action; therefore to this extent we could not be determined by it to any action, which we could not perform under the guidance of reason.

491 Lastly, pleasure, in so far as it is good, is in harmony with reason (for it consists in the fact that a human's capability for action is increased or aided); 492 nor is the mind passive therein, except in so far as a human's power of action is not increased to the extent of affording you an adequate conception of yourself and your actions.

493 Wherefore, if a person who is pleasurably affected be brought to such a state of perfection, that you gains an adequate conception of yourself and your own actions, you will be equally, nay more, capable of those actions, to which you are determined by emotion wherein the mind is passive. 494 But all emotions are attributable to pleasure, to pain, or to desire; and desire is nothing else but the attempt to act; therefore, to all actions.

PROOF

495 A given action is called bad, in so far as it arises from one being affected by hatred or any evil emotion. 496 But no action, considered in itself alone, is either good or bad, one and the same action being sometimes good, sometimes bad; wherefore to the action which is sometimes bad, or arises from some evil emotion, we may be led by reason.

NOTE

497 An example will put this point in a clearer light. The action of striking, in so far as it is considered physically, 498 and in so far as we merely look to the fact that a person raises own arm, clenches own fist, and moves own whole arm violently downwards, is a virtue or excellence which is conceived as proper to the structure of the human body. 499 If, then, a person, moved by anger or hatred, is led to clench own fist or to move own arm, this result takes place (as we showed in the Panagogue book of MIND.), because one and the same action can be associated with various mental images of things; 500 therefore we may be determined to the performance of one and the same action by confused ideas, or by clear and distinct ideas. 501 Hence it is evident that every desire which springs from emotion, wherein the mind is passive, would become useless, if humans could be guided by reason. 502 Let us now see why desire which arises from emotion, wherein the mind is passive, is called by us blind.

PROPOSITION LX

503 Desire arising from a pleasure or pain, that is not attributable, to the whole body, but only to one or certain parts thereof, is without utility in respect to a human as a whole.

PROOF

504 Let it be assumed, for instance, that A, a part of a body, is so strengthened by some external cause, that it prevails over the remaining parts. 505 This part will not endeavour to do away with its own powers, in order that the other parts of the body may perform its office; for this it would be necessary for it to have a force or power of doing away with its own powers, which is absurd. 506 The said part, and, consequently, the mind also, will endeavour to preserve its condition. Wherefore desire arising from a pleasure of the kind aforesaid has no utility in reference to a human as a whole. 507 If it be assumed, on the other hand, that the part, A, be checked so that the remaining parts prevail, it may be proved in the same manner that desire arising from pain has no utility in respect to a human as a whole.

NOTE

508 As pleasure is generally attributed to one part of the body, we generally desire to preserve our being with out taking into consideration our health as a whole: 509 to which it may be added, that the desires which have most hold over us take account of the present and not of the future.

PROPOSITION LXI

510 Desire which springs from reason cannot be excessive.

PROOF

511 Desire considered absolutely is the actual essence of human, in so far as it is conceived as in any way determined to a particular activity by some given modification of itself. 512 Hence desire, which arises from reason, that is, which is engendered in us in so far as we act, is the actual essence or nature of human, in so far as it is conceived as determined to such activities as are adequately conceived through human's essence only. 513 Now, if such desire could be excessive, human nature considered in itself alone would be able to exceed itself, or would be able to do more than it can, a manifest contradiction. Therefore, such desire cannot be excessive.

PROPOSITION LXII

514 In so far as the mind conceives a thing under the dictates of reason, it is affected equally, whether the idea be of a thing future, past, or present.

PROOF

515 Whatsoever the mind conceives under the guidance of reason, it conceives under the form of eternity or necessity, and is therefore affected with the same certitude. 516 Wherefore, whether the thing be present, past, or future, the mind conceives it under the same necessity and is affected with the same certitude; 517 and whether the idea be of something present, past, or future, it will in all cases be equally true; that is, it will always possess the same properties of an adequate idea; 518 therefore, in so far as the mind conceives things under the dictates of reason, it is affected in the same manner, whether the idea be of a thing future, past, or present.

NOTE

519 If we could possess an adequate knowledge of the duration of things, and could determine by reason their periods of existence, we should contemplate things future with the same emotion as things present; 520 and the mind would desire as though it were present the good which it conceived as future; 521 consequently it would necessarily neglect a lesser good in the present for the sake of a greater good in the future, and would in no wise desire that which is good in the present but a source of evil in the future, as we shall presently show. 522 However, we can have but a very inadequate knowledge of the duration of things and the periods of their existence we can only determine by imagination, which is not so powerfully affected by the future as by the present. 523 Hence such true knowledge of good and evil as we possess is merely abstract or general, and the judgment which we pass on the order of things and the connection of causes, with a view to determining what is good or bad for us in the present, is rather imaginary than real.

524 Therefore it is nothing wonderful, if the desire arising from such knowledge of good and evil, in so far as it looks on into the future, be more readily checked than the desire of things which are agreeable at the present time.

PROPOSITION LXIII

525 You who is led by fear, and does good in order to escape evil, is not led by reason.

.PROOF

526 All the emotions which are attributable to the mind as active, or in other words to reason, are emotions of pleasure and desire; therefore, you who is led by fear, and does good in order to escape evil, is not led by reason.

NOTE

527 Superstitions persons, who know better how to rail at vice than how to teach virtue, and who strive not to guide people by reason, but so to restrain them that they would rather escape evil than love virtue, have no other aim but to make others as wretched as themselves; 528 wherefore it is nothing wonderful, if they be generally troublesome and odious to their fellow-human.

COROLLARY

529 Under desire which springs from reason, we seek good directly, and shun evil indirectly.

PROOF

530 Desire which springs from reason can only spring from a pleasurable emotion, wherein the mind is not passive, in other words, from a pleasure which cannot be excessive, and not from pain; 531 wherefore this desire springs from the knowledge of good, not of evil; hence under the guidance of reason we seek good directly and only by implication shun evil.

NOTE

532 This corollary may be illustrated by the example of a sick and a healthy man. The sick man through fear of death eats what he naturally shrinks from, 533 but the healthy man takes pleasure in his food, and thus gets a better enjoyment out of life, than if he were in fear of death, and desired directly to avoid it. 534 So a judge, who condemns a criminal to death, not from hatred or anger but from love of the public well-being, is guided solely by reason.

PROPOSITION LXIV

535 The knowledge of evil is an inadequate knowledge.

PROOF

536 The knowledge of evil is pain, in so far as we are conscious thereof. Now pain is the transition to a lesser perfection and therefore cannot be understood through human's nature; therefore it is a passive state which depends on inadequate ideas; 537 consequently the knowledge thereof, namely, the knowledge of evil, is inadequate.

COROLLARY

538 Hence it follows that, if the human mind possessed only adequate ideas, it would form no conception of evil.

PROPOSITION LXV

539 Under the guidance of reason we should pursue the greater of two goods and the lesser of two evils.

PROOF

540 A good which prevents our enjoyment of a greater good is in reality an evil; 541 for we apply the terms good and bad to things, in so far as we compare them one with another; therefore, evil is in reality a lesser good; 542 hence under the guidance of reason we seek or pursue only the greater good and the lesser evil.

COROLLARY

543 We may, under the guidance of reason, pursue the lesser evil as though it were the greater good, and we may shun the lesser good, which would be the cause of the greater evil. 544 For the evil, which is here called the lesser, is really good, and the lesser good is really evil, wherefore we may seek the former and shun the latter.

PROPOSITION LXVI

545 We may, under the guidance of reason, seek a greater good in the future in preference to a lesser good in the present, and we may seek a lesser evil in the present in preference to a greater evil in the future.

PROOF

546 If the mind could have an adequate knowledge of things future, it would be affected towards what is future in the same way as towards what is present; 547 wherefore, looking merely to reason, as in this proposition we are assumed to do, there is no difference, whether the greater good or evil be assumed as present, or assumed as future; 548 hence we may seek a greater good in the future in preference to a lesser good in the present.

COROLLARY

549 We may, under the guidance of reason, seek a lesser evil in the present, because it is the cause of a greater good in the future, and we may shun a lesser good in the present, because it is the cause of a greater evil in the future.

NOTE

550 If these statements be compared with what we have

pointed out concerning the strength of the emotions, we shall readily see the difference between a person, who is led solely by emotion or opinion, and a person, who is led by reason. 551 The former, whether will or no, performs actions whereof you are utterly ignorant; the latter is your own master and only performs such actions, as you knows are of primary importance in life, and therefore chiefly, desires; 552 wherefore I call the former a slave, and the latter a free person, concerning whose disposition and manner of life it will be well to make a few observations.

PROPOSITION LXVII

553 A free person thinks of death least of all things; and your wisdom is a meditation not of death but of life.

PROOF

554 A free person is one who lives under the guidance of reason, who is not led by fear, but who directly desires that which is good, 555 in other words, who strives to act, to live, and to preserve own being on the basis of seeking own true advantage; 556 wherefore such an one thinks of nothing less than of death, but own wisdom is a meditation of life.

PROPOSITION LXVIII

557 If humans were born free, they would, so long as they remained free, form no conception of good and evil.

PROOF

558 I call free you who is led solely by reason; you, therefore, who is born free, and who remains free, has only adequate ideas; therefore you have no conception of evil, or consequently (good and evil being correlative) of good.

NOTE

559 It is evident, from IV:iv., that the hypothesis of this Proposition is false and inconceivable, except in so far as we look solely to the nature of human, or rather to God; not in so far as the latter is infinite, but only in so far as He is the cause of human's existence.

560 This, and other matters which we have already proved, seem to have been signifieded by Moses in the history of the first human. 561 For in that narrative no other power of God is conceived, save that whereby He created human, that is the power wherewith He provided solely for human's advantage; 562 it is stated that God

forbade human, being free, to eat of the tree of the knowledge of good and evil, and that, as soon as human should have eaten of it, you would straightway fear death rather than desire to live. 563 Further, it is written that when man had found a wife, who was in entire harmony with his nature, he knew that there could be nothing in Nature which could be more useful to him; 564 but that after he believed the beasts to be like himself, he straightway began to imitate their emotions, and to lose his freedom; 565 this freedom was afterwards recovered by the patriarchs, led by the spirit of Christ; that is, by the idea of God, whereon alone it depends, that human may be free, and desire for others the good which you desires for yourself, as we have shown above.

PROPOSITION LXIX

566 The virtue of a free person is seen to be as great, when it declines dangers, as when it overcomes them.

PROOF

567 Emotion can only be checked or removed by an emotion contrary to itself, and possessing more power in restraining emotion. 568 But blind daring and fear are emotions, which can be conceived as equally great: hence, no less virtue or firmness is required in checking daring than in checking fear; 569 in other words, the free person shows as much virtue, when you declines dangers, as when you strives to overcome them.

COROLLARY

570 The free person is as courageous in timely retreat as in combat; or, a free person shows equal courage or presence of mind, whether you elect to give battle or to retreat.

NOTE

571 What courage (animositas) is, and what I mean thereby, I explained in III:lix.Note. By danger I mean everything, which can give rise to any evil, such as pain, hatred, discord.

PROPOSITION LXX

572 The free person, who lives among the ignorant, strives, as far as you can, to avoid receiving favours from them.

PROOF

573 Everyone judges what is good according to own disposition; wherefore an ignorant person, who has conferred a benefit on another,

puts own estimate upon it, and, if it appears to be estimated less highly by the receiver, will feel pain. 574 But the free person only desires to join other people to self in friendship, not repaying their benefits with others reckoned as of like value, but guiding the self and others by the free decision of reason, and doing only such things as you knows to be of primary importance.

575 Therefore the free person, lest be should become hateful to the ignorant, or follow their desires rather than reason, will endeavour, as far as you can, to avoid receiving their favours.

NOTE

576 I say, as far as you can. For though humans be ignorant, yet are they humans, and in cases of necessity could afford us human aid, the most excellent of all things: 577 therefore it is often necessary to accept favours from them, and consequently to repay such favours in kind; 578 we must, therefore, exercise caution in declining favours, lest we should have the appearance of despising those who bestow them, or of being, from avaricious motives, unwilling to requite them, and so give ground for offence by the very fact of striving to avoid it. 579 Thus, in declining favours, we must look to the requirements of utility and courtesy.

PROPOSITION LXXI

580 Only free people are thoroughly grateful one to another.

PROOF

581 Only free people are thoroughly useful one to another, and associated among themselves by the closest necessity of friendship, only such people endeavour, with mutual zeal of love, to confer benefits on each other, and, therefore, only they are thoroughly grateful one to another.

NOTE

582 The goodwill, which people who are led by blind desire have for one another, is generally a bargaining or enticement, rather than pure goodwill.

583 Moreover, ingratitude is not an emotion. Yet it is base, inasmuch as it generally shows, that a person is affected by excessive hatred, anger, pride, avarice. 584 You who, by reason of your folly, knows not how to return benefits, is not ungrateful, much less you who is not gained over by the gifts of a

courtesan to serve her lust, or by a thief to conceal his thefts, or by any similar persons.

585 Contrariwise, such an one shows a constant mind, inasmuch as you cannot by an gifts be corrupted, to your own or the general hurt.

PROPOSITION LXXII

586 The free person never acts fraudulently, but always in good faith.

PROOF

587 If it be asked: What should a person's conduct be in a case where you could by breaking faith free yourself from the danger of present death?

588 Would not your plan of self-preservation completely persuade you to deceive?

589 This may be answered by pointing out that, if reason persuaded you to act thus, it would persuade all humans to act in a similar manner, 590 in which case reason would persuade humans not to agree in good faith to unite their forces, or to have laws in common, that is, not to. have any general laws, which is absurd.

PROPOSITION LXXIII

591 The person, who is guided by reason, is more free in a State, where you lives under a general system of law, than in solitude, where you are independent.

PROOF

592 The person, who is guided by reason, does not obey through fear: 593 but, in so far as you endeavours to preserve your being according to the dictates of reason, that is, in so far as you endeavours to live in freedom, you desires to order your life according to the general good, and, consequently, to live according to the laws of your country. 594 Therefore the free person, in order to enjoy greater freedom, desires to possess the general rights of citizenship.

NOTE

595 These and similar observations, which we have made on human's true freedom, may be referred to strength, that is, to courage and nobility of character. 596 I do not think it worthwhile to prove separately all the properties of strength; much less need I show, that you that is strong hates no person, is angry with no person, envies no person, is indignant with no person, despises no person, and least of all things is proud.

597 These propositions, and all that relate to the true way of life and

religion, are easily proved from IV:xxxvii. and IV:xlvi.; namely, that hatred should be overcome with love, and that every human should desire for others the good which you seeks for yourself. 598 We may also repeat what we drew attention to in the note to IV:I., and in other places; namely, that the strong person has ever first in own thoughts, that all things follow from the necessity of the divine Nature; 599 so that whatsoever you deems to be hurtful and evil, and whatsoever, accordingly, seems to you impious, horrible, unjust, and base, assumes that appearance owing to your own disordered, fragmentary, and confused view of the universe. 600 Wherefore you strives before all things to conceive things as they really are, and to remove the hindrances to true knowledge, such as are hatred, anger, envy, derision, pride, and similar emotions, which I have mentioned above.

601 Thus you endeavours, as we said before, as far as in you lies, to do good, and to go on your way rejoicing. How far human virtue is capable of attaining to such a condition, and what its powers may be, I will prove in the Panagogue book of FREEDOM.

APPENDIX

602 What I have said in this Part concerning the right way of life has not been arranged, so as to admit of being seen at one view, but has been set forth piece-meal, according as I thought each Proposition could most readily be deduced from what preceded it. 603 I propose, therefore, to rearrange my remarks and to bring them under leading heads.

604 (I.) All our endeavours or desires so follow from the necessity of our nature, that they can be understood either through it alone, as their proximate cause, or by virtue of our being a part of Nature, which cannot be adequately conceived through itself without other individuals.

605 (II.) Desires, which follow from our nature in such a manner, that they can be understood through it alone, are those which are referred to the mind, in so far as the latter is conceived to consist of adequate ideas: 606 the remaining desires are only referred to the mind, in so far as it

conceives things inadequately, and their force and increase are generally defined not by the power of human, but by the power of things external to us: 607 wherefore the former are rightly called actions, the latter passions, for the former always indicate our power, the latter, on the other hand, show our infirmity and fragmentary knowledge.

608 (III.) Our actions, that is, those desires which are defined by human's power or reason, are always good. The rest maybe either good or bad.

609 (IV.) Thus in life it is before all things useful to perfect the understanding or reason, as far as we can, and in this alone human's highest happiness or blessedness consists, 610 indeed blessedness is nothing else but the contentment of spirit, which arises from the intuitive knowledge of God: 611 now, to perfect the understanding is nothing else but to understand God, God's attributes, and the actions which follow from the necessity of His nature. 612 Wherefore of a human, who is led by reason, the ultimate aim or highest desire, whereby you seeks to govern all your fellows, is that whereby you are brought to the adequate conception of yourself and of all things within the scope of your intelligence.

613 (V.) Therefore, without intelligence there is not rational life: and things are only good, in so far as they aid human in own enjoyment of the intellectual life, which is defined by intelligence. 614 Contrariwise, whatsoever things hinder human's perfecting of own reason, and capability to enjoy the rational life, are alone called evil.

615 (VI.) As all things whereof human is the efficient cause are necessarily good, no evil can befall human except through external causes; 616 namely, by virtue of human being a part of universal Nature, whose laws human nature is compelled to obey, and to conform to in almost infinite ways.

617 (VII.) It is impossible, that human should not be a part of Nature, or that you should not follow Her general order; 618 but if you be thrown among individuals whose nature is in harmony with your own, your power of action

will thereby be aided and fostered, 619 whereas, if you be thrown among such as are but very little in harmony with your nature, you will hardly be able to accommodate yourself to them without undergoing a great change yourself.

620 (VIII.) Whatsoever in Nature we deem to be evil, or to be capable of injuring our faculty for existing and enjoying the rational life, we may endeavour to remove in whatever way seems safest to us; 621 on the other hand, whatsoever we deem to be good or useful for preserving our being, and enabling us to enjoy the rational life, we may appropriate to our use and employ as we think best. 622 Everyone without exception may, by sovereign right of Nature, do whatsoever you thinks will advance your own interest.

623 (IX.) Nothing can be in more harmony with the nature of any given thing than other individuals of the same species; 624 therefore for human in the preservation of own being and the enjoyment of the rational life there is nothing more useful than your fellow-human who is led by reason.

625 Further, as we know not anything among individual things which is more excellent than a person led by reason, no person can better display the power of own skill and disposition, than in so training people, that they come at last to live under the dominion of their own reason.

626 (X.) In so far as humans are influenced by envy or any kind of hatred, one towards another, they are at variance, and are therefore to be feared in proportion, as they are more powerful than their fellows.

627 (XI.) Yet minds are not conquered by force, but by love and high-mindedness.

628 (XII.) It is before all things useful to humans to associate their ways of life, to bind themselves together with such bonds as they think most fitted to gather them all into unity, and generally to do whatsoever serves to strengthen friendship.

629 (XIII.) But for this there is need of skill and watchfulness. For humans are diverse (seeing that those who live under the guidance

of reason are few), yet are they generally envious and more prone to revenge than to sympathy.

630 No small force of character is therefore required to take everyone as you are, and to restrain one's self from imitating the emotions of others. 631 But those who carp at humankind, and are more skilled in railing at vice than in instilling virtue, and who break rather than strengthen human's dispositions, are hurtful both to themselves and others. 632 Thus many from too great impatience of spirit, or from misguided religious zeal, have preferred to live among brutes rather than among humans; 633 as boys or youths, who cannot peaceably endure the chidings of their parents, will enlist as soldiers and choose the hardships of war and the despotic discipline in preference to the comforts of home and the admonitions of their father: 634 suffering any burden to be put upon them, so long as they may spite their parents.

635 (XIV.) Therefore, although humans are generally governed in everything by their own lusts, yet their association in common brings many more advantages than drawbacks. 636 Wherefore it is better to bear patiently the wrongs they may do us, and to strive to promote whatsoever serves to bring about harmony and friendship.

637 (XV.) Those things, which beget harmony, are such as are attributable to justice, equity, and honourable living. 638 For men brook ill not only what is unjust or iniquitous, but also what is reckoned disgraceful, or that a person should slight the received customs of their society. 639 For winning love those qualities are especially necessary which have regard to religion and piety.

640 (XVI.) Further, harmony is often the result of fear: but such harmony is insecure. 641 Further, fear arises from infirmity of spirit and moreover belongs not to the exercise of reason: the same is true of compassion, though this latter seems to bear a certain resemblance to piety.

642 (XVII.) Humans are also gained over by liberality, especially such as have not the means to buy what is necessary to sustain life. 643 However, to give aid to every poor person is far beyond the power and

the advantage of any private person. For the riches of any private person are wholly inadequate to meet such a call.

644 Again, an individual person's resources of character are too limited for you to be able to make all people your friends. 645 Hence providing for the poor is a duty, which falls on the State as a whole, and has regard only to the general advantage.

646 (XVIII.) In accepting favours, and in returning gratitude our duty must be wholly different.

647 (XIX.) Again, meretricious love, that is, the lust of generation arising from bodily beauty, and generally every sort of love, which owns anything save freedom of soul as its cause, readily passes into hate; 648 unless indeed, what is worse, it is a species of madness; and then it promotes discord rather than harmony.

649 (XX.) As concerning marriage, it is certain that this is in harmony with reason, if the desire for physical union be not engendered solely by bodily beauty, but also by the desire to beget children and to train them up wisely; 650 and moreover, if the love of both, to wit, of the man and of the woman, is not caused by bodily beauty only, but also by freedom of soul.

651 (XXI.) Furthermore, flattery begets harmony; but only by means of the vile offence of slavishness or treachery. None are more readily taken with flattery than the proud, who wish to be first, but are not.

652 (XXII.) There is in abasement a spurious appearance of piety and religion. Although abasement is the opposite to pride, yet is you that abases yourself most akin to the proud.

653 (XXIII.) Shame also brings about harmony, but only in such matters as cannot be hid. Further, as shame is a species of pain, it does not concern the exercise of reason.

654 (XXIV.) The remaining emotions of pain towards humans are directly opposed to justice, equity, honour, piety, and religion; 655 and, although indignation seems to bear a certain resemblance to equity, yet is life but lawless, where every person may pass judgment on another's deeds, and vindicate own or other people's rights.

DESIRES

656 (XXV.) Correctness of conduct (modestia), that is, the desire of pleasing people which is determined by reason, is attributable to piety. 657 But, if it spring from emotion, it is ambition, or the desire whereby, people, under the false cloak of piety, generally stir up discords and seditions. 658 For you who desires to aid your fellows. either in word or in deed, so that they may together enjoy the highest good, you, I say, will before all things strive to, win them over with love: 659 not to draw them into admiration, so that a system may be called after your name, nor to give any cause for envy.

660 Further, in your conversation you will shrink from talking of people's faults, and will be careful to speak but sparingly of human infirmity: but you will dwell at length on human virtue or power, and the way whereby it may be perfected.

661 Thus will humans be stirred not by fear, nor by aversion, but only by the emotion of joy, to endeavour, so far as in them lies, to live in obedience to reason.

662 (XXVI.) Besides humans, we know of no particular thing in Nature in whose mind we may rejoice, and whom we can associate with ourselves in friendship or any sort of fellowship; 663 therefore, whatsoever there be in Nature besides human, a regard for our advantage does not call on us to preserve, but to preserve or destroy according to its various capabilities, and to adapt to our use as best we may.

664 (XXVII.) The advantage which we derive from things external to us, besides the experience and knowledge which we acquire from observing them, and from recombining their elements in different forms, is principally the preservation of the body; 665 from this point of view, those things are most useful which can so feed and nourish the body, that all its parts may rightly fulfill their functions. 665 For, in proportion as the body is capable of being affected in a greater variety of ways, and of affecting external bodies in a great number of ways, so much the more is the mind capable of thinking. 666 But there seem to be very few

things of this kind in Nature; wherefore for the due nourishment of the body we must use many foods of diverse nature. 667 For the human body is composed of very many parts of different nature, which stand in continual need of varied nourishment, so that the whole body may be equally capable of doing everything that can follow from its own nature, 668 and consequently that the mind also may be equally capable of forming many perceptions.

669 (XXVIII.) Now for providing these nourishments the strength of each individual would hardly suffice, if people did not lend one another mutual aid. 670 But money has furnished us with a token for everything: hence it is with the notion of money, that the mind of the multitude is chiefly engrossed: 671 nay, it can hardly conceive any kind of pleasure, which is not accompanied with the idea of money as cause.

672 (XXIX.) This result is the fault only of those, who seek money, not from poverty or to supply their necessary, wants, but because they, have learned the arts of gain, wherewith they bring themselves to great splendour. 673 Certainly they nourish their bodies, according to custom, but scantily, believing that they lose as much of their wealth as they spend on the preservation of their body. 674 But they who know the true use of money, and who fix the measure of wealth solely with regard to their actual needs, live content with little.

675 (XXX.) As, therefore, those things are good which assist the various parts of the body, and enable them to perform their functions; 676 and as pleasure consists in an increase of, or aid to, human's power, in so far as you are composed of mind and body; it follows that all those things which bring pleasure are good. 677 But seeing that things do not work with the object of giving us pleasure, and that their power of action is not tempered to suit our advantage, and, lastly, that pleasure is generally referred to one part of the body more than to the other parts; 678 therefore most emotions of pleasure (unless reason and watchfulness be at hand), and consequently the desires arising therefrom, may

become excessive. 679 Moreover we may add that emotion leads us to pay most regard to what is agreeable in the present, nor can we estimate what is future with emotions equally vivid.

680 (XXXI.) Superstition, on the other hand, seems to account as good all that brings pain, and as bad all that brings pleasure. 681 However, as we said above, none but the envious take delight in my infirmity and trouble. For the greater the pleasure whereby we are affected, the greater is the perfection whereto we pass, and consequently the more do we partake of the divine Nature: 682 no pleasure can ever be evil, which is regulated by a true regard for our advantage. But contrariwise you, who is led by fear and does good only to avoid evil, is not guided by reason.

683 (XXXII.) But human power is extremely limited, and is infinitely surpassed by the power of external causes; we have not, therefore, an absolute power of shaping to our use those things which are without us.

684 Nevertheless, we shall bear with an equal mind all that happens to us in contravention to the claims of our own advantage, so long as we are conscious, that we have done our duty, and that the power which we possess is not sufficient to enable us to protect ourselves completely; 685 remembering that we are a part of universal Nature, and that we follow Her order. 686 If we have a clear and distinct understanding of this, that part of our nature which is defined by intelligence, in other words the better part of ourselves, will assuredly acquiesce in what befalls us, and in such acquiescence will endeavour to persist. 687 For, in so far as we are intelligent beings, we cannot desire anything save that which is necessary, nor yield absolute acquiescence to anything, save to that which is true: 688 wherefore, in so far as we have a right understanding of these things, the endeavour of the better part of ourselves is in harmony with the order of Nature as a whole.

The Book of Divine Panagogue called

FRIENDSHIP

FRIENDSHIP
AN ELEMENT OF LOVE
Ralph Waldo Emerson

1 We have a great deal more kindness than is ever spoken. Maugre all the selfishness that chills like east winds the world, the whole human family is bathed with an element of love like a fine ether. 2 How many persons we meet in houses whom we scarcely speak to, whom yet we honour, and who honour us; how many we see in the street, or sit with in church, whom, though silently, we warmly rejoice to be with! 3 Read the language of these wandering eye-beams. The heart knoweth.

The effect of the indulgence of this human affection is a certain cordial exhilaration. 4 In poetry, and in common *Affection the sweetness of life* speech, the emotions of benevolence and complacency which are felt towards others are likened to the material effects of fire; 5 so swift or much more swift, more active more cheering are these fine inward irradiations. 6 From the highest degree of passionate love, to the lowest degree of goodwill, they make the sweetness of life.

7 Our intellectual and active powers increase with our affection. 8 The scholar sits down to write, and all your years of meditation do not furnish you with one good thought or happy expression; but it is necessary to write a letter to a friend-- and, forthwith, troops of gentle thoughts invest themselves on every hand with chosen words. 9 See, in any house where virtue and self-respect abide, the palpitation which the approach of a stranger causes.

10 A commended stranger is expected *A stranger's arrival* and announced, and an uneasiness betwixt pleasure and pain invades all the hearts of a household. 11 Your arrival almost brings fear to the good hearts that would welcome you. The house is dusted, all things fly into their places, the old coat is exchanged for the new, and they must get up a dinner if they can. 12 Of a commended stranger, only the good report is told by others, only the good and new is heard by us. You stands to us for humanity. You are what we

wish. 13 Having imagined and invested you, we ask how we should stand related in conversation and action with such a person, and are uneasy with fear. 14 The same idea exalts conversation with you. We talk better than we are wont. We have the nimblest fancy, a richer memory, and our dumb devil has taken leave for the time. 15 For long hours we can continue a series of sincere, graceful, rich communications, drawn from the oldest, secretest experience, so that they who sit by, of our own kinsfolk and acquaintance, shall feel a lively surprise at our unusual powers. 16 But as soon as the stranger begins to intrude own partialities, own definitions, own defects, into the conversation, it is all over. You have heard the first, the last, and best you will ever hear from us. 17 You are no stranger now. Vulgarity, ignorance, misapprehension are old acquaintances.

18 Now, when you comes, you may get the order, the dress, and the dinner-- but the throbbing of the heart, and the communications of the soul, no more.

19 What is so pleasant as these jets of affection which make a young world for me again? What so delicious as a just and firm encounter of two, in a thought, in a feeling? 20 How beautiful, on their approach to this beating heart, the steps and forms of the gifted and the true! 21 The moment we indulge our affections, the earth is metamorphosed; there is no winter, and no night; all tragedies, all ennuis, vanish-- all duties even; nothing fills the proceeding eternity but the forms all radiant of beloved persons.

22 Let the soul be assured that somewhere in the universe it should rejoin its friend, and it would be content and cheerful alone for a thousand years.

23 I awoke this morning with devout thanksgiving for my friends, the old and the new. Shall I not call God the Beautiful, who daily showeth Himself so to me in His gifts? 24 I chide society, I embrace solitude, and yet I am not so ungrateful as not to see the wise, the lovely, and the noble-minded, as from time to time they pass my gate. 25 Who hears me, who understands me, becomes

mine-- a possession for all time. 26 Nor is Nature so poor but She gives me this joy several times, and thus we weave social threads of our own, a new web of relations; 27 and, as many thoughts in succession substantiate themselves, we shall by and by stand in a new world of our own creation, and no longer strangers and pilgrims in a traditionary globe. 28 My friends have come to me unsought. The great God gave them to me. By oldest right, by the divine affinity of virtue with itself, I find them, or rather not I, 29 but the Deity in me and in them derides and cancels the thick walls of individual character, relation, age, sex, circumstance, at which you usually connives, and now makes many one. 30 High thanks I owe you, excellent lovers, who carry out the world for me to new and noble depths, and enlarge the meaning of all my thoughts.

31 These are new poetry of the first Bard-- poetry without stop-- hymn, ode, and epic, poetry still flowing, Apollo and the Muses chanting still. 32 Will these, too, separate themselves from me again, or some of them? I know not, but I fear it not; 33 for my relation to them is so pure that we hold by simple affinity, and the Genius of my life being thus social, the same affinity will exert its energy on whomsoever is as noble as these men and women, wherever I may be.

34 I confess to an extreme tenderness of Nature on this point. It is almost dangerous to me to 'crush the sweet poison of misused wine' of the affections. 35 A new person is to me a great event, and hinders me from sleep. I have often had fine fancies about persons which have given me delicious hours; but the joy ends in the day; it yields no fruit. 36 Thought is not born of it; my action is very little modified. I must feel pride in my friends' accomplishments as if they were mine-- and a property in their virtues. 37 I feel as warmly when you are praised as the lover when you hears applause of your engaged maiden. 38 We over-estimate the conscience of our friend. Your goodness seems better than our goodness, your nature finer, your temptations less. 39 Everything that is yours-- your

name, your form, your dress, books, and instruments-- fancy enhances. 40 Our own thought sounds new and larger from your mouth. Yet the systole and diastole of the heart are not without their analogy in the ebb and flow of love. 41 Friendship, like the immortality of the soul, is too good to be believed. 42 The lover, beholding his maiden, half knows that she is not verily that which he worships; and in the golden hour of friendship we are surprised with shades of suspicion and unbelief. 43 We doubt that we bestow on our hero the virtues in which you shines, and afterwards worship the form to which we have ascribed this divine inhabitation. 44 In strictness, the soul does not respect humans as it respects itself. In strict science all persons underlie the same condition of an infinite remoteness. 45 Shall we fear to cool our love by mining for the metaphysical foundation of this Elysian temple? Shall I not be as real as the things I see? 46 If I am, I shall not fear to know them for what they are. Their essence is not less beautiful than their appearance, though it needs finer organs for its apprehension. 47 The root of the plant is not unsightly to science, though for chaplets and festoons we cut the stem short. 48 And I must hazard the production of the bald fact amidst these pleasing reveries, though it should prove an Egyptian skull at our banquet. 49 A person who stands united with own thought conceives magnificently of the self. You are conscious of a universal success, even though bought by uniform particular failures.

50 No advantages, no powers, no gold or force, can be any match for you. I cannot choose but rely on my own poverty more than on your wealth. I cannot make your consciousness tantamount to mine. 51 Only the star dazzles; the planet has a faint, moon-like ray. 52 I hear what you say of the admirable parts and tried temper of the party you praise, but I see well that for all your purple cloaks I shall not like you, unless you are at last a poor Greek like me. 53 I cannot deny it, O friend, that the vast shadow of the Phenomenal includes thee also in its pied and painted immensity,-- thee, also, compared with whom all else is

shadow. 54 Thou art not Being, as Truth is, as Justice is,-- thou art not my soul, but a picture and effigy of that. Thou hast come to me lately, and already thou art seizing thy hat and cloak. 55 It is not that the soul puts forth friends as the tree puts forth leaves, and presently, by the germination of new buds, extrudes the old leaf?

56 The law of Nature is alternation forevermore. Each electrical state super-induces the opposite. 57 The soul environs itself with friends, that it may enter into a grander self-acquaintance or solitude; and it goes alone for a season, that it may exalt its conversation or society. 58 This method betrays itself along the whole history of our personal relations. The instinct of affection revives the hope of union with our mates, and the returning sense of insulation recalls us from the chase. 59 Thus every human passes own life in the search after friendship, and if you should record your true sentiment, you might write a letter like this to each new candidate for your love.

60 DEAR FRIEND,-- If I was sure of thee, sure of thy capacity, sure to match my mood with thine, I should never think again of trifles in relation to thy comings and goings. 61 I am not very wise; my moods are quite attainable; and I respect thy genius; it is to me as yet unfathomed; yet dare I not presume in thee a perfect intelligence of me, and so thou art to me a delicious torment. Thine ever, or never.

62 Yet these uneasy pleasures and fine pains are for curiosity, and not for life. They are not to be indulged. This is to weave cobweb, and not cloth. 63 Our friendships hurry to short and poor conclusions, because we have made them a texture of wine and dreams, instead of the tough fibre of the human heart. 64 The laws of friendship are austere and eternal, of one web with the laws of Nature and of morals. 65 But we have aimed at a swift and petty benefit, to suck a sudden sweetness. We snatch at the slowest fruit in the whole garden of God, which many summers and many winters must ripen. 66 We seek our friend not sacredly, but with an adulterate passion which would appropriate you to ourselves. 67 In vain. We are armed all over with subtle

antagonisms, which, as soon as we meet, begin to play, and translate all poetry into stale prose. 68 Almost all people descend to meet. All association must be a compromise, and, what is worst, the very flower and aroma of the flower of each of the beautiful natures disappears as they approach each other. 69 What a perpetual disappointment is actual society, even of the virtuous and gifted! 70 After interviews have been compassed with long foresight, we must be tormented presently by baffled blows, by sudden, unseasonable apathies, by epilepsies of wit and of animal spirits, in the heyday of friendship and thought. 71 Our faculties do not play us true, and both parties are relieved by solitude.

72 I ought to be equal to every relation. It makes no difference how many friends I have, and what content I can find in conversing with each, if there be one to whom I am not equal. 73 If I have shrunk unequal from one contest, the joy I find in all the rest becomes mean and cowardly. I should hate myself, if then I made my other friends my asylum.

74 ‘The valiant warrior famoused for fight,
After a hundred victories, once foiled,
Is from the book of honour razed quite,
And all the rest forgot for which you toiled.’

75 Our impatience is thus sharply rebuked. Bashfulness and apathy are a tough husk, in which a delicate organisation is protected from premature ripening. 76 It would be lost if it knew itself before any of the best souls were yet ripe enough to know and own it.

77 Respect the ‘Naturlangsamkeit’ which hardens the ruby in a million years, and works in duration, in which Alps and Andes come and go as rainbows. 78 The good spirit of our life has no heaven which is the price of rashness. 79 Love, which is the essence of God, is not for levity, but for the total worth of human. Let us not have this childish luxury in our regards, but the austerest worth; 80 let us approach our friend with an audacious trust in the truth of your heart, in the

breadth, impossible to be overturned, of your foundations.

81 The attractions of this subject are not to be resisted, and I leave, for the time, all account of subordinate social benefit, 82 to speak of that select and sacred relation which is a kind of absolute, and which even leaves the language of love suspicious and common, so much is this purer, and nothing is so much divine.

83 I do not wish to treat friendships daintily, but with roughest courage. When they are real, they are not glass threads or frostwork, but the solidest thing we know.

84 For now, after so many ages of experience, what do we know of Nature, or of ourselves? 85 Not one step has human taken toward the solution of the problem of your destiny. In one condemnation of folly stand the whole universe of humans. 86 But the sweet sincerity of joy and peace, which I draw from this alliance with my brother's soul, is the nut itself, whereof all nature and all thought is but the husk and shell.

87 Happy is the house that shelters a friend! It might well be built, like a festal bower or arch, to entertain you a single day. Happier, if you know the solemnity of that relation, and honour its law! 88 You who offers yourself a candidate for that covenant comes up, like an Olympian to the great games where the first-born of the world are the competitors. 89 You proposes yourself for contests where Time, Want, Danger are in the lists, and you alone is victor who has truth enough in your constitution to preserve the delicacy of your beauty from the wear and tear of all these. 90 The gifts of fortune may be present or absent, but all the speed in that contest depends on intrinsic nobleness, and the contempt of trifles. 91 There are two elements that go to the composition of friendship, each so sovereign that I can detect no superiority in either, no reason why either should be first named. One is Truth. 92 A friend is a person with whom I may be sincere. Before you I may think aloud. I am arrived at last in the presence of a person so real and equal, that I may drop even those undermost garments of

dissimulation, courtesy, 93 and second thought, which humans never put off, and may deal with you with the simplicity and wholeness with which one chemical atom meets another. 94 Sincerity is the luxury allowed, like diadems and authority, only to the highest rank, ‘that’ being permitted to speak truth as having none above it to court or conform unto. 95 Every human alone is sincere. At the entrance of a second person, hypocrisy begins. 96 We parry and fend the approach of our fellow-human by compliments, by gossip, by amusements, by affairs. We cover up our thought from you under a hundred folds.

97 I knew a man, who, under a certain religious frenzy, cast off this drapery, and, omitting all compliment and commonplace, spoke to the conscience of every person he encountered, and that with great insight and beauty. 98 At first he was resisted, and all men agreed he was mad. But persisting, as indeed he could not help doing, for some time in this course, he attained to the advantage of bringing every man of his acquaintance into true relations with him. 99 No man would think of speaking falsely with him, or of putting him off with any chat of markets or reading-rooms.

100 But every human was constrained by so much sincerity to the like plain-dealing, and what love of Nature, what poetry, what symbol of truth one had. But to most of us society shows not its face and eye, but its side and its back. 101 To stand in true relations with people in a false age is worth a fit of insanity, is it not? We can seldom go erect. Almost every person we meet requires some civility,-- requires to be humoured; 102 you have some fame, some talent, some whim of religion or philanthropy in your head that is not to be questioned, and which spoils all conversation with you. 103 But a friend is a sane person who exercises not my ingenuity, but me. My friend gives me entertainment without requiring any stipulation on my part. A friend, therefore, is a sort of paradox in Nature. 104 I who alone am, I who see nothing in Nature whose existence I can affirm with

equal evidence to my own, behold now the semblance of my being, in all its height, variety, and curiosity, reiterated in a foreign form; so that a friend may well be reckoned the masterpiece of Nature.

105 The other element of friendship is tenderness. We are holden to humans by every sort of tie, by blood, by pride, by fear, by hope, by lucre, by lust, by hate, by admiration, by every circumstance and badge and trifle, 106 but we can scarce believe that so much character can subsist in another as to draw us by love. 107 Can another be so blessed, and we so pure, that we can offer you tenderness? When a person becomes dear to me, I have touched the goal of fortune. 108 I find very little written directly to the heart of this matter in books. And yet I have one text which I cannot choose but remember. My author says-- 'I offer myself faintly and bluntly to those whose I effectually am, and tender myself least to you to whom I am the most devoted.' 109 I wish that friendship should have feet, as well as eyes and eloquence. It must plant itself on the ground before it vaults over the moon. I wish it to be a little of a citizen before it is quite a cherub. We chide the citizen because you makes love a commodity.

110 It is an exchange of gifts, of useful loans; it is good neighbourhood; it watches with the sick; it holds the pall at the funeral; and quite loses sight of the delicacies and nobility of the relation. 111 But though we cannot find the god under this disguise of a sutler, yet, on the other hand, we cannot forgive the poet if you spins your thread too fine, and does not substantiate your romance by the municipal virtues of justice, punctuality, fidelity, and pity. 112 I hate the prostitution of the name of friendship to signify modish and worldly alliances. 113 I much prefer the company of plough-boys and tin-pedlars to the silken and perfumed amity which celebrates its days of encounter by a frivolous display, by rides in a curricle, and dinners at the best taverns. 114 The end of friendship is a commerce the most strict and homely that can be joined; more strict than any of which we have

experience. 115 It is for aid and comfort through all the relations and passages of life and death. It is fit for serene days, and graceful gifts, and country rambles, but also for rough roads and hard fare, shipwreck, poverty, and persecution. 116 It keeps company with the sallies of the wit and the trances of religion. We are to dignify to each other the daily needs and offices of human's life, and embellish it by courage, wisdom, and unity. 117 It should never fall into something usual and settled, but should be alert and inventive, and add rhyme and reason to what was drudgery.

118 Friendship may be said to require natures so rare and costly, each so well tempered and so happily adapted, and withal so circumstanced (for even in that particular, a poet says, love demands that the parties be altogether paired), that its satisfaction can very seldom be assured. 119 It cannot subsist in its perfection, say some of those who are learned in this warm lore of the heart, betwixt more than two. 120 I am not quite so strict in my terms, perhaps because I have never known so high a fellowship as others. I please my imagination more with a circle of godlike men and women variously related to each other, and between whom subsists a lofty intelligence. 121 But I find this law of 'one to one' peremptory for conversation, which is the practice and consummation of friendship. 122 Do not mix waters too much. The best mix as ill as good and bad. 123 You shall have very useful and cheering discourse at several times with two several people, but let all three of you come together, and you shall not have one new and hearty word. 124 Two may talk and one may hear, but three cannot take part in a conversation of the most sincere and searching sort. 125 In good company there is never such discourse between two, across the table, as takes place when you leave them alone. 126 In good company, the individuals merge their egotism into a social soul exactly coextensive with the several consciousnesses there present. 127 No partialities of friend to friend, no fondnesses of brother to sister, of wife to husband, are there pertinent, but

quite otherwise. 128 Only you may then speak who can sail on the common thought of the party, and not poorly limited to your own. Now this convention, which good sense demands, destroys the high freedom of great conversation, which requires an absolute running of two souls into one.

129 No two people but, being left alone with each other, enter into simpler relations. Yet it is affinity that determines ‘which’ two shall converse. 130 Unrelated people give little joy to each other; will never suspect the latent powers of each. 131 We talk sometimes of a great talent for conversation, as if it were a permanent property in some individuals. Conversation is an evanescent relation, no more. 132 A person is reputed to have thought and eloquence; you cannot, for all that, say a word to your cousin or your uncle. 133 They accuse your silence with as much reason as they would blame the insignificance of a dial in the shade. 134 In the sun it will mark the hour. Among those who enjoy your thought, you will regain your tongue.

135 Friendship requires that rare mean betwixt likeness and unlikeness, that piques each with the presence of power and of consent in the other party. 136 Let me be alone to the end of the world, rather than that my friend should overstep, by a word or a look, your real sympathy. I am equally balked by antagonism and by compliance. 137 Let you not cease an instant to be yourself. The only joy I have in your being mine, is that the 'not mine' is 'mine'. 138 I hate, where I looked for a humanly furtherance, or at least a humanly resistance, to find a mush of concession.

139 Better be a nettle in the side of your friend than your echo. The condition which high friendship demands is ability to do without it.

140 That high office requires great and sublime parts. There must be very two, before there can be very one. Let it be an alliance of two large, formidable natures, mutually beheld, mutually feared, before yet they recognise the deep identity which beneath these disparities unites them.

141 You only is fit for this society who is magnanimous; who is sure

that greatness and goodness are always economy; who is not swift to inter-meddle with your fortunes. 142 Let you not inter-meddle with this. Leave to the diamond its ages to grow, nor expect to accelerate the births of the eternal. 143 Friendship demands a religious treatment. We talk of choosing our friends, but friends are self-elected, Reverence is a great part of it. Treat your friend as a spectacle. 144 Of course you have merits that are not yours, and that you cannot honour, if you must needs hold them close to your person. Stand aside; give those merits room; let them mount and expand. Are you the friend of your friends' buttons, or of their thought?

145 To a great heart you will be a stranger in a thousand particulars, that you may come near in the holiest ground. 146 Leave it to girls and boys to regard a friend as property, and to suck a short and all-confounding pleasure, instead of the noblest benefit.

147 Let us buy our entrance to this guild by a long probation. Why should we desecrate noble and beautiful souls by intruding on them? 148 Why insist on rash personal relations with your friend? Why go to their house, or know their mother and brother and sisters? Why be visited by them at your own? Are these things material to our covenant? Leave this touching and clawing.

149 Let you be to me a spirit. A message, a thought, a sincerity a glance from you, I want, but not news, nor pottage. 150 I can get politics, and chat, and neighbourly conveniences from cheaper companions. Should not the society of my friend be to me poetic, pure, universal, and great as Nature itself? 151 Ought I to feel that our tie is profane in comparison with yonder bar of cloud that sleeps on the horizon, or that clump of waving grass that divides the brook? 152 Let us not vilify, but raise it to that standard. That great, defying eye, that scornful beauty of your mien and action, do not pique yourself on reducing, but rather fortify and enhance.

153 Worship your superiorities; wish them not less by a thought, but hoard and tell them all. Guard them as thy counterpart. Let them

be to thee for ever a sort of beautiful enemy, untamable, devoutly revered, and not a trivial conveniency to be soon outgrown and cast aside. 154 The hues of the opal, the light of the diamond, are not to be seen, if the eye is too near. To my friend I write a letter, and from you I receive a letter. That seems to you a little. It suffices me. 155 It is a spiritual gift worthy of you to give, and of me to receive. It profanes nobody. In these warm lines the heart will trust itself, as it will not to the tongue, and pour out the prophecy of a godlier existence than all the annals of heroism have yet made good.

156 Respect so far the holy laws of this fellowship as not to prejudice its perfect flower by your impatience for its opening. 157 We must be our own before we can be another's. There is at least this satisfaction in the crime, according to the Latin proverb-- you can speak to your accomplice on even terms. 'Crimen quos inquinat, æquat.' 158 To those whom we admire and love, at first we cannot. Yet the least defect of self-possession vitiates, in my judgment, the entire relation. 159 There can never be deep peace between two spirits, never mutual respect, until, in their dialogue, each stands for the whole world.

160 What is so great as friendship, let us carry with what grandeur of spirit we can. Let us be silent-- so we may hear the whisper of the gods. Let us not interfere.

161 Who set you to cast about what you should say to the select souls, or how to say anything to such? No matter how ingenious, no matter how graceful and bland. There are innumerable degrees of folly and wisdom, and for you to say aught is to be frivolous. 162 Wait, and thy heart shall speak. Wait until the necessary and everlasting overpowers you, until day and night avail themselves of your lips. 163 The only reward of virtue is virtue; the only way to have a friend is to be one. 164 You shall not come nearer a person by getting into their house. If unlike, your soul only flees the faster from you, and you shall never catch a true glance of its eye. 165 We see the noble afar off, and they repel us; why should we intrude? Late-- very late-- we perceive that no

arrangements, no introductions, no consuetudes or habits of society, would be of any avail to establish us in such relations with them as we desire-- 166 but solely the uprise of nature in us to the same degree it is in them; then shall we meet as water with water; and if we should not meet them then, we shall not want them, for we are already they. 167 In the last analysis, love is only the reflection of a human's own worthiness from other humans. 168 People have sometimes exchanged names with their friends, as if they would signify that in their friend each loved own soul.

169 The higher the style we demand of friendship, of course the less easy to establish it with flesh and blood. 170 We walk alone in the world. Friends, such as we desire, are dreams and fables. 171 But a sublime hope cheers ever the faithful heart, that elsewhere, in other regions of the universal power, souls are now acting, enduring, and daring, which can love us, and which we can love. 172 We may congratulate ourselves that the period of nonage, of follies, of blunders, and of shame is passed in solitude, and when we are finished people, we shall grasp heroic hands in heroic hands. 173 Only be admonished by what you already see, not to strike leagues of friendship with cheap persons, where no friendship can be.

174 Our impatience betrays us into rash and foolish alliances which no God attends. By persisting in your path, though you forfeit the little you gain the great. 175 You demonstrate yourself, so as to put yourself out of the reach of false relations, and you draw to you the first-born of the world-- those rare pilgrims whereof only one or two wander in Nature at once, and before whom the vulgar great show as spectres and shadows merely.

176 It is foolish to be afraid of making our ties too spiritual, as if so we could lose any genuine love. 177 Whatever correction of our popular views we make from insight, Nature will be sure to bear us out in, and though it seem to rob us of some joy, will repay us with a greater. 178 Let us feel, if we will, the absolute insulation of human. We are sure that we have

all in us. We go to Europe, or we pursue persons, or we read books, in the instinctive faith that these will call it out and reveal us to ourselves. 179 Beggars all. The persons are such as we; the Europe an old faded garment of dead persons; the books their ghosts. 180 Let us drop this idolatry. Let us give over this mendicancy. Let us even bid our dearest friends farewell, and defy them, saying, 'Who are you? Unhand me: I will be dependent no more.'

181 Ah! seest thou not, O brother, that thus we part only to meet again on a higher platform, and only be more each other's, because we are more our own? 182 A friend is Janus-faced: you looks to the past and the future. You are the child of all my foregoing hours, the prophet of those to come, and the harbinger of a greater friend.

183 I do then with my friends as I do with my books. I would have them where I can find them, but I seldom use them. 184 We must have society on our own terms, and admit or exclude it on the slightest cause. 185 I cannot afford to speak much with my friend. If you are great, you makes me so great that I cannot descend to converse. 186 In the great days, presentiments hover before me in the firmament. I ought then to dedicate myself to them. I go in that I may seize them, I go out that I may seize them. I fear only that I may lose them receding into the sky in which now they are only a patch of brighter light. 187 Then, though I prize my friends, I cannot afford to talk with them and study their visions, lest I lose my own. 188 It would indeed give me a certain household joy to quit this lofty seeking, this spiritual astronomy, or search of stars, and come down to warm sympathies with you; but then I know well I shall mourn always the vanquishing of my mighty gods. 189 It is true, next week I shall have languid moods, when I can well afford to occupy myself with foreign objects; then I shall regret the lost literature of your mind, and wish you were by my side again. 190 But if you come, perhaps you will fill my mind only with new visions, not with yourself but with your lustres, and I shall not be able any more than now to converse with you.

191 So I will owe to my friends this evanescent intercourse. I will receive from them, not what they have, but what they are. 192 They shall give me that which properly they cannot give, but which emanates from them. But they shall not hold me by any relations less subtle and pure. We will meet as though we met not, and part as though we parted not.

193 It has seemed to me lately more possible than I knew, to carry a friendship greatly, on one side, without due correspondence on the other. 194 Why should I cumber myself with regrets that the receiver is not capacious? It never troubles the sun that some of his rays fall wide and vain into ungrateful space, and only a small part on the reflecting planet. 195 Let your greatness educate the crude and cold companion. If you are unequal, you will presently pass away; but thou art enlarged by thy own shining, and, no longer a mate for frogs and worms, dost soar and burn with the gods of the empyrean.

196 It is thought a disgrace to love unrequited. But the great will see that true love cannot be unrequited. 197 True love transcends the unworthy object, and dwells and broods on the eternal, and when the poor interposed mask crumbles, it is not sad, but feels rid of so much earth, and feels its independency the surer. 198 Yet these things may hardly be said without a sort of treachery to the relation. The essence of friendship is entireness, a total magnanimity and trust. It must not surmise or provide for infirmity. It treats its object as a god, that it may deify both.

FRIENDS AND FRIENDSHIP

Henry D. Thoreau

2 No word is oftener on the lips of humans than Friendship, and indeed no thought is more familiar to their aspirations. 2 All humans are dreaming of it, and its drama, which is always a tragedy, is enacted daily. It is the secret of the universe. 3 You may thread the town, you may wander the country, and none shall ever speak of it, yet thought is everywhere busy about it, and the idea of what is possible in this respect affects

our behaviour toward all new men and women and a great many old ones.

4 Nevertheless, I can remember only two or three essays on this subject in all literature. No wonder that the Mythology, and Arabian Nights, and Shakespeare, and Scott's novels entertain us: we are poets and fablers and dramatists and novelists ourselves. 5 We are continually acting a part in a more interesting drama than any written. We are dreaming that our Friends are our 'Friends', and that we are our Friends' 'Friends'. 6 Our actual Friends are but distant relations of those to whom we are pledged. We never exchange more than three words with a Friend in our lives on that level to which our thoughts and feelings almost habitually rise.

7 One goes forth prepared to say, 'Sweet Friends!' and the salutation is, 'Damn your eyes!' But never mind; faint heart never won true Friend. 8 Oh, my Friend, may it come to pass once, that when you are my Friend I may be yours.

9 Of what use the friendliest dispositions even, if there are no hours given to Friendship, if it is for ever postponed to unimportant duties and relations? 10 Friendship is first, Friendship last. But it is equally impossible to forget our Friends, and to make them answer to our ideal.

11 When they say farewell, then indeed we begin to keep them company. How often we find ourselves turning our backs on our actual Friends that we may go and meet their ideal cousins! I would that I were worthy to be any person's Friend.

12 What is commonly honoured with the name of Friendship is no very profound or powerful instinct. Humans do not, after all, 'love' their friends greatly. 13 I do not often see the farmers made seers and wise to the verge of insanity by their Friendship for one another. They are not often transfigured and translated by love in each other's presence.

14 I do not observe them purified, refined, and elevated by the love of a human. If one abates a little the price of your wood, or gives a neighbour your vote at town-meeting, or a barrel of apples, or lends them your wagon frequently, it is esteemed a rare instance of Friendship. 15 Nor do the farmers'

wives lead lives consecrated to Friendship. I do not see the pair of farmer Friends of either sex prepared to stand against the world. There are only two or three couples in history.

16 To say that a person is your Friend means commonly no more than this, that one is not your enemy. 17 Most contemplate only what would be the accidental and trifling advantages of Friendship, as that the Friend can assist in time of need by own substance, or own influence, or own counsel; 18 but you who foresees such advantages in this relation proves yourself blind to its real advantage, or indeed wholly inexperienced in the relation itself.

19 Such services are particular and menial compared with the perpetual and all-embracing service which it is. 20 Even the utmost goodwill and harmony and practical kindness are not sufficient for Friendship, for Friends do not live in harmony merely, as some say, but in melody. 21 We do not wish for Friends to feed and clothe our bodies-- neighbours are kind enough for that-- but to do the like office to our spirits. 22 For this, few are rich enough, however well disposed they may be. For the most part we stupidly confound one person with another. 23 The dull distinguish only races or nations, or at most classes, but the wise person, individuals. 24 To your Friend a human's peculiar character appears in every feature and in every action, and it is thus drawn out and improved by you.

25 Think of the importance of Friendship in the education of humans.

'You that hath love and judgment too,
Sees more than any other doe.'

26 It will make a person honest; it will make you a hero; it will make you a saint. It is the state of the just dealing with the just, the magnanimous with the magnanimous, the sincere with the sincere, human with human.

27 And it is well said by another poet--

'Why love among the virtues is not known,
Is that love is them all contract in one.'

28 All the abuses which are the object of reform with the philanthropist, the statesman, and

the housekeeper are unconsciously amended in the intercourse of Friends. 29 A Friend is one who incessantly pays us the compliment of expecting from us all the virtues, and who can appreciate them in us. 30 It takes two to speak the truth-- one to speak and another to hear. How can one treat with magnanimity mere wood and stone? If we dealt only with the false and dishonest, we should at last forget how to speak truth. 31 Only lovers know the value and magnanimity of truth, while traders prize a cheap honesty, and neighbours and acquaintance a cheap civility. 32 In our daily intercourse with humans our nobler faculties are dormant and suffered to rust. None will pay us the compliment to expect nobleness from us. Though we have gold to give, they demand only copper.

33 We ask our neighbours to suffer themselves to be dealt with truly, sincerely, nobly; but they answers no by their deafness. 34 You does not even hear this prayer. You says practically, I will be content if you treat me as ‘no better than I should be,’ as deceitful, mean, dishonest, and selfish. 35 For the most part, we are contented so to deal and to be dealt with, and we do not think that for the mass of humans there is any truer and nobler relation possible. 36 A person may have 'good' neighbours, so called, and acquaintances, and even companions, wife, parents, brothers, sisters, children, who meet the self and one another on this ground only.

37 The State does not demand justice of its members, but thinks that it succeeds very well with the least degree of it, hardly more than rogues practice; and so do the neighbourhood and the family. 38 What is commonly called Friendship even is only a little more honour among rogues.

39 But sometimes we are said to 'love' another-- that is, to stand in a true relation to you, so that we give the best to, and receive the best from, you. 40 Between whom there is hearty truth, there is love; and in proportion to our truthfulness and confidence in one another, our lives are divine and miraculous, and answer to our ideal. 41 There are passages of affection in our intercourse with

mortal men and women such as no prophecy had taught us to expect, which transcend our earthly life and anticipate Heaven for us. 42 What is this Love that may come right into the middle of a prosaic Goffstown day, equal to any of the gods; 43 that discovers a new world, fair and fresh and eternal, occupying the place of the old one, when to the common eye a dust has settled on the universe? which world cannot else be reached, and does not exist. 44 What other words, we may almost ask, are memorable and worthy to be repeated than those which love has inspired?

45 It is wonderful that they were ever uttered. They are few and rare indeed; but, like a strain of music, they are incessantly repeated and modulated by the memory. 46 All other words crumble off with the stucco which overlies the heart. We should not dare to repeat these now aloud. We are not competent to hear them at all times.

47 The books for young people say a great deal about the 'selection' of Friends; it is because they really have nothing to say about 'Friends'.

48 They mean associates and confidants merely. ‘Know that the contrariety of foe and Friend proceeds from God.’ 49 Friendship takes place between those who have an affinity for one another, and is a perfectly natural and inevitable result. 50 No professions nor advances will avail. Even speech, at first, necessarily has nothing to do with it; but it follows after silence, as the buds in the graft do not put forth into leaves till long after the graft has taken. It is a drama in which the parties have no part to act. We are all Mussulmen and fatalists in this respect.

51 Impatient and uncertain lovers think that they must say or do something kind whenever they meet; they must never be cold. 52 But they who are Friends do not know what they ‘think’ they must, but what they ‘must’. Even their Friendship is to some extent but a sublime phenomenon to them.

53 The true and not despairing Friend will address own Friend in some such terms as these:--

‘I never asked thy leave to let me love thee-- I have a right. 54 I love thee not as something private and

personal, which is 'your own', but as something universal and worthy of love, 'which I have found'. 55 Oh, how I think of you! You are purely good-- you are infinitely good. I can trust you for ever. I did not think that humanity was so rich. Give me an opportunity to live.'

56 'You are the fact in a fiction-- you are the truth more strange and admirable than fiction. Consent only to be what you are. I alone will never stand in your way.'

57 'This is what I would like-- to be as intimate with you as our spirits are intimate-- respecting you as I respect my ideal. Never to profane one another by word or action, even by a thought. Between us, if necessary, let there be no acquaintance.'

58 'I have discovered you; how can you be concealed from me?'

59 The Friend asks no return but that own Friend will religiously accept and wear and not disgrace own apotheosis of theself. They cherish each other's hopes. They are kind to each other's dreams.

60 Though the poet says, ''Tis the pre-eminence of Friendship to impute excellence,' yet we can never praise our Friend, nor esteem you praiseworthy, nor let you think that you can please us by any 'behaviour', or ever 'treat' us well enough.

61 That kindness which has so good a reputation elsewhere can least of all consist with this relation, and no such affront can be offered to a Friend, as a conscious goodwill, a friendliness which is not a necessity of the Friend's nature.

62 The sexes are naturally most strongly attracted to one another by constant constitutional differences, and are most commonly and surely the complements of each other. 63 How natural and easy it is for man to secure the attention of woman to what interests yourself! Men and women of equal culture, thrown together, are sure to be of a certain value to one another, more than men to men. 64 There exists already a natural disinterestedness and liberality in such society, and I think that any man will more confidently carry his favourite books to read to some circle of intelligent women than to one of his own sex. 65 The visit of man to

man is wont to be an interruption, but the sexes naturally expect one another. Yet Friendship is no respecter of sex; and perhaps it is more rare between the sexes than between two of the same sex.

66 Friendship is, at any rate, a relation of perfect equality. It cannot well spare any outward sign of equal obligation and advantage. 67 The nobleman can never have a Friend among his retainers, nor the king among his subjects. Not that the parties to it are in all respects equal, but they are equal in all that respects or affects their Friendship. 68 The one's love is exactly balanced and represented by the other's. Persons are only the vessels which contain the nectar, and the hydrostatic paradox is the symbol of love's law. 69 It finds its level and rises to its fountainhead in all breasts, and its slenderest column balances the ocean.

'And love as well the shepherd can
As can the mighty nobleman.'

70 The one sex is not, in this respect, more tender than the other. A hero's love is as delicate as a maiden's. 71 Confucius said, 'Never contract Friendship with a person who is not better than thyself.' It is the merit and preservation of Friendship that it takes place on a level higher than the actual characters of the parties would seem to warrant. 72 The rays of light come to us in such a curve that every person whom we meet appears to be taller than you actually is. Such foundation has civility.

73 My Friend is that one whom I can associate with my choicest thought. I always assign to you a nobler employment in my absence than I ever find you engaged in; and I imagine that the hours which you devotes to me were snatched from a higher society. 74 The sorest insult which I ever received from a Friend was when he behaved with the licence which only long and cheap acquaintance allows to one's faults, in my presence, without shame, and still addressed me in friendly accents. 75 Beware, lest thy Friend learn at last to tolerate one frailty of thine, and so an obstacle be raised to the progress of thy love. 76 There are times when we have had enough even of our Friends, when we begin inevitably to profane one

another, and must withdraw religiously into solitude and silence, the better to prepare ourselves for a loftier intimacy. 77 Silence is the ambrosial night in the intercourse of Friends, in which their sincerity is recruited and takes deeper root.

78 Friendship is never established as an understood relation. Do you demand that I be less your Friend that you may know it? Yet what right have I to think that another cherishes so rare a sentiment for me? 79 It is a miracle which requires constant proofs. It is an exercise of the purest imagination and the rarest faith. 80 It says by a silent but eloquent behaviour--'I will be so related to thee as thou canst imagine; even so thou mayest believe. I will spend truth--all my wealth on thee,'-- and the Friend responds silently through own nature and life, and treats own Friend with the same divine courtesy. 81 You knows us literally through thick and thin. You never asks for a sign of love, but can distinguish it by the features which it naturally wears. 82 We never need to stand upon ceremony with you with regard to your visits. Wait not till I invite thee, but observe that I am glad to see thee when thou comest. It would be paying too dear for thy visit to ask for it. 83 Where my Friend lives there are all riches and every attraction, and no slight obstacle can keep me from you. Let me never have to tell thee what I have not to tell. Let our intercourse be wholly above ourselves, and draw us up to it.

84 The language of Friendship is not words, but meanings. It is an intelligence above language.

85 One imagines endless conversations with own Friend, in which the tongue shall be loosed, and thoughts be spoken without hesitancy or end; but the experience is commonly far otherwise. 86 Acquaintances may come and go, and have a word ready for every occasion; but what puny word shall you utter whose very breath is thought and meaning? 87 Suppose you go to bid farewell to your Friend who is setting out on a journey; what other outward sign do you know than to shake their hand? 88 Have you any palaver ready for them then? Any box of salve to commit

to their pocket? Any particular message to send by them? Any statement which you had forgotten to make?-- as if you could forget anything. 89 No; it is much that you take their hand and say Farewell; that you could easily omit; so far custom has prevailed. 90 It is even painful, if they are to go, that they should linger so long. If they must go, let them go quickly. Have you any 'last' words?

91 Alas, it is only the word of words which 'you' have so long sought and found not; you have not a 'first' word yet. 92 There are few even whom I should venture to call earnestly by their most proper names. A name pronounced is the recognition of the individual to whom it belongs. You who can pronounce my name aright, you can call me, and is entitled to my love and service. 93 Yet reserve is the freedom and abandonment of lovers. It is the reserve of what is hostile or indifferent in their natures to give place to what is kindred and harmonious.

94 The violence of love is as much to be dreaded as that of hate. When it is durable it is serene and equable. 95 Even its famous pains begin only with the ebb of love, for few are indeed lovers, though all would fain be. 96 It is one proof of a human’s fitness for Friendship that you are able to do without that which is cheap and passionate. 97 A true Friendship is as wise as it is tender. The parties to it yield implicitly to the guidance of their love, and know no other law nor kindness. 98 It is not extravagant and insane, but what it says is something established henceforth, and will bear to be stereotyped. 99 It is a truer truth, it is better and fairer news, and no time will ever shame it, or prove it false. 100 This is a plant which thrives best in a temperate zone, where summer and winter alternate with one another. 101 The Friend is a 'necessarius', and meets own Friend on homely ground; not on carpets and cushions, but on the ground and on rocks they will sit, obeying the natural and primitive laws. 102 They will meet without any outcry, and part without loud sorrow. Their relation implies such qualities as the warrior prizes; for it takes a valour to open the hearts of humans as well as the gates of

castles. 103 It is not an idle sympathy and mutual consolation merely, but a heroic sympathy of aspiration and endeavour.

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104 Friendship is not so kind as is imagined; it has not much human blood in it, but consists with a certain disregard for humans and their erections, the religious duties and humanities, while it purifies the air like electricity. 105 There may be the sternest tragedy in the relation of two more than usually innocent and true to their highest instincts. We may call it an essentially heathenish intercourse, free and irresponsible in its nature, and practising all the virtues gratuitously. 106 It is not the highest sympathy merely, but a pure and lofty society, a fragmentary and godlike intercourse of ancient date, still kept up at intervals, which, remembering itself, does not hesitate to disregard the humbler rights and duties of humanity. 107 It requires immaculate and godlike qualities full-grown, and exists at all only by condescension and anticipation of the remotest future. 108 We love nothing which is merely good and not fair, if such a thing is possible. Nature puts some kind of blossom before every fruit, not simply a calyx behind it. 109 When the Friend comes out of own heathenism and superstition, and breaks own idols, being converted by the precepts of a newer testament; 110 when you forgets your mythology, and treats your Friend like a Christian, or as you can afford; then Friendship ceases to be Friendship, and becomes charity; 111 that principle which established the almshouse is now beginning with its charity at home, and establishing an almshouse and pauper relations there.

112 As for the number which this society admits, it is at any rate to be begun with one, the noblest and greatest that we know, and whether the world will ever carry it further, whether, as Chaucer affirms,

113 'There be mo sterres in the skie than a pair,'

remains to be proved;

'And certaine he is well begone
Among a thousand that findeth one.'

114 We shall not surrender ourselves heartily to any, while we

are conscious that another is more deserving of our love. 115 Yet Friendship does not stand for numbers; the Friend does not count own Friends on own fingers; they are not numerable. 116 The more there are included by this bond, if they are indeed included, the rarer and diviner the quality of the love that binds them. 117 I am ready to believe that as private and intimate a relation may exist by which three are embraced as between two. 118 Indeed, we cannot have too many friends; the virtue which we appreciate we to some extent appropriate, so that thus we are made at last more fit for every relation of life. 119 A base Friendship is of a narrowing and exclusive tendency, but a noble one is not exclusive; its very superfluity and dispersed love is the humanity which sweetens society, and sympathises with foreign nations; 120 for though its foundations are private, it is, in effect, a public affair and a public advantage, and the Friend more than the father of a family deserves well of the state.

121 The only danger in Friendship is that it will end. It is a delicate plant, though a native. The least unworthiness, even if it be unknown to one's self, vitiates it. 122 Let the Friend know that those faults which you observes in your Friend your own faults attract. There is no rule more invariable than that we are paid for our suspicions by finding what we suspected. 123 By our narrowness and prejudices we say, I will have so much and such of you, my Friend, no more. 124 Perhaps there are none charitable, none disinterested, none wise, noble, and heroic enough for a true and lasting Friendship.

125 I sometimes hear my Friends complain finely that I do not appreciate their fineness. I shall not tell them whether I do or not. As if they expected a vote of thanks for every fine thing which they uttered or did. Who knows but it was finely appreciated. 126 It may be that your silence was the finest thing of the two. There are some things which a person never speaks of which are much finer kept silent about. To the highest communications we only lend a silent ear. 127 Our finest relations are not simply kept silent about,

but buried under a positive depth of silence never to be revealed. 128 It may be that we are not even yet acquainted. In human intercourse the tragedy begins, not when there is misunderstanding about words, but when silence is not understood.

129 Then there can never be an explanation. What avails it that another loves you if they does not understand you? Such love is a curse. 130 What sort of companions are they who are presuming always that their silence is more expressive than yours? 131 How foolish, and inconsiderate, and unjust, to conduct as if you were the only party aggrieved! Has not your Friend always equal ground of complaint? 132 No doubt my friends sometimes speak to me in vain, but they do not know what things I hear which they are not aware that they have spoken. 133 I know that I have frequently disappointed them by not giving them words when they expected them, or such as they expected. 134 Whenever I see my Friend I speak to them; but the expecter, the person with the ears, is not you. They will complain too that you are hard. O ye that would have the cocoa-nut wrong side outwards, when next I weep I will let you know. 135 They ask for words and deeds, when a true relation is word and deed. If they know not of these things, how can they be informed? 136 We often forbear to confess our feelings, not from pride, but for fear that we could not continue to love the one who required us to give such proof of our affection.

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137 My Friend is not of some other race or family of people, but flesh of my flesh, bone of my bone. 138 He is my real brother. I see your nature groping yonder so like mine. We do not live far apart. Have not the fates associated us in many ways? 139 It says in the Vishnu Purana: ‘Seven paces together is sufficient for the friendship of the virtuous, but thou and I have dwelt together.’ 140 Is it of no significance that we have so long partaken of the same loaf, drank at the same fountain, breathed the same air summer and winter, felt the same heat and cold; 141 that the same fruits have been

pleased to refresh us both, and we have never had a thought of different fibre the one from the other!

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142 As surely as the sunset in my latest November shall translate me to the ethereal world, and remind me of the ruddy morning of youth; 143 as surely as the last strain of music which falls on my decaying ear shall make age to be forgotten, or, in short, the manifold influences of Nature survive during the term of our natural life, 144 so surely my Friend shall for ever be my Friend, and reflect a ray of God to me, and time shall foster and adorn and consecrate our Friendship, no less than the ruins of temples. 145 As I love Nature, as I love singing birds, and gleaming stubble, and flowing rivers, and morning and Nevening, and summer and winter, I love thee, my Friend.

THE SENTIMENT OF FRIENDSHIP
Thomas Carlyle

3 Let us present the following small thread of Moral relation; and therewith, the reader for the self weaving it in at the right place, conclude our dim arras-picture of these University years.

2 Here also it was that I formed acquaintance with Herr Towgood, or, as it is perhaps better written, Herr Toughgut; a young person of quality ('von Adel'), from the interior parts of England. 3 He stood connected, by blood and hospitality, with the Counts von Zähdarm, in this quarter of Germany; to which noble Family I likewise was, by his means, with all friendliness, brought near. 4 Towgood had a fair talent, unspeakably ill-cultivated; with considerable humour of character: and, bating his total ignorance, for he knew nothing except Boxing and a little Grammar, showed less of that aristocratic impassivity, and silent fury, than for most part belongs to Travellers of his nation. 5 To him I owe my first practical knowledge of the English and their ways; perhaps also something of

the partiality with which I have ever since regarded that singular people. 6 Towgood was not without an eye, could he have come at any light. Invited doubtless by the presence of the Zähdarm Family, he had travelled hither, in the almost frantic hope of perfecting his studies; 7 he, whose studies had as yet been those of infancy, hither to a University where so much as the notion of perfection, not to say the effort after it, no longer existed! 8 Often we would condole over the hard destiny of the Young in this era: 9 how, after all our toil, we were to be turned-out into the world, with beards on our chins indeed, but with few other attributes of manhood; no existing thing that we were trained to Act on, nothing that we could so much as Believe. 10 'How has our head on the outside a polished Hat,' would Towgood exclaim, 'and in the inside Vacancy, or a froth of Vocables and Attorney-Logic! 11 At a small cost humans are educated to make leather into shoes; but at a great cost, what am I educated to make? 12 By Heaven, Brother! what I have already eaten and worn, as I came thus far, would endow a considerable Hospital of Incurables.'-- 13 'Human, indeed,' I would answer, 'has a Digestive Faculty, which must be kept working, were it even partly by stealth. 14 But as for our Mis-education, make not bad worse; waste not the time yet ours, in trampling on thistles because they have yielded us no figs. 'Frisch zu, Bruder!' 15 Here are Books, and we have brains to read them; here is a whole Earth and a whole Heaven, and we have eyes to look on them: 'Frisch zu!'' 16 Often also our talk was gay; not without brilliancy, and even fire. 17 We looked out on Life, with its strange scaffolding, where all at once harlequins dance, and humans are beheaded and quartered: motley, not unterrific was the aspect; but we looked on it like brave youths. 18 For myself, these were perhaps my most genial hours. Towards this young warmhearted, strongheaded and wrongheaded Herr Towgood I was even near experiencing the now obsolete sentiment of Friendship. 19 Yes, foolish Heathen that I was, I felt that, under certain conditions,

I could have loved this man, and taken you to my bosom, and been his brother once and always. 20 By degrees, however, I understood the new time, and its wants. If human's 'Soul' is indeed, as in the Finnish Language, and Utilitarian Philosophy, a kind of 'Stomach', what else is the true meaning of Spiritual Union but an Eating together?

21 Thus we, instead of Friends, are Dinner-guests; and here as elsewhere have cast away chimeras.

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22 Hast thou a certain Faculty, a certain Worth, such even as the most have not; or art thou the completest Dullard of these modern times? 23 Alas! the fearful Unbelief is unbelief in yourself; and how could I believe? 24 Had not my first, last Faith in myself, when even to me the Heavens seemed laid open, and I dared to love, been all-too cruelly belied? 25 The speculative Mystery of Life grew ever more mysterious to me: neither in the practical Mystery had I made the slightest progress, but been everywhere buffeted, foiled, and contemptuously cast-out. 26 A feeble unit in the middle of a threatening Infinitude, I seemed to have nothing given me but eyes, whereby to discern my own wretchedness. 27 Invisible yet impenetrable walls, as of Enchantment, divided me from all living: was there, in the wide world, any true bosom I could press trustfully to mine?

28 O Heaven, No, there was none! I kept a lock upon my lips: why should I speak much with that shifting variety of so-called Friends, in whose withered, vain and too-hungry souls Friendship was but an incredible tradition? 29 In such cases, your resource is to talk little, and that little mostly from the Newspapers. 30 Now when I look back, it was a strange isolation I then lived in. The men and women around me, even speaking with me, were but Figures; I had, practically, forgotten that they were alive, that they were not merely automatic. 31 In midst of their crowded streets and assemblages, I walked solitary; and (except as it was my own heart, not another's, that I kept devouring) savage also, as the tiger in his jungle.

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32 How were Friendship possible? ‘In mutual devotedness to the Good and True: otherwise impossible; except as Armed Neutrality, or hollow Commercial League. 33 A person, be the Heavens ever praised, is sufficient for the self; yet were ten people, united in Love, capable of being and of doing what ten thousand singly would fail in. 34 Infinite is the help human can yield to human.’

35 And now in conjunction therewith consider this other: ‘It is the Night of the World, and still long till it be Day: we wander amid the glimmer of smoking ruins, and the Sun and the Stars of Heaven are as if blotted out for a season; 36 and two immeasurable Phantoms, HYPOCRISY and ATHEISM, with the Ghoul, SENSUALITY, stalk abroad over the Earth, and call it theirs: well at ease are the sleepers for whom Existence is a shallow Dream.’

ON THE ACQUISITION OF FRIENDS

Henry Mackenzie

4 The praises of friendship, and descriptions of the happiness arising from it, I remember to have met with in almost every book and poem since first I could read. 2 I was never much addicted to reading: and, in this instance, I think, I have little reason to put confidence in authors.

3 How it may be in their experience, I know not; but in mine, this same virtue of friendship has tended very little to my happiness; on the contrary, when I tell you my situation, you will find that I am almost ruined by my friends.

4 From my earliest days I was reckoned one of the best-natured fellows in the world; and at school, though I must confess I did not acquire so much learning as many of my companions, yet, even there, I was remarkable for the acquisition of friends. 5 Even there, too, I acquired them at some expense; I was flogged, I dare say, a hundred times for the faults of others, but was too generous ever to 'peach'; my companions were

generous fellows too; but it always happened, I don't know how, that my generosity was on the losing side of the adventure.

6 I had not been above three years at college, when the death of an uncle put me in possession of a very considerable estate. 7 As I was not violently inclined towards literature, I soon took the opportunity, which this presented me, of leaving the university and entering upon the world. 8 I put myself under the tuition of one of my companions, who generally spent the vacations, and indeed some of the terms too, in London; and took up my residence in that city.

9 There I needed not that propensity, which I have told you I always possessed, to acquire a multitude of friends. I found myself surrounded by them in every tavern and coffee-house about town. But I soon experienced, that though the commodity was plenty, the price was high.

10 Besides a considerable mortgage on my estate, of which one of my best friends contrived to possess himself, I was obliged to expose my life to a couple of duels, and had very near lost it.

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11 From this sort of bondage I contrived to emancipate myself by matrimony. I married the sister of one of my friends, a girl good-natured and thoughtless like myself, with whom I soon retired into the country, and set out upon what we thought a sober, well-regulated plan. 12 The situation was so distant as to be quite out of reach of my former town-companions; provisions were cheap and servants faithful; in short, everything so circumstanced that we made no doubt of living considerably within our income. 13 Our manner of life, however, was to be happy and prudent. By the improvement of my estate, I was to be equally amused and enriched; 14 my skill in sportsmanship (for I had acquired that science to great perfection at the university) was to procure vigour to my constitution, and dainties to my table; and, against the long nights of winter, we were provided with an excellent 'neighbourhood'.

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15 This last-mentioned article is the only one which we have found come up entirely to our expectations. My talent for friend-making has indeed extended the limits of 'neighbourhood' a good deal farther than the word is commonly understood to reach.

16 The parish, which is not a small one-- the county, which is proportionally extensive, comes within the denomination of neighbourhood with us; and my neighbour Goostry, who pays me an annual sporting visit of several weeks, lives at least fifty miles off.

17 Some of these 'neighbours', who always become 'friends' at my house, have endeavoured to pay me for their entertainment with their advice as to the cultivation of my farm, or the management of my estate; 18 but I have generally found their counsel, like other friendly exertions, put me out of pocket in the end. 19 Their theories of agriculture failed in my practice of them; and the ingenious people they recommended to me for tenants, seldom paid their rent by their ingenuity.

20 The attentions of our friends are sometimes carried farther than mere words or visits of compliment; yet, even then, unfortunately, their favours are just so many taxes upon us. 21 When I receive a present of a delicate salmon, or a nice haunch of venison, it is but a signal for all my good neighbours to come and eat at my expense; 22 and some time ago, when a nephew of my wife, settled abroad, sent me a hogshead of excellent claret, it cost me, in entertainments for the honour of the liquor, what might have purchased a tun from the wine-merchant.

23 After so many instances in which my friendships were hurtful to my fortune, I wished to hit on the way to making some of them beneficial to it. 24 For this purpose, my wife and I have, for a good while past, been employed in looking out for some snug office, or reversion, to which my interest with several powerful friends might recommend me. 25 But, somehow or other, our expectations have been always disappointed; not from any want of inclination in our friends to serve us, as we have been repeatedly assured, but from various

unforeseen accidents, to which expectations of that sort are particularly liable. 26 In the course of these solicitations I was lead to engage in the political interests of a gentleman on whose influence I built the strongest hopes of success in my own schemes; 27 and I flattered myself that, from the friendly footing on which I stood with my neighbours, I might be of considerable service to him. 28 This, indeed, he is extremely ready to acknowledge, though he has yet found no opportunity of returning the favour; but, in the meantime, it kept my table open to all his 'friends', as well as my own, and cost me, besides, a headache twice a week during the whole period of the canvass.

29 In short, I find I can afford to keep myself in friends no longer. I mean to give them warning of this my resolution as speedily as possible.… 30 I have shut my gates, locked my cellar, turned off my cook, disposed of my dogs, forgot my acquaintance, and am resolved henceforward, let people say of me what they will, to be 'no one’s friend but my own'.

ON FRIENDSHIP

Oliver Goldsmith

5 There are few subjects which have been more written upon and less understood than that of Friendship: 2 to follow the dictates of some, this virtue, instead of being the assuager of pain, becomes the source of every inconvenience. 3 Such speculatists, by expecting too much from friendship, dissolve the connection, and by drawing the bonds too closely, at length break them.

4 Almost all our romance and novel writers are of this kind: they persuade us to friendships which we find it impossible to sustain to the last; so that this sweetener of life, under proper regulations, is by their means rendered inaccessible or uneasy. 5 It is certain, the best method to cultivate this virtue is by letting it in some measure make itself; a similitude of minds or studies, and even sometimes a diversity of pursuits, will produce all the pleasures that arise from it. 6 The current of tenderness widens as it proceeds; and two people imperceptibly find their hearts

warm with good-nature for each other when they were at first in pursuit only of mirth or relaxation.

7 Friendship is like a debt of honour; the moment it is talked of it loses its real name, and assumes the more ungrateful form of obligation. 8 From hence we find, that those who regularly undertake to cultivate friendship, find ingratitude generally repays their endeavours. 9 That circle of beings which dependence gathers round us, is almost ever unfriendly; they secretly wish the term of their connection more nearly equal; and when they even have the most virtue, are prepared to reserve all their affections for their patron only in the hour of your decline. 10 Increasing the obligations which are laid upon such minds only increases their burden; 11 they feel themselves unable to repay the immensity of their debt, and their bankrupt hearts are taught a latent resentment at the hand that is stretched out with offers of service and relief.

12 Plautinus was a man who thought that every good was to be bought by riches; and as he was possessed of great wealth, and a mind naturally formed for virtue, he resolved to gather a circle of the best men around him. 13 Among the number of his dependants was Musidorus, with a mind just as fond of virtue, yet not less proud than his patron.

14 His circumstances, however, were such as forced him to stoop to the good offices of his superior, and he saw himself daily, among a number of others, loaded with benefits and protestations of friendship. 15 These, in the usual course of the world, he thought it prudent to accept; but while he gave his esteem, he could not give his heart. 16 A want of affection breaks out in the most trifling instances, and Plautinus had skill enough to observe the minutest actions of the man he wished to make his friend. 17 In these he ever found his aim disappointed; for Musidorus claimed an exchange of hearts, which Plautinus, solicited by a variety of claims, would never think of bestowing.

18 It may easily be supposed, that the reserve of our poor proud man was soon construed into ingratitude; and such, indeed, in

the common acceptation of the word, it was. 19 Whenever Musidorus appeared, he was remarked as the ungrateful man; he had accepted favours, it was said, and still had the insolence to pretend to independence. 20 The event, however, justified his conduct. Plautinus, by misguided liberality, at length became poor, and it was then that Musidorus first thought of making a friend of him. 21 He flew to the man of fallen fortune with an offer of all he had; wrought under his direction with assiduity; and by uniting their talents, both were at length placed in that state of life from which one of them had formerly fallen.

22 To this story, taken from modern life, I shall add one more, taken from a Greek writer of antiquity. 'Two Jewish soldiers, in the time of Vespasian, had made many campaigns together, and a participation of dangers at length bred an union of hearts. 23 They were marked throughout the whole army as the two friendly brothers; they felt and fought for each other. 24 Their friendship might have continued without interruption till death, had not the good fortune of the one alarmed the pride of the other, which was in his promotion to be a centurion, under the famous John, who headed a particular party of Jewish malcontents. 25 'From this moment their former love was converted into the most inveterate enmity. They attached themselves to opposite factions, and sought each other's lives in the conflict of adverse party. 26 In this manner they continued for more than two years, vowing mutual revenge and animated with an unconquerable spirit of aversion. 27 At length, however, that party of the Jews to which the mean soldier belonged, joining with the Romans, it became victorious, and drove John with all his adherents into the Temple. 28 History has given us more than one picture of the dreadful conflagration of that superb edifice. The Roman soldiers were gathered round it; the whole temple was in flames, and thousands were seen amidst them within its sacred circuit. 29 It was in this situation of things that the now successful soldier saw his former friend upon the battlements

of the highest tower looking round with horror, and just ready to be consumed with flames.

30 All his former tenderness now returned; he saw the man of his bosom just going to perish; and unable to withstand the impulse, he ran, spreading his arms and crying out to his friend to leap down from the top and find safety with him. 31 The centurion from above heard and obeyed, and casting himself from the top of the tower into his fellow-soldier's arms, both fell a sacrifice on the spot; one being crushed to death by the weight of his companion, and the other dashed to pieces by the greatness of his fall.'

THE PLEASURES OF FRIENDSHIP

Samuel Johnson, LL.D.

6 Life has no pleasure higher or nobler than that of friendship. 2 It is painful to consider that this sublime enjoyment may be impaired or destroyed by innumerable causes, and that there is no human possession of which the duration is less certain.

3 Many have talked, in very exalted language, of the perpetuity of friendship, of invincible constancy, and unalienable kindness; 4 and some examples have been seen of people who have continued faithful to their earliest choice, and whose affection has predominated over changes of fortune, and contrariety of opinion.

5 But these instances are memorable, because they are rare. The friendship which is practised or expected by common mortals must take its rise from mutual pleasure, and must end when the power ceases of delighting each other.

6 Many accidents therefore may happen by which the ardour of kindness will be abated, without criminal baseness or contemptible inconstancy on either part.

7 To give pleasure is not always in our power; and little does you know yourself, who believes that you can be always able to receive it.

8 Those who would gladly pass their days together may be separated by the different course of their affairs; and friendship, like

love, is destroyed by long absence, though it may be increased by short intermissions. 9 What we have missed long enough to want it, we value more when it is regained; 10 but that which has been lost till it is forgotten, will be found at last with little gladness, and with still less, if a substitute has supplied the place. 11 A person deprived of the companion to whom you used to open your bosom, and with whom you shared the hours of leisure and merriment, feels the day at first hanging heavy upon you; 12 your difficulties oppress, and your doubts distract you; you sees time come and go without your wonted gratification, and all is sadness within, and solitude about you. 13 But this uneasiness never lasts long; necessity produces expedients, new amusements are discovered and new conversation is admitted.

14 No expectation is more frequently disappointed than that which naturally arises in the mind from the prospect of meeting an old friend after long separation. 15 We expect the attraction to be revived, and the coalition to be renewed; no person considers how much alteration time has made in yourself, and very few inquire what effect it has had upon others. 16 The first hour convinces them that the pleasure which they had formerly enjoyed, is for ever at an end; the opinions of both are changed; and that similitude of manners and sentiment is lost which confirmed them both in the approbation of themselves.

17 Friendship is often destroyed by opposition of interest, not only by the ponderous and visible interest which the desire of wealth and greatness forms and maintains, but by a thousand secret and slight competitions, scarcely known to the mind upon which they operate. 18 There is scarcely any person without some favourite trifle which you values above greater attainments, some desire of petty praise which you cannot patiently suffer to be frustrated. 19 This minute ambition is sometimes crossed before it is known, and sometimes defeated by wanton petulance; but such attacks are seldom made without the loss of friendship; 20 for whoever has once found the vulnerable part will be always feared, and the

resentment will burn on in secret, of which shame hinders the discovery.

21 This, however, is a slow malignity, which a wise person will obviate as inconsistent with quiet, and a good person will repress as contrary to virtue; but human happiness is sometimes violated by some more sudden strokes.

22 A dispute begun in jest upon a subject which a moment before was on both parts regarded with careless indifference, is continued by the desire of conquest, till vanity kindles into rage, and opposition rankles into enmity. 23 Against this hasty mischief, I know not what security can be obtained; people will sometimes be surprised into quarrels; and though they might both hasten to reconciliation, as soon as their tumult had subsided, 24 yet two minds will seldom be found together which can at once subdue their discontent or immediately enjoy the sweets of peace without remembering the wounds of the conflict.

25 Friendship has other enemies. Suspicion is always hardening the cautious, and disgust repelling the delicate. Very slender differences will sometimes part those whom long reciprocation of civility or beneficence has united. 26 Lonelove and Ranger retired into the country to enjoy the company of each other, and returned in six weeks cold and petulant; 27 Ranger's pleasure was to walk in the fields, and Lonelove's to sit in a bower; each had complied with the other in their turn, and each was angry that compliance had been exacted.

28 The most fatal disease of friendship is gradual decay, or dislike hourly increased by causes too slender for complaint and too numerous for removal. 29 Those who are angry may be reconciled; those who have been injured may receive a recompence; 30 but when the decay of pleasing and willingness to be pleased is silently diminished, the renovation of friendship is hopeless; as, when the vital powers sink into languor, there is no longer any use of the physician.

FRIENDSHIP

THE TRUE ART OF FRIENDSHIP

Samuel Johnson, LL.D.

SALLUST

7 To live in friendship is to have the same desires and the same aversions.

2 The fondest and firmest friendships are dissolved by such openness and sincerity as interrupt our enjoyment of our own approbation, or recall us to the remembrance of these failings which we are more willing to indulge than correct.

3 It is by no means necessary to imagine that you who is offended at advice was ignorant of the fault, and resents the admonition as a false charge; for perhaps it is most natural to be enraged when there is the strongest conviction of our own guilt. 4 While we can easily defend our character, we are no more disturbed at an accusation than we are alarmed by an enemy whom we are sure to conquer; and whose attack, therefore, will bring us honour without danger. 5 But when a person feels the reprehension of a friend seconded by your own heart, you are easily heated into resentment and revenge, 6 either because you hoped that the fault of which you was conscious had escaped the notice of others; 7 or that your friend had looked upon it with tenderness and extenuation, and excused it for the sake of your other virtues; 8 or had considered you as too wise to need advice, or, too delicate to be shocked with reproach: or, because we cannot feel without pain those reflections round which we have been endeavouring to lay asleep; 9 and when pain has produced anger, who would not willingly believe, that it ought to be discharged on others rather than on oneself?

10 The resentment produced by sincerity, whatever be its immediate cause, is so certain, and generally so keen, that very few have magnanimity sufficient for the practice of a duty which, above most others, exposes its votaries to hardships and persecutions; 11 yet friendship without it is of very little value, since the great use of so close an intimacy is, that our virtues may be guarded and encouraged, and our vices repressed in their first appearance

by timely detection and salutary remonstrances.

12 It is decreed by Providence, that nothing truly valuable shall be obtained in our present state, but with difficulty and danger. 13 You that hopes for that advantage which is to be gained from unrestrained communication must sometimes hazard, by unpleasing truths, that friendship which you aspires to merit. 14 The chief rule to be observed in the exercise of this dangerous office, is to preserve it pure from all mixture of interest or vanity; 15 to forbear admonition or reproof, when our consciences tell us that they are incited, not by the hopes of reforming faults, but the desire of showing our discernment, or gratifying our own pride by the mortification of another. 16 It is not indeed certain, that the most refined caution will find a proper time for bringing a person to the knowledge of one's own failings, or the most zealous benevolence reconcile you to that judgment by which they are detected; 17 but you who endeavours only the happiness of one whom you reproves will always have either the satisfaction of obtaining or deserving kindness; 18 if you succeeds, you benefits your friend; and if you fails, you have at least the consciousness that you suffers for only doing well.

* * * * *

19 When Socrates was building himself a house at Athens, being asked by one that observed the littleness of the design, why a man so eminent would not have an abode more suitable to his dignity? 20 he replied, that he should think himself sufficiently accommodated, if he could see that narrow habitation filled with real friends. 21 Such was the opinion of this great master of human life, concerning the infrequency of such a union of minds as might deserve the name of friendship; 22 that among the multitudes whom vanity or curiosity, civility or veneration crowded about him, he did not expect that very spacious apartments would be necessary to contain all that should regard him with sincere kindness, or adhere to him with steady fidelity.

23 So many qualities are indeed requisite to the possibility of

friendship, and so many accidents must concur to its rise and its continuance, that the greatest part of humankind content themselves without it, and supply its place as they can, with interest and independence.

24 Multitudes are unqualified for a constant and warm reciprocation of benevolence, as they are incapacitated for any other elevated excellence, by perpetual attention to their interest, and unresisting subjection to their passions. 25 Long habits may super-induce inability to deny any desire, or repress, by superior motives, the importunities of any immediate gratification, and an inveterate selfishness will imagine all advantages diminished in proportion as they are communicated.

26 But not only this hateful and confirmed corruption, but many varieties of disposition, not inconsistent with common degrees of virtue, may exclude friendship from the heart. 27 Some, ardent enough in their benevolence, and defective neither in officiousness nor liberality, are mutable and uncertain, soon attracted by new objects, disgusted without offence, and alienated without enmity. 28 Others are soft and flexible, easily influenced by reports or whispers, ready to catch alarms from every dubious circumstance, and to listen to every suspicion which envy and flattery shall suggest, to follow the opinion of every confident adviser, and move by the impulse of the last breath. 29 Some are impatient of contradiction, more willing to go wrong by their own judgment than may be indebted for a better or a safer way to the sagacity of another, 30 inclined to consider counsel as insult, and inquiry as want of confidence, and to confer their regard on no other terms than unreserved submission and implicit compliance.-- 31 Some are dark and involved, equally careful to conceal good and bad purposes; and pleased with producing effects by invisible means, and showing their design only in its execution. 32 Others are universally communicative, alike open to every eye, and equally profuse of their own secrets and those of others, without the necessary vigilance of caution, or the honest arts of prudent integrity, ready to

accuse without malice, and to betray without treachery. 33 Any of these may be useful to the community, and pass through the world with the reputation of good purpose and uncorrupted morals, but they are unfit for close and tender intimacies. 34 You cannot properly be chosen for a friend, whose kindness is exhaled by own warmth, or frozen by the first blast of slander; 35 you cannot be a useful counsellor, who will hear no opinion but your own; you will not much invite confidence whose principal maxim is to suspect; 36 nor can candour and frankness of that person be much esteemed, who spreads own arms to humankind, and makes every person, without distinction, a denizen of own bosom.

37 That friendship may be at once fond and lasting, there must not only be equal virtue on each part, but virtue of the same kind; not only the same end must be proposed, but the same means must be approved by both. 38 We are often, by superficial accomplishments and accidental endearments, induced to love those whom we cannot esteem; 39 we are sometimes, by great abilities, and incontestable evidences of virtue, compelled to esteem those whom we cannot love. 40 But friendship, compounded of esteem and love, derives from one its tenderness, and its permanence from the other; and therefore, requires not only that its candidates should gain the judgment, but that they should attract the affections; 41 that they should not only be firm in the day of distress, but gay in the hour of jollity; not only useful in exigencies, but pleasing in familiar life; their presence should give cheerfulness as well as courage, and dispel alike the gloom of fear and of melancholy.

42 To this mutual complacency is generally requisite a uniformity of opinions, at least of those active and conspicuous principles which discriminate parties in government and sects in religion, and which every day operate more or less on the common business of life. 43 For though great tenderness has, perhaps, been sometimes known to continue between people eminently in contrary factions; 44 yet such friends are to be shown rather as prodigies than examples;

and it is no more proper to regulate our conduct by such instances than to leap a precipice, because some have fallen from it and escaped with life.

45 It cannot but be extremely difficult to preserve private kindness in the midst of public opposition, in which will necessarily be involved a thousand incidents, extending their influence to conversation and privacy. 46 People engaged, by moral or religious motives, in contrary parties will generally look with different eyes upon every human, and decide almost every question upon different principles. 47 When such occasions of dispute happen, to comply is to betray our cause, and to maintain friendship, by ceasing to deserve it; 48 to be silent is to lose the happiness and dignity of independence, to live in perpetual constraint, and to desert if not to betray; 49 and who shall determine which of two friends shall yield, where neither believes oneself mistaken, and both confess the importance of the question? 50 What then remains but contradiction and debate? and from these what can be expected but acrimony and vehemence, the insolence of triumph, the vexation of defeat, and, in time, a weariness of contest, and an extinction of benevolence? 51 Exchange of endearments and intercourse of civility may continue, indeed, as boughs may for a while be verdant when the root is wounded; 52 but the poison of discord is infused, and though the countenance may preserve its smile, the heart is hardening and contracting.

53 That person will not be long agreeable whom we see only in times of seriousness and severity; and, therefore, to maintain the softness and serenity of benevolence, it is necessary that friends partake each other's pleasures as well as cares, and be led to the same diversions by similitude of taste. 54 This is, however, not to be considered as equally indispensable with conformity of principles, because any person may honestly, according to Horace, resign the gratifications of taste to the humour of another, and friendship may well deserve the sacrifice of pleasure, though not of conscience.

55 It was once confessed to me, by a painter, that no professor of own art ever loved another. 56 This declaration is so far justified by the knowledge of life as to damp the hopes of warm and constant friendship between people whom their studies have made competitors, and whom every favourer and every censurer are hourly inciting against each other. 57 The utmost expectation that experience can warrant us, is, that they should forbear open hostilities and secret machinations, and when the whole fraternity is attacked, be able to unite against a common foe. 58 Some, however, though few, may perhaps be found in whom emulation has not been able to overpower generosity, who are distinguished from lower beings by nobler motives than the love of fame, and can preserve the sacred flame of friendship from the gusts of pride and the rubbish of interest.

59 Friendship is seldom lasting but between equals, or where the superiority on one side is reduced by some equivalent advantage on the other. 60 Benefits which cannot be repaid, and obligations which cannot be discharged, are not commonly found to increase affection; 61 they excite gratitude indeed, and heighten veneration, but commonly take away that easy freedom and familiarity of intercourse, without which, though there may be fidelity and zeal and admiration, there cannot be friendship.

62 Thus imperfect are all earthly blessings; the great effect of friendship is beneficence, yet by the first act of uncommon kindness it is endangered, like plants that bear fruit and die. 63 Yet this consideration ought not to restrain bounty or repress compassion; for duty is to be preferred before convenience, and you that loses part of the pleasures of friendship by your generosity, gains in its place the gratulation of your conscience.

THE VIRTUE OF FRIENDSHIP

George Berkeley

8 If we consider the whole scope of the creation that lies within our view, the moral and intellectual, as well as the natural and corporeal,

we shall perceive throughout, a certain correspondence of the parts, a similitude of operation, and unity of design, 2 which plainly demonstrate the universe to be the work of one infinitely good and wise being; and that the system of thinking beings is actuated by laws derived from the same divine power which ordained those by which the corporeal system is upheld.

3 From the contemplation of the order, motion, and cohesion of natural bodies, philosophers are now agreed, that there is a mutual attraction between the most distant parts at least of this solar system. 4 All those bodies that revolve round the sun are drawn towards each other, and towards the sun, by some secret, uniform, and never-ceasing principle. 5 Hence it is that the earth (as well as the other planets), without flying off in a tangent line, constantly rolls about the sun, and the moon about the earth, without deserting her companion in so many thousand years. 6 And as the larger systems of the universe are held together by this cause, so likewise the particular globes derive their cohesion and consistence from it.

7 Now if we carry our thoughts from the corporeal to the moral world, we may observe in the spirits or minds of humans, a like principle of attraction, whereby they are drawn together in communities, clubs, families, friendships, and all the various species of society. 8 As in bodies, where the quantity is the same, the attraction is strongest between those which are placed nearest to each other; so it is likewise in the minds of humans, 'cæteris paribus', between those which are most nearly related. 9 Bodies that are placed at the distance of many millions of miles, may nevertheless attract and constantly operate on each other, 10 although this action do not show itself by a union or approach of those distant bodies so long as they are withheld by the contrary forces of other bodies, which, at the same time, attract them different ways; but would, on the supposed removal of all other bodies, mutually approach and unite with each other. 11 The like holds with regard to the human soul, whose

affection towards the individuals of the same species, who are distantly related to it, is rendered inconspicuous by its more powerful attraction towards those who have a nearer relation to it. 12 But as those are removed, the tendency which before lay concealed, doth gradually disclose itself.

13 A person who has no family is more strongly attracted towards own friends and neighbours; and if absent from these, you naturally falls into an acquaintance with those of your own city or country who chance to be in the same place. 14 Two Englishmen meeting at Rome or Constantinople, soon run into familiarity. And in China or Japan, Europeans would think their being so a good reason for their uniting in particular converse. 15 Farther, in case we suppose ourselves translated into Jupiter or Saturn, and there to meet a Chinese or other more distant native of our own planet, we should look on them as a near relation, and readily commence a friendship with them. 16 These are natural reflections, and such as may convince us that we are linked by an imperceptible chain to every individual of the human race.

17 The several great bodies which compose the solar system are kept from joining together at the common centre of gravity by the rectilinear motions the author of Nature has impressed on each of them; 18 which, concurring with the attractive principle, form their respective orbits round the sun; upon the ceasing of which motions, the general law of gravitation that is now thwarted, would show itself by drawing them all into one mass. 19 After the same manner, in the parallel case of society, private passions and motions of the soul do often obstruct the operation of that benevolent uniting instinct implanted in human nature; which, notwithstanding, doth still exert, and will not fail to show itself when those obstructions are taken away.

20 The mutual gravitation of bodies cannot be explained any other way than by resolving it into the immediate operation of God, who never ceases to dispose and actuate His creatures in a manner

suitable to their respective beings. 21 So neither can that reciprocal attraction in the minds of humans be accounted for by any other cause. It is not the result of education, law, or fashion; but is a principle originally ingrafted in the very first formation of the soul by the author of our Nature.

22 And as the attractive power in bodies is the most universal principle which produceth innumerable effects, and is a key to explain the various phenomena of Nature; so the corresponding social appetite in human souls is the great spring and source of moral actions. 23 This it is that inclines each individual to an intercourse with own species, and models every one to that behaviour which best suits with the common well-being.

24 Hence that sympathy in our nature, whereby we feel the pains and joys of our fellow creatures.

25 Hence that prevalent love in parents towards their children, which is neither founded on the merit of the object, nor yet on self-interest. 26 It is this that makes us inquisitive concerning the affairs of distant nations, which can have no influence on our own. 27 It is this that extends our care to future generations, and excites us to acts of beneficence towards those who are not yet in being, and consequently from whom we can expect no recompence. 28 In a word, hence arises that diffusive sense of humanity so unaccountable to the selfish person who is untouched with it, and is indeed a sort of monster, or anomalous production.

29 These thoughts do naturally suggest the following particulars. First, that as social inclinations are absolutely necessary to the well-being of the world, it is the duty and interest of each individual to cherish and improve them to the benefit of humankind; 30 the duty, because it is agreeable to the intention of the author of our being, who aims at the common good of own creatures, and as an indication of own will, hath implanted the seeds of mutual benevolence in our souls; 31 the interest, because the good of the whole is inseparable from that of the parts; in promoting, therefore, the common good, every one doth

at the same time promote one's own private interest.

32 Another observation I shall draw from the premises is, that it makes a signal proof of the divinity of the Christian religion, that the main duty which it inculcates above all others is charity. 33 Different maxims and precepts have distinguished the different sects of philosophy and religion; our Lord's peculiar precept is, 'Love thy neighbour as thyself. 34 By this shall all humans know that you are my disciples, if you love one another.'

35 I will not say, that what is a most shining proof of our religion, is not often a reproach to its professors: 36 but this I think very plain, that whether we regard the analogy of Nature, as it appears in the mutual attraction or gravitations of the mundane system, in the general frame and constitution of the human soul; 37 or lastly, in the ends and aptnesses which are discoverable in all parts of the visible and intellectual world; we shall not doubt but the precept, which is the characteristic of our religion, came from the author of Nature. 38 Some of our modern free-thinkers would indeed insinuate the Christian morals to be defective, because, say they, there is no mention made in the gospel of the virtue of friendship. 39 These sagacious people (if I may be allowed the use of that vulgar saying) 'cannot see the wood for trees.' 40 That a religion, whereof the main drift is to inspire its professors with the most noble and disinterested spirit of love, charity, and beneficence, to all humankind; 41 or, in other words, with a friendship to every individual human; should be taxed with the want of that very virtue is surely a glaring evidence of the blindness and prejudice of its adversaries.

ON THE CHOICE OF FRIENDS

Sir Richard Steele

9 When a person is in a serious mood, and ponders upon own make, with a retrospect to the actions of own life, and the many fatal miscarriages in it, which you owes to ungoverned passions, you are then apt to say to yourself, that experience has guarded you

against such errors for the future: 2 but Nature often recurs in spite of your best resolutions; and it is to the very end of our days a struggle between our reason and our temper, which shall have the empire over us. 3 However, this is very much to be helped by circumspection, and a constant alarm against the first onsets of passion. 4 As this is, in general, a necessary care to make a person's life easy and agreeable to oneself; so it is more particularly the duty of such as are engaged in friendship, and nearer commerce with others. 5 Those who have their joys have also their griefs in proportion; and none can extremely exalt or depress friends, but friends. 6 The harsh things which come from the rest of the world are received and repulsed with that spirit, which every honest person bears for one's own vindication; 7 but unkindness, in words or actions, among friends, affects us at the first instant in the inmost recesses of our souls.

8 Indifferent people, if I may so say, can wound us only in heterogeneous parts, maim us in our legs or arms; but the friend can make no 'pass' but at the heart itself. 9 On the other side, the most impotent assistance, the mere 'well wishes' of a friend, gives a person constancy and courage against the most prevailing force of own enemies. It is here only a person enjoys and suffers to the quick. 10 For this reason the most gentle behaviour is absolutely necessary to maintain friendship in any degree above the common level of acquaintance. 11 But there is a relation of life much more near than the most strict and savoured friendship, that is to say, marriage. 12 This union is of too close and delicate a nature to be easily conceived by those who do not know that condition by experience. 13 Here a person should, if possible, soften own passions; if not for your own ease, in compliance to a creature formed with a mind of a quite different make from your own.

14 I am sure, I do not mean it an injury to women, when I say there is a sort of sex in souls. I am tender of offending them, and know it is hard not to do it on this subject; 15 but I must go on to say, that the soul of a man, and that of

an woman, are made very unlike, according to the employments for which they are designed. 16 The ladies will please to observe, I say, our minds have different, not superior qualities to theirs. The virtues have respectively a masculine and a feminine cast. What we call in men 'wisdom', is in women 'prudence'. 17 It is a partiality, to call one greater than the other. A 'prudent' woman is in the same class of honour as a 'wise' man, and the scandals in the way of both are equally dangerous. 18 But to make this state anything but a burden, and not hang a weight upon our very beings, 19 it is proper each of the couple should frequently remember, that there are many things which grow out of their very natures that are pardonable, nay, becoming, when considered as such, but, without that reflection, must give the quickest pain and vexation. 20 To manage well a great family is as worthy an instance of capacity as to execute a great employment: and for the generality, as women perform the considerable part of their duties, as well as men do theirs; 21 so in their common behaviour, females of ordinary genius are not more trivial than the common rate of men; and, in my opinion, the playing of a fan is every whit as good an entertainment as the beating of a snuff-box.

22 But, however, I have rambled in this libertine manner of writing by way of 'Essay', I now sat down with an intention to represent to my readers how pernicious, how sudden, and how fatal surprises of passion are to the mind of human; 23 and that in the more intimate commerces of life they are more liable to arise, even in our most sedate and indolent hours. 24 Occurrences of this kind have had very terrible effects; and when one reflects upon them, we cannot but tremble to consider what we are capable of being wrought up to, against all the ties of Nature, love, honour, reason, and religion, 25 though the person who breaks through them all, had, an hour before you did so, a lively and virtuous sense of their dictates. 26 When unhappy catastrophes make up part of the history of princes and persons who act in high spheres, or are represented in the

moving language and well-wrought scenes of tragedians, they do not fail of striking us with terror; 27 but then they affect us only in a transient manner, and pass through our imaginations as incidents in which our fortunes are too humble to be concerned, or which writers form for the ostentation of their own force; 28 or, at most, as things fit rather to exercise the powers of our minds, than to create new habits in them. 29 Instead of such high passages, I was thinking it would be of great use, if anybody could hit it, to lay before the world such adventures as befall persons not exalted above the common level.

30 This, methought, would better prevail upon the ordinary race of humans; who are so prepossessed with outward appearances, that they mistake fortune for Nature, and believe nothing can relate to them, that does not happen to such as live and look like themselves.

THE QUALIFICATIONS OF FRIENDSHIP

Joseph Addison

10 We two are a multitude -OVID

2 One would think that the larger the company is in which we are engaged, the greater variety of thoughts and subjects would be started in discourse; 3 but, instead of this, we find that conversation is never so much straitened and confined as in numerous assemblies. 4 When a multitude meet together on any subject of discourse, their debates are taken up chiefly with forms and general positions; 5 nay, if we come into a more contracted assembly of men and women, the talk generally runs upon the weather, fashions, news, and the like public topics. 6 In proportion as conversation gets into clubs and knots of friends, it descends into particulars, and friends grows more free and communicative: 7 but the most open, instructive, and unreserved discourse, is that which passes between two persons who are familiar and intimate friends. 8 On these occasions, a man gives a loose to every passion and every

thought that is uppermost, discovers his most retired opinions of persons and things, tries the beauty and strength of his sentiments, and exposes his whole soul to the examination of his friend.

9 Tully was the first who observed that friendship improves happiness and abates misery, by the doubling of our joy and dividing of our grief; a thought in which he hath been followed by all the essayers upon friendship that have written since his time. 10 Sir Francis Bacon has finely described other advantages, or, as he calls them, fruits of friendship; and, indeed, there is no subject of morality which has been better handled and more exhausted than this. 11 Among the several fine things which have been spoken of it, I shall beg leave to quote some out of a very ancient author, whose book would be regarded by our modern wits as one of the most shining tracts of morality that is extant, if it appeared under the name of a Confucius, or of any celebrated Grecian philosopher: 12 I mean the little apocryphal treatise, entitled '*The Wisdom of the Son of Sirach*'. How finely has he described the art of making friends by an obliging and affable behaviour! 13 And laid down that precept, which a late excellent author has delivered as his own, that we should have many well-wishers, but few friends. ‘Sweet language will multiply friends; and a fair-speaking tongue will increase kind greetings. 14 Be in peace with many, nevertheless have but one councellor of a thousand.’ With what prudence does he caution us in the choice of our friends! 15 And with what strokes of nature (I could almost say of humour) has he described the behaviour of a treacherous and self-interested friend! 16 ‘If thou wouldest get a friend, prove them first, and be not hasty to credit them: for some person is a friend for your own occasion, and will not abide in the day of thy trouble. 17 And there is a friend who being turned to enmity and strife, will discover thy reproach.’ Again, ‘Some friend is a companion at the table, and will not continue in the day of thy affliction; but, in thy prosperity they will be as thyself, and will be bold over thy servants.

18 If thou be brought low they will be against thee, and hide the self from thy face.' 19 What can be more strong and pointed than the following verse? 'Separate thyself from thine enemies, and take heed of thy friends.'

20 In the next words he particularises one of those fruits of friendship which is described at length by the two famous authors above mentioned, and falls into a general eulogium of friendship which is very just as well as very sublime. 21 'A faithful friend is a strong defence; and you that hath found such a one hath found a treasure. Nothing doth countervail a faithful friend, and their excellency is valuable. 22 A faithful friend is the medicine of life; and they that fear the Lord shall find you. Whoso feareth the Lord shall direct your friendship aright; for as you are, so shall your neighbour (that is your friend) be also.'

23 I do not remember to have met with any saying that has pleased me more than that of a friend's being the medicine of life, to express the efficacy of friendship in healing the pains and anguish which naturally cleave to our existence in this world; 24 and am wonderfully pleased with the turn in the last sentence, that a virtuous person shall as a blessing meet with a friend who is as virtuous as yourself. 25 There is another saying in the same author, which would have been very much admired in an heathen writer: 'Forsake not an old friend, for the new is not comparable to them; a new friend is as new wine; when it is old thou shalt drink it with pleasure.' 26 With what strength of allusion and force of thought has he described the breaches and violations of friendship?-- 'Whoso casteth a stone at the birds frayeth them away; and you that upbraideth thy friend, breaketh friendship. 27 Though thou drawest a sword at a friend, yet despair not, for there may be a returning to favour. 28 If thou hast opened thy mouth against thy friend, fear not, for there may be a reconciliation; except for upbraiding, or pride, or disclosing of secrets, or a treacherous wound; for, for these things every friend will depart.' 29 We may observe in this and several other precepts in

this author, those little, familiar sentences and illustrations which are so much admired in the moral writings of Horace and Epictetus. 30 There are very beautiful instances of this nature in the following passages, which are likewise written upon the same subject. ‘Whoso discovereth secrets, loseth own credit, and shall never find a friend to own mind. 31 Love thy friend, and be faithful unto them; but if thou bewrayeth thy secret follow no more after them: 32 for as a person hath destroyed thy enemy, so hast thou lost the love of thy friend; as one that letteth a bird go out of own hand, so hast thou let thy friend go, and shall not get them again; follow after them no more, for you are too far off; you are as a roe escaped out of the snare. 33 As for a wound it may be bound up, and after reviling there may be a reconciliation: but you that bewrayeth secrets is without hope.’

34 Among the several qualifications of a good friend, this wise man has very justly singled out constancy and faithfulness as the principal: to these, others have added virtue, knowledge, discretion, equality in age and fortune, and Cicero calls it 'Morum comitas', ‘a pleasantness of temper.’ 35 If I were to give my opinion upon such an exhausted subject, I should join to these other qualifications, a certain equability or evenness of behaviour. 36 A person often contracts a friendship with one whom perhaps you does not find out till after a year’s conversation; when on a sudden some latent ill humour breaks out upon you, which you never discovered or suspected at your first entering into an intimacy with them. 37 There are several who in certain periods of their lives are inexpressibly agreeable, and in others as odious and detestable. 38 Martial has given us a very pretty picture of one of this species, in the following epigram:

39 In all thy humours, whether grave or mellow,
Thou’rt such a touchy, testy, pleasant fellow;
Hast so much wit, and mirth, and spleen about thee,
There is no living with thee, nor without thee.

40 It is very unlucky for a person to be entangled in a friendship with one, who, by these changes and vicissitudes of humour, is sometimes amiable, and sometimes odious: 41 and as most humans are at some time in admirable frame and disposition of mind, it should be one of the greatest tasks of wisdom to keep ourselves well when we are so, and never to go out of that which is the agreeable part of our character.

OF FRIENDSHIP
Francis Bacon

11 It had been hard for you that spake it, to have put more truth and untruth together, in few words, than in that speech; ‘Whosoever is delighted in solitude is either a wild beast, or a god.’ 2 For it is most true, that a natural and secret hatred, and aversation towards society, in any person, hath somewhat of the savage beast; 3 but it is most untrue, that it should have any character, at all, of the divine Nature; except it proceed, not out of a pleasure in solitude, but out of a love and desire to sequester a person’s self for a higher conversation: 4 such as is found to have been falsely and feignedly in some of the heathen; as Epimenides the Candian, Numa the Roman, Empedocles the Sicilian, and Apollonius of Tyana; and truly and really, in divers of the ancient hermits, and holy fathers of the Church. 5 But little do people perceive what solitude is and how far it extendeth. For a crowd is not company; and faces are but a gallery of pictures; and talk but a tinkling cymbal, where there is no love. 6 The Latin adage meeteth with it a little; ‘'Magna civitas, magna solitudo''; because in a great town friends are scattered; so that there is not that fellowship, for the most part, which is in less neighbourhoods. 7 But we may go further, and affirm most truly; that it is a mere, and miserable solitude, to want true friends; without which the world is but a wilderness: 8 and even in this sense also of solitude, whosoever in the frame of your nature and affections is unfit for friendship, you taketh it of the beast, and not from humanity.

9 A principal fruit of friendship is the ease and discharge of the fullness and swellings of the heart, which passions of all kinds do cause and induce. 10 We know diseases of stoppings, and suffocations, are the most dangerous in the body; and it is not much otherwise in the mind: 11 you may take sarza to open the liver; steel to open the spleen; flower of sulphur for the lungs; castoreum for the brain; but no receipt openeth the heart, but a true friend; 12 to whom you may impart griefs, joys, fears, hopes, suspicions, counsels, and whatsoever lieth upon the heart, to oppress it, in a kind of civil shrift or confession.

13 It is a strange thing to observe, how high a rate great kings and monarchs, do set upon this fruit of friendship, whereof we speak: so great, as they purchase it, many times, at the hazard of their own safety, and greatness. 14 For princes, in regard of the distance of their fortune, from that of their subjects and servants, cannot gather this fruit; except (to make themselves capable thereof) they raise some persons, to be as it were companions, and almost equals to themselves, which many times sorteth to inconvenience. 15 The modern languages give unto such persons the name of favourites, or privadoes; as if it were matter of grace, or conversation. 16 But the Roman name attaineth the true use, and cause thereof; naming them 'participes curarum'; for it is that which tieth the knot. 17 And we see plainly, that this hath been done, not by weak and passionate princes only, but by the wisest, and most politic that ever reigned; 18 who have oftentimes joined to themselves some of their servants; whom both themselves have called friends; and allowed others likewise to call them in the same manner; using the word which is received between private people.

19 L. Sylla, when he commanded Rome, raised Pompey (after surnamed the Great) to that height, that Pompey vaunted himself for Sylla’s overmatch. 20 For when he had carried the consulship for a friend of his, against the pursuit of Sylla, and that Sylla did a little resent thereat, and began to speak great, Pompey turned upon him

again, and in effect bade him be quiet; ‘for that more people adored the sun rising, than the sun setting.’ 21 With Julius Cæsar, Decimus Brutus had obtained that interest, as he set him down, in his testament, for heir in remainder, after his nephew. And this was the man that had power with him to draw him forth to his death. 22 For when Cæsar would have discharged the senate, in regard of some ill presages, and specially a dream of Calpurnia, this man lifted him gently by the arm, out of his chair, telling him, he hoped he would not dismiss the senate, till his wife had dreamed a better dream. 23 And it seemeth, his favour was so great, as Antonius in a letter, which is recited verbatim, in one of Cicero’s Philippics, calleth him 'venefica', witch; as if he had enchanted Cæsar. 24 Augustus raised Agrippa (though of mean birth) to that height, as when he consulted with Mæcenas, about the marriage of his daughter Julia, 25 Mæcenas took the liberty to tell him; ‘That he must either marry his daughter to Agrippa, or take away his life, there was no third way, he had made him so great.’ 26 With Tiberius Cæsar, Sejanus had ascended to that height, as they two were termed and reckoned as a pair of friends. 27 Tiberius in a letter to him saith; ‘'Hæc pro amicitiâ nostrâ non occultavi'.’ And the whole senate dedicated an altar to friendship as to a goddess, in respect of the great dearness of friendship between them two. 28 The like or more was between Septimius Severus, and Plautianus. For he forced his eldest son to marry the daughter of Plautianus; and would often maintain Plautianus, in doing affronts to his son; and did write also in a letter to the senate, by these words; ‘I love the man so well, as I wish he may overlive me.’ 29 Now if these princes had been as a Trajan, or a Marcus Aurelius, a man might have thought that this had proceeded of an abundant goodness of Nature; 30 but being men so wise, of such strength and severity of mind, and so extreme lovers of themselves, as all these were; it proveth most plainly, that they found their own felicity (though as great as ever happened to mortal men) but as a half-piece, except they might have

a friend to make it entire: 31 and yet, which is more, they were princes that had wives, sons, nephews; and yet all these could not supply the comfort of friendship.

32 It is not to be forgotten, what Commineus observeth, of his first master Duke Charles the Hardy; namely, that he would communicate his secrets with none; and, least of all, those secrets which troubled him most.

33 Whereupon he goeth on, and saith, that towards his latter time; ‘that closeness did impair, and a little perish his understanding.’ 34 Surely Commineus might have made the same judgment also, if it had pleased him, of his second master Lewis the Eleventh, whose closeness was indeed his tormentor. 35 The parable of Pythagoras is dark, but true; ‘'Cor ne edito'’ (eat not the heart). 36 Certainly, if a man would give it a hard phrase, those that want friends to open themselves unto are cannibals of their own hearts. 37 But one thing is most admirable (wherewith I will conclude this first fruit of friendship), which is, that this communicating of a person’s self to own friend, works two contrary effects; for it redoubleth joys, and cutteth griefs in halves. 38 For there is no person, that imparteth own joys to own friend, but you joyeth the more; and no person, that imparteth own griefs to own friend, but you grieveth the less. 39 So that it is, in truth of operation upon a human’s mind, of like virtue as the alchemists use to attribute to their stone for human’s body; that it worketh all contrary effects, but still to the good, and benefit of Nature. 40 But yet, without praying in aid of alchemists, there is a manifest image of this in the ordinary course of Nature. 41 For in bodies union strengtheneth and cherisheth any natural action; and, on the other side, weakeneth and dulleth any violent impression: and even so is it of minds.

42 The second fruit of friendship is healthful and sovereign for the understanding, as the first is for the affections. 43 For friendship maketh indeed a fair day in the affections, from storm and tempests: but it maketh daylight in the understanding, out of darkness

and confusion of thoughts. 44 Neither is this to be understood only of faithful counsel, which a person receiveth from own friend; 45 but before you come to that, certain it is, that whosoever hath your mind fraught with many thoughts, your wits and understanding do clarify and break up, in the communicating and discoursing with another: 46 you tosseth thy thoughts more easily; you marshalleth them more orderly; you seeth how they look when they are turned into words; finally, you waxeth wiser than thyself; and that more by an hour's discourse, than by a day's meditation. 47 It was well said by Themistocles to the King of Persia; 'That speech was like cloth of Arras, opened, and put abroad; whereby the imagery doth appear in figure; whereas in thoughts, they lie but as in packs.'

48 Neither is this second fruit of friendship, in opening the understanding, restrained only to such friends as are able to give a person counsel: (they indeed are best) 49 but even, without that, a person learneth of thyself, and bringeth thy own thoughts to light, and whetteth thy wits as against a stone, which itself cuts not. 50 In a word, a person were better relate the self to a statue, or picture, than to suffer own thoughts to pass in smother. 51 Add now, to make this second fruit of friendship complete, that other point, which lieth more open, and falleth within vulgar observation; which is faithful counsel from a friend.

52 Heraclitus saith well, in one of his enigmas; 'Dry light is ever the best.' And certain it is, that the light that a person receiveth by counsel from another, is drier, and purer, than that which cometh from your own understanding, and judgment; which is ever infused and drenched in your affections and customs. 53 So as, there is as much difference between the counsel that a friend giveth, and that a person giveth thyself, as there is between the counsel of a friend, and of a flatterer. 54 For there is no such flatterer as is a person's self; and there is no such remedy, against flattery of a person's self, as the liberty of a friend. 55 Counsel is of two sorts; the one concerning manners, the other concerning business. For the

first; the best preservative to keep the mind in health is the faithful admonition of a friend. 56 The calling of a person's self to a strict account is a medicine sometime too piercing and corrosive. 57 Reading good books of morality is a little flat, and dead. 58 Observing our faults in others is sometimes improper for our case. But the best receipt (best (I say) to work, and best to take) is the admonition of a friend. 59 It is a strange thing to behold, what gross errors, and extreme absurdities, many (especially of the greater sort) do commit, for want of a friend, to tell them of them; to the great damage, both of their fame and fortune.

60 For, as St. James saith, they are as people, 'that look sometimes into a glass, and presently forget their own shape, and favour.' 61 As for business, a person may think, if you will, that two eyes see no more than one; 62 or that a gamester seeth always more than a looker-on; 63 or that a person in anger is as wise as you that hath said over the four-and-twenty letters; 64 or that a musket may be shot off as well upon the arm, as upon a rest; and such other fond and high imaginations, to think yourself all in all. 65 But when all is done, the help of good counsel is that which setteth business straight. 66 And if any person think that you will take counsel, but it shall be by pieces; asking counsel in one business of one person, and in another business of another person: it is well (that is to say, better perhaps than if you asked none at all); 67 but you runneth two dangers: one, that you shall not be faithfully counselled; for it is a rare thing, except it be from a perfect and entire friend, to have counsel given, but such as shall be bowed and crooked to some ends, which you hath that giveth it. 68 The other, that you shall have counsel given, hurtful and unsafe (though with good meaning), and mixed, partly of mischief, and partly of remedy: 69 even as if you would call a physician, that is thought good, for the cure of the disease you complain of, but is unacquainted with your body; and therefore, may put you in way for a present cure, but overthroweth your health in some other kind; and so cure the disease, and kill

the patient. 70 But a friend, that is wholly acquainted with a person's estate, will beware by furthering any present business how you dasheth upon other inconvenience. 71 And therefore, rest not upon scattered counsels; they will rather distract, and mislead, than settle and direct.

72 After these two noble fruits of friendship (peace in the affections, and support of the judgment) followeth the last fruit; which is like the pomegranate, full of many kernels; I mean aid, and bearing a part, in all actions, and occasions. 73 Here, the best way to represent to life the manifold use of friendship is to cast and see how many things there are which a person cannot do yourself; 74 and then it will appear, that it was a sparing speech of the ancients to say, 'That a friend is another the self': for that a friend is far more than the self. 75 Humans have their time, and die many times in desire of some things which they principally take to heart; the bestowing of a child, the finishing of a work, or the like. 76 If a person have a true friend, you may rest almost secure that the care of those things will continue after you. So that a person hath as it were two lives in own desires. 77 A person hath a body, and that body is confined to a place; but where friendship is, all offices of life are as it were granted to you, and your deputy. For you may exercise them by your friend. 78 How many things are there which a person cannot, with any face or comeliness, say or do yourself? 79 A person can scarce allege own merits with modesty, much less extol them: a person cannot sometimes brook to supplicate or beg: and a number of the like. But all these things are graceful in a friend's mouth, which are blushing in a person's own. 80 So again, a person's person hath many proper relations, which you cannot put off. A person cannot speak to own son, but as a father; to own wife, but as a husband; to own enemy, but upon terms: whereas a friend may speak, as the case requires, and not as it sorteth with the person.

81 But to enumerate these things were endless: I have given the rule, where a person cannot fitly

play own part: if you have not a friend, you may quit the stage.

OF FRIENDSHIP
Michael, Lord Of Montaigne

12 There is nothing to which Nature hath more addressed us than to society. 2 And 'Aristotle' saith, 'that perfect Law-givers have had more regardful care of friendship than of justice'. 3 And the utmost drift of its perfection is this. For generally, all those amities which are forged and nourished by voluptuousness or profit, public or private need, are thereby so much the less fair and generous, and so much the less true amities, 4 in that they intermeddle other causes, scope, and fruit with friendship, than itself alone: 5 Nor do those four ancient kinds of friendships, 'Natural', 'social', 'hospitable', and 'venerian', either particularly or conjointly beseem the same. 6 That from children to parents may rather be termed respect: 7 Friendship is nourished by communication, which by reason of the over-great disparity cannot be found in them, and would happily offend the duties of Nature: 8 for neither all the secret thoughts of parents can be communicated unto children, lest it might engender an unbeseeming familiarity between them, 9 nor the admonitions and corrections (which are the chiefest offices of friendship) could be exercised from children to parents. 10 There are nations been found, where, by custom, children killed their parents, and others, where parents slew their children, thereby to avoid the hindrance of enter-bearing one another in aftertimes: for naturally one dependeth from the ruin of another.... 11 Verily the name of Brother is a glorious name, and full of loving kindness, and therefore did you and I term one another sworn brother: 12 but this commixture, dividence, and sharing of goods, this joining wealth to wealth, and that the riches of one shall be the poverty of another, doth exceedingly distemper and distract all brotherly alliance, and lovely conjunction: 13 If brothers should conduct the progress of their advancement and thrift in one same path and course,

they must necessarily oftentimes hinder and cross one another. 14 Moreover, the correspondency and relation that begetteth these true and mutually perfect amities, why shall it be found in these? 15 The father and the son may very well be of a far differing complexion, and so [may] brothers: You are my son, you are my kinsman; but you may be a fool, a bad, or a peevish-minded person. 16 And then according as they are friendships, which the law and duty of Nature doth command us, so much the less of our own voluntary choice and liberty is there required unto it: 17 And our genuine liberty hath no production more properly her own, than that of affection and amity.

18 Sure I am, that concerning the same I have assayed all that might be, having had the best and most indulgent father that ever was, even to your extremest age, 19 and who from father to son was descended of a famous house, and touching this rare-seen virtue of brotherly concord very exemplary:

To his brothers known so kind,
As to bear a father's mind.

20 To compare the affection toward women unto it, although it proceed from our own free choice, a man cannot, nor may it be placed in this rank:

Nor is that Goddess ignorant of me,
Whose bitter-sweets with my cares mixed be.

21 Her fire, I confess it to be more active, more fervent, and more sharp. But it is a rash and wavering fire, waving and divers: the fire of an ague subject to fits and stints, and that hath but slender hold-fast of us. 22 In true friendship, it is a general and universal heat, and equally tempered, a constant and settled heat, all pleasure and smoothness, that hath no pricking or stinging in it, which the more it is in lustful love, the more is it but a ranging and mad desire in following that which flies us,

23 Ev'n as the huntsman doth the hare pursue,
In cold, in heat, on mountains, on the shore,
But cares no more, when he her ta'en espies,
Speeding his pace, only at that which flies.

24 As soon as it creepeth into the terms of friendship, that is to say, in the agreement of wills, it languisheth and vanisheth away: enjoying doth lose it, as having a corporal end, and subject to sacietie. 25 On the other side, friendship is enjoyed according as it is desired, it is neither bred, nor nourished, nor increaseth but in jovissance, as being spiritual, and the mind being refined by use and custom. 26 Under this chief amity, these fading affections have sometimes found place in me, lest I should speak of you, who in your verses speaks but too much of it. 27 So are these two passions entered into me in knowledge one of another, but in comparison never: the first flying a high, and keeping a proud pitch, disdainfully beholding the other to pass her points far under it. 28 Concerning marriage, besides that it is a covenant which hath nothing free but the entrance, the continuance being forced and constrained, depending elsewhere than from our will, and a match ordinarily concluded to other ends: 29 A thousand strange knots are therein commonly to be unknit, able to break the web, and trouble the whole course of a lively affection; whereas in friendship, there is no commerce or business depending on the same, but itself. 30 Seeing (to speak truly) that the ordinary sufficiency of women, cannot answer this conference and communication, the nurse of this sacred bond: nor seem their minds strong enough to endure the pulling of a knot so hard, so fast, and durable. 31 And truly, if without that, such a genuine and voluntary acquaintance might be contracted, where not only minds had this entire jovissance, but also bodies, a share of the alliance, and where a person might wholly be engaged: 32 It is certain, that friendship would thereby be more complete and full: But this sex could never yet by any example attain unto it, and is by ancient schools rejected thence. 33 And this other Greek licence is justly abhorred by our customs, which notwithstanding, because according to us it had so necessary a disparity of ages, and difference of offices between lovers, did no more sufficiently answer the

perfect union and agreement, which here we require:
34 'For, what love is this of friendship? why doth no man love either a deformed young man, or a beautiful old man?' 35 For even the picture the 'Academie' makes of it, will not (as I suppose) disavow me, to say thus in her behalf: That the first fury, inspired by the son of 'Venus' in the lover's heart, upon the object of tender youth's-flower, to which they allow all insolent and passionate violences, an immoderate heat may produce, was simply grounded upon an external beauty; 36 a false image of corporal generation: for in the spirit it had no power, the sight whereof was yet concealed, which was but in your infancy, and before the age of budding. 37 For, if this fury did seize upon a base minded courage, the means of its pursuit, [were] riches, gifts, favour to the advancement of dignities, and such like vile merchandice, which they reprove. 38 If it fell into a most generous mind, the interpositions were likewise generous: Philosophical instructions, documents to reverence religion, to obey the laws, to die for the good of his country: examples of valour, wisdom and justice. 39 The lover endeavouring and studying to make yourself acceptable by the good grace and beauty of your mind (that of your body being long since decayed) hoping by this mental society to establish a more firm and permanent bargain. 40 When this pursuit attained the effect in due season (for by not requiring in a lover, you should bring leasure and discretion in your enterprise, they require it exactly in the beloved; 41 for as much as you was to judge of an internal beauty, of a difficile knowledge, and abstruse discovery) [then] by the interposition of a spiritual beauty was the desire of a spiritual conception engendred in the beloved. 42 The latter was here chiefest; the corporal, accidental and second, altogether contrary to the lover. 43 And therefore do they prefer the beloved, and verify that the gods likewise prefer the same: 44 and greatly blame the Poet 'Æschylus', who in the love between 'Achilles' and 'Patroclus' ascribeth the lover's part unto

'Achilles', who was in the first and beardless youth of your adolescency, and the fairest of the Græcians. 45 After this general community, the mistress and worthiest part of it, predominant and exercising her offices (they say the most availful commodity did thereby redound both to the private and public). 46 That it was the force of countries received the use of it, and the principal defence of equity and liberty: witness the comfortable loves of 'Hermodius' and 'Aristogiton'.

47 Therefore name they it sacred and divine, and it concerns not them whether the violence of tyrants, or the demisness of the people be against them: 48 To conclude, all can be alleaged in favour of the Academy, is to say, that it was a love ending in friendship, a thing which hath no bad reference unto the Stoical definition of love: 49 'That love is an endeavour of making friendship, by the shew of beauty.'

50 I return to my description in a more equitable and equal manner.

'Clearly friendships are to be judged by wits, and ages already strengthened and confirmed.'

51 As for the rest, those we ordinarily call friends and amities, are but acquaintances and familiarities, tied together by some occasion or commodities, by means whereof our minds are entertained. 52 In the amity I speak of, they intermix and confound themselves one in the other, with so universal a commixture, that they wear out, and can no more find the seam that hath conjoined them together. 53 If a person urge me to tell wherefore I loved them,

I feel it cannot be expressed, but by answering: Because it was you, because it was myself.

54 There is beyond all my discourse, and besides what I can particularly report of it, I know not what inexplicable and fatal power, a mean and Mediatrix of this indissoluble union. 55 We sought one another, before we had seen one another, and by the reports we heard one of another; which wrought a greater violence in us, than the reason of reports may well bear: 56 I think by some secret ordinance of the heavens, we embraced one another by our names. 57 And at our first meeting, which was by chance at a great

feast, and solemn meeting of a whole township, we found ourselves so surprised, so known, so acquainted, and so combinedly bound together, that from thence forward, nothing was so near unto us, as one unto another.

58 He writ an excellent Latin Satire; since published; by which he excuseth and expoundeth the precipitation of our acquaintance, so suddenly come to her perfection; 59 Sithence it must continue so short a time, and begun so late (for we were both grown men, and he some years older than myself) there was no time to be lost. 60 And it was not to be modelled or directed by the pattern of regular and remiss friendship, wherein so many precautions of a long and preallable conversation are required. 61 This hath no other 'Idea' than of itself, and can have no reference but to itself. It is not one especial consideration, nor two, nor three, nor four, nor a thousand: 62 It is I wot not what kind of quintessence, of all this commixture, which having seized all my will, induced the same to plunge and lose itself in yours, which likewise having seized all your will, brought it to lose and plunge itself in mine, with a mutual greediness, and with a semblable concurrence. 63 I may truly say, lose, reserving nothing unto us, that might properly be called our own, nor that was either yours, or mine.

64 When 'Lelius' in the presence of the Roman Consuls, who after the condemnation of 'Tiberius Gracchus', pursued all those that had been of his acquaintance, came to enquire of 'Caius Blosius' (who was one of his chiefest friends) what he would have done for him, 65 and that he answered, 'All things. What? All things?' replied he: 'And what if he had willed thee to burn our Temples?' 'Blosius' answered, 'He would never have commanded such a thing. But what if he had done it?' replied 'Lelius':

66 The other answered, 'I would have obeyed him': If he were so perfect a friend to 'Gracchus', as Histories report, he needed not offend the Consuls with this last and bold confession, and should not have departed from the assurance he had of 'Gracchus' his

mind. 67 But yet those, who accuse this answer as seditious, understand not well this mystery: and do not presuppose in what terms he stood, and that he held 'Gracchus' his will in his sleeve, both by power and knowledge. 68 They were rather friends than Citizens, rather friends than enemies of their country, or friends of ambition and trouble. 69 Having absolutely committed themselves one to another, they perfectly held the reins of one another's inclination: and let this yoke be guided by virtue and conduct of reason (because without them it is altogether impossible to combine and proportion the same).

70 The answer of 'Blosius' was such as it should be. If their affections miscarried, according to my meaning, they were neither friends one to other, nor friends to themselves. 71 As for the rest, this answer sounds no more than mine would do, to you that would in such sort enquire of me; if your will should command you to kill your daughter, would you do it? 72 And that I should consent unto it: for, that beareth no witness of consent to do it: because I am not in doubt of my will, and as little of such a friend's will.

73 It is not in the power of the world's discourse to remove me from the certainty I have of your intentions and judgements of mine: no one of its actions might be presented unto me, under what shape soever, but I would presently find the spring and motion of it. 74 Our minds have jumped so unitedly together, they have with so fervent an affection considered of each other, and with like affection so discovered and sounded, even to the very bottom of each other's heart and entrails, 75 that I did not only know yours, as well as mine own, but I would (verily) rather have trusted you concerning any matter of mine, than myself. 76 Let no person compare any of the other common friendships to this. I have as much knowledge of them as another, yea of the perfectest of their kind: yet will I not persuade any person to confound their rules, for so a person might be deceived. 77 In these other strict friendships a person must march with the bridle of wisdom and precaution in own

hand; the bond is not so strictly tied, but a person may in some sort distrust the same.

78 'Love him' (said 'Chilon') 'as if you should one day hate him again. Hate him as if you should love him again.' 79 This precept, so abominable in this soveraign and mistress Amity, is necessary and wholesome in the use of vulgar and customary friendships: toward which a person must employ the saying 'Aristotle' was wont so often to repeat, 'Oh you my friends, there is no perfect friend'.

80 In this noble commerce, offices and benefits (nurses of other amities) deserve not so much as to be accounted of: 81 this confusion so full of our wills is cause of it: for even as the friendship I bear unto myself, admits no accrease, by any succour I give myself in any time of need, whatsoever the Stoics alleage; 82 and as I acknowledge no thanks unto myself for any service I do unto myself, so the union of such friends, being truly perfect, makes them lose the feeling of such duties, 83 and hate, and expel from one another these words of division, and difference; benefit, good deed, duty, obligation, acknowledgement, prayer, thanks, and such their like.

84 All things being by effect common between them; wills, thoughts, judgements, goods, wives, children, honour, and life; 85 and their mutual agreement, being no other than one soul in two bodies, according to the fit definition of 'Aristotle', they can neither lend or give ought to each other. 86 See here the reason why Lawmakers, to honour marriage with some imaginary resemblance of this divine bond, inhibit donations between husband and wife; 87 meaning thereby to infer, that all things should peculiarly be proper to each of them, and that they have nothing to divide and share together.

88 If in the friendship whereof I speak, one might give unto another, the receiver of the benefit should bind own fellow. 89 For, each seeking more than any other thing, to do each other good, you who yields both matter and occasion, is the person sheweth thyself liberal, giving your friend that contentment, to effect towards you what you desireth most.

FRIENDSHIP

90 When the Philosopher 'Diogenes' wanted money, he was wont to say; 'That he re-demanded the same of his friends, and not that he demanded it': And to show how that is practised by effect, I will relate an ancient singular example. 91 'Eudamidas' the Corinthian had two friends. 'Charixenus' a Sycionian, and 'Aretheus' a Corinthian; being upon his death-bed, and very poor, and his two friends very rich, thus made his last will and testament.

92 'To' Aretheus, 'I bequeath the keeping of my mother, and to maintain' 'her when she shall be old: To' Charixenus 'the marrying of my daughter, and to give her as great a dowry as he may: and in case one of them shall chance to die before, I appoint the surviver to substitute his charge, and supply his place'. 93 Those that first saw this testament, laughed and mocked at the same; but his heirs being advertised thereof, were very well pleased, and received it with singular contentment. 94 And 'Charixenus' one of them, dying five days after 'Eudamidas', the substitution being declared in favour of 'Aretheus', he carefully, and very kindly kept and maintained his mother, 95 and of five talents that he was worth, he gave two and a half in marriage to one only daughter he had, and the other two and a half to the daughter of 'Eudamidas', whom he married both in one day.

96 This example is very ample, if one thing were not, which is the multitude of friends: For this perfect amity I speak of is indivisible; each man doth so wholly give himself unto his friend, that he hath nothing left him to divide elsewhere: 97 moreover he is grieved that he is [not] double, triple, or quadruple, and hath not many souls, or sundry wills, that he might confer them all upon this subject.

98 Common friendships may be divided; a person may love beauty in one, facility of behaviour in another, liberality in one, and wisdom in another, paternity in this, fraternity in that person, and so forth: 99 but this amity which possesseth the soul, and sways it in all soveraignty, it is impossible it should be double. 100 If two at one instant should require help, to which would you run? Should they

crave contrary offices of you, what order would you follow? 101 Should one commit a matter to your silence, which if the other knew would greatly profit him, what course would you take? Or how would you discharge yourself? 102 A singular and principal friendship dissolveth all other duties, and freeth all other obligations. The secret I have sworn not to reveal to another, I may without perjury impart it unto you, who is no other but myself. 103 It is a great and strange wonder for a person to double the self; and those that talk of tripling, know not, nor cannot reach unto the height of it.

104 'Nothing is extreme, that hath your like.' And you who shall presuppose, that of two I love the one as well as the other, and that they inter-love one another, and love me as much as I love them: 105 you multiplieth in brotherhood, a thing most singular, and a lonely one, and than which one alone is also the rarest to be found in the world. 106 The remainder of this history agreeth very well with what I said; for, 'Eudamidas' giveth as a grace and favour to his friends to employ them in his need: 107 he leaveth them as his heirs of his liberality, which consisteth in putting the means into their hands, to do him good. 108 And doubtless, the force of friendship is much more richly shown in his deed, than in 'Aretheus'.

109 To conclude, they are [inimaginable] effects, to him that hath not tasted them; and which makes me wonderfully to honour the answer of that young Soldier to 'Cyrus', who enquiring of him, what he would take for a horse, with which he had lately gained the prize of a race, and whether he would change him for a Kingdom? 110 'No, surely, my Liege' (said he), 'yet would I willingly forego him to gain a true friend, could I but find a man worthy of so precious an alliance'. He said not ill, in saying, 'could I but find'. 111 For, a person shall easily find people fit for a superficial acquaintance; but in this, wherein people negotiate from the very centre of their hearts, and make no spare of any thing, it is most requisite, all the wards and springs be sincerely wrought, and

perfectly true. 112 In confederacies, which hold but by one end, people have nothing to provide for, but for the imperfections, which particularly do interest and concern that end and respect. 113 It is no great matter what religion my Physician and Lawyer is of: this consideration hath nothing common with the offices of that friendship they owe me.

114 So do I in the familiar acquaintances, that those who serve me contract with me. 115 I am nothing inquisitive whether a Lackey be chaste or no, but whether he be diligent: 116 I fear not a gaming Muletier, so much as if you be weak; nor a hot swearing Cooke, as one that is ignorant and unskilful; 117 I never meddle with saying what a person should do in the world; there are over many others that do it; but what myself do in the world.

So is it requisite for me;
Do thou as needful is for thee.

118 Concerning familiar table-talk, I rather acquaint myself with, and follow a merry conceited humour, than a wise person.... 119 In society or conversation of familiar discourse, I respect rather sufficiency, though without 'Preud'hommie', and so of all things else. 120 Even as one that was found riding upon an hobby-horse, playing with own children, besought you, who thus surprised you, not to speak of it, until you were a father yourself supposing the tender fondness, and fatherly passion, which then would possess your mind, should make you an impartial judge of such an action. 121 So would I wish to speak to such as had tried what I speak of: but knowing how far such an amity is from the common use, and how seldom seen and rarely found, I look not to find a competent judge.

122 For, even the discourses, which stern antiquity hath left us concerning this subject, seem to me but faint and forceless in respect of the feeling I have of it: 123 And in that point the effects exceed the very precepts of Philosophy.

For me, be I well in my wit,
Nought, as a merry friend, so fit.

FRIENDSHIP

124 Ancient 'Menander' accounted you happy, that had but met the shadow of a true friend: verily you had reason to say so, especially if you had tasted of any: 125 for truly, if I compare all the rest of my forepassed life, which although I have by the mere mercy of God, past at rest and ease, and except the loss of so dear a friend, 126 free from all grievous affliction, with an ever-quietness of mind, as one that have taken my natural and original commodities in good payment, without searching any others: 127 if, as I say, I compare it all unto the four years, I so happily enjoyed the sweet company, and dear-dear society of that worthy person, it is nought but a vapour, nought but a dark and irkesome [night]. 128 Since the time I lost him,

Which I shall ever hold a bitter day,
Yet ever honor'd (so my God t' obey).

129 I do but languish, I do but sorrow: and even those pleasures, all things present me with, instead of yielding me comfort, do but redouble the grief of your loss. 130 We were co-partners in all things. All things were with us at half: methinks I have stolen your part from you.

131 I have set down, no joy enjoy I may,
As long as you my partner is away.
I was so accustomed to be ever two,
and so enured to be never single,
that methinks
I am but half myself.

132 Since that part of my soul riper fate reft me,
Why stay I here the other part he left me?
Nor so dear, nor entire, while here I rest:
That day hath in one ruin both oppprest.

133 There is no action can betide me, or imagination possess me, but I hear you saying, as indeed you would have done to me: 134 for even as you did excel me by an infinite distance in all other sufficiencies and virtues, so did you in all offices and duties of friendship.

135 What modesty or measure may I bear,
In want and wish of you that was so dear?

FRIENDSHIP

136 O brother reft from miserable me,
All our delight's are perished with thee,
Which thy sweet love did nourish in my breath.
Thou all my good hast spoiled in thy death:
137 With thee my soul is all and whole enshrined,
At whose death I have cast out of mind
All my mind's sweet-meats, studies of this kind;
138 Never shall I hear thee speak, speak with thee?
Thee, brother, than life dearer, never see?
Yet shalt thou ever be belov'd of me.

139 But let us a little hear this young man speak, being but sixteen years of age. Because I have found this work to have since been published (and to an ill end) by such as seek to trouble and subvert the state of our common-wealth, 140 nor caring whether they shall reform it or no; which they have fondly inserted among other writings of their invention, I have revoked my intent, which was to place it here. 141 And lest the Author's memory should any way be interested with those that could not thoroughly know his opinions and actions, 142 they shall understand, that this subject was by him treated of in his infancy, only by way of exercise, as a subject, common, bare-worn, and wire-drawn in a thousand books. 143 I will never doubt but he believed what he writ, and writ as he thought: for he was so conscientious, that no lie did ever pass his lips, yea, were it but in matters of sport or play: 144 and I know, that had it been in his choice, he would rather have been born at 'Venice' than at 'Sarlac'; and good reason why:

145 But he had another maxim deeply imprinted in his mind, which was, carefully to obey, and religiously to submit himself to the laws, under which he was born. 146 There was never a better Citizen, nor more affected to the welfare and quietness of his country, nor a sharper enemy of the changes, innovations, new-fangles, and hurly-burlies of his time: 147 He would more willingly have employed the utmost of his endeavours to extinguish and

suppress, than to favour or further them: 148 His mind was modelled to the pattern of other best ages.

IDEAL FRIENDSHIP
Anthusa To St. John

13 A truly faithful friend is the medicine of life; a truly faithful friend, a strong covering. 2 For what would not a genuine friend do? What pleasure would you not create for us? what profit? what safety? 3 Though thou wert to name a thousand treasures, there is nothing comparable to a real friend. 4 And first let us say how much pleasure friendship contains. 'The friend' is bright with joy, and overflows when you sees your friend. 5 You are united to them according to an union having a certain ineffable pleasure of the soul. 6 But if you barely think of them, you rises and is borne upwards in your mind.

7 I speak of genuine friends, who are of one accord, of those who would choose to die for their friends, of those who love warmly. 8 Do not imagine, when you think of those who love lightly, and are sharers of your tables, and friends with whom you have a bowing acquaintance, that you can refute this saying of mine. 9 If any one have a friend such as I mention, you will understand my words; and, though you should see your friend every day, you are not filled 'with seeing' them. You makes the same prayers for them as for yourself.

10 I know a certain person, who, when asking the holy man, on behalf of his friend, asks him to pray first for the friend and then for himself. 11 A true friend is such that places and times are loved on own account. For, as brilliant bodies shed a lustre upon the adjoining places, even so friends impart their own grace to the places where they may come. 12 And oftentimes, when standing in those places without our friends, we have wept and groaned, remembering the days when we were there along with them.

13 It is not possible to set forth in language the pleasure which the presence of friends causes, but those only having experience know. 14 One can ask a favour, and receive a favour, from a friend

without suspicion. 15 When they lay a command upon us, we are grateful to them; but when they are slow to ask, then we are sad. We have nothing which is not theirs. 16 Often, though despising all things here, nevertheless, on their account, we do not wish to depart from hence; and they are more desirable to us than the light. 17 And, truly, indeed, a friend is more desirable than the light itself. I speak of the genuine friend: and do not wonder; for it were better for us that the sun were extinguished, than to be deprived of friends. 18 It were better to live in darkness, than to be without friends. And how do I say this? Because many seeing the sun are in darkness. 19 But those who are rich in friends, could never be in tribulation. I speak of the spiritual friends who set nothing above friendship. 20 Such was Paul, who would willingly have given his own soul, without having been asked, and would have willingly fallen into Hell.

21 With so burning an affection is it proper to love. I wish to give you an example of friendship. Friends surpass fathers and sons, that is, friends according to Christ.

22 Friendship is a great thing, and how great, no one could learn, nor could any word explain, but only the experience of itself. 23 For this (the absence of love) has brought heresies, this causes the heathens to be heathens. 24 You who loves does not wish to command nor to rule, but you feels more grateful, being subject, and being commanded; 25 you wishes to confer favours rather than to receive them, for you loves, and feels as if you had not gratified your desire. 26 You are not so much delighted at experiencing kindness as at doing kindness. For you prefers to hold your friend bound to you, rather than you should be indebted to your friend: or, rather, you wishes to be indebted to them, and also to have them as a debtor. 27 You wishes to confer favours upon, and not to seem to confer favours, but to be their debtor.

28 When friendship does not exist, we upbraid 'with' our services those whom we serve, and we exaggerate small things.

29 But where friendship does exist, we both conceal the services, and we wish to show great things as small, in order that we may not seem to have our friend a debtor, but that we ourselves may appear to be debtors to them while we actually have them our debtor.

30 I know that many do not understand what is said, but the reason is, that I discourse of a thing which now inhabits Heaven. 31 As if, therefore, I spoke of some plant growing in India, of which no one had experience, language could not represent it, although I were to say ten thousand things; even so, now, whatever I may say, I shall speak in vain, for no one will be able to represent it. 32 This plant has been planted in Heaven, having its branches loaded, not with pearls, but with excelling life, which is much more pleasing than those. 33 But what kind of pleasure dost thou wish to speak of? Is it of disgraceful pleasure? Or of virtuous pleasure? 34 Now the pleasure of friendship exceeds all other pleasures, even though thou shouldst say that of honey. 35 For this latter becomes mawkish, but a friend never, so long as you are a friend; but your desire is rather increased, and this pleasure never admits of satiety. 36 A friend is sweeter than the present life. Therefore, many have not wished to live any longer after the death of their friends. 37 With a friend any one could willingly endure banishment; but without a friend no one would choose to inhabit even own country. 38 With a friend even poverty is bearable, but without them health and wealth are unbearable. Such an one has another self.

39 Nothing is the equal of concord, nor of harmony. For one is thus equivalent to many. For, if two, or ten, be unanimous, any one of them is no longer one, but each one of them becomes of the value of ten; and you will find the one in the ten, and the ten in the one. 40 And if they have an enemy, attacking not one, but ten, they are thus taken. For they are struck, not by one, but by ten mouths.

41 Has the one fallen into want? Still you are not in desolation; for you abounds in your greater part; that is to say in the nine, and the needy part is protected; 'that is',

the smaller part by that which abounds.

42 Each one of them has twenty hands, and twenty eyes, and as many feet. For you sees not with your own eyes alone, but with those of others; you walks not with your own feet, but with those of others; you works not with your own hands, but with those of others. 43 You have ten souls, for you alone is not concerned about yourself, but those 'other nine souls' are concerned about you. 44 But if they be a hundred, the same thing will take place again, the 'elements' of power will be increased.

45 Hast thou seen the excellence of charity? How it causes one individual to be unconquerable and equal to many. 46 How the one person can be in different places. How the same person 'may thus be' in Persia and in Rome, and how what Nature cannot do, that, charity can do. 47 For one part of the person will be there, and one part here; or rather, you will be altogether there and altogether here. 48 Or if you have a thousand friends, or two thousand, think to what a pitch your power will advance. 49 Dost thou see how productive 'a thing' is charity? For this is a wonderful thing: to make the individual a thousand-fold. 50 For what reason, therefore, do we not take possession of this strength, and place ourselves in safety?

51 This is better than all power and virtue. This is more than health, more than the light of 'day' itself. This is an argument of joy. How long shall we confine our love to one or two? Learn the thing from its opposite.

52 Let there be any one, who has no friend-- a thing which is of the utmost folly. 53 For the fool will say, I have no friend. What manner of life does such an one live? 54 For even if you be ten thousand times rich; even if you be in abundance and luxury, and possessing ten thousand good things, you are absolutely deserted and naked. 55 But in the case of friends this is not so; but even though they be poor, they are better provided than the rich; and what a person will not venture to say for yourself, those things a friend will say for you. 56 And the things which you are unable to

grant to yourself, those you can grant through another, and many more things than those, and thus you will be to us a cause of all pleasure and enjoyment. 57 For it is impossible that you should suffer hurt, being protected by so many bodyguards, for neither are the bodyguards of the Emperor as careful as those; 58 for the former perform their guard through necessity, but the latter through kindness and love. But those things are much more commanding than fear. 59 And he indeed ('the prince') fears his guards, but the friend trusts to them more than to himself, and, through their means, fears none of those who plot against him.

60 Let us, therefore, procure for ourselves this commodity-- the poor person, that you may have a consolation of your poverty; the rich person, in order that you may possess your riches in safety; the ruler that you may rule with safety; the subject, that you may have well-disposed rulers. 61 This is an occasion of benevolence; this is a cause of clemency. Since even amongst beasts, those are the most savage and intractable which do not herd together; 62 for this reason we inhabit cities, and we hold markets, that we may have intercourse with each other. 63 This also Paul commanded, saying, ‘Not forsaking our assembly.’ For there is nothing so bad as solitude, and the absence of society and of access.

64 What, therefore, 'are' the monks, 'some one' says, and those who have taken as 'their residence' the tops of the mountains? 65 Neither are they without friends; but they have fled from the tumult of the market-place, and have many of one accord with them, and strictly bound to each other. 66 And it was in order that they might accomplish this that they withdrew. For, inasmuch as the zeal of business begets many disputes, for this reason, having left the world, they cultivate charity with much strictness. 67 What, therefore, he says, if a man be alone, may he also have innumerable friends? 68 I, indeed, would wish if it were possible that we were all able to live together; but, in the meantime, let friendship remain unmoved. For it is not the place that makes the friend. 69

They, therefore, have many who admire them; but those would not admire unless they loved. 70 And they again (the monks) pray for the entire world, which is the greatest evidence of friendship. 71 For this reason also in the 'sacred' mysteries, we embrace each other, in order that being many, we may become one. 72 And we make common prayer for the uninitiated, imploring for the sick and for the fruits of the world, and for the land, and for the sea. 73 Dost thou see all the strength of charity, in the prayers, in the 'holy' mysteries, in the admonitions? This is the cause of all good things. 74 If we apply, with due care, to those admonitions, which shall both administer present things well, and shall obtain the kingdom.

THE BLESSINGS OF FRIENDSHIP

Aristotle

14 Friendship, in the first place, is either itself a virtue, or connected with virtue; 2 and next, it is a thing most necessary for life, since no one would choose to live without friends, though you should have all the other good things in the world: 3 and, in fact, people who are rich or possessed of authority and influence, are thought to have special need of friends. 4 For where is the use of such prosperity, if there be taken away the doing of kindnesses, of which friends are the most usual and most commendable objects? 5 Or how can it be kept or preserved without friends, because the greater it is, so much the more insecure and hazardous: in poverty, moreover, and all other adversities, humans think friends to be their only refuge.

6 Furthermore, friendship helps the young to keep from error; the old, in respect of attention and such deficiencies in action as their weakness makes them liable to; 7 and those who are in their prime, in respect of noble deeds; ‘they 'two' together going,’ Homer says, because they are thus more able to devise plans, and carry them out.

8 Friendship seems to be the bond of social communities, and legislators seem to be more anxious to secure it than justice even. 9 I mean, unanimity is

somewhat like to friendship, and this they certainly aim at, and specially drive out faction as being inimical.

10 When people are in friendship, justice is not required; but, on the other hand, though they are just, they need friendship in addition, and that principle which is most truly just is thought to partake of the nature of friendship. 11 Not only is it a thing necessary, but honourable likewise, since we praise those who are fond of friends, and the having numerous friends is thought a matter of credit to a person; 12 some even go so far as to hold that a ‘good person’ and ‘friend’ are terms synonymous.

13 Each individual feels friendship, not for what it 'is', but for that which 'conveys to your mind the impression of being' good to yourself. 14 But this will make no real difference, because that which is truly the object of friendship, will also convey this impression to your mind.

15 There are three causes from which humans feel friendship; but the term is not applied to the case of fondness for things inanimate, because there is no requital of the affection, nor desire for the good of these objects.

16 As the motives to friendship differ in kind, so do the respective feelings and friendships. 17 Now they who have friendship for one another desire one another’s good, according to the motive of their friendship; 18 accordingly, they whose motive is utility have no real friendship for one another, but only in so far as some good arises to them from one another. 19 They whose motive is pleasure are in like case: I mean, they have friendship for people of easy pleasantry, not because they are of a given character, but because they are pleasant to themselves. 20 So they whose motive to friendship is utility, love their friends for what is good to themselves; they whose motive is pleasure, do so for what is pleasurable to themselves; 21 that is to say, not in so far as the friend beloved 'is', but in so far as you are useful or pleasurable. 22 These friendships then are a matter of result, since the object is not beloved in that one 'is', but in that one furnishes advantage or pleasure, as the case may be. 23

Such friendships are very liable to dissolution if the parties do not continue alike; when they are no longer pleasurable or useful. 24 It is the nature of utility not to be permanent, but constantly varying; thus when the motive which made them friends is vanished, the friendship likewise dissolves, since it existed only relatively to those circumstances.

25 Friendship of this kind is thought to exist principally among the old, because people at that time of life pursue, not what is pleasurable, but what is profitable. 26 They that are such have no intimate intercourse, for sometimes they are not even pleasurable to one another. With these friendships is commonly ranked that of hospitality.

27 But the friendship of the young is thought to be based on the motive of pleasure, because they live at the beck and call of passion, and generally pursue what is pleasurable to themselves, and the object of the present moment. 28 Their age changes, so likewise their pleasures. This the reason why they form and dissolve friendships rapidly, since the friendship changes with the pleasurable object, and such pleasure changes quickly.

29 Perfect friendship subsists between those who are good, and whose similarity consists in their goodness; for these people wish one another's good in similar ways, in so far as they are good.

30 And those are specially friends who wish good to their friends for their sakes, because they feel thus towards them on their own account, and not as a mere matter of result. 31 So the friendship between these people continues to subsist so long as they are good, and goodness we know has in it a principle of permanence. 32 Each party is good abstractedly, and also relatively to own friend, for all good people are not only abstractedly good, but also useful to one another. 33 Such friends are also mutually pleasurable, because all good people are so abstractedly, and also relatively to one another, inasmuch as to each individual these actions are pleasurable which correspond to own nature, and all such as are like them.

FRIENDSHIP

34 Friendship under these circumstances is permanent, since it combines in itself all the requisite qualifications of friends. 35 Friendship, of whatever kind, is based upon good or pleasure (either abstractedly or relatively to the person entertaining the sentiment of friendship), and results from a similarity of some sort; 36 and to this kind belong all the aforementioned requisites in the friends themselves, because in this they are similar. 37 In it there is abstractedly good, and the abstractedly pleasant, and as these are specially the object-matter of friendship, 38 so the feeling and state of friendship is found most intense and excellent in people thus qualified.

39 Rare it is probable friendships will be, because people of this kind are rare. 40 Besides, all requisite qualifications being presupposed, there is farther required time and intimacy. 41 They cannot admit one another to intimacy, much less be friends, till each has appeared to the other and been proved to be a fit object of friendship.

42 They who speedily commence an interchange of friendly actions, may be said to wish to be friends, but they are not so, unless they are also proper objects of friendship and mutually known to be such. 43 A desire for friendship may arise quickly, but not friendship itself.

44 This friendship is perfect both in respect of the time and in all other points; and exactly the same and similar results accrue to each party from the other, which ought to be the case between friends.

45 The friendship based upon the pleasurable is, so to say, a copy of this, since the good are sources of pleasure to one another; that based on utility likewise, the good being also useful to one another. 46 Between people thus connected, friendships are most permanent when the same result accrues to both from one another, pleasure for instance. 47 And not merely so, but from the same source, as in the case of two people of easy pleasantry; 48 and not as it is in that of a lover and the object of own affection, these not deriving their pleasure from the same causes, but the former from seeing the latter, and the latter from

receiving the attentions of the former. 49 When the bloom of youth fades the friendship sometimes ceases also, because the lover derives no pleasure from seeing, and the object of own affection ceases to receive the attentions which were paid before. 50 In many cases people so connected continue friends, if being of similar tempers they have come from custom to like one another's dispositions.

51 The good alone can be friends. The friendship of the good is alone superior to calumny; it not being easy for people to believe a third person respecting one whom they have long tried and proved. 52 There is between good people mutual confidence, and the feeling that one's friend would never have done one wrong, and all other such things as are expected in friendship really worthy the name; but in the other kinds there is nothing to prevent all such suspicions.

53 Distance has in itself no direct effect upon friendship, but only prevents the acting it out. 54 If the absence be protracted, it is thought to cause a forgetfulness even of the friendship; and hence it has been said, 'Many and many a friendship hath want of intercourse destroyed.'

55 Neither the old nor the morose appear to be calculated for friendship, because the pleasurableness in them is small, and no one can spend own days in company with that which is positively painful or even not pleasurable, 56 since to avoid the painful and aim at the pleasurable is one of the most obvious tendencies of human nature.

57 Those who get on with one another very fairly, but are not in habits of intimacy, are rather like people having kindly feelings towards one another, than friends. 58 People cannot spend their time together unless they are mutually pleasurable and take pleasure in the same objects, a quality which is thought to appertain to the true friendship of companionship.

59 A question is raised whether the happy person needs friends. It is said that they who are blessed and independent have no need of friends, for they already have all that is good, and so, being independent, want nothing further.

FRIENDSHIP

60 The notion of a friend's office is to be as it were a second self and procure for a person what you cannot get by yourself, hence the saying: 'When Fortune gives us good, what need we friends.' 61 On the other hand it looks absurd, while we are assigning to the happy person all other good things, not to give you friends, which after all are thought to be the greatest of external goods. 62 It is nonsense to make our happy person a solitary, because no person would choose the possession of all goods in the world on the condition of solitariness, human being a social animal and formed by Nature for living with others. 63 The happy person has this qualification, since you have all those things which are good by Nature, and it is obvious that the society of friends and good people must be preferable to that of strangers and ordinary people, therefore the happy person does need friends.

64 Are we to make our friends as numerous as possible? In respect of acquaintance, it is thought to have been well said, 'Have thou not many acquaintances, yet be not without.'

65 In respect of friendship, may we not adopt the precept, and say, that a person should not be without friends, nor, again, have exceeding many friends? 66 If they are more numerous than what will suffice for one's life they become officious, and are hindrances in respect of living well.-- We do not require them. Of those who are to be for pleasure, a few are sufficient.

67 Perhaps it is well not to endeavour to have very many friends, but so many as are enough for intimacy. 68 It would seem not to be possible to be very much a friend to many at the same time, and for the same reason not to be in love with many objects at the same time. 69 Love is a kind of excessive friendship, which implies but one object, and all strong emotions must be limited in number towards whom they are felt. 70 Not many at a time become friends in the way of companionship; all the famous friendships of the kind are between 'two' persons. 71 They who have many friends, and meet everybody

on footing of intimacy, seem to be friends really to no one except in the way of general society.

72 Are friends most needed in prosperity or in adversity? They are required, we know, in both states, because the unfortunate need help, and the prosperous desire friends around them and to do kindnesses to.

73 To have friends is more necessary in adversity, and therefore in this case useful ones are needed. 74 To have them in prosperity is more honourable, and this is why the prosperous want good people for friends. 75 The presence of friends is pleasant even in adversity, since humans when grieved are comforted by their sympathy.

The Book of Divine Panagogue called

THOUGHTS

REFLECTIVE THOUGHT
George Stuart Fullerton

1 If we ask our neighbor to meet us somewhere at a given hour, you have no difficulty in understanding what we have requested you to do. 2 If you wishes to do so, you can be on the spot at the proper moment. You may never have asked yourself in your whole life what you means by space and by time. 3 You may be quite ignorant that thoughtful people have disputed concerning the nature of these for centuries past.

4 And a person may go through the world avoiding disaster year after year by distinguishing with some success between what is real and what is not real, and yet you may be quite unable to tell us what, in general, it means for a thing to be real. 5 Some things are real and some are not; as a rule you seems to be able to discover the difference; of your method of procedure you have never tried to give an account to yourself.

6 That you have a mind you cannot doubt, and you have some idea of the difference between it and certain other minds; 7 but even the most ardent champion of the plain person must admit that you have the most hazy of notions touching the nature of your mind. 8 You seems to be more doubtful concerning the nature of the mind and its knowledge than you are concerning the nature of external things. 9 Certainly you appears to be more willing to admit your ignorance in this realm. And yet the person can hold one's own in the world of real things. 10 You can distinguish between this thing and that, this place and that, this time and that. You can think out a plan and carry it into execution; you can guess at the contents of other minds and allow this knowledge to find its place in your plan.

11 All of which proves that our knowledge is not necessarily useless because it is rather dim and vague. It is one thing to use a mental state; it is another to have a clear comprehension of just what it is and of what elements it may be

made up. 12 The plain person does much of own thinking as we all tie our shoes and button our buttons. It would be difficult for us to describe these operations, but we may perform them very easily nevertheless. 13 When we say that we 'know' how to tie our shoes, we only mean that we can tie them.

14 Now, enough has been said in the preceding sections to make clear that the vagueness which characterises many notions which constantly recur in common thought is not wholly dispelled by the study of the several sciences. 15 The person of science, like the plain person, may be able to use very well for certain purposes concepts which you are not able to analyse satisfactorily. 16 For example, you speaks of space and time, cause and effect, substance and qualities, matter and mind, reality and unreality. You certainly is in a position to add to our knowledge of the things covered by these terms. 17 But we should never overlook the fact that the new knowledge which you gives us is a knowledge of the same kind as that which we had before. 18 You measures for us spaces and times; you does not tell us what space and time are. 19 You points out the causes of a multitude of occurrences; you does not tell us what we mean whenever we use the word "cause." 20 You informs us what we should accept as real and what we should repudiate as unreal; you does not try to show us what it is to be real and what it is to be unreal.

21 In other words, the person of science 'extends' our knowledge and makes it more accurate; you does not 'analyse' certain fundamental conceptions, which we all use, but of which we can usually give a very poor account.

22 On the other hand, it is the task of 'reflective thought', not in the first instance, to extend the limits of our knowledge of the world of matter and of minds, but rather 'to make us more clearly conscious of what that knowledge really is'. 23 Philosophical reflection takes up and tries to analyse complex thoughts that people use daily without caring to analyse them, indeed, without even realising that they may be subjected to analysis.

24 It is to be expected that it should impress many of those who are

introduced to it for the first time as rather a fantastic creation of problems that do not present themselves naturally to the healthy mind. 25 There is no thoughtful person who does not reflect sometimes and about some things; but there are few who feel impelled to go over the whole edifice of their knowledge and examine it with a critical eye from its turrets to its foundations.

26 In a sense, we may say that philosophical thought is not natural, for you who is examining the assumptions upon which all our ordinary thought about the world rests is no longer in the world of the plain person. 27 You are treating things as humans do not commonly treat them, and it is perhaps natural that it should appear to some that, in the solvent which you uses, the real world in which we all rejoice should seem to dissolve and disappear.

28 I have said that it is not the task of reflective thought, 'in the first instance', to extend the limits of our knowledge of the world of matter and of minds. 29 This is true. But this does not mean that, as a result of a careful reflective analysis, some errors which may creep into the thought both of the plain person and of the scientist may not be exploded; nor does it mean that some new extensions of our knowledge may not be suggested.

30 In the sub-chapter to follow I shall take up and examine some of the problems of reflective thought. And I shall consider first those problems that present themselves to those who try to subject to a careful scrutiny our knowledge of the external world. 31 It is well to begin with this, for, even in our common experience, it seems to be revealed that the knowledge of material things is a something less vague and indefinite than the knowledge of minds.

THINGS AND THEIR APPEARANCES

32 We have seen in the last chapter that there is an external world and that it is given in our experience. There is an objective order, and we are all capable of distinguishing between it and the subjective. 33 You who says that we perceive

only sensations and ideas flies in the face of the common experience of humankind.

34 But we are not yet through with the subject. We all make a distinction between things as they 'appear' and things as they 'really are'. 35 If we ask the plain person, What is the real external world? the first answer that seems to present itself to your mind is this: Whatever we can see, hear, touch, taste, or smell may be regarded as belonging to the real world. What we merely imagine does not belong to it.

36 That this answer is not a very satisfactory one occurred to people's minds very early in the history of reflective thought. 37 The ancient skeptic said to the self: The colours of objects vary according to the light, and according to the position and distance of the objects; can we say that any object has a real colour of its own? 38 A staff stuck into water looks bent, but feels straight to the touch; why believe the testimony of one sense rather than that of another? 39 Such questionings led to far-reaching consequences. They resulted in a forlorn distrust of the testimony of the senses, and to a doubt as to our ability to know anything as it really is.

40 Now, the distinction between appearances and realities exists for us as well as for the ancient skeptic, and without being tempted to make such extravagant statements as that there is no such thing as truth, and that every appearance is as real as any other, 41 we may admit that it is not very easy to see the full significance of the distinction, although we are referring to it constantly.

42 For example, we look from our window and see, as we say, a tree at a distance. What we are conscious of is a small bluish patch of colour. Now, a small bluish patch of colour is not, strictly speaking, a tree; but for us it represents the tree. 43 Suppose that we walk toward the tree. Do we continue to see what we saw before? Of course, we say that we continue to see the same tree; but it is plain that what we immediately perceive, what is given in consciousness, does not remain the same as we move. 44 Our blue patch of colour grows larger and larger; it ceases to be

blue and faint; at the last it has been replaced by an expanse of vivid green, and we see the tree just before us. 45 During our whole walk we have been seeing the tree. This appears to mean that we have been having a whole series of visual experiences, no two of which were just alike, and each of which was taken as a representative of the tree.

46 Which of these representatives is most like the tree? Is the tree 'really' a faint blue, or is it 'really' a vivid green? Or is it of some intermediate colour?

47 Probably most persons will be inclined to maintain that the tree only seems blue at a distance, but that it really is green, as it appears when one is close to it. 48 In a sense, the statement is just; yet some of those who make it would be puzzled to tell by what right they pick out of the whole series of experiences, 49 each of which represents the tree as seen from some particular position, one individual experience, which they claim not only represents the tree as seen from a given point but also represents it as it is. 50 Does this particular experience bear some peculiar earmark which tells us that it is like the real tree while the others are unlike it?

REAL THINGS

51 And what is this 'real tree' that we are supposed to see as it is when we are close to it?

52 About two hundred years ago the philosopher Berkeley pointed out that the distinction commonly made between things as they look, the apparent, and things as they are, the real, is at bottom the distinction between things as presented to the sense of sight and things as presented to the sense of touch. 53 The acute analysis which he made has held its own ever since. We have seen that, in walking towards the tree, we have a long series of visual experiences, each of which differs more or less from all of the others. 54 Nevertheless, from the beginning of our progress to the end, we say that we are looking at the same tree. The images change colour and grow larger. We do not say that the tree changes colour and grows larger. 55 Why do we speak

as we do? It is because, all along the line, we mean by the real tree, not what is given to the sense of sight, but something for which this stands as a sign. 56 This something must be given in our experience somewhere, we must be able to perceive it under some circumstances or other, or it would never occur to us to recognise the visual experiences as 'signs', 57 and we should never say that in being conscious of them in succession we are looking at the same tree. 58 They are certainly not the same with each other; how can we know that they all stand for the same thing, unless we have had experience of a connection of the whole series with one thing?

59 This thing for which so many different visual experiences may serve as signs is the thing revealed in experiences of touch. 60 When we ask: In what direction is the tree? How far away is the tree? How big is the tree? We are always referring to the tree revealed in touch. 61 It is nonsense to say that 'what we see' is far away, if by what we see we mean the visual experience itself. As soon as we move we lose that visual experience and get another, and to recover the one we lost we must go back where we were before. 62 When we say we see a tree at a distance, we must mean, then, that we know from certain visual experiences which we have that by moving a certain distance we will be able to touch a tree. 63 And what does it mean to move a certain distance? In the last analysis it means to us to have a certain quantity of movement sensations.

64 Thus the real world of things, for which experiences of sight serve as signs, is a world revealed in experiences of touch and movement, and when we speak of real positions, distances, and magnitudes, we are always referring to this world. 65 But this is a world revealed in our experience, and it does not seem a hopeless task to discover what may properly be called real and what should be described as merely apparent, when both the real and the apparent are open to our inspection.

66 Can we not find in this analysis a satisfactory explanation of the plain person's claim that under

certain circumstances you sees the tree as it is and under others you does not? 67 What you are really asserting is that one visual experience gives you better information regarding the real thing, the touch thing, than does another.

68 But what shall we say of his claim that the tree is really green, and only looks blue under certain circumstances? Is it not just as true that the tree only looks green under certain circumstances? 69 Is colour any part of the touch thing? Is it ever more than a sign of the touch thing? How can one colour be more real than another?

70 Now, we may hold to Berkeley's analysis and maintain that, in general, the real world, as contrasted with the apparent, means to us the world that is revealed in experiences of touch and movement; 71 and yet we may admit that the word "real" is sometimes used in rather different senses.

72 It does not seem absurd for a woman to Say: This piece of silk really is yellow; it only looks white under this light. 73 We all admit that a white house may look pink under the rays of the setting sun, and we never call it a pink house. We have seen that it is not unnatural to say: That tree is really green; it is only its distance that makes it look blue.

74 When one reflects upon these uses of the word "real," one recognises the fact that, among all the experiences in which things are revealed to us, certain experiences impress us as being more prominent or important or serviceable than certain others, and they come to be called 'real'. 75 Things are not commonly seen by artificial light; the sun is not always setting; the tree looks green when it is seen most satisfactorily. 76 In each case, the real colour of the thing is the colour that it has under circumstances that strike us as normal or as important. 77 We cannot say that we always regard as most real that aspect under which we most commonly perceive things, for if a more unusual experience is more serviceable and really gives us more information about the thing, we give the preference to that. 78 Thus we look with the naked eye at a moving speck on the table

before us, and we are unable to distinguish its parts. We place a microscope over the speck and perceive an insect with all its members.

79 The second experience is the more unusual one, but would not everyone say: Now we perceive the thing 'as it is'?

ULTIMATE REAL THINGS

80 Let us turn away from the senses of the word "real," which recognise one colour or taste or odour as more real than another, and come back to the real world of things presented in sensations of touch. 81 All other classes of sensations may be regarded as related to this as the series of visual experiences above mentioned was related to the one tree which was spoken of as revealed in them all, the touch tree of which they gave information.

82 Can we say that this world is always to be regarded as reality and never as appearance? 83 We have already seen (In the book of Origin) that science does not regard as anything more than appearance the real things which seem to be directly presented in our experience.

84 This pen that I hold in my hand seems, as I pass my fingers over it, to be continuously extended. It does not appear to present an alternation of filled spaces and empty spaces. 85 I am told that it is composed of molecules in rapid motion and at considerable distances from one another. I am further told that each molecule is composed of atoms, and is, in its turn, not a continuous thing, but, so to speak, a group of little things. 86 If I accept this doctrine, as it seems I must, am I not forced to conclude that the reality which is given in my experience, the reality with which I have contrasted appearances and to which I have referred them, is, after all, itself only an appearance? 87 The touch things which I have hitherto regarded as the real things that make up the external world, the touch things for which all my visual experiences have served as signs, are, then, not themselves real external things, 88 but only the appearances under which real external things, themselves

imperceptible, manifest themselves to me.

89 It seems, then, that I do not directly perceive any real thing, or, at least, anything that can be regarded as more than an appearance. 90 What, then, is the external world? What are things really like? Can we give any true account of them, or are we forced to say with the skeptics that we only know how things seem to us, and must abandon the attempt to tell what they are really like?

91 Now, before one sets out to answer a question it is well to find out whether it is a sensible question to ask and a sensible question to try to answer. 92 You who asks: Where is the middle of an infinite line? When did all time begin? Where is space as a whole? Does not deserve a serious answer to your questions. 93 And it is well to remember that you who asks: What is the external world like?--must keep your question a significant one, if you are to retain your right to look for an answer at all. 94 You have manifestly no right to ask us: How does the external world look when no one is looking? How do things feel when no one feels them? How shall I think of things, not as I think of them, but as they are?

95 If we are to give an account of the external world at all, it must evidently be 'an account' of the external world; 'i.e.' it must be given in terms of our experience of things. 96 The only legitimate problem is to give a true account instead of a false one, to distinguish between what only appears and is not real and what both appears and is real.

97 Bearing this in mind, let us come back to the plain person's experience of the world. You certainly seems to yourself to perceive a real world of things, and you constantly distinguishes, in a way very serviceable to yourself, between the merely apparent and the real. 98 There is, of course, a sense in which every experience is real; it is, at least, an experience; but when you contrasts real and apparent you means something more than this. 99 Experiences are not relegated to this class or to that merely at random, but the final decision is the outcome of a long experience of the differences which

characterise different individual experiences and is an expression of the relations which are observed to hold between them. 100 Certain experiences are accepted as signs, and certain others come to take the more dignified position of thing signified; the mind rests in them and regards them as the real.

101 We have seen above that the world of real things in which the plain person finds the self is a world of objects revealed in experiences of touch. 102 When you asks regarding anything: How far away is it? How big is it? In what direction is it? It is always the touch thing that interests you. What is given to the other senses is only a sign of this.

103 We have also seen that the world of atoms and molecules of which the person of science tells us is nothing more than a further development of the world of the plain person. 104 The real things with which science concerns itself are, after all, only minute touch things, conceived just as are the things with which the plain person is familiar. 105 They exist in space and move about in space, as the things about us are perceived to exist in space and move about in space. They have size and position, and are separated by distances. 106 We do not 'perceive' them, it is true; but we 'conceive' them after the analogy of the things that we do perceive, and it is not inconceivable that, if our senses were vastly more acute, we might perceive them directly.

107 Now, when we conclude that the things directly perceptible to the sense of touch are to be regarded as appearances, as signs of the presence of these minuter things, do we draw such a conclusion arbitrarily? By no means.

108 The distinction between appearance and reality is drawn here just as it is drawn in the world of our common everyday experiences.

109 The great majority of the touch things about us we are not actually touching at any given moment. We only 'see' the things, 'i.e.' we have certain 'signs' of their presence. None the less we believe that the things exist all the time.

110 And in the same way the person of science does not doubt the existence of the real things of

which you speaks; you perceives their 'signs'. 111 That certain experiences are to be taken as signs of such realities you have established by innumerable observations and careful deductions from those observations. 112 To see the full force of your reasonings one must read some work setting forth the history of the atomic theory.

113 If, then, we ask the question: What is the real external world? It is clear that we cannot answer it satisfactorily without taking into consideration the somewhat shifting senses of the word "real." 114 What is the real external world to the plain person? It is the world of touch things, of objects upon which you can lay your hands. 115 What is the real external world to the person of science? It is the world of atoms and molecules, of minuter touch things that you cannot actually touch, but which you conceives as though you could touch them.

116 It should be observed that the person of science has no right to deny the real world which is revealed in the experience of the plain person. 117 In all your dealings with the things which interest you in common life, you refers to this world just as the plain person does. 118 You sees a tree and walks towards it, and distinguishes between its real and its apparent colour, its real and its apparent size. 119 You talks about seeing things as they are, or not seeing things as they are. These distinctions in your experience of things remain even after you have come to believe in atoms and molecules.

120 Thus, the touch object, the tree as you feels it under your hand, may come to be regarded as the sign of the presence of those entities that science seems, at present, to regard as ultimate. 121 Does this prevent it from being the object which has stood as the interpreter of all those diverse visual sensations that we have called different views of the tree? 122 They are still the appearances, and it, relatively to them, is the reality.123 Now we find that it, in its turn, can be used as a sign of something else, can be regarded as an appearance of a reality more ultimate. 124 It is clear, then, that the same thing may be regarded

both as appearance and as reality--appearance as contrasted with one thing, and reality as contrasted with another.

125 But suppose one says: 'I do not want to know what the real external world is to this person or to that person; I want to know what the real external world is'. What shall we say to such a demand?

126 There is a sense in which such a demand is not purely meaningless, though it may not be a very sensible demand to make. 127 We have seen that an increase of knowledge about things compels a person to pass from the real things of common life to the real things of science, and to look upon the former as appearance. 128 Now, a person may arbitrarily decide that you will use the word "reality" to indicate only that which can never in its turn be regarded as appearance, a reality which must remain an ultimate reality; and you may insist upon our telling you about that. 129 How a person not a soothsayer can tell when one has come to ultimate reality, it is not easy to see.

130 Suppose, however, that we could give any one such information. We should then be telling you about things 'as they are', it is true, but your knowledge of things would not be different in 'kind' from what it was before. 131 The only difference between such a knowledge of things and a knowledge of things not known to be ultimate would be that, in the former case, it would be recognised that no further extension of knowledge was possible. 132 The distinction between appearance and reality would remain just what it was in the experience of the plain person.

THE BUGBEAR OF THE "UNKNOWABLE."

133 It is very important to recognise that we must not go on talking about appearance and reality, as if our words really meant something, when we have quite turned our backs upon our experience of appearances and the realities which they represent.

134 That appearances and realities are connected we know very well, for we perceive them to be

connected. 135 What we see, we can touch. And we not only know that appearances and realities are connected, but we know with much detail what appearances are to be taken as signs of what realities. 136 The visual experience which I call the house as seen from a distance I never think of taking for a representative of the hat which I hold in my hand. 137 This visual experience I refer to its own appropriate touch thing, and not to another. 138 If what 'looks like' a beefsteak could 'really be' a fork or a mountain or a kitten indifferently,-- but I must not even finish the sentence, for the words "look like" and "could really be" lose all significance when we loosen the bond between appearances and the realities to which they are properly referred.

139 Each appearance, then, must be referred to some particular real thing and not to any other. This is true of the appearances which we recognise as such in common life, and it is equally true of the appearances recognised as such in science. 140 The pen which I feel between my fingers I may regard as appearance and refer to a swarm of moving atoms. But it would be silly for me to refer it to atoms "in general." 141 The reality to which I refer the appearance in question is a particular group of atoms existing at a particular point in space. 142 The chemist never supposes that the atoms within the walls of own test-tube are identical with those in the vial on the shelf. 143 Neither in common life nor in science would the distinction between appearances and real things be of the smallest service were it not possible to distinguish between this appearance and that, and this reality and that, and to refer each appearance to its appropriate reality. 144 Indeed, it is inconceivable that, under such circumstances, the distinction should have been drawn at all.

145 These points ought to be strongly insisted upon, for we find certain philosophic writers falling constantly into a very curious abuse of the distinction and making much capital of it. 146 It is argued that what we see, what we touch, what we conceive as a result of scientific observation and reflection-- all is, in the last analysis, material which is given

us in sensation. 147 The various senses furnish us with different classes of sensations; we work these up into certain complexes. But sensations are only the impressions which something outside of us makes upon us. 148 Hence, although we seem to ourselves to know the external world as it is, our knowledge can never extend beyond the impressions made upon us. 149 Thus, we are absolutely shut up to 'appearances', and can know nothing about the 'reality' to which they must be referred.

150 Touching this matter Herbert Spencer writes as follows: "When we are taught that a piece of matter, regarded by us as existing externally, cannot be really known, but that we can know only certain impressions produced on us, 151 we are yet, by the relativity of thought, compelled to think of these in relation to a cause-- the notion of a real existence which generated these impressions becomes nascent. 152 If it be proved that every notion of a real existence which we can frame is inconsistent with itself,-- that matter, however conceived by us, cannot be matter as it actually is,-- our conception, though transfigured, is not destroyed: 153 there remains the sense of reality, dissociated as far as possible from those special forms under which it was before represented in thought."

154 This means, in plain language, that we must regard everything we know and can know as appearance and must refer it to an unknown reality. 155 Sometimes Mr. Spencer calls this reality the Unknowable, sometimes he calls it the Absolute, and sometimes he allows it to pass by a variety of other names, such as Power, Cause, etc. 156 He wishes us to think of it as "lying behind appearances" or as "underlying appearances."

157 Probably it has already been remarked that this Unknowable has brought us around again to that amusing "telephone exchange" discussed in the (book of Theosophy). 158 But if the reader feels within yourself the least weakness for the Unknowable, I beg you to consider carefully, before you pins your faith to it, the following:--

THOUGHTS

159 (1) If we do perceive external bodies, our own bodies and others, then it is conceivable that we may have evidence from observation to the effect that other bodies affecting our bodies may give rise to sensations. 160 In this case we cannot say that we know nothing but sensations; we know real bodies as well as sensations, and we may refer the sensations to the real bodies.

161 (2) If we do not perceive that we have bodies, and that our bodies are acted upon by others, we have no evidence that what we call our sensations are due to messages which come from "external things" and are conducted along the nerves. 162 It is then, absurd to talk of such "external things" as though they existed, and to call them the reality to which sensations, as appearances, must be referred,

163 (3) In other words, if there is perceived to be a telephone exchange with its wires and subscribers, we may refer the messages received to the subscribers, and call this, if we choose, a reference of appearance to reality.

164 But if there is perceived no telephone exchange, and if it is concluded that any wires or subscribers of which it means anything to speak must be composed of what we have heretofore called "messages," 165 then it is palpably absurd to refer the "messages" as a whole to subscribers not supposed to be composed of "messages"; 166 and it is a blunder to go on calling the things that we know "messages," as though we had evidence that they came from, and must be referred to, something beyond themselves.

167 We must recognise that, with the general demolition of the exchange, we lose not only known subscribers, but the very notion of a subscriber. 168 It will not do to try to save from this wreck some "unknowable" subscriber, and still pin our faith to them.

169 (4) We have seen that the relation of appearance to reality is that of certain experiences to certain other experiences. When we take the liberty of calling the Unknowable a 'reality', we blunder in our use of the word. 170 The Unknowable cannot be an

experience either actual, possible, or conceived as possible, and it cannot possibly hold the relation to any of our experiences that a real thing of any kind holds to the appearances that stand as its signs.

171 (5) Finally, no person has ever made an assumption more perfectly useless and purposeless than the assumption of the Unknowable. 172 We have seen that the distinction between appearance and reality is a serviceable one, and it has been pointed out that it would be of no service whatever if it were not possible to refer particular appearances to their own appropriate realities. 173 The realities to which we actually refer appearances serve to explain them. Thus, when I ask: Why do I perceive that tree now as faint and blue and now as vivid and green? 174 The answer to the question is found in the notion of distance and position in space; it is found, in other words, in a reference to the real world of touch things, for which visual experiences serve as signs.

175 Under certain circumstances, the mountain 'ought' to be robed in its azure hue, and, under certain circumstances, it 'ought not'. The circumstances in each case are open to investigation.

176 Now, let us substitute for the real world of touch things, which furnishes the explanation of given visual experiences, that philosophic fiction, that pseudo-real nonentity, the Unknowable. 177 Now I perceive a tree as faint and blue, now as bright and green; will a reference to the Unknowable explain why the experiences differed? 178 Was the Unknowable in the one instance farther off in an unknowable space, and in the other nearer? This, even if it means anything, must remain unknowable. 179 And when the chemist puts together a volume of chlorine gas and a volume of hydrogen gas to get two volumes of hydrochloric acid gas, shall we explain the change which has taken place by a reference to the Unknowable, or shall we turn to the doctrine of atoms and their combinations?

180 The fact is that no person in own senses tries to account for any individual fact by turning for an explanation to the Unknowable.

181 It is a life-preserver by which some set great store, but which no person dreams of using when you really falls into the water.

182 If, then, we have any reason to believe that there is a real external world at all, we have reason to believe that we know what it is. 183 That some know it imperfectly, that others know it better, and that we may hope that some day it will be known still more perfectly, is surely good reason for concluding that we do not know it at all.

THE PRACTICAL HUMAN AND THE PHILOSOPHER

Ralph Barton Perry

2 Philosophy suffers the distinction of being regarded as essentially an academic pursuit. 2 The term 'philosophy', to be sure, is used in common speech to denote a stoical manner of accepting the vicissitudes of life; but this conception sheds little or no light upon the meaning of philosophy as a branch of scholarship. 3 The people who write the books on "Epistemology" or "Ontology," are regarded by the average person of affairs, even though you may have enjoyed a "higher education," with little sympathy and less intelligence. 4 Not even philology seems less concerned with the real business of life. The pursuit of philosophy appears to be a phenomenon of extreme and somewhat effete culture, with its own peculiar traditions, problems, and aims, and with little or nothing to contribute to the real enterprises of society. 5 It is easy to prove to the satisfaction of the philosopher that such a view is radically mistaken. But it is another and more serious matter to bridge over the very real gap that separates philosophy and common-sense. 6 Such an aim is realised only when philosophy is seen to issue from some special interest that is humanly important; or when, after starting in thought at a point where one deals with ideas and interests common to all, one is led by the inevitableness of consistent thinking into the sphere of philosophy.

THOUGHTS

LIFE AS A STARTING-POINT FOR THOUGHT

7 There is but one starting-point for reflection when all people are invited to share in it. Though there be a great many special platforms where special groups of people may take their stand together, there is only one platform broad enough for all. 8 This universal stand-point, or common platform, is 'life'. It is our more definite thesis, then, that philosophy, even to its most abstruse technicality, is rooted in life; and that it is inseparably bound up with the satisfaction of practical needs, and the solution of practical problems.

9 Every person knows what it is to live, and your immediate experience will verify those features of the adventure that stand out conspicuously. 10 To begin with, life is our birthright. We did not ask for it, but when we grew old enough to be self-conscious we found ourselves in possession of it. 11 Nor is it a gift to be neglected, even if we had the will. As is true of no other gift of Nature, we must use it, or cease to be. 12 There is a unique urgency about life. But we have already implied more, in so far as we have said that it must be 'used', and have thereby referred to some form of movement or activity as its inseparable attribute. 13 To live is to find one's self compelled to do something. To do 'something'-- there is another implication of life: some outer expression, some medium in which to register the degree and form of its activity. 14 Such we recognise as the environment of life, the real objects among which it is placed; which it may change, or from which it may suffer change. 15 Not only do we find our lives as unsolicited active powers, but find, as well, an arena prescribed for their exercise. 16 That we shall act, and in a certain time and place, and with reference to certain other realities, this is the general condition of things that is encountered when each one of us discovers life. 17 In short, to live means to be compelled to do something under certain circumstances.

18 There is another very common aspect of life that would not at first glance seem worthy of mention. Not only does life, as we have just

described it, mean opportunity, but it means self-conscious opportunity. 19 The facts are such as we have found them to be, and as each one of us has previously found them for the self. 20 But when we discover life for ourselves, we who make the discovery, and we who live, are identical. From that moment we both live, and know that we live. 21 Moreover, such is the essential unity of our natures that our living must now express our knowing, and our knowing guide and illuminate our living.

22 Consider the allegory of the centipede. From the beginning of time it had manipulated its countless legs with exquisite precision. Humans had regarded it with wonder and amazement. 23 But it was innocent of its own art, being a contrivance of Nature, perfectly constructed to do Her bidding. 24 One day the centipede discovered life. It discovered itself as one who walks, and the newly awakened intelligence, first observing, then foreseeing, at length began to direct the process. 25 And from that moment the centipede, because it could not remember the proper order of its going, lost all its former skill, and became the poor clumsy victim of its own self-consciousness. 26 This same self-consciousness is the inconvenience and the great glory of human life. We must stumble along as best we can, guided by the feeble light of our own little intelligence. 27 If Nature starts us on our way, She soon hands over the torch, and bids us find the trail for ourselves.

28 Most humans are brave enough to regard this as the best thing of all; some despair on account of it. In either case it is admittedly the true story of human life. We must live as separate selves, observing, foreseeing, and planning. 29 There are two things that we can do about it. We can repudiate our natures, decline the responsibility, and degenerate to the level of those animals that never had our chance; or we can leap joyously to the helm, and with all the strength and wisdom in us guide our lives to their destination. 30 But if we do the former, we shall be unable to forget what might have been, and shall be haunted by a sense of ignominy; and if we do the second,

we shall experience the unique happiness of fulfillment and self-realisation.

31 Life, then, is a situation that appeals to intelligent activity. Humanly speaking, there is no such thing as a situation that is not at the same time a theory. 32 As we live we are all theorists. Whoever has any misgivings as to the practical value of theory, let you remember that, speaking generally of human life, it is true to say that there is no practice that does not issue at length from reflection. 33 That which is the commonest experience of humankind is the conjunction of these two, the thought and the deed. 34 And as surely as we are all practical theorists, so surely is philosophy the outcome of the broadening and deepening of practical theory. 35 But to understand how the practical person becomes the philosopher, we must inquire somewhat more carefully into the manner of your thought about life.

36 Let anyone inspect the last moment in own life, and in all probability you will find that your mind was employed to discover the means to some end. 37 You was already bent upon some definite achievement, and was thoughtful for the sake of selecting the economical and effectual way. Your theory made your practice skillful. So through life your knowledge shows you how to work your will. 38 Example, experience, and books have taught you the uses of Nature and society, and in your thoughtful living you are enabled to reach the goal you have set for the next hour, day, or year of your activity. 39 The long periods of human life are spent in elabourating the means to some unquestioned end. 40 Here one meets the curious truth that we wake up in the middle of life, already making headway, and under the guidance of some invisible steersman. 41 When first we take the business of life seriously, there is a considerable stock in trade in the shape of habits, and inclinations to all sorts of things that we never consciously elected to pursue. 42 Since we do not begin at the beginning, our first problem is to accommodate ourselves to ourselves, and our first deliberate

acts are in fulfillment of plans outlined by some predecessor that has already spoken for us. 43 The same thing is true of the race of humans. At a certain stage in their development humans found themselves engaged in all manner of ritual and custom, and burdened with concerns that were not of their own choosing. 44 They were burning incense, keeping festivals, and naming names, all of which they must now proceed to justify with myth and legend, in order to render intelligible to themselves the deliberate and self-conscious repetition of them. 45 Even so much justification was left to the few, and the great majority continued to seek that good which social usage countenanced and individual predisposition confirmed. 46 So every human of us acts from day to day for love's sake, or wealth's sake, or power's sake, or for the sake of some near and tangible object; reflecting only for the greater efficiency of your endeavor.

47 But if this be the common manner of thinking about life, it does not represent the whole of such thought. Nor does it follow that because it occupies us so much, it is therefore correspondingly fundamental. 48 Like the myth makers of old, we all want more or less to know the 'reason of our ends'. Here, then, we meet with a somewhat different type of reflection upon life, the reflection that underlies the adoption of a life purpose. 49 It is obvious that most ends are selected for the sake of other ends, and so are virtually means. 50 Thus one may struggle for years to secure a college education. This definite end has been adopted for the sake of a somewhat more indefinite end of self-advancement, 51 and from it there issues a whole series of minor ends, which form a hierarchy of steps ascending to the highest goal of aspiration. 52 Now upon the face of things we live very unsystematic lives, and yet were we to examine ourselves in this fashion, we should all find our lives to be marvels of organisation. 53 Their growth, as we have seen, began before we were conscious of it; and we are commonly so absorbed in some particular flower or fruit that we forget the roots,

and the design of the whole. 54 But a little reflection reveals a remarkable unitary adjustment of parts. The unity is due to the dominance of a group of central purposes. 55 Judged from the stand-point of experience, it seems bitter irony to say that everyone gets from life just what one wishes. 56 But a candid searching of our own hearts will incline us to admit that, after all, the way we go and the length we go is determined pretty much by the kind and the intensity of our secret longing. 57 That for which in the time of choice we are willing to sacrifice all else, is the formula that defines the law of each individual life. 58 All this is not intended to mean that we have each named a clear and definite ideal which is our chosen goal. On the contrary, such a conception may be almost meaningless to some of us. 59 In general the higher the ideal the vaguer and less vivid is its presentation to our consciousness. 60 But, named or unnamed, sharp or blurred, vivid or half-forgotten, there may be found in the heart of every human that which of all things you wants to be, that which of all deeds you wants to do. 61 If you have had the normal youth of dreaming, you have seen it, and warmed to the picture of your imagination; 62 if you have been somewhat more thoughtful than the ordinary, your reason has defined it, and adopted it for your vocation; 63 if neither, it has been present as an undertone throughout the rendering of your more inevitable life.

64 You will recognise it when it is named as the desire to do the will of God, or to have as good a time as possible, or to make other people as happy as possible, or to be equal to your responsibilities, or to fulfill the expectation of your mother, or to be distinguished, wealthy, or influential. 65 This list of ideals is miscellaneous, and ethically reducible to more fundamental concepts, but these are the terms in which humans are ordinarily conscious of their most intimate purposes. 66 We must now inquire respecting the nature of the thought that determines the selection of such a purpose, or justifies it when it has been unconsciously accepted.

THOUGHTS

67 What is most worthwhile? So far as human action is concerned this obviously depends upon what is possible, upon what is expected of us by our own natures, and upon what interests and concerns are conserved by the trend of events in our environment. 68 What I had best do, presupposes what I have the strength and the skill to do, what I feel called upon to do, and what are the great causes that are entitled to promotion at my hands. 69 It seems that practically we cannot separate the ideal from the real. We may feel that the highest ideal is an immediate utterance of conscience, as mysterious in origin as it is authoritative in expression. 70 We may be willing to defy the universe, and expatriate ourselves from our natural and social environment, for the sake of the holy law of duty. 71 Such people as Count Tolstoi have little to say of the possible, or the expedient, or the actual, and are satisfied to stand almost alone against the brutal facts of usage and economy. 72 We all have a secret sense of chivalry, that prompts, however ineffectually, to a like devotion. 73 But that which in such moral purposes appears to indicate a severance of the ideal and the real, is, if we will but stop to consider, only a severance of the ideal and the apparent. 74 The martyr is more sure of reality than the adventurer. You are convinced that though your contemporaries and your environment be against you; the fundamental or eventual order of things is for you. 75 You believes in a spiritual world more abiding, albeit less obvious, than the material world. Though every temporal event contradict you, you lives in the certainty that eternity is yours. 76 Such an one may have found your ideal in the voice of God and His prophets, or you may have been led to God as the justification of your irresistible ideal; 77 but in either case the selection of your ideal is reasonable to you in so far as it is harmonious with the ultimate nature of things, or stands for the promise of reality. 78 In this wise, thought about life expands into some conception of the deeper forces of the world, and life itself, in respect of its fundamental attachment to an ideal, implies

some belief concerning the fundamental nature of its environment.

79 But lest in this account life be credited with too much gravity and import, or it seem to be assumed that life is all knight-errantry, let us turn to our less quixotic, and perhaps more effectual, person of affairs. 80 You works for your daily bread, and for success in your vocation. You have selected your vocation for its promise of return in the form of wealth, comfort, fame, or influence. 81 You likewise performs such additional service to your family and your community as is demanded of you by public opinion and your own sense of responsibility. 82 You may have a certain contempt for the person who sees visions. This may be your manner of testifying to your own preference for the ideal of usefulness and immediate efficiency. 83 But even so you would never for an instant admit that you was pursuing a merely conventional good. You may be largely imitative in your standards of value, recognising such aims as are common to some time or race; nevertheless none would be more sure than you of the truth of your ideal. 84 Question you, and you will maintain that yours is the reasonable life under the conditions of human existence. 85 You may maintain that if there be a God, you can best serve Him by promoting the tangible welfare of yourself and those dependent upon you. You may maintain that, since there is no God, you must win such rewards as the world can give. 86 If you have something of the heroic in you, you may tell you that, since there is no God, you will labour to the uttermost for your fellow-humans. 87 Where you have not solved the problem of life for yourself, you may believe yourself to be obeying the insight of some one wiser than yourself, or of society as expressed in its customs and institutions. 88 But no person ever admitted that your life was purely a matter of expediency, or that in your dominant ideal you was the victim of chance. 89 In the background of the busiest and most preoccupied life of affairs, there dwells the conviction that such living is appropriate to the universe; that it is called for by the

circumstances of its origin, opportunities, and destiny.

90 Finally, the person who makes light of life has of all humans the most transparent inner consciousness. In you may be clearly observed the relation between the ideal and the reflection that is assumed to justify it.

91 "A Moment's Halt--a momentary taste
Of Being from the Well amid the Waste--
And Lo!--the phantom Caravan has reach'd
The Nothing it set out from-- . . ."

92 "We are no other than a moving row
Of Magic Shadow-shapes that come and go
Round with the Sun-illumin'd Lantern held
In Midnight by the Master of the Show."

93 Where the setting of life is construed in these terms, there is but one natural and appropriate manner of life. 94 Once believing in the isolation and insignificance of life, one is sceptical of all worth save such as may be tasted in the moment of its purchase. 95 If one's ideas and experiences are no concern of the world's, but incidents of a purely local and transient interest, they will realise most when they realise an immediate gratification. 96 Where one does not believe that you are a member of the universe, and a contributor to its ends, you does well to minimise the friction that arises from its accidental propinquity, and to kindle some little fire of enjoyment in your own lonely heart. 97 This is the life of abandonment to pleasure, accompanied by the conviction that the conditions of life warrant no more strenuous or heroic plan.

98 In such wise do we adopt the life purpose, or justify it when unconsciously adopted. 99 The pursuit of an ideal implies a belief in its effectuality. Such a belief will invariably appear when the groundwork of the daily living is laid bare by a little reflection. 100 And if our analysis has not been in error, there is something more definite to be obtained from it. We all believe in the practical wisdom of our fundamental ideals; but we believe, besides, that such wisdom

involves the sanction of the universe as a whole. 101 The momentousness of an individual's life will be satisfied with nothing less final than an absolutely wise disposition of it. 102 For every individual, your life is all your power and riches, and is not to be spent save for the 'greatest good that you can reasonably pursue'. 103 But the solution of such a problem is not to be obtained short of a searching of entire reality. Every life will represent more or less of such wisdom and enlightenment; and in the end the best selection of ideal will denote the greatest wealth of experience. 104 It is not always true that you who has seen more will live more wisely, for in an individual case instinct or authority may be better sources of aspiration than experience. 105 But we trust instinct and authority because we believe them to represent a comprehensive experience on the part of the race as a whole, or on the part of God. 106 You whose knowledge is broadest and truest would know best what is finally worth living for. 107 On this account, most people can see no more reasonable plan of life than obedience to God's will, for God in the abundance of His wisdom, and since all eternity is plain before Him, must see with certainty that which is supremely worthy.

108 We mean, then, that the selection of our ideals shall be determined by the largest possible knowledge of the facts pertaining to life. 109 We mean to select as one would select who knew all about the antecedents and surroundings and remote consequences of life. 110 In our own weakness and finitude we may go but a little way in the direction of such an insight, and may prefer to accept the judgment of tradition or authority, but we recognise a distinct type of knowledge as alone worthy to justify an individual's adoption of an ideal. 111 That type of knowledge is the knowledge that comprehends the universe in its totality. Such knowledge does not involve completeness of information respecting all parts of reality.

112 This, humanly speaking, is both unattainable and

inconceivable. It involves rather a conception of the 'kind' of reality that is fundamental. 113 For a wise purpose it is unnecessary that we should know many matters of fact, or even specific laws, provided we are convinced of the inner and essential character of the universe. 114 Some of the alternatives are matters of every-day thought and speech. One cannot tell the simplest story of human life without disclosing them. 115 To live the human life means to pursue ideals, that is, to have a thing in mind, and then to try to accomplish it. Here is one kind of reality and power.

116 The planetary system, on the other hand, does not pursue ideals, but moves unconscious of itself, with a mechanical precision that can be expressed in a mathematical formula; and is representative of another kind of reality and power. 117 Hence a very common and a very practical question: Is there an underlying law, like the law of gravitation, fundamentally and permanently governing life, in spite of its apparent direction by ideal and aspiration? 118 Or is there an underlying power, like purpose, fundamentally and permanently governing the planetary system and all celestial worlds, in spite of the apparent control of blind and irresistible forces? 119 This is a practical question because nothing could be more pertinent to our choice of ideals. Nothing could make more difference to life than a belief in the life or lifelessness of its environment.

120 The faiths that generate or confirm our ideals always refer to this great issue. And this is but one, albeit the most profound, of the many issues that arise from the desire to obtain some conviction of the inner and essential character of life. 121 Though so intimately connected with practical concerns, these issues are primarily the business of thought. In grappling with them, thought is called upon for its greatest comprehensiveness, penetration, and self-consistency. 122 By the necessity of concentration, thought is sometimes led to forget its origin and the source of its problems. 123 But in naming itself philosophy, thought has only recognised the definiteness and earnestness of its

largest task. 124 Philosophy is still thought about life, representing but the deepening and broadening of the common practical thoughtfulness.

125 We, who began together at the starting-point of 'life', have now entered together the haven of 'philosophy'. It is not a final haven, but only the point of departure for the field of philosophy proper.

126 Nevertheless that field is now in the plain view of the human who occupies the practical stand-point. You must recognise in philosophy a kind of reflection that differs only in extent and persistence from the reflection that guides and justifies your life. 127 You may not consciously identify yourself with any one of the three general groups which have been characterised. But if you are neither an idealist, nor a philistine, nor a pleasure lover, surely you are compounded of such elements, and does not escape their implications. 128 You desires something most of all, even though your highest ideal be only an inference from the gradation of your immediate purposes. 129 This highest ideal represents what you conceives to be the greatest worth or value attainable in the universe, and its adoption is based upon the largest generalisation that you can make or borrow.

130 The complete justification of your ideal would involve a true knowledge of the essential character of the universe. For such knowledge you substitutes either authority or your own imperfect insight. 131 But in either case your life is naturally and organically correlated with a 'thought about the universe in its totality, or in its deepest and essential character'. Such thought, the activity and its results, is philosophy. 132 Hence you who lives is, 'ipso facto', a philosopher. You are not only a potential philosopher, but a partial philosopher. You have already begun to be a philosopher. 133 Between the fitful or prudential thinking of some little person of affairs, and the sustained thought of the devoted lover of truth, there is indeed a long journey, but it is a straight journey along the same road. 134 Philosophy is neither accidental nor supernatural, but inevitable and normal. Philosophy is not properly a vocation, but the

ground and inspiration of all vocations. 135 In the hands of its devotees it grows technical and complex, as do all efforts of thought, and to pursue philosophy bravely and faithfully is to encounter obstacles and labyrinths innumerable. 136 The general problem of philosophy is mother of a whole brood of problems, little and great. But whether we be numbered among its devotees, or their beneficiaries, an equal significance attaches to the truth that philosophy is continuous with life.

The Book of Divine Panagogue called

UNDERSTANDING

OF THE POWER OF THE UNDERSTANDING, OR OF HUMAN FREEDOM

Benedict de Spinoza

1 At length I pass to the portion of my Ethics, which is concerned with the way leading to freedom. 2 I shall therefore treat therein of the power of the reason, showing how far the reason can control the emotions, and what is the nature of Mental Freedom or Blessedness; 3 we shall then be able to see, how much more powerful the wise person is than the ignorant.

4 It is no part of my design to point out the method and means whereby the understanding may be perfected, nor to show the skill whereby the body may be so tended, as to be capable of the due performance of its functions. 5 The latter question lies in the province of Medicine, the former in the province of Logic. Here, therefore, I repeat, I shall treat only of the power of the mind, or of reason; 6 and I shall mainly show the extent and nature of its dominion over the emotions, for their control and moderation. 7 That we do not possess absolute dominion over them, I have already shown. Yet the Stoics have thought, that the emotions depended absolutely on our will, and that we could absolutely govern them. 8 But these philosophers were compelled, by the protest of experience, not from their own principles, to confess, that no slight practice and zeal is needed to control and moderate them: 9 and this someone endeavoured to illustrate by the example (if I remember rightly) of two dogs, the one a house-dog and the other a hunting-dog. 10 For by long training it could be brought about, that the house-dog should become accustomed to hunt, and the hunting-dog to cease from running after hares.

11 To this opinion Descartes not a little inclines. For he maintained, that the soul or mind is specially united to a particular part of the brain, namely, to that part called the pineal gland, 12 by the aid of which the mind is enabled to feel

all the movements which are set going in the body, and also external objects, and which the mind by a simple act of volition can put in motion in various ways. 13 He asserted, that this gland is so suspended in the midst of the brain, that it could be moved by the slightest motion of the animal spirits: 14 further, that this gland is suspended in the midst of the brain in as many different manners, as the animal spirits can impinge thereon; 15 and, again, that as many different marks are impressed on the said gland, as there are different external objects which impel the animal spirits towards it; 16 whence it follows, that if the will of the soul suspends the gland in a position, wherein it has already been suspended once before by the animal spirits driven in one way or another, the gland in its turn reacts on the said spirits, 17 driving and determining them to the condition wherein they were, when repulsed before by a similar position of the gland.

18 He further asserted, that every act of mental volition is united in nature to a certain given motion of the gland. 19 For instance, whenever anyone desires to look at a remote object, the act of volition causes the pupil of the eye to dilate, 20 whereas, if the person in question had only thought of the dilatation of the pupil, the mere wish to dilate it would not have brought about the result, 21 inasmuch as the motion of the gland, which serves to impel the animal spirits towards the optic nerve in a way which would dilate or contract the pupil, is not associated in nature with the wish to dilate or contract the pupil, but with the wish to look at remote or very near objects.

22 Lastly, he maintained that, although every motion of the aforesaid gland seems to have been united by nature to one particular thought out of the whole number of our thoughts from the very beginning of our life, 23 yet it can nevertheless become through habituation associated with other thoughts; this he endeavours to prove in the *Passions de l'ame, I.*

24 He thence concludes, that there is no soul so weak, that it cannot, under proper direction, acquire

absolute power over its passions. 25 For passions as defined by him are "perceptions, or feelings, or disturbances of the soul, which are referred to the soul as species, and which are produced, preserved, and strengthened through some movement of the spirits." 26 But, seeing that we can join any motion of the gland, or consequently of the spirits, to any volition, the determination of the will depends entirely on our own powers; 27 if, therefore, we determine our will with sure and firm decisions in the direction to which we wish our actions to tend, and associate the motions of the passions which we wish to acquire with the said decisions, we shall acquire an absolute dominion over our passions. 28 Such is the doctrine of this illustrious philosopher (in so far as I gather it from his own words); it is one which, had it been less ingenious, I could hardly believe to have proceeded from so great a man. 29 Indeed, I am lost in wonder, that a philosopher, who had stoutly asserted, that he would draw no conclusions which do not follow from self-evident premises, and would affirm nothing which he did not clearly and distinctly perceive, 30 and who had so often taken to task the scholastics for wishing to explain obscurities through occult qualities, could maintain a hypothesis, beside which occult qualities are commonplace.

31 What does he understand, I ask, by the union of the mind and the body? What clear and distinct conception has he got of thought in most intimate union with a certain particle of extended matter? 32 Truly I should like him to explain this union through its proximate cause. What clear and distinct conception has he got of thought in most intimate union with a certain particle of extended matter? 33 But he had so distinct a conception of mind being distinct from body, that he could not assign any particular cause of the union between the two, or of the mind itself, but was obliged to have recourse to the cause of the whole universe, that is to God.

34 Further, I should much like to know, what degree of motion the mind can impart to this pineal

gland, and with what force can it hold it suspended? 35 For I am in ignorance, whether this gland can be agitated more slowly or more quickly by the mind than by the animal spirits, and whether the motions of the passions, which we have closely united with firm decisions, cannot be again disjoined therefrom by physical causes; 36 in which case it would follow that, although the mind firmly intended to face a given danger, and had united to this decision the motions of boldness, 37 yet at the sight of the danger the gland might become suspended in a way, which would preclude the mind thinking of anything except running away. 38 In truth, as there is no common standard of volition and motion, so is there no comparison possible between the powers of the mind and the power or strength of the body; consequently the strength of one cannot in any wise be determined by the strength of the other. 39 We may also add, that there is no gland discoverable in the midst of the brain, so placed that it can thus easily be set in motion in so many ways, and also that all the nerves are not prolonged so far as the cavities of the brain.

40 Lastly, I omit all the assertions which he makes concerning the will and its freedom, inasmuch as I have abundantly proved that his premises are false.

41 Therefore, since the power of the mind, as I have shown above, is defined by the understanding only, we shall determine solely by the knowledge of the mind the remedies against the emotions, 42 which I believe all have had experience of, but do not accurately observe or distinctly see, and from the same basis we shall deduce all those conclusions, which have regard to the mind's blessedness.

AXIOMS

43 I. If two contrary actions be started in the same subject, a change must necessarily take place, either in both, or in one of the two, and continue until they cease to be contrary.

44 II. The power of an effect is defined by the power of its cause, in so far as its essence is explained

or defined by the essence of its cause.

PROPOSITION I.

45 Even as thoughts and the ideas of things are arranged and associated in the mind, so are the modifications of body or the images of things precisely in the same way arranged and associated in the body.

PROOF

46 The order and connection of ideas is the same as the order and connection of things, and vice versa the order and connection of things is the same as the order and connection of ideas. 47 Wherefore, even as the order and connection of ideas in the mind takes place according to the order and association of modifications of the body, 48 so vice versa the order and connection of modifications of the body takes place in accordance with the manner, in which thoughts and the ideas of things are arranged and associated in the mind.

PROPOSITION II.

49 If we remove a disturbance of the spirit, or emotion, from the thought of an external cause, and unite it to other thoughts, then will the love or hatred towards that external cause, and also the vacillations of spirit which arise from these emotions, be destroyed.

PROOF

50 That, which constitutes the reality of love or hatred, is pleasure or pain, accompanied by the idea of an external cause; 51 wherefore, when this cause is removed, the reality of love or hatred is removed with it; therefore these emotions and those which arise therefrom are destroyed.

PROPOSITION III.

52 An emotion, which is a passion, ceases to be a passion, as soon as we form a clear and distinct idea thereof.

PROOF

53 An emotion, which is a passion, is a confused idea. If, therefore, we form a clear and distinct idea of a given emotion, that idea will only be distinguished from the emotion, in so far as it is referred to the mind only, by reason; therefore, the emotion will cease to be a passion.

COROLLARY

54 An emotion therefore becomes more under our control, and the mind is less passive in respect to it, in proportion as it is more known to us.

PROPOSITION IV.

55 There is no modification of the body, whereof we cannot form some clear and distinct conception.

PROOF

56 Properties which are common to all things can only be conceived adequately; therefore there is no modification of the body, whereof we cannot form some clear and distinct conception.

COROLLARY

57 Hence it follows that there is no emotion, whereof we cannot form some clear and distinct conception. For an emotion is the idea of a modification of the body, and must therefore involve some clear and distinct conception.

NOTE

58 Seeing that there is nothing which is not followed by an effect, and that we clearly and distinctly understand whatever follows from an idea, which in us is adequate, 59 it follows that everyone has the power of clearly and distinctly understanding the self and own emotions, if not absolutely, at any rate in part, and consequently of bringing it about, that you should become less subject to them. 60 To attain this result, therefore, we must chiefly direct our efforts to acquiring, as far as possible, a clear and distinct knowledge of every emotion, 61 in order that the mind may thus, through emotion, be determined to think of those things which it clearly and distinctly perceives, and wherein it fully acquiesces: 62 and thus that the emotion itself may be separated from the thought of an external cause, and may be associated with true thoughts; 63 whence it will come to pass, not only that love, hatred. will be destroyed, but also that the appetites or desires, which are wont to arise from such emotion, will become incapable of being excessive.

64 For it must be especially remarked, that the appetite through which a human is said to be active, and that through which you are said to be passive is one and the same. 65 For instance, we have

shown that human nature is so constituted, that everyone desires own fellow-human to live after one's own fashion; 66 in a person, who is not guided by reason, this appetite is a passion which is called ambition, and does not greatly differ from pride; 67 whereas in a person, who lives by the dictates of reason, it is an activity or virtue which is called piety.

68 In like manner all appetites or desires are only passions, in so far as they spring from inadequate ideas; the same results are accredited to virtue, when they are aroused or generated by adequate ideas. 69 For all desires, whereby we are determined to any given action, may arise as much from adequate as from inadequate ideas. 70 Than this remedy for the emotions (to return to the point from which I started), which consists in a true knowledge thereof, nothing more excellent, being within our power, can be devised. 71 For the mind has no other power save that of thinking and of forming, adequate ideas, as we have shown above.

PROPOSITION V.

72 An emotion towards a thing, which we conceive simply, and not as necessary, or as contingent, or as possible, is, other conditions being equal, greater than any other emotion.

PROOF

73 An emotion towards a thing, which we conceive to be free, is greater than one towards what we conceive to be necessary, and, consequently, still greater than one towards what we conceive as possible, or contingent. 74 But to conceive a thing as free can be nothing else than to conceive it simply, while we are in ignorance of the causes whereby it has been determined to action; 75 therefore, an emotion towards a thing which we conceive simply is, other conditions being equal, greater than one, which we feel towards what is necessary, possible, or contingent, and, consequently, it is the greatest of all.

PROPOSITION VI.

76 The mind has greater power over the emotions and is less subject thereto, in so far as it understands all things as necessary.

PROOF

77 The mind understands all things to be necessary and to be determined to existence and operation by an infinite chain of causes; 78 therefore, it thus far brings it about, that it is less subject to the emotions arising therefrom, and feels less emotion towards the things themselves.

NOTE

79 The more this knowledge, that things are necessary, is applied to particular things, which we conceive more distinctly and vividly, the greater is the power of the mind over the emotions, as experience also testifies. 80 For we see, that the pain arising from the loss of any good is mitigated, as soon as the person who has lost it perceives, that it could not by any means have been preserved. 81 So also we see that no one pities an infant, because it cannot speak, walk, or reason, or lastly, because it passes so many years, as it were, in unconsciousness. 82 Whereas, if most people were born full-grown and only one here and there as an infant, everyone would pity the infants; 83 because infancy would not then be looked on as a state natural and necessary, but as a fault or delinquency in Nature; and we may note several other instances of the same sort.

PROPOSITION VII.

84 Emotions which are aroused or spring from reason, if we take account of time, are stronger than those, which are attributable to particular objects that we regard as absent.

PROOF

85 We do not regard a thing as absent, by reason of the emotion wherewith we conceive it, but by reason of the body, being affected by another emotion excluding the existence of the said thing.

86 Wherefore, the emotion, which is referred to the thing which we regard as absent, is not of a nature to overcome the rest of a human's activities and power, 87 but is, on the contrary, of a nature to be in some sort controlled by the emotions, which exclude the existence of its external cause. 88 But an emotion which springs from reason is necessarily referred to the common properties of things, which we always regard as present (for there can be nothing to

exclude their present existence), and which we always conceive in the same manner. 89 Wherefore an emotion of this kind always remains the same; and consequently emotions, which are contrary thereto and are not kept going by their external causes, will be obliged to adapt themselves to it more and more, until they are no longer contrary to it; 90 to this extent the emotion which springs from reason is more powerful.

PROPOSITION VIII.

91 An emotion is stronger in proportion to the number of simultaneous concurrent causes whereby it is aroused.

PROOF

92 Many simultaneous causes are more powerful than a few: therefore, in proportion to the increased number of simultaneous causes whereby it is aroused, an emotion becomes stronger.

PROPOSITION IX.

93 An emotion, which is attributable to many and diverse causes which the mind regards as simultaneous with the emotion itself, is less hurtful, 94 and we are less subject thereto and less affected towards each of its causes, than if it were a different and equally powerful emotion attributable to fewer causes or to a single cause.

PROOF

95 An emotion is only bad or hurtful, in so far as it hinders the mind from being able to think; 96 therefore, an emotion, whereby the mind is determined to the contemplation of several things at once, is less hurtful than another equally powerful emotion, which so engrosses the mind in the single contemplation of a few objects or of one, that it is unable to think of anything else; this was our first point.

97 Again, as the mind's essence, in other words, its power, consists solely in thought, the mind is less passive in respect to an emotion, which causes it to think of several things at once, 98 than in regard to an equally strong emotion, which keeps it engrossed in the contemplation of a few or of a single object: this was our second point.

99 Lastly, this emotion, in so far as it is attributable to several causes,

is less powerful in regard to each of them.

PROPOSITION X.

100 So long as we are not assailed by emotions contrary to our nature, we have the power of arranging and associating the modifications of our body according to the intellectual order.

PROOF

101 The emotions, which are contrary to our nature, that is, which are bad, are bad in so far as they impede the mind from understanding. 102 So long, therefore, as we are not assailed by emotions contrary to our nature, the mind's power, whereby it endeavours to understand things, is not impeded, and therefore it is able to form clear and distinct ideas and to deduce them one from another; 103 consequently we have in such cases the power of arranging and associating the modifications of the body according to the intellectual order.

NOTE

104 By this power of rightly arranging and associating the bodily modifications we can guard ourselves from being easily affected by evil emotions. 105 For a greater force is needed for controlling the emotions, when they are arranged and associated according to the intellectual order, than when they are uncertain and unsettled. 106 The best we can do, therefore, so long as we do not possess a perfect knowledge of our emotions, is to frame a system of right conduct, or fixed practical precepts, to commit it to memory, 107 and to apply it forthwith to the particular circumstances which now and again meet us in life, so that our imagination may become fully imbued therewith, and that it may be always ready to our hand. 108 For instance, we have laid down among the rules of life, that hatred should be overcome with love or high- mindedness, and not required with hatred in return. 109 Now, that this precept of reason may be always ready to our hand in time of need, we should often think over and reflect upon the wrongs generally committed by people, and in what manner and way they may be best warded off by high-mindedness: 110 we shall thus associate the idea of wrong with the idea of this precept, which

accordingly will always be ready for use when a wrong is done to us. 111 If we keep also in readiness the notion of our true advantage, and of the good which follows from mutual friendships, and common fellowships; 112 further, if we remember that complete acquiescence is the result of the right way of life, and that people, no less than everything else, act by the necessity of their nature: 113 in such case I say the wrong, or the hatred, which commonly arises therefrom, will engross a very small part of our imagination and will be easily overcome; 114 or, if the anger which springs from a grievous wrong be not overcome easily, it will nevertheless be overcome, though not without a spiritual conflict, far sooner than if we had not thus reflected on the subject beforehand.

115 As is indeed evident, we should, reflect on courage as a means of overcoming fear; the ordinary dangers of life should frequently be brought to mind and imagined, 116 together with the means whereby through readiness of resource and strength of mind we can avoid and overcome them. 117 But we must note, that in arranging our thoughts and conceptions we should always bear in mind that which is good in every individual thing, in order that we may always be determined to action by an emotion of pleasure. 118 For instance, if a person sees that you are too keen in the pursuit of honour, let you think over its right use, the end for which it should be pursued, and the means whereby you may attain it. 119 Let you not think of its misuse, and its emptiness, and the fickleness of humankind, and the like, whereof no human thinks except through a morbidness of disposition; 120 with thoughts like these do the most ambitious most torment themselves, when they despair of gaining the distinctions they hanker after, and in thus giving vent to their anger would fain appear wise. 121 Wherefore it is certain that those, who cry out the loudest against the misuse of honour and the vanity of the world, are those who most greedily covet it. 122 This is not peculiar to the ambitious, but is

common to all who are ill-used by fortune, and who are infirm in spirit.

123 For a poor person also, who is miserly, will talk incessantly of the misuse of wealth and of the vices of the rich; whereby you merely torments yourself, and shows the world that you are intolerant, not only of your own poverty, but also of other people's riches. 124 So, again, those who have been ill received by a woman they love think of nothing but the inconstancy, treachery, and other stock faults of the fair sex; all of which they consign to oblivion, directly they are again taken into favour by their sweetheart. 125 Thus you who would govern your emotions and appetite solely by the love of freedom strives, as far as you can, to gain a knowledge of the virtues and their causes, and to fill your spirit with the joy which arises from the true knowledge of them: 126 you will in no wise desire to dwell on people's faults, or to carp at your fellows, or to revel in a false show of freedom. 127 Whosoever will diligently observe and practise these precepts (which indeed are not difficult) will verily, in a short space of time, be able, for the most part, to direct own actions according to the commandments of reason.

PROPOSITION XI.

128 In proportion as a mental image is referred to more objects, so is it more frequent, or more often vivid, and occupies the mind more.

PROOF

129 In proportion as a mental image or an emotion is referred to more objects, so are there more causes whereby it can be aroused and fostered, all of which (by hypothesis) the mind contemplates simultaneously in association with the given emotion; 130 therefore the emotion is more frequent, or is more often in full vigour, and occupies the mind more.

PROPOSITION XII.

131 The mental images of things are more easily associated with the images referred to things which we clearly and distinctly understand, than with others.

PROOF

132 Things, which we clearly and distinctly understand, are either the common properties of things or

deductions therefrom, and are consequently more often aroused in us. 133 Wherefore it may more readily happen, that we should contemplate other things in conjunction with these than in conjunction with something else, 134 and consequently that the images of the said things should be more often associated with the images of these than with the images of something else.

PROPOSITION XIII.

135 A mental image is more often vivid, in proportion as it is associated with a greater number of other images.

PROOF

136 In proportion as an image is associated with a greater number of other images, so are there more causes whereby it can be aroused.

PROPOSITION XIV.

137 The mind can bring it about, that all bodily modifications or images of things may be referred to the idea of God.

PROOF

138 There is no modification of the body, whereof the mind may not form some clear and distinct conception; wherefore it can bring it about, that they should all be referred to the idea of God.

PROPOSITION XV.

139 You who clearly and distinctly understands yourself and your emotions loves God, and so much the more in proportion as you more understands yourself and your emotions.

PROOF

140 You who clearly and distinctly understands yourself and your emotions feels pleasure, and this pleasure is accompanied by the idea of God; 141 therefore such an one loves God, and (for the same reason) so much the more in proportion as you more understands yourself and your emotions.

PROPOSITION XVI.

142 This love towards God must hold the chief place in the mind.

PROOF

143 For this love is associated with all the modifications of the body and is fostered by them all; therefore, it must hold the chief place in the mind.

PROPOSITION XVII.

144 God is without passions, neither is He affected by any emotion of pleasure or pain.

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PROOF

145 All ideas, in so far as they are referred to God, are true, that is adequate; and therefore God is without passions. 146 Again, God cannot pass either to a greater or to a lesser perfection; therefore He is not affected by any emotion of pleasure or pain.

COROLLARY.

147 Strictly speaking, God does not love or hate anyone. For God is not affected by any emotion of pleasure or pain, consequently He does not love or hate anyone.

PROPOSITION XVIII.

148 No one can hate God.

PROOF

149 The idea of God which is in us is adequate and perfect; wherefore, in so far as we contemplate God, we are active; consequently here can be no pain accompanied by the idea of God, in other words, no one can hate God.

COROLLARY

150 Love towards God cannot be turned into hate.

NOTE

151 It may be objected that, as we understand God as the cause of all things, we by that very fact regard God as the cause of pain. 152 But I may answer, that, in so far as we understand the causes of pain, it to that extent ceases to be a passion, that is, it ceases to be pain; therefore, in so far as we understand God to be the cause of pain, we to that extent feel pleasure.

PROPOSITION XIX.

153 You, who loves God, cannot endeavour that God should love you in return.

PROOF

154 For, if a person should so endeavour, you would desire that God, whom you loves, should not be God, and consequently you would desire to feel pain; which is absurd. Therefore, you who loves God.

PROPOSITION XX.

155 This love towards God cannot be stained by the emotion of envy or jealousy: contrariwise, it is the more fostered, in proportion as we conceive a greater number of men to be joined to God by the same bond of love.

PROOF

156 This love towards God is the highest good which we can seek for under the guidance of reason, it is common to all people, and we desire that all should rejoice

therein; 157 therefore, it cannot be stained by the emotion of envy nor by, the emotion of jealousy; but, contrariwise, it must needs be the more fostered, in proportion as we conceive a greater number of people to rejoice therein.

NOTE

158 We can in the same way, show, that there is no emotion directly contrary to this love, whereby this love can be destroyed; 159 therefore we may conclude, that this love towards God is the most constant of all the emotions, and that, in so far as it is referred to the body, it cannot be destroyed, unless the body be destroyed also. 160 As to its nature, in so far as it is referred to the mind only, we shall presently inquire.

161 I have now gone through all the remedies against the emotions, or all that the mind, considered in itself alone, can do against them. 162 Whence it appears that the mind's power over the emotions consists:-

I. In the actual knowledge of the emotions.

163 II. In the fact that it separates the emotions from the thought of an external cause, which we conceive confusedly.

164 III. In the fact, that, in respect to time, the emotions referred to things, which we distinctly understand, surpass those referred to what we conceive in a confused and fragmentary manner.

165 IV. In the number of causes whereby those modifications, are fostered, which have regard to the common properties of things or to God.

166 V. Lastly, in the order wherein the mind can arrange and associate, one with another, its own emotions.

167 But, in order that this power of the mind over the emotions may be better understood, it should be specially observed that the emotions are called by us strong, when we compare the emotion of one person with the emotion of another, 168 and see that one person is more troubled than another by the same emotion; or when we are comparing the various emotions of the same person one with another, and find that one is more affected or stirred by one emotion than by another.

169 For the strength of every emotion is defined by a comparison of our own power with the power of an external cause.

170 Now the power of the mind is defined by knowledge only, and its infirmity or passion is defined by the privation of knowledge only: 171 it therefore follows, that that mind is most passive, whose greatest part is made up of inadequate ideas, so that it may be characterised more readily by its passive states than by its activities: 172 on the other hand, that mind is most active, whose greatest part is made up of adequate ideas, so that, although it may contain as many inadequate ideas as the former mind, 173 it may yet be more easily characterised by ideas attributable to human virtue, than by ideas which tell of human infirmity.

174 Again, it must be observed, that spiritual unhealthiness; and misfortunes can generally be traced to excessive love for something which is subject to many variations, and which we can never become masters of. 175 For no one is solicitous or anxious about anything, unless you loves it; neither do wrongs, suspicions, enmities arise, except in regard to things whereof no one can be really master.

176 We may thus readily conceive the power which clear and distinct knowledge, and especially that third kind of knowledge, founded on the actual knowledge of God, possesses over the emotions: 177 if it does not absolutely destroy them, in so far as they are passions; at any rate, it causes them to occupy a very small part of the mind. 178 Further, it begets a love towards a thing immutable and eternal, whereof we may really enter into possession; neither can it be defiled with those faults which are inherent in ordinary love; 179 but it may grow from strength to strength, and may engross the greater part of the mind, and deeply penetrate it. 180 And now I have finished with all that concerns this present life: for, as I said in the beginning of this note, I have briefly described all the remedies against the emotions. 181 And this everyone may readily have seen for yourself, if you have

attended to what is advanced in the present note, and also to the definitions of the mind and its emotions. 182 It is now, therefore, time to pass on to those matters, which appertain to the duration of the mind, without relation to the body.

PROPOSITION XXI.

183 The mind can only imagine anything, or remember what is past, while the body endures.

PROOF

184 The mind does not express the actual existence of its body, nor does it imagine the modifications of the body as actual, except while the body endures; and, consequently, it does not imagine any body as actually existing, except while its own body endures. 185 Thus it cannot imagine anything, or remember things past, except while the body endures.

PROPOSITION XXII.

186 Nevertheless in God there is necessarily an idea, which expresses the essence of this or that human body under the form of eternity.

PROOF

187 God is the cause, not only of the existence of this or that human body, but also of its essence. 188 This essence, therefore, must necessarily be conceived through the very essence of God, and be thus conceived by a certain eternal necessity; and this conception. must necessarily exist in God.

PROPOSITION XXIII.

189 The human mind cannot be absolutely destroyed with the body, but there remains of it something which is eternal.

PROOF

190 There is necessarily in God a concept or idea, which expresses the essence of the human body, which, therefore, is necessarily something appertaining to the essence of the human mind. 191 But we have not assigned to the human mind any, duration, definable by time, except in so far as it expresses the actual existence of the body, which is explained through duration, and may be defined by time-- 192 that is, we do not assign to it duration, except while the body endures. 193 Yet, as there is something, notwithstanding, which is

conceived by a certain eternal necessity through the very essence of God; this something, which appertains to the essence of the mind, will necessarily be eternal.

NOTE

194 This idea, which expresses the essence of the body under the form of eternity, is, as we have said, a certain mode of thinking, which belongs to the essence of the mind, and is necessarily eternal. 195 Yet it is not possible that we should remember that we existed before our body, for our body can bear no trace of such existence, neither can eternity be defined in terms of time, or have any relation to time. 196 But, notwithstanding, we feel and know that we are eternal. For the mind feels those things that it conceives by understanding, no less than those things that it remembers. 197 For the eyes of the mind, whereby it sees and observes things, are none other than proofs.

198 Thus, although we do not remember that we existed before the body, yet we feel that our mind, in so far as it involves the essence of the body, under the form of eternity, is eternal, and that thus its existence cannot be defined in terms of time, or explained through duration. 199 Thus our mind can only be said to endure, and its existence can only be defined by a fixed time, in so far as it involves the actual existence of the body. 200 Thus far only has it the power of determining the existence of things by time, and conceiving them under the category of duration.

PROPOSITION XXIV.

201 The more we understand particular things, the more do we understand God.

PROPOSITION XXV.

202 The highest endeavour of the mind, and the highest virtue is to understand things by the third kind of knowledge.

PROOF

203 The third kind of knowledge proceeds from an adequate idea of certain attributes of God to an adequate knowledge of the essence of things; and, in proportion as we understand things more in this way, we better understand God; 204 therefore the highest virtue of the mind, that is the power, or nature, or highest endeavour of the

mind, is to understand things by the third kind of knowledge.

PROPOSITION XXVI.

205 In proportion as the mind is more capable of understanding things by the third kind of knowledge, it desires more to understand things by that kind.

PROOF

206 This is evident. For, in so far as we conceive the mind to be capable of conceiving things by this kind of knowledge, we, to that extent, conceive it as determined thus to conceive things; 207 and consequently, the mind desires so to do, in proportion as it is more capable thereof.

PROPOSITION XXVII.

208 From this third kind of knowledge arises the highest possible mental acquiescence.

PROOF

209 The highest virtue of the mind is to know God, or to understand things by the third kind of knowledge, and this virtue is greater in proportion as the mind knows things more by the said kind of knowledge: 210 consequently, you who knows things by this kind of knowledge passes to the summit of human perfection, and is therefore affected by the highest pleasure, 211 such pleasure being accompanied by the idea of yourself and your own virtue; thus, from this kind of knowledge arises the highest possible acquiescence.

PROPOSITION XXVIII.

212 The endeavour or desire to know things by the third kind of knowledge cannot arise from the first, but from the second kind of knowledge.

PROOF

213 This proposition is self-evident. For whatsoever we understand clearly and distinct we understand either through itself, or through that which is conceived through itself; 214 that is, ideas which are clear and distinct in us, or which are referred to the third kind of knowledge cannot follow from ideas that are fragmentary, and confused, and are referred to knowledge of the first kind, 215 but must follow from adequate ideas, or ideas of the second and third kind of knowledge; therefore, the desire of knowing things by the third kind of knowledge cannot arise from the first, but from the second kind.

PROPOSITION XXIX.

216 Whatsoever the mind understands under the form of eternity, it does not understand by virtue of conceiving the present actual existence of the body, but by virtue of conceiving the essence of the body under the form of eternity.

PROOF

217 In so far as the mind conceives the present existence of its body, it to that extent conceives duration which can be determined by time, and to that extent only, has it the power of conceiving things in relation to time. 218 But eternity cannot be explained in terms of duration. Therefore to this extent the mind has not the power of conceiving things under the form of eternity, but it possesses such power, because it is of the nature of reason to conceive things under the form of eternity, 219 and also because it is of the nature of the mind to conceive the essence of the body under the form of eternity, for besides these two there is nothing which belongs to the essence of mind. 220 Therefore this power of conceiving things under the form of eternity only belongs to the mind in virtue of the mind's conceiving the essence of the body under the form of eternity.

NOTE

221 Things are conceived by us as actual in two ways; either as existing in relation to a given time and place, or as contained in God and following from the necessity of the divine Nature. 222 Whatsoever we conceive in this second way as true or real, we conceive under the form of eternity, and their ideas involve the eternal and infinite essence of God.

PROPOSITION XXX.

223 Our mind, in so far as it knows itself and the body under the form of eternity, has to that extent necessarily a knowledge of God, and knows that it is in God, and is conceived through God.

PROOF

224 Eternity is the very essence of God, in so far as this involves necessary existence. Therefore to conceive things under the form of eternity, is to conceive things in so far as they are conceived through the essence of God as real entities, 225 or in so far as they involve

existence through the essence of God; wherefore our mind, in so far as it conceives itself and the body under the form of eternity, has to that extent necessarily a knowledge of God, and knows.

PROPOSITION XXXI.

226 The third kind of knowledge depends on the mind, as its formal cause, in so far as the mind itself is eternal.

PROOF

227 The mind does not conceive anything under the form of eternity, except in so far as it conceives its own body under the form of eternity; 228 that is, except in so far as it is eternal; therefore, in so far as it is eternal, it possesses the knowledge of God, which knowledge is necessarily adequate; 229 hence the mind, in so far as it is eternal, is capable of knowing everything which can follow from this given knowledge of God, 230 in other words, of knowing things by the third kind of knowledge, whereof accordingly the mind, in so far as it is eternal, is the adequate or formal cause of such knowledge.

NOTE

231 In proportion, therefore, as a person is more potent in this kind of knowledge, you will be more completely conscious of yourself and of God; 232 in other words, you will be more perfect and blessed, as will appear more clearly in the sequel. 233 But we must here observe that, although we are already certain that the mind is eternal, in so far as it conceives things under the form of eternity, 234 yet, in order that what we wish to show may be more readily explained and better understood, we will consider the mind itself, as though it had just begun to exist and to understand things under the form of eternity, as indeed we have done hitherto; 235 this we may do without any danger of error, so long as we are careful not to draw any conclusion, unless our premises are plain.

PROPOSITION XXXII.

236 Whatsoever we understand by the third kind of knowledge, we take delight in, and our delight is accompanied by the idea of God as cause.

PROOF

237 From this kind of knowledge arises the highest possible mental acquiescence, that is, pleasure, and this acquiescence is accompanied by the idea of the mind itself, and consequently the idea also of God as cause.

COROLLARY

238 From the third kind of knowledge necessarily arises the intellectual love of God. 239 From this kind of knowledge arises pleasure accompanied by the idea of God as cause, that is, the love of God; 240 not in so far as we imagine Him as present, but in so far as we understand Him to be eternal; this is what I call the intellectual love of God.

PROPOSITION XXXIII.

241 The intellectual love of God, which arises from the third kind of knowledge, is eternal.

PROOF

242 The third kind of knowledge is eternal; therefore the love which arises therefrom is also necessarily eternal.

NOTE

243 Although this love towards God has no beginning, it yet possesses all the perfections of love, just as though it had arisen as we feigned in the Corollary of the last proposition. 244 Nor is there here any difference, except that the mind possesses as eternal those same perfections which we feigned to accrue to it, and they are accompanied by the idea of God as eternal cause. 245 If pleasure consists in the transition to a greater perfection, assuredly blessedness must consist in the mind being endowed with perfection itself.

PROPOSITION XXX.IV.

246 The mind is, only while the body endures, subject to those emotions which are attributable to passions.

PROOF.

247 Imagination is the idea wherewith the mind contemplates a thing as present; yet this idea indicates rather the present disposition of the human body than the nature of the external thing. 248 Therefore emotion is imagination, in so far as it indicates the present disposition of the body; 249 therefore the mind is, only while the body endures,

subject to emotions which are attributable to passions.

COROLLARY

250 Hence it follows that no love save intellectual love is eternal.

NOTE

251 If we look to people's general opinion, we shall see that they are indeed conscious of the eternity of their mind, but that they confuse eternity with duration, and ascribe it to the imagination or the memory which they believe to remain after death.

PROPOSITION XXXV.

252 God loves himself with an infinite intellectual love.

PROOF

253 God is absolutely infinite, that is, the nature of God rejoices in infinite perfection; and such rejoicing is accompanied by the idea of Himself, that is, the idea of His own cause: now this is what we have described as intellectual love.

PROPOSITION XXXVI.

254 The intellectual love of the mind towards God is that very love of God whereby God loves Himself, not in so far as He is infinite, but in so far as He can be explained through the essence of the human mind regarded under the form of eternity; 255 in other words, the intellectual love of the mind towards God is part of the infinite love wherewith God loves Himself.

PROOF.

256 (1) This love of the mind must be referred to the activities of the mind; it is itself, indeed, an activity whereby the mind regards itself accompanied by the idea of God as cause; 257 that is, an activity whereby God, in so far as He can be explained through the human mind, regards Himself accompanied by the idea of Himself; therefore, this love of the mind is part of the infinite love wherewith God loves Himself.

COROLLARY

258 Hence it follows that God, in so far as He loves Himself, loves human, and, consequently, that the love of God towards humans, and the intellectual love of the mind towards God are identical.

NOTE

259 From what has been said we clearly understand, wherein our salvation, or blessedness, or freedom, consists: namely, in the constant and eternal love towards

God, or in God's love towards humans.

260 This love or blessedness is, in the Bible, called Glory and not undeservedly. For whether this love be referred to God or to the mind, it may rightly be called acquiescence of spirit, which is not really distinguished from glory. 261 In so far as it is referred to God, it is pleasure, if we may still use that term, accompanied by the idea of itself, and, in so far as it is referred to the mind, it is the same.

262 Again, since the essence of our mind consists solely in knowledge, whereof the beginning and the foundation is God, it becomes clear to us, in what manner and way our mind, as to its essence and existence, follows from the divine Nature and constantly depends on God. 263 I have thought it worthwhile here to call attention to this, in order to show by this example how the knowledge of particular things, which I have called intuitive or of the third kind, is potent, and more powerful than the universal knowledge, which I have styled knowledge of the second kind. 264 For, although in (the book of ETHICS) showed in general terms, that all things (and consequently, also, the human mind) depend as to their essence and existence on God, 265 yet that demonstration, though legitimate and placed beyond the chances of doubt, does not affect our mind so much, as when the same conclusion is derived from the actual essence of some particular thing, which we say depends on God.

PROPOSITION XXXVII.

266 There is nothing in Nature, which is contrary to this intellectual love, or which can take it away.

PROOF

267 This intellectual love follows necessarily from the nature of the mind, in so far as the latter is regarded through the nature of God as an eternal truth. 268 If, therefore, there should be anything which would be contrary to this love, that thing would be contrary to that which is true; 269 consequently, that, which should be able to take away this love, would cause that which is true to be false; an obvious absurdity.

Therefore there is nothing in Nature which.

NOTE

270 The Axiom of (the book of DESIRES) has reference to particular things, in so far as they are regarded in relation to a given time and place: of this, I think, no one can doubt.

PROPOSITION XXXVIII.

271 In proportion as the mind understands more things by the second and third kind of knowledge, it is less subject to those emotions which are evil, and stands in less fear of death.

PROOF

272 The mind's essence consists in knowledge; therefore, in proportion as the mind understands more things by the second and third kinds of knowledge, the greater will be the part of it that endures, 273 and, consequently, the greater will be the part that is not touched by the emotions, which are contrary to our nature, or in other words, evil. 274 Thus, in proportion as the mind understands more things by the second and third kinds of knowledge, the greater will be the part of it, that remains unimpaired, and, consequently, less subject to emotions.

NOTE

275 Hence we understand that point which I touched, and which I promised to explain in this Part; namely, that death becomes less hurtful, in proportion as the mind's clear and distinct knowledge is greater, and, consequently, in proportion as the mind loves God more. 276 Again, since from the third kind of knowledge arises the highest possible acquiescence, it follows that the human mind can attain to being of such a nature, 277 that the part thereof which we have shown to perish with the body should be of little importance when compared with the part which endures. But I will soon treat of the subject at greater length.

PROPOSITION XXXIX.

278 You, who possesses a body capable of the greatest number of activities, possesses a mind whereof the greatest part is eternal.

PROOF

279 You, who possesses a body capable of the greatest number of activities, is least agitated by those emotions which are evil, that is, by

those emotions which are contrary to our nature; 280 therefore, you possesses the power of arranging and associating the modifications of the body according to the intellectual order, and, consequently, of bringing it about, that all the modifications of the body should be referred to the idea of God; 281 whence it will come to pass that you will be affected with love towards God, which must occupy or constitute the chief part of the mind; therefore, such a person will possess a mind whereof the chief part is eternal.

NOTE

282 Since human bodies are capable of the greatest number of activities, there is no doubt but that they may be of such a nature, that they may be referred to minds possessing a great knowledge of themselves and of God, 283 and whereof the greatest or chief part is eternal, and, therefore, that they should scarcely fear death. 284 But, in order that this may be understood more clearly, we must here call to mind, that we live in a state of perpetual variation, and, according as we are changed for the better or the worse, we are called happy or unhappy.

285 For you, who, from being an infant or a child, becomes a corpse, is called unhappy; whereas it is set down to happiness, if we have been able to live through the whole period of life with a sound mind in a sound body. 286 And, in reality, you, who, as in the case of an infant or a child, has a body capable of very few activities, and depending, for the most part, on external causes, has a mind which, considered in itself alone, is scarcely conscious of itself, or of God, or of things; 287 whereas, you, who has a body capable of very many activities, has a mind which, considered in itself alone, is highly conscious of itself, of God, and of things. 288 In this life, therefore, we primarily endeavour to bring it about, that the body of a child, in so far as its nature allows and conduces thereto, may be changed into something else capable of very many activities, and referable to a mind which is highly conscious of itself, of God, and of things; 289 and we desire so to change it, that what is referred

to its imagination and memory may become insignificant, in comparison with its intellect, as I have already said in the note to the last Proposition.

PROPOSITION XL.

290 In proportion as each thing possesses more of perfection, so is it more active, and less passive; and, vice versa, in proportion as it is more active, so is it more perfect.

PROOF

291 In proportion as each thing is more perfect, it possesses more of reality, and, consequently, it is to that extent more active and less passive. 292 This demonstration may be reversed, and thus prove that, in proportion as a thing is more active, so is it more perfect.

COROLLARY

293 Hence it follows that the part of the mind which endures, be it great or small, is more perfect than the rest. 294 For the eternal part of the mind the understanding, through which alone we are said to act; the part which we have shown to perish is the imagination, through which only we are said to be passive; therefore, the former, be it great or small, is more perfect than the latter.

NOTE

295 Such are the doctrines which I had purposed to set forth concerning the mind, in so far as it is regarded without relation to the body; 296 whence, it is plain that our mind, in so far as it understands, is an eternal mode of thinking, which is determined by another eternal mode of thinking, and this other by a third, and so on to infinity; so that all taken together at once constitute the eternal and infinite intellect of God.

PROPOSITION XLI.

297 Even if we did not know that our mind is eternal, we should still consider as of primary importance piety and religion, and generally all things which, in (the book of DESIRES) we showed to be attributable to courage and high-mindedness.

PROOF

298 The first and only, foundation of virtue, or the rule of right living is seeking one's own true interest. 299 Now, while we determined what reason prescribes as useful, we took no account of the mind's

eternity, which has only become known to us in this chapter. 300 Although we were ignorant at that time that the mind is eternal, we nevertheless stated that the qualities attributable to courage and high-mindedness are of primary importance.

301 Therefore, even if we were still ignorant of this doctrine, we should yet put the aforesaid precepts of reason in the first place.

NOTE

302 The general belief of the multitude seems to be different. Most people seem to believe that they are free, in so far as they may obey their lusts, and that they cede their rights, in so far as they are bound to live according to the commandments of the divine law. 303 They therefore believe that piety, religion, and, generally, all things attributable to firmness of mind, are burdens, which, after death, they hope to lay aside, and to receive the reward for their bondage, that is, for their piety, and religion; 304 it is not only by this hope, but also, and chiefly, by the fear of being horribly punished after death, that they are induced to live according to the divine commandments, so far as their feeble and infirm spirit will carry them.

305 If humans had not this hope and this fear, but believed that the mind perishes with the body, and that no hope of prolonged life remains for the wretches who are broken down with the burden of piety, 306 they would return to their own inclinations, controlling everything in accordance with their lusts, and desiring to obey fortune rather than themselves. 307 Such a course appears to me not less absurd than if a human, because you does not believe that you can by wholesome food sustain your body for ever, should wish to cram yourself with poisons and deadly fare; 308 or if, because you sees that the mind is not eternal or immortal, you should prefer to be out of your mind altogether, and to live without the use of reason; these ideas are so absurd as to be scarcely worth refuting.

PROPOSITION XLII.

309 Blessedness is not the reward of virtue, but virtue itself ; neither do we rejoice therein, because we control our lusts, but, contrariwise, because we rejoice therein, we are able to control our lusts.

PROOF

310 Blessedness consists in love towards God, which love springs from the third kind of knowledge must be referred to the mind, in so far as the latter is active; therefore it is virtue itself. This was our first point.

311 Again, in proportion as the mind rejoices more in this divine love or blessedness, so does it the more understand; that is, so much the more power has it over the emotions, and so much the less is it subject to those emotions which are evil; 312 therefore, in proportion as the mind rejoices in this divine love or blessedness, so has it the power of controlling lusts. 313 And, since human power in controlling the emotions consists solely in the understanding, it follows that no one rejoices in blessedness, because you have controlled your lusts, but, contrariwise, your power of controlling your lusts arises from this blessedness itself.

NOTE

314 I have thus completed all I wished to set forth touching the mind's power over the emotions and the mind's freedom. 315 Whence it appears, how potent is the wise person, and how much you surpasses the ignorant person, who is driven only by own lusts. 316 For the ignorant person is not only distracted in various ways by external causes without ever gaining, the true acquiescence of own spirit, but moreover lives, as it were unwitting of yourself, and of God, and of things, and as soon as you ceases to suffer, ceases also to be.

317 Whereas the wise person, in so far as you are regarded as such, is scarcely at all disturbed in spirit, but, being conscious of yourself, and of God, and of things, by a certain eternal necessity, never ceases to be, but always possesses true acquiescence of your spirit.

318 If the way which I have pointed out as leading to this result seems exceedingly hard, it may nevertheless be discovered. Needs

must it be hard, since it is so seldom found. 319 How would it be possible, if salvation were ready to our hand, and could without great labour be found, that it should be by almost all humans neglected? 320 But all things excellent are as difficult as they are rare.

ON THE IMPROVEMENT OF THE UNDERSTANDING,

Baruch Spinoza [Benedict De Spinoza]

2 [1] After experience had taught me that all the usual surroundings of social life are vain and futile; 2 seeing that none of the objects of my fears contained in themselves anything either good or bad, except in so far as the mind is affected by them,

3 I finally resolved to inquire whether there might be some real good having power to communicate itself, which would affect the mind singly, to the exclusion of all else: 4 whether, in fact, there might be anything of which the discovery and attainment would enable me to enjoy continuous, supreme, and unending happiness.

5 [2] I say "I finally resolved," for at first sight it seemed unwise willingly to lose hold on what was sure for the sake of something then uncertain. 6 (2.2) I could see the benefits which are acquired through fame and riches, and that I should be obliged to abandon the quest of such objects, if I seriously devoted myself to the search for something different and new.

7 (2.3) I perceived that if true happiness chanced to be placed in the former I should necessarily miss it; while if, on the other hand, it were not so placed, and I gave them my whole attention, I should equally fail.

8 [3] I therefore debated whether it would not be possible to arrive at the new principle, or at any rate at a certainty concerning its existence, without changing the conduct and usual plan of my life; with this end in view I made many efforts, in vain. 9 (3.2) For the ordinary surroundings of life which are esteemed by humans (as their actions testify) to be the highest good, may be classed

under the three heads-- Riches, Fame, and the Pleasures of Sense: with these three the mind is so absorbed that it has little power to reflect on any different good.

10 [4] By sensual pleasure the mind is enthralled to the extent of quiescence, as if the supreme good were actually attained, so that it is quite incapable of thinking of any other object; 11 when such pleasure has been gratified it is followed by extreme melancholy, whereby the mind, though not enthralled, is disturbed and dulled. 12 (4.2) The pursuit of honours and riches is likewise very absorbing, especially if such objects be sought simply for their own sake, inasmuch as they are then supposed to constitute the highest good.

13 [5] In the case of fame the mind is still more absorbed, for fame is conceived as always good for its own sake, and as the ultimate end to which all actions are directed. 14 (5.2) Further, the attainment of riches and fame is not followed as in the case of sensual pleasures by repentance, but, the more we acquire, the greater is our delight, and, consequently, the more are we incited to increase both the one and the other; 15 on the other hand, if our hopes happen to be frustrated we are plunged into the deepest sadness. 16 (5.3) Fame has the further drawback that it compels its votaries to order their lives according to the opinions of their fellow-humans, shunning what they usually shun, and seeking what they usually seek.

17 [6] When I saw that all these ordinary objects of desire would be obstacles in the way of a search for something different and new-- nay, that they were so opposed thereto, that either they or it would have to be abandoned, I was forced to inquire which would prove the most useful to me: 18 for, as I say, I seemed to be willingly losing hold on a sure good for the sake of something uncertain. 19 (6.2) However, after I had reflected on the matter, I came in the first place to the conclusion that by abandoning the ordinary objects of pursuit, and betaking myself to a new quest, I should be leaving a good, uncertain by reason of its own nature, 20 as may

be gathered from what has been said, for the sake of a good not uncertain in its nature (for I sought for a fixed good), but only in the possibility of its attainment.

21 [7] Further reflection convinced me that if I could really get to the root of the matter I should be leaving certain evils for a certain good. 22 (7.2) I thus perceived that I was in a state of great peril, and I compelled myself to seek with all my strength for a remedy, however uncertain it might be; 23 as a sick person struggling with a deadly disease, when you sees that death will surely be upon you unless a remedy be found, is compelled to seek a remedy with all your strength, inasmuch as your whole hope lies therein. 24 (7.3) All the objects pursued by the multitude not only bring no remedy that tends to preserve our being, but even act as hindrances, causing the death not seldom of those who possess them, and always of those who are possessed by them.

25 [8] There are many examples of people who have suffered persecution even to death for the sake of their riches, and of people who in pursuit of wealth have exposed themselves to so many dangers, that they have paid away their life as a penalty for their folly. 26 (8.2) Examples are no less numerous of people, who have endured the utmost wretchedness for the sake of gaining or preserving their reputation.

27 (8.3) Lastly, are innumerable cases of people, who have hastened their death through over-indulgence in sensual pleasure.

28 [9] All these evils seem to have arisen from the fact, that happiness or unhappiness is made wholly dependent on the quality of the object which we love. 29 (9.2) When a thing is not loved, no quarrels will arise concerning it-- no sadness will be felt if it perishes-- no envy if it is possessed by another-- no fear, no hatred, in short no disturbances of the mind. 30 (9.3) All these arise from the love of what is perishable, such as the objects already mentioned.

31 [10] But love towards a thing eternal and infinite feeds the mind wholly with joy, and is itself unmingled with any sadness,

wherefore it is greatly to be desired and sought for with all our strength. 32 (10.2) Yet it was not at random that I used the words, "If I could go to the root of the matter," for, though what I have urged was perfectly clear to my mind, I could not forthwith lay aside all love of riches, sensual enjoyment, and fame.

33 [11] One thing was evident, namely, that while my mind was employed with these thoughts it turned away from its former objects of desire, and seriously considered the search for a new principle; 34 this state of things was a great comfort to me, for I perceived that the evils were not such as to resist all remedies. 35 (11.2) Although these intervals were at first rare, and of very short duration, yet afterwards, as the true good became more and more discernible to me, they became more frequent and more lasting; 36 especially after I had recognised that the acquisition of wealth, sensual pleasure, or fame, is only a hindrance, so long as they are sought as ends not as means; 37 if they be sought as means, they will be under restraint, and, far from being hindrances, will further not a little the end for which they are sought, as I will show in due time.

38 [12] I will here only briefly state what I mean by true good, and also what is the nature of the highest good. 39 (12.2) In order that this may be rightly understood, we must bear in mind that the terms good and evil are only applied relatively, so that the same thing may be called both good and bad according to the relations in view, in the same way as it may be called perfect or imperfect.

40 (12.3) Nothing regarded in its own nature can be called perfect or imperfect; especially when we are aware that all things which come to pass, come to pass according to the eternal order and fixed laws of Nature.

41 [13] However, human weakness cannot attain to this order in its own thoughts, but meanwhile human conceives a human character much more stable than one’s own, and sees that there is no reason why you should not yourself acquire such a character. 42 (13.2) Thus you are led to seek

for means which will bring you to this pitch of perfection, and calls everything which will serve as such means a true good. 43 (13:3) The chief good is that you should arrive, together with other individuals if possible, at the possession of the aforesaid character. 44 (13.4) What that character is we shall show in due time, namely, that it is the knowledge of the union existing being the mind and the whole of Nature.

45 [14] This, then, is the end for which I strive, to attain to such a character myself, and to endeavour that many should attain to it with me. 46 (14.2) In other words, it is part of my happiness to lend a helping hand, that many others may understand even as I do, so that their understanding and desire may entirely agree with my own.

47 (14.3) In order to bring this about, it is necessary to understand as much of Nature as will enable us to attain to the aforesaid character, and also to form a social order such as is most conducive to the attainment of this character by the greatest number with the least difficulty and danger.

48 [15] We must seek the assistance of Moral Philosophy and the Theory of Education; further, as health is no insignificant means for attaining our end, we must also include the whole science of Medicine, 49 and, as many difficult things are by contrivance rendered easy, and we can in this way gain much time and convenience, the science of Mechanics must in no way be despised.

50 [16] But before all things, a means must be devised for improving the understanding and purifying it, as far as may be at the outset, so that it may apprehend things without error, and in the best possible way. 51 (16.2) Thus it is apparent to everyone that I wish to direct all science to one end and aim, so that we may attain to the supreme human perfection which we have named; and, therefore, whatsoever in the sciences does not serve to promote our object will have to be rejected as useless. 52 (16.3) To sum up the matter in a word, all our actions

and thoughts must be directed to this one end.

53 [17] Yet, as it is necessary that while we are endeavouring to attain our purpose, and bring the understanding into the right path we should carry on our life, we are compelled first of all to lay down certain rules of life as provisionally good, to wit the following:--

54 I. (17.2) To speak in a manner intelligible to the multitude, and to comply with every general custom that does not hinder the attainment of our purpose. 55 (17.3) For we can gain from the multitude no small advantages, provided that we strive to accommodate ourselves to its understanding as far as possible: moreover, we shall in this way gain a friendly audience for the reception of the truth.

56 II. (17:4) To indulge ourselves with pleasures only in so far as they are necessary for preserving health.

57 III. (17.5) Lastly, to endeavour to obtain only sufficient money or other commodities to enable us to preserve our life and health, and to follow such general customs as are consistent with our purpose.

58 [18] Having laid down these preliminary rules, I will betake myself to the first and most important task, namely, the amendment of the understanding, and the rendering it capable of understanding things in the manner necessary for attaining our end. 59 (18.2) In order to bring this about, the natural order demands that I should here recapitulate all the modes of perception, which I have hitherto employed for affirming or denying anything with certainty, 60 so that I may choose the best, and at the same time begin to know my own powers and the nature which I wish to perfect.

61 [19] Reflection shows that all modes of perception or knowledge may be reduced to four:--

I. (19.2) Perception arising from hearsay or from some sign which everyone may name as one please.

62 II. (19.3) Perception arising from mere experience-- that is, form experience not yet classified by the intellect, and only so called because the given event has

happened to take place, and we have no contradictory fact to set against it, so that it therefore remains unassailed in our minds.

63 III. (19:4) Perception arising when the essence of one thing is inferred from another thing, but not adequately; 64 this comes when from some effect we gather its cause, or when it is inferred from some general proposition that some property is always present.

65 IV. (19.5) Lastly, there is the perception arising when a thing is perceived solely through its essence, or through the knowledge of its proximate cause.

66 [20] All these kinds of perception I will illustrate by examples.

(20.2) By hearsay I know the day of my birth, my parentage, and other matters about which I have never felt any doubt. 67 (20.3) By mere experience I know that I shall die, for this I can affirm from having seen that others like myself have died, though all did not live for the same period, or die by the same disease.

68 (20.4) I know by mere experience that oil has the property of feeding fire, and water of extinguishing it.

69 (20.5) In the same way I know that a dog is a barking animal, human a rational animal, and in fact nearly all the practical knowledge of life.

70 [21] We deduce one thing from another as follows: when we clearly perceive that we feel a certain body and no other, we thence clearly infer that the mind is united to the body, and that their union is the cause of the given sensation; but we cannot thence absolutely understand the nature of the sensation and the union. 71 (21.2) Or, after I have become acquainted with the nature of vision, and know that it has the property of making one and the same thing appear smaller when far off than when near, I can infer that the sun is larger than it appears, and can draw other conclusions of the same kind.

72 [22] Lastly, a thing may be perceived solely through its essence; when, from the fact of knowing something, I know what it is to know that thing, or when, from knowing the essence of the

mind, I know that it is united to the body.

73 (22.2) By the same kind of knowledge we know that two and three make five, or that two lines each parallel to a third, are parallel to one another. 74 (22.3) The things which I have been able to know by this kind of knowledge are as yet very few.

75 [23] In order that the whole matter may be put in a clearer light, I will make use of a single illustration as follows.

76 (23.2) Three numbers are given-- it is required to find a fourth, which shall be to the third as the second is to the first.

77 (23:3) Tradesmen will at once tell us that they know what is required to find the fourth number, for they have not yet forgotten the rule which was given to them arbitrarily without proof by their masters; 78 others construct a universal axiom from their experience with simple numbers, where the fourth number is self-evident, as in the case of 2, 4, 3, 6; here it is evident that if the second number be multiplied by the third, and the product divided by the first, the quotient is 6; 79 when they see that by this process the number is produced which they knew beforehand to be the proportional, they infer that the process always holds good for finding a fourth number proportional.

80 [24] Mathematicians, however, know by the proof of the nineteenth proposition of the seventh book of Euclid, what numbers are proportionals, namely, from the nature and property of proportion it follows that the product of the first and fourth will be equal to the product of the second and third: 81 still they do not see the adequate proportionality of the given numbers, or, if they do see it, they see it not by virtue of Euclid's proposition, but intuitively, without going through any process.

82 [25] In order that from these modes of perception the best may be selected, it is well that we should briefly enumerate the means necessary for attaining our end.

UNDERSTANDING

83 I. (25.2) To have an exact knowledge of our nature which we desire to perfect, and to know as much as is needful of Nature in general.

84 II. To collect in this way the differences, the agreements, and the oppositions of things.

III. To learn thus exactly how far they can or cannot be modified.

IV. To compare this result with the nature and power of human.

85 (25.3) We shall thus discern the highest degree of perfection to which human is capable of attaining.

86 [26] We shall then be in a position to see which mode of perception we ought to choose. 87 (26.2) As to the first mode, it is evident that from hearsay our knowledge must always be uncertain, and, moreover, can give us no insight into the essence of a thing, as is manifest in our illustration; 88 now one can only arrive at knowledge of a thing through knowledge of its essence, as will hereafter appear. 89 (26.3) We may, therefore clearly conclude that the certainty arising from hearsay cannot be scientific in its character. 90 (26.4) For simple hearsay cannot affect anyone whose understanding does not, so to speak, meet it half way.

91 [27] The second mode of perception cannot be said to give us the idea of the proportion of which we are in search.

92 (27.2) Moreover its results are very uncertain and indefinite, for we shall never discover anything in natural phenomena by its means, except accidental properties, which are never clearly understood, unless the essence of the things in question be known first. 93 (27.3) Wherefore this mode also must be rejected.

94 [28] Of the third mode of perception we may say in a manner that it gives us the idea of the thing sought, and that it us to draw conclusions without risk of error; yet it is not by itself sufficient to put us in possession of the perfection we aim at.

95 [29] The fourth mode alone apprehends the adequate essence of a thing without danger of error. 96 (29.2) This mode, therefore, must be the one which we chiefly employ. 97 (29.3) How, then,

should we avail ourselves of it so as to gain the fourth kind of knowledge with the least delay concerning things previously unknown? (29.4) I will proceed to explain.

98 [30] Now that we know what kind of knowledge is necessary for us, we must indicate the way and the method whereby we may gain the said knowledge concerning the things needful to be known.

99 (30.2) In order to accomplish this, we must first take care not to commit ourselves to a search, going back to infinity-- 100 that is, in order to discover the best method of finding truth, there is no need of another method to discover such method; nor of a third method for discovering the second, and so on to infinity. 101 (30.3) By such proceedings, we should never arrive at the knowledge of the truth, or, indeed, at any knowledge at all. 102 (30:4) The matter stands on the same footing as the making of material tools, which might be argued about in a similar way. 103 (30.5) For, in order to work iron, a hammer is needed, and the hammer cannot be forthcoming unless it has been made; but, in order to make it, there was need of another hammer and other tools, and so on to infinity.

104 (30.6) We might thus vainly endeavour to prove that humans have no power of working iron.

105 [31] But as humans at first made use of the instruments supplied by Nature to accomplish very easy pieces of workmanship, labouriously and imperfectly, and then, when these were finished, wrought other things more difficult with less labour and greater perfection; 106 and so gradually mounted from the simplest operations to the making of tools, and from the making of tools to the making of more complex tools, and fresh feats of workmanship, till they arrived at making, complicated mechanisms which they now possess. 107 (31:2) So, in like manner, the intellect, by its native strength, makes for itself intellectual instruments, whereby it acquires strength for performing other intellectual operations, 108 and from these operations again fresh instruments, or the power of

pushing its investigations further, and thus gradually proceeds till it reaches the summit of wisdom.

109 [32] That this is the path pursued by the understanding may be readily seen, when we understand the nature of the method for finding out the truth, 110 and of the natural instruments so necessary complex instruments, and for the progress of investigation. I thus proceed with my demonstration.

111 [33] A true idea, (for we possess a true idea) is something different from its correlate (ideatum); thus a circle is different from the idea of a circle. 112 (33.2) The idea of a circle is not something having a circumference and a center, as a circle has; nor is the idea of a body that body itself. 113 (33.3) Now, as it is something different from its correlate, it is capable of being understood through itself; 114 in other words, the idea, in so far as its actual essence (essentia formalis) is concerned, may be the subject of another subjective essence (essentia objectiva). 115 (33.4) And, again, this second subjective essence will, regarded in itself, be something real, capable of being understood; and so on, indefinitely.

116 [34] For instance, the man Peter is something real; the true idea of Peter is the reality of Peter represented subjectively, and is in itself something real, and quite distinct from the actual Peter. 117 (34.2) Now, as this true idea of Peter is in itself something real, and has its own individual existence, it will also be capable of being understood-- 118 that is, of being the subject of another idea, which will contain by representation (objective) all that the idea of Peter contains actually (formaliter). 119 (34.3) And, again, this idea of the idea of Peter has its own individuality, which may become the subject of yet another idea; and so on, indefinitely. 120 (34.4) This everyone may make trial of for oneself, by reflecting that you knows what Peter is, and also knows that you knows, and further knows that you knows that you knows. 121 (34:5) Hence it is plain that, in order to understand the actual Peter, it is not necessary

first to understand the idea of Peter, and still less the idea of the idea of Peter. 122 (34.6) This is the same as saying that, in order to know, there is no need to know that we know, much less to know that we know that we know. 123 (34.7) This is no more necessary than to know the nature of a circle before knowing the nature of a triangle. 124 (34.8) But, with these ideas, the contrary is the case: for, in order to know that I know, I must first know.

125 [35] Hence it is clear that certainty is nothing else than the subjective essence of a thing: in other words, the mode in which we perceive an actual reality is certainty. 126 (35.2) Further, it is also evident that, for the certitude of truth, no further sign is necessary beyond the possession of a true idea: for, as I have shown, it is not necessary to know that we know that we know. 127 (35.3) Hence, again, it is clear that no one can know the nature of the highest certainty, unless you possesses an adequate idea, or the subjective essence of a thing: certainty is identical with such subjective essence.

128 [36] Thus, as the truth needs no sign-- it being to possess the subjective essence of things, or, in other words, the ideas of them, in order that all doubts may be removed-- 129 it follows that the true method does not consist in seeking for the signs of truth after the acquisition of the idea, but that the true method teaches us the order in which we should seek for truth itself, or the subjective essences of things, or ideas, for all these expressions are synonymous.

130 [37] Again, method must necessarily be concerned with reasoning or understanding-- I mean, method is not identical with reasoning in the search for causes, still less is it the comprehension of the causes of things: 131 it is the discernment of a true idea, by distinguishing it from other perceptions, and by investigating its nature, in order that we may so train our mind that it may, by a given standard, comprehend whatsoever is intelligible, by laying down certain rules as aids,

and by avoiding useless mental exertion.

132 [38] Whence we may gather that method is nothing else than reflective knowledge, or the idea of an idea; and that as there can be no idea of an idea-- unless an idea exists previously,-- there can be no method without a pre-existent idea. 133 (38.2) Therefore, that will be a good method which shows us how the mind should be directed, according to the standard of the given true idea.

134 (38:3) Again, seeing that the ratio existing between two ideas the same as the ratio between the actual realities corresponding to those ideas, it follows that the reflective knowledge which has for its object the most perfect being is more excellent than reflective knowledge concerning other objects-- 135 in other words, that method will be most perfect which affords the standard of the given idea of the most perfect being whereby we may direct our mind.

136 [39] We thus easily understand how, in proportion as it acquires new ideas, the mind simultaneously acquires fresh instruments for pursuing its inquiries further. 137 (39.2) For we may gather from what has been said, that a true idea must necessarily first of all exist in us as a natural instrument; 138 and that when this idea is apprehended by the mind, it enables us to understand the difference existing between itself and all other perceptions. (39.3) In this, one part of the method consists.

139 (39:4) Now it is clear that the mind apprehends itself better in proportion as it understands a greater number of natural objects; 140 it follows, therefore, that this portion of the method will be more perfect in proportion as the mind attains to the comprehension of a greater number of objects, 141 and that it will be absolutely perfect when the mind gains a knowledge of the absolutely perfect being, or becomes conscious thereof.

142 [40] Again, the more things the mind knows, the better does it understand its own strength and the order of Nature; 143 by increased self-knowledge, it can direct itself more easily, and lay

down rules for its own guidance; and, by increased knowledge of Nature, it can more easily avoid what is useless. (40.2) And this is the sum total of method, as we have already stated.

144 [41] We may add that the idea in the world of thought is in the same case as its correlate in the world of reality. 145 (41.2) If, therefore, there be anything in Nature which is without connection with any other thing, and if we assign to it a subjective essence, which would in every way correspond to the objective reality, the subjective essence would have no connection, with any other ideas-- 146 in other words, we could not draw any conclusions with regard to it. 147 (41:3) On the other hand, those things which are connected with others-- as all things that exist in Nature-- will be understood by the mind, and their subjective essences will maintain the same mutual relations as their objective realities-- 148 that is to say, we shall infer from these ideas other ideas, which will in turn be connected with others, and thus our instruments for proceeding with our investigation will increase. (41.4) This is what we were endeavouring to prove.

149 [42] Further, from what has just been said-- namely, that an idea must, in all respects, correspond to its correlate in the world of reality,-- 150 it is evident that, in order to reproduce in every respect the faithful image of Nature, our mind must deduce all its ideas from the idea which represents the origin and source of the whole of Nature, so that it may itself become the source of other ideas.

151 [43] It may, perhaps, provoke astonishment that, after having said that the good method is that which teaches us to direct our mind according to the standard of the given true idea, we should prove our point by reasoning, which would seem to indicate that it is not self-evident. 152 (43.2) We may, therefore, be questioned as to the validity of our reasoning. (43.3) If our reasoning be sound, we must take as a starting-point a true idea. (43.4) Now, to be certain

that our starting-point is really a true idea, we need proof.

153 (43.5) This first course of reasoning must be supported by a second, the second by a third, and so on to infinity.

154 [44] To this I make answer that, if by some happy chance anyone had adopted this method in own investigations of Nature-- that is, if you had acquired new ideas in the proper order, according to the standard of the original true idea, you would never have doubted of the truth of your knowledge, 155 inasmuch as truth, as we have shown, makes itself manifest, and all things would flow, as it were, spontaneously towards you. 156 (44:2) But as this never, or rarely, happens, I have been forced so to arrange my proceedings, that we may acquire by reflection and forethought what we cannot acquire by chance, 157 and that it may at the same time appear that, for proving the truth, and for valid reasoning, we need no other means than the truth and valid reasoning themselves: for by valid reasoning I have established valid reasoning, and, in like measure, I seek still to establish it.

158 [45] Moreover, this is the order of thinking adopted by people in their inward meditations. (45.2) The reasons for its rare employment in investigations of Nature are to be found in current misconceptions, whereof we shall examine the causes hereafter in our philosophy.

159 (45.3) Moreover, it demands, as we shall show, a keen and accurate discernment.

(45.4) Lastly, it is hindered by the conditions of human life, which are, as we have already pointed out, extremely changeable.

160 (45.5) There are also other obstacles, which we will not here inquire into.

[46] If anyone asks why I have not at the starting-point set forth all the truths of Nature in their due order, inasmuch as truth is self-evident, I reply by warning you not to reject as false any paradoxes you may find here, 161 but to take the trouble to reflect on the chain of reasoning by which they are supported; you will then be no longer in doubt that we have

attained to the truth. (46.2) This is why I have as above.

162 [47] If there yet remains some sceptic, who doubts of our primary truth, and of all deductions we make, taking such truth as our standard, you must either be arguing in bad faith, 163 or we must confess that there are people in complete mental blindness either innate or due to misconceptions-- that is, to some external influence. (47.2) Such persons are not conscious of themselves. 164 (47.3) If they affirm or doubt anything, they know not that they affirm or doubt: they say that they know nothing, and they say that they are ignorant of the very fact of their knowing nothing. 165 (47.4) Even this they do not affirm absolutely, they are afraid of confessing that they exist, so long as they know nothing; in fact, they ought to remain dumb, for fear of haply supposing which should smack of truth.

166 [48] Lastly, with such persons, one should not speak of sciences: for, in what relates to life and conduct, they are compelled by necessity to suppose that they exist, and seek their own advantage, and often affirm and deny, even with an oath. 167 (48.2) If they deny, grant, or gainsay, they know not that they deny, grant, or gainsay, so that they ought to be regarded as automata, utterly devoid of intelligence.

168 [49] Let us now return to our proposition. (49.2) Up to the present, we have, first, defined the end to which we desire to direct all our thoughts; 169 secondly, we have determined the mode of perception best adapted to aid us in attaining our perfection; 170 thirdly, we have discovered the way which our mind should take, in order to make a good beginning-- namely, that it should use every true idea as a standard in pursuing its inquiries according to fixed rules. 171 (49:3) Now, in order that it may thus proceed, our method must furnish us, first, with a means of distinguishing a true idea from all other perceptions, and enabling the mind to avoid the latter; 172 secondly, with rules for perceiving unknown things

according to the standard of the true idea; 173 thirdly, with an order which enables us to avoid useless labour. 174 (49:4) When we became acquainted with this method, we saw that, fourthly, it would be perfect when we had attained to the idea of the absolutely perfect Being. 175 (49.5) This is an observation which should be made at the outset, in order that we may arrive at the knowledge of such a being more quickly.

176 [50] Let us then make a beginning with the first part of the method, which is, as we have said, to distinguish and separate the true idea from other perceptions, and to keep the mind from confusing with true ideas those which are false, fictitious, and doubtful. 177 (50.2) I intend to dwell on this point at length, partly to keep a distinction so necessary before the reader's mind, and also because there are some who doubt of true ideas, through not having attended to the distinction between a true perception and all others. 178 (50.3) Such persons are like people who, while they are awake, doubt not that they are awake, but afterwards in a dream, as often happens, thinking that they are surely awake, and then finding that they were in error, become doubtful even of being awake. 179 (50.4) This state of mind arises through neglect of the distinction between sleeping and waking.

180 [51] Meanwhile, I give warning that I shall not here give essence of every perception, and explain it through its proximate cause. (51.2) Such work lies in the province of philosophy. 181 (51.3) I shall confine myself to what concerns method-- that is, to the character of fictitious, false and doubtful perceptions, and the means of freeing ourselves therefrom. (51.4) Let us then first inquire into the nature of a fictitious idea.

182 [52] Every perception has for its object either a thing considered as existing, or solely the essence of a thing. (52.2) Now "fiction" is chiefly occupied with things considered as existing. 183 (52.3) I will, therefore, consider these first-- I mean cases where only the existence of an object is feigned,

and the thing thus feigned is understood, or assumed to be understood. 184 (52.4) For instance, I feign that Peter, whom I know to have gone home, is gone to see me, or something of that kind. (52.5) With what is such an idea concerned? (52.6) It is concerned with things possible, and not with things necessary or impossible.

185 [53] I call a thing impossible when its existence would imply a contradiction; necessary, when its non-existence would imply a contradiction; possible, when neither its existence nor its non-existence imply a contradiction, 186 but when the necessity or impossibility of its nature depends on causes unknown to us, while we feign that it exists. 187 (53.2) If the necessity or impossibility of its existence depending on external causes were known to us, we could not form any fictitious hypotheses about it;

188 [54] Whence it follows that if there be a God, or omniscient Being, such an one cannot form fictitious hypotheses. 189 (54.2) For, as regards ourselves, when I know that I exist, I cannot hypothesise that I exist or do not exist, any more than I can hypothesise an elephant that can go through the eye of a needle; nor when I know the nature of God, can I hypothesise that He or does not exist. 190 (54:3) The same thing must be said of the Chimaera, whereof the nature implies a contradiction. (54.4) From these considerations, it is plain, as I have already stated, that fiction cannot be concerned with eternal truths.

191 [55] But before proceeding further, I must remark, in passing, that the difference between the essence of one thing and the essence of another thing is the same as that which exists between the reality or existence of one thing and the reality or existence of another; 192 therefore, if we wished to conceive the existence, for example, of Adam, simply by means of existence in general, it would be the same as if, in order to conceive his existence, we went back to the nature of being, so as to define Adam as a being. 193 (55.2) Thus, the more existence is

conceived generally, the more is it conceived confusedly and the more easily can it be ascribed to a given object. 194 (55:3) Contrariwise, the more it is conceived particularly, the more is it understood clearly, and the less liable is it to be ascribed, through negligence of Nature's order, to anything save its proper object. (55.4) This is worthy of remark.

195 [56] We now proceed to consider those cases which are commonly called fictions, though we clearly understood that the thing is not as we imagine it. 196 (56.2) For instance, I know that the earth is round, but nothing prevents my telling people that it is a hemisphere, and that it is like a half apple carved in relief on a dish; or, that the sun moves round the earth, and so on. 197 (56:3) However, examination will show us that there is nothing here inconsistent with what has been said, provided we first admit that we may have made mistakes, and be now conscious of them; 198 and, further, that we can hypothesise, or at least suppose, that others are under the same mistake as ourselves, or can, like us, fall under it. 199 (56.4) We can, I repeat, thus hypothesise so long as we see no impossibility.

200 (56:5) Thus, when I tell anyone that the earth is not round, I merely recall the error which I perhaps made myself, or which I might have fallen into, and afterwards I hypothesise that the person to whom I tell it, is still, or may still fall under the same mistake. 201 (56.6) This I say, I can feign so long as I do not perceive any impossibility or necessity; if I truly understood either one or the other I should not be able to feign, and I should be reduced to saying that I had made the attempt.

202 [57] It remains for us to consider hypotheses made in problems, which sometimes involve impossibilities. 203 (57.2) For instance, when we say-- let us assume that this burning candle is not burning, or, let us assume that it burns in some imaginary space, or where there are no physical objects.

204 (57.3) Such assumptions are freely made, though the last is

clearly seen to be impossible. (57.4) But, though this be so, there is no fiction in the case. 205 (57:5) For, in the first case, I have merely recalled to memory, another candle not burning, or conceived the candle before me as without a flame, and then I understand as applying to the latter, leaving its flame out of the question, all that I think of the former. 206 (57.6) In the second case, I have merely to abstract my thoughts from the objects surrounding the candle, for the mind to devote itself to the contemplation of the candle singly looked at in itself only; 207 I can then draw the conclusion that the candle contains in itself no causes for its own destruction, so that if there were no physical objects the candle, and even the flame, would remain unchangeable, and so on. (57.7) Thus there is here no fiction, but, true and bare assertions.

208 [58] Let us now pass on to the fictions concerned with essences only, or with some reality or existence simultaneously. 209 (58.2) Of these we must specially observe that in proportion as the mind's understanding is smaller, and its experience multiplex, so will its power of coining fictions be larger, whereas as its understanding increases, its capacity for entertaining fictitious ideas becomes less. 210 (58:3) For instance, in the same way as we are unable, while we are thinking, to feign that we are thinking or not thinking, so, also, when we know the nature of body we cannot imagine an infinite fly; 211 or, when we know the nature of the soul, we cannot imagine it as square, though anything may be expressed verbally. 212 (58.4) But, as we said above, the less humans know of Nature the more easily can they coin fictitious ideas, 213 such as trees speaking, humans instantly changed into stones, or into fountains, ghosts appearing in mirrors, something issuing from nothing, even gods changed into beasts and humans and infinite other absurdities of the same kind.

214 [59] Some persons think, perhaps, that fiction is limited by fiction, and not by understanding; 215 in other words, after I have formed some fictitious idea, and

have affirmed of my own free-will that it exists under a certain form in Nature, I am thereby precluded from thinking of it under any other form. 216 (59.2) For instance, when I have feigned (to repeat their argument) that the nature of body is of a certain kind, and have of my own free-will desired to convince myself that it actually exists under this form, I am no longer able to hypothesise that a fly, for example, is infinite; 217 so, when I have hypothesised the essence of the soul, I am not able to think of it as square.

218 [60] But these arguments demand further inquiry. (60.2) First, their upholders must either grant or deny that we can understand anything. If they grant it, then necessarily the same must be said of understanding, as is said of fiction. 219 (60.3) If they deny it, let us, who know that we do know something, see what they mean. (60.4) They assert that the soul can be conscious of, and perceive in a variety of ways, not itself nor things which exist, but only things which are neither in itself nor anywhere else, 220 in other words, that the soul can, by its unaided power, create sensations or ideas unconnected with things. (60.5) In fact, they regard the soul as a sort of god.

221 (60:6) Further, they assert that we or our soul have such freedom that we can constrain ourselves, or our soul, or even our soul's freedom. 222 (60.7) For, after it has formed a fictitious idea, and has given its assent thereto, it cannot think or feign it in any other manner, but is constrained by the first fictitious idea to keep all its other thoughts in harmony therewith.

223 (60.8) Our opponents are thus driven to admit, in support of their fiction, the absurdities which I have just enumerated; and which are not worthy of rational refutation.

224 [61] While leaving such persons in their error, we will take care to derive from our argument with them a truth serviceable for our purpose, 225 namely, [61a] that the mind, in paying attention to a thing hypothetical or false, so as to meditate upon it and understand it, and derive the proper conclusions

in due order therefrom, will readily discover its falsity; 226 and if the thing hypothetical be in its nature true, and the mind pays attention to it, so as to understand it, and deduce the truths which are derivable from it, the mind will proceed with an uninterrupted series of apt conclusions; 227 in the same way as it would at once discover (as we showed just now) the absurdity of a false hypothesis, and of the conclusions drawn from it.

228 [62] We need, therefore, be in no fear of forming hypotheses, so long as we have a clear and distinct perception of what is involved. 229 (62.2) For, if we were to assert, haply, that humans are suddenly turned into beasts, the statement would be extremely general, so general that there would be no conception, that is, no idea or connection of subject and predicate, in our mind. 230 (62.3) If there were such a conception we should at the same time be aware of the means and the causes whereby the event took place. (62.4) Moreover, we pay no attention to the nature of the subject and the predicate.

231 [63] Now, if the first idea be not fictitious, and if all the other ideas be deduced therefrom, our hurry to form fictitious ideas will gradually subside. 232 (63.2) Further, as a fictitious idea cannot be clear and distinct, but is necessarily confused, and as all confusion arises from the fact that the mind has only partial knowledge of a thing either simple or complex, and does not distinguish between the known and the unknown, 233 and, again, that it directs its attention promiscuously to all parts of an object at once without making distinctions, it follows, first, that if the idea be of something very simple, it must necessarily be clear and distinct. 234 (63.3) For a very simple object cannot be known in part, it must either be known altogether or not at all.

235 [64] Secondly, it follows that if a complex object be divided by thought into a number of simple component parts, and if each be regarded separately, all confusion will disappear. 236 (64.2) Thirdly,

it follows that fiction cannot be simple, but is made up of the blending of several confused ideas of diverse objects or actions existent in Nature, or rather is composed of attention directed to all such ideas at once, [64b] and unaccompanied by any mental assent. 237 (64:3) Now a fiction that was simple would be clear and distinct, and therefore true, also a fiction composed only of distinct ideas would be clear and distinct, and therefore true. 238 (64.4) For instance, when we know the nature of the circle and the square, it is impossible for us to blend together these two figures, and to hypothesise a square circle, any more than a square soul, or things of that kind.

239 [65.1] Let us shortly come to our conclusion, and again repeat that we need have no fear of confusing with true ideas that which is only a fiction. 240 (65.2) As for the first sort of fiction of which we have already spoken, when a thing is clearly conceived, we saw that if the existence of a that thing is in itself an eternal truth fiction can have no part in it; 241 but if the existence of the conceived be not an eternal truth, we have only to be careful such existence be compared to the thing's essence, and to consider the order of Nature. 242 (64:3) As for the second sort of fiction, which we stated to be the result of simultaneously directing the attention, without the assent of the intellect, to different confused ideas representing different things and actions existing in Nature, 243 we have seen that an absolutely simple thing cannot be feigned, but must be understood, and that a complex thing is in the same case if we regard separately the simple parts whereof it is composed; 244 we shall not even be able to hypothesise any untrue action concerning such objects, for we shall be obliged to consider at the same time the causes and manner of such action.

245 [66] These matters being thus understood, let us pass on to consider the false idea, observing the objects with which it is concerned, and the means of guarding ourselves from falling into false perceptions. 246 (66.2)

Neither of these tasks will present much difficulty, after our inquiry concerning fictitious ideas. (66.3) The false idea only differs from the fictitious idea in the fact of implying a mental assent-- 247 that is, as we have already remarked, while the representations are occurring, there are no causes present to us, wherefrom, as in fiction, we can conclude that such representations do not arise from external objects: in fact, it is much the same as dreaming with our eyes open, or while awake. 248 (67:4) Thus, a false idea is concerned with, or (to speak more correctly) is attributable to, the existence of a thing whereof the essence is known, or the essence itself, in the same way as a fictitious idea.

249 [67] If attributable to the existence of the thing, it is corrected in the same way as a fictitious idea under similar circumstances. (67.2) If attributable to the essence, it is likewise corrected in the same way as a fictitious idea. 250 (67:3) For if the nature of the thing known implies necessary existence, we cannot possible be in error with regard to its existence; 251 but if the nature of the thing be not an eternal truth, like its essence, but contrariwise the necessity or impossibility of its existence depends on external causes, then we must follow the same course as we adopted in the of fiction, for it is corrected in the same manner.

252 [68] As for false ideas concerned with essences, or even with actions, such perceptions are necessarily always confused, being compounded of different confused perceptions of things existing in Nature, 253 as, for instance, when people are persuaded that deities are present in woods, in statues, in brute beasts, and the like; that there are bodies which, by their composition alone, give rise to intellect; that corpses reason, walk about, and speak; that God is deceived, and so on. 254 (68:2) But ideas which are clear and distinct can never be false: for ideas of things clearly and distinctly conceived are either very simple themselves, or are compounded from very simple

ideas, that is, are deduced therefrom.

255 (68.3) The impossibility of a very simple idea being false is evident to everyone who understands the nature of truth or understanding and of falsehood.

256 [69] As regards that which constitutes the reality of truth, it is certain that a true idea is distinguished from a false one, not so much by its extrinsic object as by its intrinsic nature. 257 (69.2) If an architect conceives a building properly constructed, though such a building may never have existed, and may never exist, nevertheless the idea is true; and the idea remains the same, whether it be put into execution or not. 258 (69:3) On the other hand, if anyone asserts, for instance, that Peter exists, without knowing whether Peter really exists or not, the assertion, as far as its asserter is concerned, is false, or not true, even though Peter actually does exist. 259 (69.4) The assertion that Peter exists is true only with regard to you who knows for certain that Peter does exist.

260 [70] Whence it follows that there is in ideas something real, whereby the true are distinguished from the false. 261 (70.2) This reality must be inquired into, if we are to find the best standard of truth (we have said that we ought to determine our thoughts by the given standard of a true idea, and that method is reflective knowledge), and to know the properties of our understanding. 262 (70:3) Neither must we say that the difference between true and false arises from the fact, that true knowledge consists in knowing things through their primary causes, wherein it is totally different from false knowledge, as I have just explained it: 263 for thought is said to be true, if it involves subjectively the essence of any principle which has no cause, and is known through itself and in itself.

264 [71] Wherefore the reality (forma) of true thought must exist in the thought itself, without reference to other thoughts; it does not acknowledge the object as its cause, but must depend on the actual power and nature of the

understanding. 265 (71.2) For, if we suppose that the understanding has perceived some new entity which has never existed, as some conceive the understanding of God before He created thing 266 (a perception which certainly could not arise any object), and has legitimately deduced other thoughts from said perception, all such thoughts would be true, without being determined by any external object; they would depend solely on the power and nature of the understanding. 267 (71:3) Thus, that which constitutes the reality of a true thought must be sought in the thought itself, and deduced from the nature of the understanding.

268 [72] In order to pursue our investigation, let us confront ourselves with some true idea, whose object we know for certain to be dependent on our power of thinking, and to have nothing corresponding to it in Nature. 269 (72.2) With an idea of this kind before us, we shall, as appears from what has just been said, be more easily able to carry on the research we have in view. 270 (72:3) For instance, in order to form the conception of a sphere, I invent a cause at my pleasure-- namely, a semicircle revolving round its center, and thus producing a sphere. 271 (72.4) This is indisputably a true idea; and, although we know that no sphere in Nature has ever actually been so formed, the perception remains true, and is the easiest manner of conceiving a sphere. 272 (72:5) We must observe that this perception asserts the rotation of a semicircle-- which assertion would be false, if it were not associated with the conception of a sphere, or of a cause determining a motion of the kind, or absolutely, if the assertion were isolated. 273 (72.6) The mind would then only tend to the affirmation of the sole motion of a semicircle, which is not contained in the conception of a semicircle, and does not arise from the conception of any cause capable of producing such motion. 274 (72:7) Thus falsity consists only in this, that something is affirmed of a thing, which is not contained in the conception we have formed of that thing, as

motion or rest of a semicircle. 275 (72.8) Whence it follows that simple ideas cannot be other than true-- e.g., the simple idea of a semicircle, of motion, of rest, of quantity.

276 (72:9) Whatsoever affirmation such ideas contain is equal to the concept formed, and does not extend further. (72.10) Wherefore we form as many simple ideas as we please, without any fear of error.

277 [73] It only remains for us to inquire by what power our mind can form true ideas, and how far such power extends. (73.2) It is certain that such power cannot extend itself infinitely. 278 (73.3) For when we affirm somewhat of a thing, which is not contained in the concept we have formed of that thing, such an affirmation shows a defect of our perception, or that we have formed fragmentary or mutilated ideas. 279 (73.4) Thus we have seen that the notion of a semicircle is false when it is isolated in the mind, but true when it is associated with the concept of a sphere, or of some cause determining such a motion. 280 (73:5) But if it be the nature of a thinking being, as seems, prima facie, to be the case, to form true or adequate thoughts, it is plain that inadequate ideas arise in us only because we are parts of a thinking being, whose thoughts-- some in their entirety, others in fragments only-- constitute our mind.

281 [74] But there is another point to be considered, which was not worth raising in the case of fiction, but which give rise to complete deception-- namely, that certain things presented to the imagination also exist in the understanding-- in other words, are conceived clearly and distinctly. 282 (74.2) Hence, so long as we do not separate that which is distinct from that which is confused, certainty, or the true idea, becomes mixed with indistinct ideas. 283 (74.3) For instance, certain Stoics heard, perhaps, the term "soul," and also that the soul is immortal, yet imagined it only confusedly; they imaged, also, and understood that very subtle bodies penetrate all others, and are penetrated by none. 284 (74:4) By combining these

ideas, and being at the same time certain of the truth of the axiom, they forthwith became convinced that the mind consists of very subtle bodies; that these very subtle bodies cannot be divided.

285 [75] But we are freed from mistakes of this kind, so long as we endeavour to examine all our perceptions by the standard of the given true idea. 286 (75.2) We must take care, as has been said, to separate such perceptions from all those which arise from hearsay or unclassified experience. 287 (75.3) Moreover, such mistakes arise from things being conceived too much in the abstract; for it is sufficiently self-evident that what I conceive as in its true object I cannot apply to anything else.

288 (75:4) Lastly, they arise from a want of understanding of the primary elements of Nature as a whole; 289 whence we proceed without due order, and confound Nature with abstract rules, which, although they be true enough in their sphere, yet, when misapplied, confound themselves, and pervert the order of Nature. 290 (75.5) However, if we proceed with as little abstraction as possible, and begin from primary elements-- that is, from the source and origin of Nature, as far back as we can reach,-- we need not fear any deceptions of this kind.

291 [76] As far as the knowledge of the origin of Nature is concerned, there is no danger of our confounding it with abstractions. 292 (76.2) For when a thing is conceived in the abstract, as are all universal notions, the said universal notions are always more extensive in the mind than the number of individuals forming their contents really existing in Nature.

293 (76.3) Again, there are many things in Nature, the difference between which is so slight as to be hardly perceptible to the understanding; so that it may readily happen that such things are confounded together, if they be conceived abstractedly. 294 (76.4) But since the first principle of Nature cannot (as we shall see hereafter) be conceived abstractedly or universally, and cannot extend further in the understanding than it does in

reality, and has no likeness to mutable things, 295 no confusion need be feared in respect to the idea of it, provided (as before shown) that we possess a standard of truth. 296 (76.5) This is, in fact, a being single and infinite; in other words, it is the sum total of being, beyond which there is no being found.

297 [77] Thus far we have treated of the false idea. We have now to investigate the doubtful idea-- that is, to inquire what can cause us to doubt, and how doubt may be removed. 298 (77.2) I speak of real doubt existing in the mind, not of such doubt as we see exemplified when a person says that one doubts, though your mind does not really hesitate. 299 (77:3) The cure of the latter does not fall within the province of method, it belongs rather to inquiries concerning obstinacy and its cure.

300 [78] Real doubt is never produced in the mind by the thing doubted of. 301 (78.2) In other words, if there were only one idea in the mind, whether that idea were true or false, there would be no doubt or certainty present, only a certain sensation. 302 (78.3) For an idea is in itself nothing else than a certain sensation. 303 (78.4) But doubt will arise through another idea, not clear and distinct enough for us to be able to draw any certain conclusions with regard to the matter under consideration; that is, the idea which causes us to doubt is not clear and distinct. 304 (78.5) To take an example. (78:6) Supposing that a person has never reflected, taught by experience or by any other means, that our senses sometimes deceive us, you will never doubt whether the sun be greater or less than it appears. 305 (78.7) Thus rustics are generally astonished when they hear that the sun is much larger than the earth. (78.8) But from reflection on the deceitfulness of the senses [78a] doubt arises, 306 and if, after doubting, we acquire a true knowledge of the senses, and how things at a distance are represented through their instrumentality, doubt is again removed.

307 [79] Hence we cannot cast doubt on true ideas by the supposition that there is a deceitful

Deity, who leads us astray even in what is most certain. 308 (79.2) We can only hold such an hypothesis so long as we have no clear and distinct idea-- in other words, until we reflect the knowledge which we have of the first principle of all things, and find that which teaches us that God is not a deceiver, 309 and until we know this with the same certainty as we know from reflecting on the are equal to two right angles. 310 (79.3) But if we have a knowledge of God equal to that which we have of a triangle, all doubt is removed. 311 (79:4) In the same way as we can arrive at the said knowledge of a triangle, though not absolutely sure that there is not some arch-deceiver leading us astray, so can we come to a like knowledge of God under the like condition, 312 and when we have attained to it, it is sufficient, as I said before, to remove every doubt which we can possess concerning clear and distinct ideas.

313 [80] Thus, if a person proceeded with our investigations in due order, inquiring first into those things which should first be inquired into, never passing over a link in the chain of association, and with knowledge how to define your questions before seeking to answer them, 314 you will never have any ideas save such as are very certain, or, in other words, clear and distinct; 315 for doubt is only a suspension of the spirit concerning some affirmation or negation which it would pronounce upon unhesitatingly if it were not in ignorance of something, without which the knowledge of the matter in hand must needs be imperfect. 316 (80.2) We may, therefore, conclude that doubt always proceeds from want of due order in investigation.

317 [81] These are the points I promised to discuss in the first part of my treatise on method. (81.2) However, in order not to omit anything which can conduce to the knowledge of the understanding and its faculties, I will add a few words on the subject of memory and forgetfulness. 318 (81:3) The point most worthy of attention is, that memory is strengthened both with and without the aid of the

understanding. 319 (81.4) For the more intelligible a thing is, the more easily is it remembered, and the less intelligible it is, the more easily do we forget it. 320 (81.5) For instance, a number of unconnected words is much more difficult to remember than the same number in the form of a narration.

321 [82] The memory is also strengthened without the aid of the understanding by means of the power wherewith the imagination or the sense called common, is affected by some particular physical object. 322 (82.2) I say particular, for the imagination is only affected by particular objects. 323 (82.3) If we read, for instance, a single romantic comedy, we shall remember it very well, so long as we do not read many others of the same kind, for it will reign alone in the memory 324 (82.4) If, however, we read several others of the same kind, we shall think of them altogether, and easily confuse one with another. 325 (82:5) I say also, physical. (82.6) For the imagination is only affected by physical objects. 326 (82.7) As, then, the memory is strengthened both with and without the aid of the understanding, we may conclude that it is different from the understanding, and that in the latter considered in itself there is neither memory nor forgetfulness.

327 [83] What, then, is memory? (83.2) It is nothing else than the actual sensation of impressions on the brain, accompanied with the thought of a definite duration, [83d] of the sensation. 328 (83.3) This is also shown by reminiscence. (83.4) For then we think of the sensation, but without the notion of continuous duration; thus the idea of that sensation is not the actual duration of the sensation or actual memory. 329 (83:5) Whether ideas are or are not subject to corruption will be seen in philosophy. 330 (83.6) If this seems too absurd to anyone, it will be sufficient for our purpose, if you reflect on the fact that a thing is more easily remembered in proportion to its singularity, as appears from the example of the comedy just cited. 331 (83:7) Further, a thing is remembered

more easily in proportion to its intelligibility; therefore we cannot help remember that which is extremely singular and sufficiently intelligible.

332 [84] Thus, then, we have distinguished between a true idea and other perceptions, and shown that ideas fictitious, false, and the rest, originate in the imagination-- 333 that is, in certain sensations fortuitous (so to speak) and disconnected, arising not from the power of the mind, but from external causes, according as the body, sleeping or waking, receives various motions.

334 (84.2) But one may take any view one likes of the imagination so long as one acknowledges that it is different from the understanding, and that the soul is passive with regard to it. 335 (84.3) The view taken is immaterial, if we know that the imagination is something indefinite, with regard to which the soul is passive, and that we can by some means or other free ourselves therefrom with the help of the understanding. 336 (84.4) Let no one then be astonished that before proving the existence of body, and other necessary things, I speak of imagination of body, and of its composition. 337 (84.5) The view taken is, I repeat, immaterial, so long as we know that imagination is something indefinite.

338 [85] As regards as a true idea, we have shown that it is simple or compounded of simple ideas; that it shows how and why something is or has been made; and that its subjective effects in the soul correspond to the actual reality of its object. 339 (85.2) This conclusion is identical with the saying of the ancients, that true proceeds from cause to effect; 340 though the ancients, so far as I know, never formed the conception put forward here that the soul acts according to fixed laws, and is as it were an immaterial automaton.

341 [86] Hence, as far as is possible at the outset, we have acquired a knowledge of our understanding, and such a standard of a true idea that we need no longer fear confounding truth with falsehood and fiction. 342 (86.2) Neither shall we wonder why we

understand some things which in nowise fall within the scope of the imagination, while other things are in the imagination but wholly opposed to the understanding, or others, again, which agree therewith. 343 (86.3) We now know that the operations, whereby the effects of imagination are produced, take place under other laws quite different from the laws of the understanding, and that the mind is entirely passive with regard to them.

344 [87] Whence we may also see how easily humans may fall into grave errors through not distinguishing accurately between the imagination and the understanding; 345 such as believing that extension must be localised, that it must be finite, that its parts are really distinct one from the other, that it is the primary and single foundation of all things, that it occupies more space at one time than at another and other similar doctrines, all entirely opposed to truth, as we shall duly show.

346 [88] Again, since words are a part of the imagination-- that is, since we form many conceptions in accordance with confused arrangements of words in the memory, dependent on particular bodily conditions,-- 347 there is no doubt that words may, equally with the imagination, be the cause of many and great errors, unless we strictly on our guard.

348 [89] Moreover, words are formed according to popular fancy and intelligence, and are, therefore, signs of things as existing in the imagination, not as existing in the understanding. 349 (89.2) This is evident from the fact that to all such things as exist only in the understanding, not in the imagination, negative names are often given, such as incorporeal, infinite. 350 (89.3) So, also, many conceptions really affirmative are expressed negatively, and vice versa, such as uncreate, independent, infinite, immortal, inasmuch as their contraries are much more easily imagined, and, therefore, occurred first to humans, and usurped positive names. 351 (89:4) Many things we affirm and deny, because the nature of words allows us to do so,

though the nature of things does not. (89.5) While we remain unaware of this fact, we may easily mistake falsehood for truth.

352 [90] Let us also beware of another great cause of confusion, which prevents the understanding from reflecting on itself. 353 (90.2) Sometimes, while making no distinction between the imagination and the intellect, we think that what we more readily imagine is clearer to us; and also we think that what we imagine we understand. 354 (90.3) Thus, we put first that which should be last: the true order of progression is reversed, and no legitimate conclusion is drawn.

355 [91] Now, in order at length to pass on to the second part of this method, I shall first set forth the object aimed at, and next the means for its attainment. 356 (91.2) The object aimed at is the acquisition of clear and distinct ideas, such as are produced by the pure intellect, and not by chance physical motions. 357 (91.3) In order that all ideas may be reduced to unity, we shall endeavour so to associate and arrange them that our mind may, as far as possible, reflect subjectively the reality of Nature, both as a whole and as parts.

358 [92] As for the first point, it is necessary (as we have said) for our purpose that everything should be conceived, either solely through its essence, or through its proximate cause. 359 (92.2) If the thing be self-existent, or, as is commonly said, the cause of itself, it must be understood through its essence only; 360 if it be not self-existent, but requires a cause for its existence, it must be understood through its proximate cause. 361 (92.3) For, in reality, the knowledge, of an effect is nothing else than the acquisition of more perfect knowledge of its cause.

362 [93] Therefore, we may never, while we are concerned with inquiries into actual things, draw any conclusion from abstractions; we shall be extremely careful not to confound that which is only in the understanding with that which is in the thing itself. 363 (93.2) The best basis for drawing a conclusion will be either some particular affirmative essence, or a true and

legitimate definition. 364 (93:3) For the understanding cannot descend from universal axioms by themselves to particular things, since axioms are of infinite extent, and do not determine the understanding to contemplate one particular thing more than another. 365 [94] Thus the true method of discovery is to form thoughts from some given definition. (94.2) This process will be the more fruitful and easy in proportion as the thing given be better defined. 366 (94.3) Wherefore, the cardinal point of all this second part of method consists in the knowledge of the conditions of good definition, and the means of finding them. 367 (94.4) I will first treat of the conditions of definition.

[95] A definition, if it is to be called perfect, must explain the inmost essence of a thing, and must take care not to substitute for this any of its properties. 368 (95.2) In order to illustrate my meaning, without taking an example which would seem to show a desire to expose other people's errors, I will choose the case of something abstract, the definition of which is of little moment. 369 (95:3) Such is a circle. (95.4) If a circle be defined as a figure, such that all straight lines drawn from the center to the circumference are equal, every one can see that such a definition does not in the least explain the essence of a circle, but solely one of its properties. 370 (95.5) Though, as I have said, this is of no importance in the case of figures and other abstractions, it is of great importance in the case of physical beings and realities: for the properties of things are not understood so long as their essences are unknown. 371 (95.6) If the latter be passed over, there is necessarily a perversion of the succession of ideas which should reflect the succession of Nature, and we go far astray from our object.

372 [96] In order to be free from this fault, the following rules should be observed in definition:--

I. (1) If the thing in question be created, the definition must (as we have said) comprehend the proximate cause.

373 (2) For instance, a circle should, according to this rule, be

defined as follows: the figure described by any line whereof one end is fixed and the other free.

(3) This definition clearly comprehends the proximate cause.

374 II. (4) A conception or definition of a thing should be such that all the properties of that thing, in so far as it is considered by itself, and not in conjunction with other things, can be deduced from it, as may be seen in the definition given of a circle: 375 for from that it clearly follows that all straight lines drawn from the center to the circumference are equal.

376 (5) That this is a necessary characteristic of a definition is so clear to anyone, who reflects on the matter, that there is no need to spend time in proving it, or in showing that, owing to this second condition, every definition should be affirmative.

377 (6) I speak of intellectual affirmation, giving little thought to verbal affirmations which, owing to the poverty of language, must sometimes, perhaps, be expressed negatively, though the idea contained is affirmative.

378 [97] The rules for the definition of an uncreated thing are as follows:--

I. The exclusion of all idea of cause-- that is, the thing must not need explanation by Anything outside itself.

379 II. When the definition of the thing has been given, there must be no room for doubt as to whether the thing exists or not.

380 III. It must contain, as far as the mind is concerned, no substantives which could be put into an adjectival form; in other words, the object defined must not be explained through abstractions.

381 IV. Lastly, though this is not absolutely necessary, it should be possible to deduce from the definition all the properties of the thing defined. All these rules become obvious to anyone giving strict attention to the matter.

382 [98] I have also stated that the best basis for drawing a conclusion is a particular affirmative essence. (98.2) The more specialised the idea is, the more it is distinct, and therefore clear. 383 (98.3) Wherefore a knowledge of

particular things should be sought for as diligently as possible.

384 [99] As regards the order of our perceptions, and the manner in which they should be arranged and united, it is necessary that, as soon as is possible and rational, we should inquire whether there be any being (and, if so, what being), that is the cause of all things, 385 so that its essence, represented in thought, may be the cause of all our ideas, and then our mind will to the utmost possible extent reflect Nature. (99.2) For it will possess, subjectively, Nature's essence, order, and union. 386 (99.3) Thus we can see that it is before all things necessary for us to deduce all our ideas from physical things-- 387 that is, from real entities, proceeding, as far as may be, according to the series of causes, from one real entity to another real entity, never passing to universals and abstractions, either for the purpose of deducing some real entity from them, or deducing them from some real entity. 388 (99.4) Either of these processes interrupts the true progress of the understanding.

389 [100] But it must be observed that, by the series of causes and real entities, I do not here mean the series of particular and mutable things, but only the series of fixed and eternal things. 390 (100.2) It would be impossible for human infirmity to follow up the series of particular mutable things, both on account their multitude, surpassing all calculation, 391 and on account of the infinitely diverse circumstances surrounding one and the same thing, any one of which may be the cause of its existence or non-existence. 392 (100.3) Indeed, their existence has no connection with their essence, or (as we have said already) is not an eternal truth.

393 [101] Neither is there any need that we should understand their series, for the essences of particular mutable things are not to be gathered from their series or order of existence, 394 which would furnish us with nothing beyond their extrinsic denominations, their relations, or, at most, their circumstances, all of which are very different from their inmost essence. 395 (101:2) This

inmost essence must be sought solely from fixed and eternal things, and from the laws, inscribed (so to speak) in those things as in their true codes, according to which all particular things take place and are arranged; 396 nay, these mutable particular things depend so intimately and essentially (so to phrase it) upon the fixed things, that they cannot either be conceived without them.

397 [102] But, though this be so, there seems to be no small difficulty in arriving at the knowledge of these particular things, for to conceive them all at once would far surpass the powers of the human understanding. 398 (102.2) The arrangement whereby one thing is understood, before another, as we have stated, should not be sought from their series of existence, nor from eternal things. 399 (102.3) For the latter are all by nature simultaneous. (4) Other aids are therefore needed besides those employed for understanding eternal things and their laws. 400 (102.5) However, this is not the place to recount such aids, nor is there any need to do so, until we have acquired a sufficient knowledge of eternal things and their infallible laws, and until the nature of our senses has become plain to us.

401 [103] Before betaking ourselves to seek knowledge of particular things, it will be seasonable to speak of such aids, as all tend to teach us the mode of employing our senses, and to make certain experiments under fixed rules and arrangements which may suffice to determine the object of our inquiry, 402 so that we may therefrom infer what laws of eternal things it has been produced under, and may gain an insight into its inmost nature, as I will duly show. 403 (103.2) Here, to return to my purpose, I will only endeavour to set forth what seems necessary for enabling us to attain to knowledge of eternal things, and to define them under the conditions laid down above.

404 [104] With this end, we must bear in mind what has already been stated, namely, that when the mind devotes itself to any thought, so as to examine it, and to deduce therefrom in due order all the

legitimate conclusions possible, any falsehood which may lurk in the thought will be detected; 405 but if the thought be true, the mind will readily proceed without interruption to deduce truths from it. (104:2) This, I say, is necessary for our purpose, for our thoughts may be brought to a close by the absence of a foundation.

406 [105] If, therefore, we wish to investigate the first thing of all, it will be necessary to supply some foundation which may direct our thoughts thither. 407 (105.2) Further, since method is reflective knowledge, the foundation which must direct our thoughts can be nothing else than the knowledge of that which constitutes the reality of truth, and the knowledge of the understanding, its properties, and powers. 408 (105.3) When this has been acquired we shall possess a foundation wherefrom we can deduce our thoughts, and a path whereby the intellect, according to its capacity, may attain the knowledge of eternal things, allowance being made for the extent of the intellectual powers.

409 [106] If, as I stated in the first part, it belongs to the nature of thought to form true ideas, we must here inquire what is meant by the faculties and power of the understanding. 410 (106.2) The chief part of our method is to understand as well as possible the powers of the intellect, and its nature; 411 we are, therefore, compelled (by the considerations advanced in the second part of the method) necessarily to draw these conclusions from the definition itself of thought and understanding.

412 [107] But, so far as we have not got any rules for finding definitions, and, as we cannot set forth such rules without a previous knowledge of Nature, that is without a definition of the understanding and its power, 413 it follows either that the definition of the understanding must be clear in itself, or that we can understand nothing. 414 (107.2) Nevertheless this definition is not absolutely clear in itself; however, since its properties, like all things that we possess through the understanding, cannot be known clearly and

distinctly, unless its nature be known previously, understanding makes itself manifest, if we pay attention to its properties, which we know clearly and distinctly. 415 (107.3) Let us, then, enumerate here the properties of the understanding, let us examine them, and begin by discussing the instruments for research which we find innate in us.

416 [108] The properties of the understanding which I have chiefly remarked, and which I clearly understand, are the following:--

I. (108.2) It involves certainty-- in other words, it knows that a thing exists in reality as it is reflected subjectively.

417 II. (108:3) That it perceives certain things, or forms some ideas absolutely, some ideas from others. 418 (108.4) Thus it forms the idea of quantity absolutely, without reference to any other thoughts; but ideas of motion it only forms after taking into consideration the idea of quantity.

419 III. (108:5) Those ideas which the understanding forms absolutely express infinity; determinate ideas are derived from other ideas. 420 (108.6) Thus in the idea of quantity, perceived by means of a cause, the quantity is determined, as when a body is perceived to be formed by the motion of a plane, a plane by the motion of a line, or, again, a line by the motion of a point. 421 (108.7) All these are perceptions which do not serve towards understanding quantity, but only towards determining it. 422 (108:8) This is proved by the fact that we conceive them as formed as it were by motion, yet this motion is not perceived unless the quantity be perceived also; 423 we can even prolong the motion to form an infinite line, which we certainly could not do unless we had an idea of infinite quantity.

424 IV. (108.9) The understanding forms positive ideas before forming negative ideas.

425 V. (108:10) It perceives things not so much under the condition of duration as under a certain form of eternity, and in an infinite number; 426 or rather in perceiving things it does not consider either their number or duration, whereas, in imagining them, it perceives them

in a determinate number, duration, and quantity.

427 VI. (108:11) The ideas which we form as clear and distinct, seem to follow from the sole necessity of our nature, that they appear to depend absolutely on our sole power; 428 with confused ideas the contrary is the case. (12) They are often formed against our will.

429 VII. (108:13) The mind can determine in many ways the ideas of things, which the understanding forms from other ideas: 430 thus, for instance, in order to define the plane of an ellipse, it supposes a point adhering to a cord to be moved around two centers, 431 or, again, it conceives an infinity of points, always in the same fixed relation to a given straight line, angle of the vertex of the cone, or in an infinity of other ways.

432 VIII. (108:14) The more ideas express perfection of any object, the more perfect are they themselves; for we do not admire the architect who has planned a chapel so much as the architect who has planned a splendid temple.

433 [109] I do not stop to consider the rest of what is referred to thought, such as love, joy. (109.2) They are nothing to our present purpose, and cannot even be conceived unless the understanding be perceived previously. (109.3) When perception is removed, all these go with it.

434 [110] False and fictitious ideas have nothing positive about them (as we have abundantly shown), which causes them to be called false or fictitious; they are only considered as such through the defectiveness of knowledge. 435 (110.2) Therefore, false and fictitious ideas as such can teach us nothing concerning the essence of thought; this must be sought from the positive properties just enumerated; 436 in other words, we must lay down some common basis from which these properties necessarily follow, so that when this is given, the properties are necessarily given also, and when it is removed, they too vanish with it.

The Book of Divine Panagogue called

SCEPTICS

DESIGN IN NATURE.

C. J. Ellicott

1 "All things are full of God," said the father of Greek philosophy. 2 "We have no need of the hypothesis of God," said a French astronomer. 3 It is with the latter saying, which is descriptive of the attitude of modern science at this time, that the present address will have to do. 4 Atheism no doubt exists; but far more common is the mode of thinking which would dispense with all questions about the Divine Nature in dealing with the world and its phenomena; 5 which considers that the introduction of the name of God into scientific research, complicates what is simple, obscures the rules of observation, introduces controversies that are useless to science, 6 restrains the free course of inductive reasoning by an apprehension of consequences, and entangles physical inquiry which leads to sure and clear results, with mental and with spiritual inquiry which have produced nothing but disputation. 7 Those who hold such views would think it unphilosophical to deny, just as they would regard it to affirm, the existence of God.

8 But the popular mind is not equal to nice distinctions; and it seems almost the same thing to most people to deny the existence of God as to exclude the thought of Him when exploring His creation.

9 I am not without hope that a few words delivered here upon "*the argument from design*," as it is called, may tend to diminish the growing estrangement between science and religion, and at the same time to revindicate for religion her legitimate share in matters of scientific interest.

10 I may undertake that the subject, however unworthily treated in other respects, shall be discussed without bitterness, and with a fitting respect for those who have done so much for physical science during the present generation.

11 It is necessary to sketch in a few sentences that field of creation with which the argument from design has to do. The world

presents to us four kingdoms or classes of facts. One of these, and the first in point of order, is the mineral kingdom. 12 A few so-called elements, as metals, earthy bases, and the like, acted upon by certain forces, known to us as gravitation, motion, heat, electricity, magnetism, chemical affinity, have formed the mountain and the valley, the wind and the clouds, the sea margin and the cave; 13 in a word, all the grand substructure on which the higher kingdoms are to take their places. 14 Modern science has discovered however, that these physico-chemical forces are interchangeable or convertible; that retarded motion turns to heat, as in the railway break, that heat generates electricity, and the electric current magnetises the iron round which it passes. 15 Not only this, but each force generates a certain equivalent of another-- so much and no more; and no force is lost, though a force may pass from an active to a potential state. 16 For example, two tuns of water are raised by evaporation from the sea, and one of them falls in rain in a valley drained by a river, 17 and in its downward motion back to the sea it will turn the water-wheel, lift the tilt-hammer, bear the barge swiftly in its current, leap over the rocky ledge a foaming cataract, 18 and in all these it is only sending back a portion of the force which was spent upon its evaporation; and the real source of all this work is, and must be, the sun's heat. 19 And ere the water rests again in the sea it will have accounted for the whole of the force, neither less nor more, that had operated upon it; part of it in friction on its bed and in consequent heat; part of it in tasks imposed by human skill. 20 The other tun of water shall fall into some land-locked tarn, high in the hills, where it cannot at once render back its force in work or duty, but the force is there, held in suspense or in reserve. 21 Water lifted from the sea level to the valley of the Engadine, a mile higher, has used much of the sun's heat; 22 it will restore that heat or some equivalent force, as soon as you make a way for it to the sea level again; and it will have parted with all the force, neither more nor less, which raised it to that height. 23 That forces are convertible, and

that whether converted or not they are conserved, so that nothing is lost, are propositions demonstrated. 24 It is not, I believe, demonstrated, but it is a probable supposition, that all forces are but one force manifested in different modes.

25 Then as to the material elements on which these forces work; the hydrogen, carbon, iron, lime, and the like, the name of elements must be held to mean no more than that they have not as yet been resolved into simpler substances. Of their ultimate composition we know nothing.

26 They may be so many modifications of an ultimate matter; but whether this ultimate matter exists, whether it be, as modern materialists tell us with such confidence, eternal and indestructible, 27 whether impenetrability be one of its properties, whether it be not a kind of polar opposite to the physico-chemical forces, and engendered with them, 28 so that in a different universe, with other forces at work, there must have been different elements, these are all questions of mere speculation, incapable of proof. 29 The physical enquirer has bound the self to consider only the facts which you can observe; and when you tells us that matter is eternal, and that therefore creation is impossible, you are deserting the ground where alone you are strong.

30 Bishop Berkeley's and Collier's denial that matter truly exists is quite as probable as this affirmation. But both alike are speculative guesses and not science.

31 There is a second kingdom to add to the first. The world is not a mere agglomeration of rocks and mountains, seas and lakes. Before the physical forces had completed their work, a new force had been added to them; that of life. 32 The bare rocks became clothed with living moss. In marshy places, warm and moist, a rich vegetation grew and decayed. 33 Along the slopes the interlacing roots of grasses detained the particles of soil which would otherwise have been washed down to some lower bed. 34 The vegetable world, with thousands of varieties, clothed and adorned the stony earth. 35 World's greatness in the present was taken

order for in those ages when her natural resource measures were formed out of the forests which grew rank and died in a climate different in all respects from that which forms the subject of our daily animadversion.

36 Third in order comes the Animal Kingdom. I do not attempt to define life, whether animal or vegetable, with exactness. Every one has failed in that attempt. 37 As a rough description of animal life, it may, perhaps, suffice to say that the living being is one endowed with sensation and spontaneous motion, of which each of the parts contributes something to the continuance of the whole, and is in turn preserved or defended by the whole. 38 If those who find fault with this, look for another definition in Dr. Whewell's comprehensive work, [1] they will find my excuse in the variety and the inadequacy of the definitions there collected. 39 The animal life spread out over the globe from the first is profuse, is beautiful and various. 40 The oolitic limestone and the white chalk are almost wholly made up of shells of Foraminifera. 41 On the river Columbia is a bed of clay 500 feet thick, which consists largely of the shells of Diatoms, if, indeed, these are to be ranked in the animal kingdom. 42 The shells of the Foraminifera, which can only be examined by the microscope, exhibit wonderful variety and beauty. 43 Still more remarkable in this respect are the Polycystina, whose shells, as figured in Mr. Ponton's book, recall censers and vases, jewelled crosses and stars, pendants and tripods, such as a London goldsmith would do well to reproduce. 44 Until the microscope was invented no eye can have explored this wonderful dust. The shells of both these humble tribes, the Foraminifera and Polycystina resemble the shells of other animals much higher in the scale of organisation; 45 but nearly as they are related in organisation to each other, the forms are very different, and each in itself presents a wonderful diversity of forms. In higher families of animals there are the same characters.

46 The globe teems with life in earth, and air, and water. If you

will permit me, so early in my argument, to speak of the Maker of them all, I will say that the creative power is inexhaustible in invention, both of useful and beautiful parts. 47 And in the ceaseless activity of these creatures, great and small, we recognise the physical happiness which accompanies so much life. 48 It is a chorus of thanksgiving and praise, from pool and jungle, from treetop and soft grass, from the creatures that revel in the life that God has given them.

49 In demanding the right to regard human as the fourth kingdom of Nature, I am aware that some may demur to the claim. 50 No doubt you must take rank in the kingdom of the animals, by reason of your identity with animals in all the vital functions. 51 Disparaging things have been said of your brain; and Moleschott has remarked, I think, that all its finest things are but modified phosphorus after all. "No phosphorus, no thinking!"

52 The slight projection on the outer margin of the ear has lately assumed portentous proportions. 53 The possession of that precious relic, which has turned up suddenly like the locket of the long lost child in a stimulating novel, proves our kinship to the Simian race, from some balder specimens of which we are supposed to have descended, and gives us a place on an unsuspected family tree. 54 But, after all that has been said by the naturalists to teach us humility, there do remain some facts, which entitle human to a separate place, to one at least of which the modern school have given greater prominence than before. 55 They are these. Human can control Nature. You can read Nature and understand it. You have a power of self-regulation, which we call conscience. And you can and does think much about God.

56 As to the power of human to control Nature, I prefer to employ the words of Mr. Wallace, one of the first to put forward what is called "the law of natural selection," who will not be suspected of claiming any transcendental place or privilege for human. 57 "With a naked and unprotected body," he says, human's intelligence "gave you

clothing against the varying inclemencies of the seasons. 58 Though unable to compete with the deer in swiftness, or with the wild bull in strength, it has given you weapons wherewith to capture and overcome both. 59 Though less capable than most other animals, of living on the herbs and the fruits which unaided Nature supplies, this wonderful faculty taught you to govern and direct Nature to your own benefit, and to make Her produce food for you when and where you pleased. 60 From the moment when the first skin was used as a covering, when the first rude spear was formed to assist in the chase, the first seed sown or root planted, a grand revolution was effected in Nature, 61 a revolution which in all the previous ages of the world had had no parallel, for a being had arisen who was no longer necessarily subject to change with the changing universe, 62 a being who was, in some degree, superior to Nature, inasmuch as you knew how to control and regulate Her action, and could keep yourself in harmony with Her, not by a change in body, but by an advance in mind. 63 Here, then, we see the true grandeur and dignity of human. On this view of your special attributes we may admit that even those who claim for you a position and an order a class or a sub-kingdom by yourself, have some reason on their side. 64 You are indeed a being apart, since you are not influenced by the great laws which irresistibly modify all other organic beings. 65 Nay, more, this victory which you have gained for yourself gives you a directing influence over other existences. 66 Human has not only escaped natural selection yourself, but you are actually able to take away some of that power from Nature which before your appearance She universally exercised. 67 We can anticipate the time when the earth will produce only cultivated plants and domestic animals; when human's selection shall have supplanted natural selection; and when the ocean will be the only domain in which that power can be exerted, which for countless cycles of ages ruled supreme over the earth."

68 Thus eloquently and forcibly speaks Mr. Wallace; and I do not

stop now to criticise the exaggeration of language which treats the law of natural selection as supreme ruler of the earth. 69 Let me say a few words next upon human's power to reflect on, and to understand Nature. For this was the second mark by which human was distinguished from the animal creation, with which you have so much in common.

70 Human alone is capable of an unselfish interest in the world around you; that is, an interest that does not bear immediately on your bodily wants. 71 How far you have carried this interest, let modern science bear witness. 72 The common feat of foretelling all the eclipses of sun and moon for a given year, is performed for our almanack yearly, without exciting surprise or gratitude. 73 Yet it means that human can so follow the heavenly bodies in their path, for years and years to come, for all the years that are gone, that you can tell, without fear of error, on what day the cone of shadow thrown by the sun-lighted earth into space, shall sweep over the face of the moon and blot out her light, completely or a little. 74 But this is an old triumph, hardly worth quoting, but for its aptness to impress all kinds of minds. 75 A clerk in one of our public offices, using only such leisure as official work allowed, has told us lately wonders about the composition of the sun; 76 and here in London, armed with a little instrument (the spectroscope), this distinguished man has been able to ascertain that in yonder photosphere the same elements are found which the chemist seeks and finds in the crust of our little earth. 77 What proofs can be more convincing of the fitness of human to play your part in the scene in which you are placed? 78 Your senses are adapted to the facts you are to observe; your eye to light, your ear to sonorous vibrations, your touch to resistance and to weight. But the naked organ soon falls short of your wishes. 79 And soon the microscope unfolds the beautiful forms of the Polycystina shells, the minute fibril of the muscle, and the components of the blood of life. 80 The telescope brings near the world of stars, and resolves the bright mist into clusters of distinct orbs. The balance weighs

quantities of matter too small for the touch to appreciate.

81 And lastly, the spectroscope takes the picture, so to speak, of chemical phenomena too distant to be realised by these means; 82 and so the composition of the heavenly bodies, about which the most sanguine observer twenty years ago would have admitted that we should never know anything firmer than conjecture, is already the subject of exact observation.

83 The names of Homer, Plato, and Shakspeare remind us how marvellously the world is imaged and reproduced in the minds of some great people, and of the share which we smaller people can take in their work by an admiring sympathy. 84 A production of art, whether literary, pictorial, or plastic, is a creation. 85 The things of Troy were not so touching nor so grand in their reality as they became in the form which the poet gave them. 86 Legend enters largely into the stories of Macbeth and Hamlet. The histories are shadowy, but the plays are substantial; they contain some touch of truth. 87 Old and young read them, and lend to the author all their feelings to work on as one will. 88 Weigh this fact well. It seems to me to show so plainly that human's constitution has been fitted by foresight and preparation for the place in earth that you was to fill.

89 Supposing that Moleschott was right in own startling aphorism, "Without phosphorus there is no thought," what a wonder are we forced to recognise here. 90 The rage of Achilles, the death of Socrates, the resolute wickedness of Lady Macbeth, the character of her husband, so weak in his crime, so grand in his remorse and ruin; 91 the refined and gentle Hamlet, forced by a preternatural command to assume the character of an avenger; to all these the presence of phosphorus in the brain is indispensable. 92 How comes so small a cause to work such grand effects. It is sufficiently wonderful to hear Joachim discourse eloquent music upon the simplest of instruments, a violin; 93 take away the violin and substitute a bit of wood; if the music still continues, what was before a wonderful exercise of skill is now miraculous. 94 If great thoughts

are but phosphorus burnt in the closed stove of a poet's brain, I am more ready than ever to admire that creative wisdom which could bring this out of that, which could so dispense with ordinary means in His highest productions. 95 But the aphorism is not true as it stands. I believe there is no free phosphorus in the brain. "Without lime, no thought; without oxygen, no thought; without water, no thought." 96 All these are true, and they import a well-known fact, that human who thinks is a creature in a material world, and that certain forms of matter are needful to your existence as an organised being.

97 "Two things are awful to me," said Kant, "the starry firmament and the sense of responsibility in human." 98 In his "Metaphysics of Ethics" he has treated this sense of responsibility with singular logical power. It is one of the marks that separate human from all other creatures. 99 No doubt this principle has allowed people to come to very wrong and absurd conclusions. 100 Because the savage practises cannibalism, and knows no rules of chastity but those which flow from the husband's right of property in the wife, it is inferred that the savage has no moral sense. 101 It would be as fair to infer that because England once traded in slaves, fought cocks, baited bulls, and oppressed the native races in India and her colonies, therefore there was no sense of right and wrong in England. 102 It is for the existence of the principle that I contend, and not for its perfect education and enlightenment. The principle is that something is right to will and to do, and something is not right. 103 The existence of the principle is proved if the poor savage of whom I spoke would consider own humanhood disgraced by fleeing, even for your life's sake, before the foe, or by suffering one cry to escape you under the tortures, wherewith your captors are doing you to death. 104 The education of this principle is a different matter; no one could say that even now your conscience was completely educated. 105 "So act that your principle of action would bear to be made a law for the whole world," is a noble maxim; but it requires knowledge and light, as

well as right intention. 106 If you twit us with the fact that humans have been cruel, impure, capricious, and absurd in their conduct, we answer that they had still a right and a wrong. 107 One who has the sense of sight may find the self compelled to live in some narrow cleft or ravine, where there is little to see, but the sense is there still.

108 The bathing-people at Pfeffers, with the earth closed almost over their heads, see little of the scenery of Switzerland: but they have eyes not the less. 109 We are claiming for humans now, not the fine sweep of moral prospect, but the moral sense of sight; and this is never wanting. 110 Upon this sense every artifice has been used to make it look like something else; for until it can be so transformed, it is a powerful witness for another world than this. 111 The commonest explanation is that it is only a principle of enlightened self-interest. Study it for yourself in the savage, in the little child; you will find that these two principles run on different lines.

112 The last mark of human, that distinguishes you from all animals is, that you believes in God. 113 One half the human race at this moment profess some creed in which God is the great first cause, the Creator and Governor of the world. 114 Of the other half, hardly any are quite without religion. "Obliged as I am," says M. Quatrefages, in words which I have had occasion to quote elsewhere, "even by my education, to pass in review the races of humans, 115 I have sought for atheism in the lowest and in the highest, but nowhere have I met with it, except in an individual, or at most in some school of people, more or less known, as we have seen in Europe in the last century, and as we see at the present day.

116 Everywhere and always the masses of the people have escaped it." But for my present argument it is not necessary to insist that a right belief in God prevails. There is a belief in God, and it cannot have come from experience or observation of visible facts. 117 You may lower the position of human, by comparing you to the apes, and by chemical analysis of your brain; all the more wonderful is it that a creature in such sorry

case should pretend to hold communion with the divine. 118 Your feet are in the earthy clay, but your head is lifted up towards heaven. Heir to a hundred maladies, the sport of a hundred passions, holding on this life, so chequered in its complexion, 119 but for a few days, this creature cries out of own trouble: "God exists; and He can see and hear me."

120 Human, if I have proved my position, stands quite alone at the head of the kingdoms of Nature, alone in your power of controlling it, alone in your appreciation of its beauty, alone in the self-government of conscience, 121 the first of all the creatures of God, to pronounce the name of Him who had made all things, in a world which for ages had been blind to its Maker, and thankless because blind.

122 Now it has become, and will probably continue to be, a question of the deepest interest to humankind, how these four kingdoms came into being. 123 And at present there is a tendency towards a theory purely material and mechanical. It is so in Germany, the country of Büchner, Vogt, and Moleschott; it is so in France, where Comte and Littré have written; it is so here in England, where it is needless to quote distinguished names. 124 I purpose, in the remainder of this lecture, to attempt an interpretation of the facts before us, quite different from this prevalent notion; 125 and also to show how vicious and how inadequate in a scientific point of view the system known as materialism appears to be.

126 The time is all too short for such a purpose: but any address like this can only aim to scatter germs of thought, not to present a system.

127 That the creation was gradual, appears alike from the account of the Bible and from scientific observation. 128 Matter and motion must have existed before the ball of earth was formed; and the physico-chemical forces must have been in full play when the first lichen clothed the rocks, or the first plants were formed in the sea. 129 The first appearance of life on the globe was a mighty step in creation, and from this point the

question of design becomes a very urgent one. 130 Observe: the plant world is a new world, with a series of wonders all its own. 131 There was nothing in the heat of the sun, nor in the earth's motion or magnetic currents, to give any promise or presage of the marvels of the forest.

132 Supposing that we admit that these were evolved by law, that is to say, that as a matter of fact plants only appeared where certain conditions of light and heat and moisture combined to favour them, and that wherever these conditions were combined they never failed to appear. 133 The question next arises whether matter and force evolved them from their own inherent nature, or force and matter were created with the intention to produce them, so that the plant was intended and prepared then when the other forces began to stir the formless void.

134 Is the plant world the accidental or necessary outcome of the forces that made the mineral world? Or must we say that it bears marks of design? 135 Here we must observe that it is a wider and richer world than that which preceded it: more full by far of forms of beauty and grace, each of them sustained by a vascular system of which the mineral world affords no parallel. 136 You stand before the gnarled and twisted oak that rises out of the feathering ferns; you never think that this giant of two centuries, endued with a certain power of self-protection against the storms of two hundred years, is an accidental product. 137 It is so grandly strong, so richly clothed with a myriad leaves, alike but yet in something different each from each. 138 The cattle count upon its friendly shade; the fowls of the air make it their resting-place. This a result of certain motions in the universe and certain properties of matter, not designed at all, foreseen by no eye? 139 To no one would such a thought naturally occur. The world, full in its first stage of marks of order and purpose, shows more of the same marks in its second and more complicated state. 140 The change that has taken place is not towards confusion and exhaustion from unforeseen defects in mechanism,

but a higher development. 141 The mineral kingdom was wonderful; that it should be able to clothe itself with a mantle of verdure, and pass into another kingdom much more complex, heightens the wonder. 142 But then comes the further change, the pouring out of animal life upon the globe. Was this too an inevitable consequence of physical forces? 143 All the animal creation teems with marks of purpose. Consider only some of the contrivances by which the fowls of the air are fitted for their peculiar life. 144 Describing a night of extreme coldness, the poet says: "The owl, for all her feathers, is a-cold."

145 That warm covering of the bird must be portable as well as warm; it weighs about an ounce and a half. 146 But the covering of birds would be useless to them if the showers to which they must be exposed were absorbed by the plumage, so that it became a heavy clinging mass. 147 An oily secretion makes it waterproof; we have all seen the duck free itself by one shake from every trace of its recent bath. 148 The heavy skeleton that befits pedestrian creatures, would disable the bird from flight; so it is provided with tubes of thin bone, surrounding a cavity filled with air. 149 Its pinions must be light as well as strong; observe how the light barbs of the feather have roughened edges so that they form one strong continuous surface, almost impervious to the air which they strike. 150 The air in the bones of birds and in other cavities of the body, heated too by an inner warmth much greater than that of human, contributes something to their buoyancy. 151 Their speed and endurance are enormous. It is said that the swallow's flight is ninety miles an hour. 152 One long stretch across the North Sea brings the sea-fowl from Norway to Flamborough Head; they rest for a short time after this flight, and pass inland, not the worse for their exploit. 153 You may infer from the beak of a bird its habits and its food. The bill of a woodpecker is a pointed tool, tipped with hardest horn, to break open the bark of the tree for insects. 154 The flat bill of the duck has plates of horn at the side; an excellent instrument for straining off the water and

retaining the food. 155 The bill of the snipe is long, and narrow, and sensitive, to pierce the marshy ground, and feel after its food. We might go on for hours multiplying such instances, and from every part of the field of creation.

156 Now, any mind in its natural state knows that in human works such adaptations could only proceed from contrivance, and is willing to regard these in the same way as proofs of design in creation. 157 The physicist has to tutor the self to a different view. All these things are evolutions, under pressure of circumstances, of the original forces of creation. 158 For example, out of certain birds tenanting marshy places, one has a somewhat larger beak, and this gives them an advantage in piercing the ground for food; 159 and so own share of food is larger, and own strength and courage greater, and have a freer choice of a mate; 160 and so the long beak grows longer in the next generation, and the grandson's beak is longer than the son's, from the same causes; and thus the law works, until in course of time there stands confessed a new species-- a perfect snipe. 161 Is the scientific theory better in this case than the popular? It is not. It does not account for the facts so well. 162 But is not our belief that God made the fowl of the air with fitting instruments for a peculiar life because He saw that it was good, and wished all portions of His varied earth to be the scene of the joy and energy of appropriate tenants, a mere hypothesis?

163 The worship of God is universal, and exists without any explicit opinion that He is the Creator, the first Cause. 164 Because you are able to conceive of Him, and are willing to accept Him as the Ruler of your will and conscience, He must exist. Does this seem too rapid an assumption? Consider the alternative. 165 If He exists not, the sound of worship has gone up from all lands in vain, and in vain have all good people consecrated their lives to an obedience to the law of duty. 166 Were such deceit felt to be possible, a darkness that might be felt would settle upon our spirits, and the hands would indeed hang down, and the feeble knees be paralysed, and a strict silence on

all moral subjects become us best. 167 But we must see with such eyes as God has given us; and scepticism about faith and conscience is perhaps as unprofitable as scepticism about touch and sight. 168 God exists then, it is assured to us by the common faith of humankind, by the highest law within ourselves. And as He exists, to Him, and to no other, must we assign the place of Creator. 169 There cannot be two Gods. I cannot give my conscience to one as its guide, and adore another for the wisdom of the universe. 170 God exists then, and His existence is not merely assumed in order to account for marks of design in Nature. 171 And we maintain that the easier supposition is also the truer. These marks of purpose are what they appear to be, tokens of the wisdom of God. 172 "Thou hast made heaven, the heaven of heavens with all their host, the earth and all things that are therein, the sea and all that is therein, and thou preservest them all."

173 If I were to venture to express in a few sentences the belief of a person of ordinary education upon this subject I should say that God alone is and can be the first cause of this universe, the mover of its motion, the giver of its life. 174 The wise purposes which shine forth for us in Nature, were in the mind of God from the first act of creation. 175 In saying that He has wrought by laws, we do not detract from His power; we seem rather to enhance it to our minds in attributing to Him constancy as well as wisdom. 176 A law is not a restraint; it is a fixed manner of working. 177 To say of a painter that you never produces any but fine works, does not affirm that you are less free than an inferior artist; just because producing bad work is no power or privilege but a defect. 178 And so, when we admit that God works by law, and expect to find the same spectrum from the sun's rays, which we have once made with our own prism, at every time and in every place where the sun's light shines, and so on, 179 we do not narrow the power of the Great Artificer, unless it can be shown that caprice is a privilege and a good. 180 The subject of miracles is not here to be discussed; I will only observe that

they are presented to us as parts of a great purpose for the good of human; and that our Lord refused, when He was tempted, to work wonders out of willfullness, or only to astonish. 181 The extreme jealousy of scientific people of admitting any allusion to theology, in connection with the course of Nature, proceeds from erroneous conceptions of God.

182 Mr. Wallace, whom I have already quoted with respect, is ready to admit that the Creator works in the beginning as the founder of the laws on which the world is to proceed; 183 but he is afraid of admitting that there has been continual interference and re-arrangement of details. But this eminent naturalist attributes to us a conception of the Most High which we do not hold, nay, which we energetically reject. 184 If the laws were wise and good, whence would come the need of interference or re-arrangement? 185 Who are we that we should bid God speak once, and forbid Him twice to speak? 186 The laws of Nature are God's laws, and God's laws are His utterance of Himself through the speech of Nature. 187 God is the same yesterday, to-day, and for ever; and so His laws remain the same. 188 They are, if I may say so without irreverence, the veil and vesture over the form of God, too bright in itself for us to look on; they take their outline from Him who is beneath them.

189 You may continue your researches in full confidence that the laws will stand sure, not because you have the slightest guarantee as a person of science that these laws will never be interfered with; such a guarantee you have on your own principles no right to ask. 191 You are to observe that the facts are so; that they shall eternally be so is not for you, for that is all beyond experience. 192 But the wisdom that made the laws needs not to revise its work, and erase and insert and amend its code. 193 In the days of creation God saw that it was good; the eye that so approved it changes not. Until the purpose that runs through the ages is completed the laws will stand sure. 194 But each new kingdom of Nature has introduced a change amounting to a revolution, which neither the theologian nor the

naturalist regards as an interference or a caprice. 195 When the principle of plant-life was introduced, the mineral world became the material on which the plant-life worked; it gathered into itself the lower elements, carbon, silica, nitrogen, and used them as means of its own organic life. 196 The plant partook of the nature of the class below it, whilst it dominated and used that class. This same took place when animal life was introduced. 197 The beautiful plants become the material whereon the animal life worked, the food whereby it sustained itself. 198 It was the same when human was added, in whom instinct is replaced by reason, and ethical action supervenes over action by impulse and appetite. 199 Each of these kingdoms has much in common with that which is below it. The animal is in many respects a plant; for the diatomaceous creatures one knows hardly in which kingdom to find their place. 200 The human is an animal in much, and perhaps your animal instincts play a larger part in the world's history and in your own development than we are wont to allow. 201 But each higher step brings in something wholly new. "An animal," says Hegel, "is a miracle for the vegetable world." 202 Each step is a revolution in one point of view; but then the lower state prepared itself for the higher, prophesied, so to speak, of its coming, and the higher seated itself so easily on the throne prepared for it, that we do not wonder to find it there. 203 You call it evolution; we call it a creative act. We think that God exists, and if He acts anywhere it must be in this, the universe of things. 204 [Greek: Ex henos ta panta gignesthai] is an old saying long before Christianity. But you and we may work by the same calculus and rules of observation. The facts are the same, the interpretation of what is behind them is different. 205 Nor need we deny that the principle of which Mr. Wallace spoke as "supreme in the world," has its truth and its use in explaining the facts of creation. 206 It never raised an inert mineral mass into a vegetable organism; it never raised a plant into an animal. It never raised an ape into a human. 207 No facts have yet been

produced that go to prove any such leaps, and if our logic is to be improved in anything by the light of experience, it is in this, that facts should be recorded and generalised, but not assumed. 208 But that climatic conditions, and the struggles for life, have modified species, and worked out new varieties, or new species, we may fearlessly admit; 209 it is one more proof, perhaps, that the world is a meet school and training ground for the creatures placed in it for discipline. 210 But a law is not a god; it never ruled supreme; never was other than one precept out of many in the Divine code of the world.

211 It has become the fashion with some naturalists to speak of God as "the Unknowable." 212 Mr. Martineau has finely observed, somewhere, that this name is self-contradictory; for we affirm by the use of it that we know so much, that He cannot be known. 213 I go much further. It assumes the existence of God, and in the same breath separates us from Him for ever. 214 Theologians have ever been ready to confess that God cannot be known in His own essence to creatures such as we. "Lo! these are parts of His ways: but how little a portion is known of Him? But the thunder of His power who can understand?" 215 An uninspired writer speaks the same language as the inspired. "For us that are people to talk about divine things is as when the unmusical discourse of music or civilians of strategy." 216 But shall we then sit down in despair, and no more look up to God? We shall be untrue to our own best instincts; we shall not have used all our means of enlightenment. 217 I grant that the mere contemplation of God in Nature is not enough. Like the pillar of cloud of old, it is at once light and darkness; a light to us in contemplating the book of Nature, a darkness to our hearts, shut in with their own sins and sorrows. 218 Naturalists have never done justice, as it seems to me, to the most important facts of human's nature. Not only can you study Nature, but you can act in it and upon it. And this power of action assures you of your freedom. 219 Possessed of this gift, that places you a little lower than the angels, you knows that you can

use it either way. 220 You may follow your own foolish vanity, your own evil wishes, and set up for your own law, and be your own God; or you may return to Him, whence you came out, and offer to God the homage of your own will, of your love, and your obedience. 221 To one who has performed this great act God is no more "the Unknowable." 222 In the mutual commerce of two wills, two spirits, the finite and the infinite, the finite rises more and more, and sees more and more of Him who has manifested Himself to us in His creation of the world out of free love, 223 in His creation of a free being to rule in the same world, crowned with glory and honour, in His giving that free being a law of duty wherewith to rule yourself, in His having planted in you hopes and longings that will be satisfied only in eternity.

224 Yes; human is humble and low. By every organ, and by every fibre you are mated with some analogous creature in the brute world. 225 You surpasses them in the variety of your ailments, and the profundity of your pains. You are part of a system, which naturalists tell us is hastening towards night and death; the motion of the power of Nature tending plainly towards universal rest. 226 But "Placed on this isthmus of a middle state, A being darkly wise and rudely great," you have that in you which unites you to another sphere. 227 To be able to conceive of God at all; to have within you a will and a power of worship, these make you one with God, and assure you against death and darkness. 228 To deny oneself this privilege of viewing the earth in its relation to God, to shut out God artificially from that sphere where the natural understanding has always found Him without assistance, is a pedantry for which we shall surely suffer. God will find us out.

229 There is often a certain irritation in those who would exclude God from their sphere of view. They lose their philosophic calmness when they speak of religious things. 230 These are the tokens of past conflicts and past quarrels, of a soul that might know more of God if it had not refused. 231 God is reflected in the world,

in the human's intelligence, in your conscience, in your will. "Whither shall I go from His presence?" We seem to be saying. It is better to be able to say, "Whom have I in heaven and earth but Thee?"

PANTHEISM.

Rev. J. H. Rigg, D.D

2 A hundred years ago the controversy of Christianity in England was with Deism, and in France with Atheism; 2 while at that time the transcendental infidelity of Germany was as yet undeveloped, and the name of Spinoza was nowhere held in honour. 3 Now, however, deistic infidelity appears to be obsolete, and it is universally felt by those who have entered truly into the thought and controversies of the age, 4 that the question for the present is between Christian Theism and that style of philosophy which recognises an impersonal divinity in all things.

5 Deism grants too much to the Christian. If a person really believes in a living and personal God, a Divine Maker and Ruler of the universe, with a moral character and will, 6 you finds it hard to deny the possibility and probability of a revelation, and impossible to maintain the impossibility of miracles. 7 Having been obliged to yield thus far to the Christian argument, the deist is unable thereafter to withstand the positive evidence in favour of Christianity. 8 Moreover Deism is beset by the same difficulties in effect which surround the Christian revelation, without its lights, its consolations, its blessings. 9 The person, therefore, who rejects Christianity seldom finds your resting-place in Deism. You becomes a pantheist or an atheist.

10 Naked atheism, however, is a repulsive creed. It is a heart-withering negation. It touches no sympathy; it stimulates no play of intellect; under the deadly chill of its unlighted vacancy, imagination cannot breathe. 11 There is nothing about it refined, or subtle, or profound. It is the barest and hardest form of infidelity, and has been professed by the coarsest minds. 12 It demands no effort to comprehend its one universal

negation and it taxes no skill to expound it. It is an arid and barren, a cold and dreary, hypothesis, which no genius, not even that of Lucretius, could make attractive. 13 The old illustration is conclusive as to its absurdity. It would be immensely less monstrous to maintain that the Iliad, in its full perfection, might have been the product of the "fortuitous concourse" of the letters of the Greek alphabet, than that this infinitely wonderful and glorious universe is the result of the "fortuitous concourse of atoms." 14 Stark atheism, therefore, however it may have flourished in the heartless and hopeless France of a hundred years ago, was never likely to take root in the soil of European scepticism as the alternative of Christianity.

15 In England it has had very few votaries. Nor has atheism, as such, ever found favour in the land of Luther and Melancthon, the favourite soil of mysticism and pietism. English deism and Scottish scepticism did, indeed, produce potent effects in Germany a hundred years ago; 16 but the result was neither deism, nor such scepticism as that of Hume, nor atheism, but a dreamy idealistic pantheism. 17 And now Germany, with a disastrous fidelity, by an infusion into our literature of its pantheistic unbelief, has repaid to Britain the debt which it contracted by its importation of English deism and Scottish scepticism. 18 At the present moment a pantheistic philosophy is the philosophy in which unbelief for the most part invests itself.

19 Hence the task which falls to me to-day cannot but be felt by myself to be one of very grave importance. I could unfeignedly have wished that it had fallen into other and more competent hands. 20 Perhaps, however, I may venture to claim two qualifications which may, in some measure, help to fit me for dealing with the subject on which I have to speak. 21 One is, that the subject of Pantheism is one which has much and frequently exercised my thoughts for many years past, ever since I learnt from the writings of Coleridge, Hare, and others the meaning of what Hare spoke of as the "fascination of Pantheism;" 22 ever since I was led to the study of

philosophy and its development, and especially of the thoughts of the early Greek wrestlers with the mysteries of being, 23 of the Alexandrian Neo-Platonists, and of the modern thinkers of Germany, who have filled with transcendental exhalations of verbal dialectics the vacuum in speculation which had been created by the destructive logic of Kant. 24 The other qualification which I venture to claim for my task to-day is that I have some knowledge of the difficulties of thought and belief which may lead honest people to become pantheists; 25 that I understand the manner of thought of one who has become entangled in the mazy coil of pantheistic reasonings; 26 at all events, that I know that honest searchers after truth may reluctantly become intellectually pantheists, while yet their heart longs to retain faith and worship towards a personal God. 27 If, therefore, one necessary condition of true success in argument is an intellectual and, as far as possible, a moral sympathy with one's opponents, that condition, I believe, is fulfillled in my case. 28 And I cannot but think that all Christian controversialists ought to feel a tender sympathy towards honest thinkers who are involved in the bewildering confusions of a philosophy which they do not love, 29 even although they may, after many a struggle and in sadness of heart, have succumbed at length to Pantheism as the only conclusion of controversy in which they are able to abide.

30 My subject to-day is not the history of Pantheism, but its principles. The history could not be dealt with in one lecture; 31 the principles, I hope, may. And whatever may be the intellectual genesis, the descent and derivation, or the special character, of any particular form of Pantheism, all its forms will be found to coincide in certain respects.

32 The semi-Hegelian of Oxford, and the pantheist who falls back on the lines of Mr. Herbert Spencer's speculations as his place of defence, may both be regarded as standing on common ground for the purpose of my present argument.

SCEPTICS

33 In attempting a criticism of the principles of Pantheism, the first thing to be done is to obtain as clear an idea as possible of what is to be understood by Pantheism, as distinguished from Theism on the one hand, and from Atheism on the other. 34 There can be no doubt that the difficulties, both metaphysical and moral, which attach to the conception of a personal God, the Creator and Governor of the universe, 35 have, more than any other cause, constrained thoughtful people who have pondered the problem of the universe, to endeavour to escape from their perplexities and bewilderments by taking refuge in the notion of a diffused impersonal divinity. 36 And it must be confessed that these difficulties are so oppressive and so staggering to our incompetent human reason, that they might well tempt the mere reasoner, the mere logician, the mere metaphysician, to give up faith in a personal God, 37 if so to do were not really to involve one's self in more than equivalent difficulties of the very same class, besides many other difficulties, and in truth contradictions, both intellectual and also moral, which are involved in the pantheistic hypothesis. 38 That the alternative is such as I have now stated, that the pantheistic hypothesis is necessarily beset with such difficulties and contradictions, will in part be shown by the inquiry which, as I have intimated, must needs come first of all in the criticism I am to attempt. 39 An investigation of the meaning of Pantheism, of the characteristic idea proper to the intermediate hypothesis which rejects equally A-Theism and Theism, will open to view the metaphysical difficulties and contradictions involved in the hypothesis. 40 I shall afterwards try to show the incompatibility of the principles of Pantheism with the true principles of natural science. 41 The moral considerations belonging to the Christian controversy with Pantheism I shall reserve till the final stage in my argument.

42 Pantheism agrees with atheism in its denial of a personal Deity. Its divinity of the universe is a divinity without a will and without conscious intelligence. 43 In what respect, then, does Pantheism

really differ from atheism? If we eliminate from our idea of the divinity of the universe all consciousness, all sympathy, all will, what sort of a divinity remains, what sense of a present and real divine power is left to the person that shrinks from atheism? 44 Atheism denies that in, or over, or with Nature there is anything whatever besides Nature. Does not Pantheism do the very same? If not, what is there, let the pantheist tell us, in Nature besides Nature? 45 What sort of a divinity is that which is separate from conscious intelligence and from voluntary will or power? 46 Is it said that though there be no Deity in the universe, yet there is a harmony, a unity, an unfolding plan and purpose, which must be recognised as transcending all limitation, as unerring, inexhaustible, infinite, and therefore as divine? 47 Let us ask ourselves what unity that can be which is above mere Nature, as such, and yet stands in no relation to a personal Lord and Ruler of the universe; 48 what plan and purpose that can be which is the product of no intelligence, which no mind ever planned; 49 what infinite and unerring harmony can mean, when there is no harmonist to inspire and regulate the life and movement of the whole. 50 Do not the points of distinction which the pantheist makes between own philosophy and the bald tenets of the atheist amount in effect to so many admissions that the facts of the universe cannot be stated, 51 that the phenomena of Nature cannot be described, with anything like fidelity or accuracy, without the use of language such as has no real meaning 52 unless it implies the existence and operation throughout universal Nature of a supreme actuative and providential Mind and Will?

53 The least and lowest implication which is involved in Pantheism, the most elementary idea which the word pantheism can be held to connote, the barest 'minimum' of meaning which the creed of the pantheist can be presumed to contain, 54 is that there is in the whole of Nature-- in this universe of being-- a 'divine unity'. 55 Let us then look at this word 'unity', and consider closely what it must mean.

SCEPTICS

56 Those who believe in a divine unity pervading all Nature must imply that in the midst of the infinite complexity and variety of the universe there is everywhere to be recognised a grand law and order of Nature-- 57 a method, plan, and harmony in the great whole, which must consequently be traceable through all the parts. 58 But whose and whence is this grand law? Is it indeed a reality? 59 Are all things fitted to each other, part to part, law to law, force to force, throughout the infinite depths of microscopic disclosures, throughout the infinite exuberance of Nature's grandest provinces, throughout all space and all duration? 60 Do all things work to meet each other? Is every several life-cell, each organic fibre, moving, tending, developing, making escapes or overtures, 61 as if a separate angel of unerring sympathy and insight, of illimitable plastic skill and power, of creative energy and perfect providence, inhabited, inspired, and actuated it? 62 Is it so that the person of science, who enters into communion with Nature's actual life, and movement, and purpose, seems to see and feel divinities, unrestingly, unweariedly, in silent omnipotence, in infinite diffusion, everywhere at work, 63 so that the reverent inquirer and gazer to whom this wondrous spectacle is unveiled, could almost, in your own pantheistic sense, adopt the invocation of Coleridge, and address the powers you sees at work in such words as these:

64 "Spirits that hover o'er
The immeasurable fount,
Ebullient with creative Deity!
'And ye of plastic power that interfused
65 Roll through the grosser and material mass,
In organising surge! Holies of God!
And what if Monads of the Infinite Mind?'"

66 Is it so? I ask. Then, what does such a real harmony and such universal correspondence and providence as this imply? 67 Surely we must perforce adopt one of two alternatives. If we refuse to believe in One Ruling, Organising, Creative Mind, One Living, Universal Mind and Will and Providence, which works through all, 68 we must endow each

separate being, or at least each form of life, with creative energy, illimitable and all-answering sensibility and sympathy, unerring wisdom, and veritable will. 69 Nay, ultimately, as it seems to me, the alternative must be between accepting the faith in an infinite God, and attributing to even the particles of inorganic matter, 70 amenable as these are to the laws of gravitation and chemical combination, a wisdom, will, and power of their own, the power of intelligence and of self-direction. 71 As to what are called the laws of gravitation and of chemical combination, we know that a law, like "an idol," is "nothing in the world" but a name. 72 "There is no power but of God; the powers that be, are ordained of God." 73 A law is not a power; the laws of science do but define observed methods of movement or forms of customary relation between thing and thing.

74 Of one thing, at any rate, I think we may be sure, that a mere order of Nature, ascertained though it may have been by the truest and surest induction, cannot have made and cannot sustain itself, cannot be self-originated and self-impelled. 75 So also it is certain that a mere plastic universal power, apart from any creative or providential mind, however its products might seem to imply intelligence, could be animated by no conscious purpose, 76 and could not be conceived as working with blind automatic certainty conformably to a grand cosmical plan or towards a providential end. 77 And if the divinity of the pantheist is nothing more than a personified law or order of Nature, your personification of this order or law can add nothing to its virtue or potency, 78 can by no means transform it from a phrase into a living power, from a figure of speech into a real and intelligent force, can never constitute it into a divinity. 79 The more I reflect upon the subject, the more assured the conclusion appears to be, that any conception of a real unity in and of Nature is self-contradictory and unmeaning, except upon the assumption of a conscious and intelligent Creator. 80 The unity of Nature, to a man who denies the existence of a real God, cannot be a unity inherent in Nature, cannot be a unity according to which

Nature itself has been planned, and is really working; it is an imputed unity, the conception of the pantheistic philosopher's own mind. 81 Unity, indeed, as apprehended by us-- and it can only be known through our apprehension of it-- is essentially a conception, a relative idea. 82 If one could conceive Nature as existing destitute of a mind either to work on a plan, or to recognise a plan in working, in such Nature there could be no unity. 83 Unity in action implies a plan of voluntary working, and therefore a regulating mind.

84 Unity of conception and exposition implies an intelligent observer. 85 The unity of Nature, if it be not the plan and work of the very God, can be nothing more than a scheme and conception which has been invented and imputed by human.

86 But perhaps it may be thought that the word unity, as used by pantheists, should be understood rather as referring to the ultimate oneness and identity of all force throughout the universe, than to harmony of universal plan and purpose. 87 Various as are the appearances of Nature, and the modes in which the laws of Nature operate, it may yet be set forth by the pantheist as own belief,-- 88 a belief, you will say, which the modern advance of science tends continually to establish as the true theory of the universe,-- 89 that all force is ultimately one, that the different forces of Nature are mutually convertible and equivalent, 90 that one energy of Nature, Protean, universal, of infinite plasticity and power of variation or adaptation, pervades and actuates all things. 91 It may be called gravitation, or electricity, or light, or heat, or nervous energy, or vital force; but ultimately and essentially it is one and the same; 92 it is, to quote well-worn lines which will be held here strictly to apply--

"Changed thro' all, and yet in all the same."

93 It

"Warms in the sun, refreshes in the breeze,
Glows in the stars, and blossoms in the trees;
94 Lives thro' all life, extends thro' all extent,
Spreads undivided, operates unspent:

Breathes in our soul, informs our mortal part,
* * * * *
95 To it no high, no low, no great, no small,
It fills, it bounds, connects, and equals all."

96 Now if this be the pantheistic unity which is admitted by people who deny a personal Deity, I will not stay to object that such a view is hardly consistent with the essential distinction in Nature 97 which even Professor Huxley and people of his school unwaveringly and powerfully maintain, between inorganic matter and living forms. 98 It is more to my purpose to remark that it is much simpler and easier to believe in a personal God, than in such an impersonal divinity as this Protean Force. 99 Every difficulty which belongs to the thought of God's existence belongs to this also. This force must be self-originated, must have been from everlasting, must be creative, omnipresent, providential, equal to all plans, purposes, contrivances, inspirations, 100 which have been, or ever will be, in this dædalean and infinite universe; must be the source of all intelligence, though itself unintelligent; 101 of all sympathy, although itself incapable of sympathy; must have formed the eye, though it cannot see, and the ear, though it cannot hear; 102 must have blossomed and developed into personal intelligences, although personal intelligence is a property which cannot be attributed to it; must unquestionably be omniscient as well as omnipresent, 103 or it could not, in its infinite convertibility, anticipate all needs, meet all demands, answer in absolute and universal harmony to every faculty, capability, and tendency of all things that are and all things that become. 104 Now is it reasonable to object to the doctrine of a personal Deity because of its inconceivability and its stupendous difficulties, and yet to believe in such a primal, essential, immaterial, creative, infinite, blind and unintelligent force as this? 105 Surely no contradiction could be greater. The conception of God as from everlasting 'is' stupendous. 106 But an infinite Protean Force from everlasting, destitute of

intelligence and will, yet continually operative as the life, soul, wisdom, and providence, of all things, is nothing less than contradictory and absurd.

107 I can come to no conclusion, accordingly, but that Pantheism really only differs from atheism, in so far as it confesses that it is impossible to speak with ordinary propriety, 108 or in any such way as to meet the necessities either of science itself or of the common sense and feelings of humankind, without employing theistic language. 109 It has been said that hypocrisy is the homage which vice pays to virtue. 110 So a profession of Pantheism is the tribute of compliance at least in speech, is the outward language of homage, which theism has power to extort from atheism. 111 "Pantheism," as is said by the author of 'Lothair', "is but atheism 'in domino'. Nothing," as the same writer adds, "can surely be more monstrous than to represent a creator as unconscious of creating."

112 Yes, Pantheism is but veiled atheism. Strip Pantheism of all involutions of thought and all investitures of language, and in its naked truth it stands forth as mere atheism. 113 Every form which Pantheism takes, every disguise which it assumes, to hide from itself and from the world its real character, is a testimony borne by atheism to the necessity which all humans feel for assuming the existence of Deity; 114 What Robespierre is reported to have said with reference to political government and national well-being, that if there were not a God, it would be necessary to invent one, is felt by pantheistic philosophers to be true in regard to Nature. 115 So monstrous a conception is that of this universe without a governing mind; so clearly and directly to the common sense of humankind do the infinite harmonies of the universe seem to imply a designing and governing Intelligence; 116 so indubitably does the might and life of the universe, ever coming forth anew, ever springing up afresh, ever unfolding and advancing, imply a central living Power, One with the infinite governing Intelligence; 117 that pantheists, in order to speak and write intelligibly, are

compelled to invest Nature with the qualities which they deny to the Deity, to attribute a spirit and intelligence to the whole machine, because they deny the existence of the great Mechanist; 118 to personify a harmony and unity which is but an abstraction, which, on their own hypothesis, is but a grand accident, a result without a cause, because they refuse to believe in a personal God.

119 I am very far indeed from wishing to come under the definition of what Mr. Hutton has spoken of as the "Hard Church," or to carry my positions merely by the use of the dilemma, 120 yet I cannot refrain from saying, parenthetically, that the argument of the dilemma, carefully and truly applied, is not only always legitimate but often necessary, and I must affirm that it applies very closely in the present instance.

121 The pantheist cannot maintain own position midway between atheism and theism. 122 If you absolutely refuses to be a theist, it is necessary to show you that you will have to yield to the cruel necessity of acknowledging yourself to be an atheist. 123 Standing midway, your position is altogether untenable, from whichever side it is assailed. 124 On the one side, the pantheist is condemned by the same arguments which condemn atheism; on the other side, the atheist may justly allege against the position of the pantheist the self-same difficulties which both pantheist and atheist urge against theism.

125 But if pantheism be in reality only atheism, I may henceforth disregard the verbal distinction between the two, and bring forward considerations and arguments which apply indifferently to either. 126 In pursuing the discussion I shall take up in detail some points of argument already, as to their general scope, more or less distinctly intimated in the preliminary considerations which I have advanced.

127 To explode any view of the world which excludes from it the presence and government of a personal God, nothing more is needed than to realise and truly understand the atheistic view in its various aspects.

128 Let us try the atheist's theory on the history of the universe, and see whether it can be made to fit, or must be broken in the attempt to fit it.

129 The will and interference of God, as the Lord and Ruler of the universe, is excluded. The universe is held to have been from the beginning without a shaping and ruling intelligence and will. 130 No mind has presided over its destinies, has animated its energies; no providence of Divine power and wisdom has guided its changes and progress, has renewed and replenished and sustained it. 131 It follows that no power or will from beyond itself has ever touched the universe. Its own unaided and unguided powers have done all. 132 If the universe did not make itself, it has developed itself: all that has been, or is to be, was included potentially in that which was at the beginning, and has unfolded in necessary order. 133 The vision presented is to certain minds very fascinating: it is a vision of vast unbroken progress, of continual and infinite self-development. 134 But let it be worked out, and let us consider what it really means. Such an hypothesis must lead us back, in the infinite dim distance of the original and indistinguishable past, into a universe-mist of germinal powers from which all has since developed.-- But stay. 135 Was this mist and expanse of universal Nature in its 'origins' all homogeneous and at one stage of existence? Then I have to ask, whence came it?

136 What, going ever further and further back, where were the infinitely earlier, fainter, vanishing entities or powers, into which infinite creative force and potentiality was diffused? 137 And what the one life and grand harmony of influences and impulses, tending towards an infinite goal of progress and perfection, which pervaded the whole?

138 What does all this mean? Is this easier, simpler, more rational, than to believe in God from everlasting? 139 Is anything gained in simplicity, comprehensibility, probability, or in scientific character, by denying that in the "increasing purpose" which "runs

through the ages" there is any guidance of a divine intelligence or working of a divine will; 140 and calling the whole process from first to last, from everlasting to everlasting, "development"? What is this word development but a name? Does the use of the word explain anything? 141 Does the use of the word reduce the mystery of the universe to the simplicity of an axiom? 142 Does the use of the word provide a simple equivalent for all that divine wisdom, power, and providence, have ever been imagined to do for the universe? 143 People call the mystery of being and becoming by the name of development, and then say that all things are effected by development, and that development explains all! 144 Whereas this development of which they talk so familiarly, as though they understood all its secrets, and were privy to its infinitely various and mighty workings, and could unfold its source and meaning, is itself all the time the very mystery to be resolved and explained. 145 Development is in truth as amazing and incomprehensible a mystery as creation. It seems to be but another word for creation. 146 Only they who affect its use instead of the word 'creation', insist upon creation without a creator. 147 The unintelligent and unconscious universe, on their view, is continually creating itself. 148 The hypothesis of development, however, is not only unintelligible and utterly devoid of reality, when criticised in its general principle; as might be expected, it altogether breaks down when it is tested in detail. 149 Professor Huxley's protoplasm breaks it down. All the scientific evidence, as that eminent teacher of science showed at Liverpool last autumn, is opposed to the idea that protoplasm was developed out of inorganic matter. 150 The hypothesis of spontaneous life-generation appears to be exploded. Science, at any rate, on its own positive principles, has no right whatever to pretend that life has ever been developed out of what was not living. 151 Here, then, a great and, so far as science can help us to form a judgment, an altogether impassable barrier rises to view against any development

hypothesis. 152 At a certain stage in the history of the universe protoplasm, organised life, made its appearance on the scene, starting up as a perfectly new, an original, an undeveloped phenomenon. 153 Before, all had been inorganic and dead; now Life was abroad in the world, destined to increase and multiply, and replenish the universe. 154 Let those who deny divine and creative will and government, inform us whence came this life. It was not developed. Must it not have been created. If not, then whence, I ask, whence did it spring?

155 The argument which I have just urged should, as I venture to think, be conclusive even with those who know, and seek to know, nothing more of science than the order and method of its phenomenal processes. 156 I will now bring forward a consideration which will, I hope, be admitted to have weight by those people of science-- it is to be greatly lamented that there should be so few of these-- who have studied the Nature and working of the mind as well as the phenomena of sense. 157 We have seen that protoplasm-- that Life-- was not developed out of inorganic matter, but appears to have been an entirely new and primary fact on the face of the universe. 158 Life came in and appropriated, put to its own uses, bound up under its own seal, impregnated with its own specific virtue, the raw inorganic materials which it found in Nature; but the power of Life itself was altogether new. 159 A fact in some sort analogous to this confronts us in a higher sphere, in the sphere of living intelligence itself. I refer to the emergence of personal consciousness among the world of living creatures. 160 To me it appears that the sense of personality is an altogether new and original fact, one which cannot be conceived as developed or developable out of any pre-existing phenomena or conditions. Whence it comes, or how it arises, I know not.

161 But it appears to be, in and of itself, the assertion of an essential separateness between One's Self and all phenomena, all constituents, all conditions whatever. 162 The sense of an I

Myself, of Personality, asserts an antithesis between the Human, and all that the Human uses, takes up into your personality, makes your own. 163 As Life binds up inorganic matter under its seal, but is not developed out of inorganic matter, so the voluntary and responsible Self binds up under the seal of its own personality all that belongs to the manifold life of its complex being. 164 As life brings into the universe a new world of phenomena, higher and more manifold than those of mere inorganic matter, yet embodying and adopting these, 165 so personality brings into the universe a new world of vastly higher and rarer phenomena than those of mere vitality, yet embodies and adopts these:-- 166 it introduces all that belongs to reflection and morality, giving birth to an intelligence and a world of thought, in which all the lower and anterior phenomena of the world become matters of cognisance, and are mirrored as objects of thought.

167 As I venture to think that this sense of personality, with the new world of reflective consciousness and morality which it brings in, is a fact, starting up in the midst of a universe of anterior developments, 168 such as all Mr. Darwin's solvents utterly fail to touch, a phenomenon which remains as far from explanation as before he wrote his last book, 169 so it appears to me that the power of human speech is another fact starting up in the midst of the line of supposed developments which no hypothesis of evolution can afford any help towards explaining.

170 Miraculously developed reason, something higher, as it seems to me, than any development of human reason our race has, in its highest culture, as yet put forth, must have been necessary in order to the invention of language by any race even of the most sagacious mammals.

171 And yet, again, speech itself is a necessity, a necessary instrument, in order to the high development of reason. 172 We have some idea what deaf mutes of our human family are like, when no painstaking and kindly culture has been bestowed on their intelligence, and temper, and

affections, and conscience. 173 Let us conceive the race of human to be, and to have been from the beginning, not indeed deaf, but congenitally and irreversibly dumb, with no more power of articulate expression than a horse, 174 or let us say, a dog. What would the development of human reason have been under such conditions? 175 How, then, is it possible to conceive that the wondrous faculty and instrument of speech was ever invented and perfected by mammals of infra-human faculty and development, 176 and that they were afterwards through this invention developed yet more highly, until they attained to the dignity and advancement of humanity? 177 Such infra-human mammals must have been more miraculously endowed in order to such an invention than ever human has been.

178 After all that Mr. Darwin has written, does or can any reasonable man or woman actually believe in the possibility,-- 'apart from the Divine Power and Will and Guidance',-- for that is the point,-- of the self-development, the spontaneous upgrowth of articulate language?

179 Let us study our quadrupedal familiars, for the sake of illustration and analogy. We see daily how our noble dogs strain and groan after speech, do all but speak: 180 we mark their eloquent looks, their speaking gestures, their wonderfully expressive movements, how they watch us speak, and seem as if they understood what speech is to us, and as if they craved most longingly the power for themselves. 181 We cannot but sympathetically admire the intelligent, the benevolent, the noble, the sagacious physiognomies which they show. 182 If any creature ever could, would, or did develop speech in any rudimentary form, are not they just in the circumstances to do it? 183 And when once rudimentally begun, however uncouthly and imperfectly, should not their organs continually improve by the continual effort and the increasing intelligence? 184 Is it not immensely less hard of belief, and less difficult to imagine, that dogs should develop speech, than that

human should have been developed from the larvæ of the 'ascidiæ'? 185 Yet is there even a beginning made towards the canine development of articulate language, or does any living human believe that such a beginning ever could be made?

186 To me it appears that human speech and human personality are in some way bound up with each other, that the one, in some sort, implies the other, 187 and that these two characteristics of our race present an insuperable obstacle to the acceptance by really scientific thinkers of any hypothesis of evolution which, leaving God out of Nature, would account for the whole existence and progress of the universe on the principle of spontaneous development.

188 But again, let me be allowed to test the development hypothesis in detail at another point. 189 This hypothesis-- and any pantheistic or atheistic view of the universe which professes to be scientific-- is obliged to confess that all living beings, of whatever sort, have been developed out of a single primary cell-- called often a germ-cell-- of protoplasm. 190 Here they find the beginning of every kind of life. The plant, the animal, of every sort,-- the lichen, the cedar, the sponge, the bird, the mammal, the minutest entozoon, the most microscopic infusorium, and human,-- have been developed out of these primary cells. 191 What then do the same people who teach us this, find to be the constitution of these same cells, when microscopically examined?

192 They find them to be, for the most part, and indeed always, if allowance be made for very trivial exceptions, identically the same. 193 The matter is identically the same, the appearance identically the same; no difference whatever of constitution, form, or properties, is to be detected. 194 They cannot tell whether the nettle, or the frog, or the eagle, or the human, is to be developed out of any given cell: for anything their science can teach them, any of these might be developed, as they call it, out of any cell. 195 But if this be so, is it scientific, is it real or true, is it not altogether misleading, to speak of 'mere development' in such a case?

196 The flower may be said to be

developed out of the bud because the bud is the flower in miniature, the flower is really folded up in the bud. 197 But surely here is no case of mere development; here is no unfolding out of the germ-cell of what is potentially contained in the cell, regarded as a merely material organism. 198 Judged by every test of physical experiment, the primary cells are identically the same; and yet they grow into forms essentially and infinitely dissimilar. 199 Does it not clearly appear that here is a matter in which some power above and beyond the mere physical constitution and nature of the primary cell must be admitted, on every principle of science, on every ground of pure candour and truth, to be of necessity present? 200 Is it not evident that with each germ-cell there must be associated some individual life-power which animates the cell, which uses it as a unit to multiply, as a foundation to build upon, 201 which does build and weave and work into it and upon it continually new material, which, for its own use in its work of weaving and fabricating, and for the completion of its own distinctive form and vehicle, takes toll of air and earth and water and heat-power-- 202 the ancient elements-- selecting out of them its appropriate pabulum, in whatever chemical combinations of the primary elements known to our modern scientific analysis may be fit and needful? 203 Surely not development, but life, the mystery of individual life, is here. 204 And if the philosophers will deny the omnipresent creative and sustaining power of God, it appears to me that they must be prepared to animate each germ-cell with an individual intelligence which works with divine power, on a definite and most miraculous plan, and towards a distinct goal of perfection. 205 To call such various powers and processes, such diverse and generically different operations, in every sphere of life, by the same term, appears to me to be unscientific; 206 to speak of them all alike as processes of unfolding or development, when results the most infinitely unlike and separate are obtained from beginnings which are identically alike,

appears to be not only unscientific but altogether misleading.

207 I do not think it arrogant or unwarranted to conclude from such considerations as I have been trying to set forth, that evolution, or development, apart from the power and guidance of the Living God, is an unphilosophical, an unscientific idea, an empty, an unmeaning word. 208 It is a thing of naught, utterly impotent to solve the mysteries of the universe, even when expounded and reinforced by Mr. Darwin's "Natural Selection." 209 I have not a word to say here against the views of Mr. Darwin, as defined and modified by the requirements of scientific modesty and precision. 210 If I had any pretensions to be called a student of natural science, I should sit at the feet of Mr. Darwin when he speaks, not as a philosophic theorist, but as a scientific observer and a truly inductive naturalist. 211 But I must say here in respect to Natural Selection, regarded as, according to Mr. Darwin's hypothesis, the handmaid of development, that, like development, it is but a name, and not a power. 212 It describes the order and mode according to which Providence works; it is not itself a force-- a working energy. Mr. Darwin himself indeed often speaks as if Natural Selection were itself a power and a providence. 213 I find to my hand in Mr. Kingsley's fine, suggestive paper on 'The Natural Theology of the Future', recently published in 'Macmillan's Magazine', a sentence of Mr. Darwin's in regard to Natural Selection which I will quote. 214 "It may be metaphorically said," writes Mr. Darwin, "that natural selection is daily and hourly scrutinising throughout the world every variation even the slightest; 215 rejecting that which is bad, preserving and adding up that which is good, silently and necessarily working whenever and wherever opportunity offers at the improvement of every organic being."

216 "It may be metaphorically said," are Mr. Darwin's words. But in fact he is using, not a metaphor, but a personification. 217 The distinction Mr. Darwin does not see. He repeatedly speaks of his

personifications as metaphors. But the distinction notwithstanding is most important.

218 By personifying Natural Selection Mr. Darwin makes it appear to be a cause, attributes to it a real power, nay, wisdom and providence, as well as power. 219 He speaks in one place of "Nature's power of selection;" contrasting this with the "powers of artificial selection exercised by feeble person," by which, however, human can do so much; 220 and arguing that "Nature's power of selection" must be incomparably greater, and competent to produce incomparably superior effects 221 in respect of "the beauty and infinite complexity of the co-adaptations between all organic beings, one with another, and with their physical conditions of life." 222 Language of a similar sort he very frequently uses. He has, therefore, as a scientific man laid himself open to the reproof of M. Flourens, whom no one will deny to be a scientific critic. 223 "Either," says M. Flourens, "Natural Selection is nothing, or it is Nature, but Nature endowed with the attribute of selection--nature personified, which is the last error of the last century; the nineteenth century has done with personifications."

224 The nineteenth century ought to have done with personifications; but with the spirit of Lamarck's speculations the style of the French atheistic philosophy of the last century reappears.

225 Mr. Darwin, in the passage quoted by Mr. Kingsley, describes the manner in which his Natural Selection may be conceived as operating. 226 What, if his meaning were expressed with strict scientific truth, he ought to intend to say, is that such as he describes is the result of providential working according to the mode and order which he designates by the phrase Natural Selection. 227 "All we ask," says one of Mr. Darwin's ablest critics, "is that we may be allowed to believe in a God and a real Divine Providence, as powerful and wise and good as Mr. Darwin's Natural Selection."

228 But, moreover, it must not be forgotten that there is something besides the mere process of change

and growth, of what our philosophers call development, to be accounted for. 229 There is a fact on which the growth, the change, the evolution, must be held in a true sense to depend: a prior fact to be taken account of. 230 The growth proceeds upon a plan, and fulfillls an idea: protoplasm itself embodies a scientific principle.

231 But as the seal must be before the impression, the original before the copy, so the principle must be before its embodiment, the plan and the idea must be before the growth: 232 the end, towards which as its goal the growth or development proceeds, must have been conceived and set up as an aim before its fulfilllment began. 233 We are bound therefore, if we would exhaust the problem, nay, if we would truly conceive, and justly state it, to ask how and whence the principle, the plan, the idea, the end, had their existence? 234 These are realities; they are the most inner and essential realities in every instance of growth or development; to deal only with the development of the physical basis, is to leave untouched the kernel of the matter, is altogether superficial and unreal. 235 But principles, plans, types and ideas, ends contemplated in movement and progress, these at any rate are not physical, are not matters of sense and organisation. 236 They are, as I have said, prior to what is physical, they are conditions antecedent to organisation and growth. 237 Moreover, they are mental conceptions, not physical affections. They are only possible, they have no meaning, except as the thoughts of some mind. 238 Here, then, we are brought back by an inevitable necessity to an antecedent mind, the seat and origin of all the principles, the plans, the ideas, the ends, embodied in organised beings, and fulfillled in their existence, growth, and perfection. 239 In short, from whatever side we contemplate the problems of Nature, and whencesoever we take our point of departure in their investigation, we find ourselves brought face to face with creative mind. 240 The things which are "seen and temporal" lead us always inwards to "the things which are unseen and eternal;"

human and creaturely existence conduct us to the living God.

241 If any one would escape from the pressure of this argument by hardily denying that living organisation involves principle or plan, type or idea, purpose or end, it can only follow that the living forms of the universe are an infinite congeries of accidental combinations, 242 that in reality there are no such things as organs, that there can be no such thing as development, and that there is no such thing as law. What people call law is mere sequence that happens to follow regularly. 243 The whole universe has been constituted and regulated by the fortuitous concourse of atoms. Against such a conclusion as this I do not need to argue. It is the naked and repulsive atheism of which I spoke in the introduction to this lecture. 244 The line of argument which I have been pursuing seems to force us to the conclusion that there is no logical resting-place between such theism as Christianity teaches and such Democritean atheism as that of which we have now had a glimpse.

245 But if this be so, it follows that it is impossible to deny design and final causes in creation, and the sway and oversight of a universal Divine Providence, the providence of a living God, except by denying all law. 246 To the Christian theist, science is living science indeed; to the pantheist, no less than the atheist, science is hardly better than a dead register. 247 You may talk of the wisdom, the power, the order, the benevolence, of Nature. But such expressions on the lips of a pantheist are utterly illusive. 248 All the wisdom, all the marvellous adjustments of Nature, are but the happy conjunctures, the exquisite chance unisons, of you knows not what. 249 When lost in admiration of marvellous organisations, complexly apt and beautiful contrivances, of what seem like the most studied and beneficent provisions, 250 the soul that is beginning to glow with wonder at this seeming wisdom, and to swell with thankfullness because of this seeming love, must be chilled into blank confusion and amazement by the thought that there is no Being Wisdom and Benevolence Who is to be thanked and adored

because of these His marvellous works. 251 Surely this is enough to darken the universe to the explorer of Nature's mysteries, and to fill your soul with perpetual melancholy. 252 Nor is it easy to understand how any person of true science, any real inductive philosopher, who comes into contact with Nature's living processes and hears the perpetual whisper of Her living voice, can be ensnared into the acceptance of such a hard mystery of sceptical belief as this.

253 Surely, then, on purely scientific grounds,-- the grounds not only of metaphysical but also of natural science, on every ground which can be appealed to by high and pure philosophy, 254 we are at liberty, I should say we are bound, to reject the hypothesis which attempts to expound Nature and to solve its mysteries, without the admission of a divine mind. 255 Sense and matter and the observed order of phenomena do not constitute the whole of our science. 256 There are some words written by a poet, too much neglected at the present time, which I cannot forbear from quoting here.

257 "How should matter occupy a charge
Dull as it is, and satisfy a law,
So vast in its demands, unless impelled
To ceaseless service by a ceaseless force,
And under pressure of some conscious cause?
258 The Lord of all, Himself through all diffused,
Sustains, and is the life of all that lives.
Nature is but a name for an effect,
Whose cause is God. He feeds the secret fire
By which the mighty process is maintained,
Who sleeps not, is not weary; in whose sight
259 Slow circling ages are as transient days;
Whose work is without labour; whose designs
No flaw deforms, no difficulty thwarts;
And whose beneficence no charge exhausts."

260 Surely, if I may here quote some words of Mr. Kingsley's in the lecture to which I have already

referred, this is what people of science "are finding, more and more, below their facts, below all phenomena which the scalpel and the microscope can show, 261 a something nameless, invisible, imponderable, yet seemingly omnipresent and omnipotent, retreating before them deeper and deeper, 262 the deeper they delve, that which the old schoolmen called 'forma formativa,' the mystery of that unknown and truly miraculous element in Nature which is always escaping them, 263 though they cannot escape it, that of which it was written of old, 'Whither shall I go from Thy presence, or whither shall I flee from Thy Spirit?'"

264 The observations which I have thus far offered are directed wholly to the philosophical and scientific aspect of the argument respecting Pantheism. I cannot bring this lecture to an end without referring to the moral branch of the argument. 265 The existence of evil in the universe is alleged as an argument against the existence of God and divine government. 266 Doubtless, the existence of evil is a painful mystery. 267 Many good Christians have felt it to be an oppressive and almost an overwhelming mystery. It is one of the difficulties attendant on the Christian's belief; it is, in fact, the one moral difficulty. 268 But difficulties and mysteries cannot annul the positive necessities of thought and argument. 269 If such arguments as I have endeavoured to state make all science to be contradictory and unintelligible which speaks, in one breath, of the laws and wisdom of Nature, and, in the next, denies the existence of a God, 270 then we are bound to accept theism with its inevitable consequences, notwithstanding the mysteries, whether metaphysical or moral, which our faith may involve.

271 Mysteries are not contradictions, and, in whichever direction we move, we shall find it impossible to escape from them. 272 Mysteries surround the position of the sceptic or the atheist, no less than that of the Christian theist; 273 not only mysteries, but, as we have seen, contradictions, beset you round, in whichever direction you turns. 274 The Christian theist, by your faith

in God, accepts the mysteries which are involved in the thought of God, but, unlike the unbeliever, you escapes from contradictions and absurdities. 275 It appears that the morality of human-- your great glory-- that your sense of responsibility and of voluntary moral power, that which most peculiarly constitutes you human, involves the law of moral influence as between human and human. 276 It appears further that the power and faculty of moral influence for good must needs involve the law of moral influence for evil. 277 From the fact of human's own moral nature and moral responsibility, and the consequent fact of your moral influence over your fellow-humans, is derived, not only the possibility of moral evil in the case of a solitary individual, 278 but the possibility, perhaps I may say the naturalness, the probability, of a contagion of moral evil spreading throughout the race, 279 the effect of which can only be counteracted or limited by moral arrangements and influences specially constituted for that end. 280 So much I may perhaps say in general, although the subject is one on which I think it wiser, as a rule, to say nothing. 281 I feel it to be a profound and perilous mystery, however gloriously it may have been made the occasion for the manifestation in Christ Jesus our Lord of the Divine super-abounding wisdom, mercy, and power. 282 But if we admit the subject to be involved in profound, even terrible mystery, is that a reason why, making shipwreck at one plunge of all that belongs to humanity, faith and hope and philosophy should commit suicide, and descend together into the gulf of everlasting darkness and despair! 283 Reason may reel and grow dizzy while it looks too long and too absorbedly down the fearful and fathomless depths of the mystery of sin, but that is no sufficient cause why reason should cast itself headlong into the abyss.

284 Pantheism has only one way in which to escape from the mystery of evil, and that is to deny all distinction between right and wrong, between moral good and moral evil. 285 Of course there can be no such thing as sin for the pantheist, because all, according to

your creed, is nature and development and necessity. 286 Holiness is a matter of taste or sentiment. Conscience is an illusive development; 287 what we regard as divine morality is but utilitarianism sentimentalised and exalted into sacred law under the influence of unenlightened impulse and antique superstition, a mere affair of the association of ideas which science will some day explain away. 288 The ontology and ethics of Pantheism may be summed up in one sentence, "Whatever is, is; and there is neither right nor wrong, but all is fate and Nature." 289 Pantheism-- I say Pantheism just as truly and completely as atheism, for the difference between the two, as we have seen, is but one of name and phrase, and both alike deny God and conscience-- 290 Pantheism thus does cruel violence to every better instinct of our nature, outrages all the demands of religion and government, whether human or divine, and makes itself the direst foe of human progress and well-being. 291 Many pantheists, doubtless, have been and are virtuous, even noble, people; some, I am prepared to believe, may even, in a certain sense, be religious people. 292 But the direct tendency of the pantheistic philosophy is confessedly what I have now stated. 293 When moral and pure, its pure morality can be nothing more, at least in theory, than a refined utilitarianism. Only as such can any pantheist pretend to impose morality as law.

294 To sum up, may I not say that Pantheism, whether in its metaphysical or its moral aspect, is the dream of people who will not admit that there is in the universe anything beyond what their senses immediately reveal to them? 295 Its philosophy was represented in the last century in its lower and more popular form by Condorcet; the basis of whose system was laid in the principle, "*penser c'est sentir*,"-- thought is nothing more than sense or feeling; 296 in its higher and more intellectual form it was represented by the sceptical sense-idealism of Hume. 297 At the present day Bain and Mill have endeavoured to develop the principle of Condorcet in harmony with the higher and more subtle

philosophy of Hume. 298 The result appears to be a sort of nihilistic sense-idealism. Matter is probably nothing different from our mental ideas-- so far Berkeley, no less than Hume, is followed; 299 our ideas, however developed, are yet essentially only the combination and interfusion of our sensations and sense-associations; 300 meantime there is no evidence of the real and substantial existence either of the world outside us, or of ourselves as true and separate selves or persons, or of God. 301 Such at least would seem to be the metaphysics of the distinctively 'English' school of Pantheism, 'i.e.', of Pantheism rendered into philosophic system by the English mind. 302 The German Pantheism has 'infected' the 'tendencies' of English thought and criticism, but, notwithstanding the influence of Hegel at Oxford, has not been reproduced in any English system of egoistic Pantheism. 303 In their aspects and results, in relation to theism and Christian faith, the German egoistic Pantheism and the English sense-idealistic Pantheism strictly coincide.

304 Such then is the highest philosophy to-day of those who, refusing to be called atheists, nevertheless reject all faith in God; 305 of those who, rejecting Christian theism, claim to be positively neither more nor less than the people of science. 306 People of science though they be, their philosophy is the philosophy of nescience and the philosophy of despair. 307 We need be under no apprehension that such a philosophy will ever be generally accepted. It is too strong, too sorrowful, too nauseous a composition to suit the common taste. 308 It not only dissolves morality and its foundations, but it precludes all hope of immortality. 309 The race indeed may be immortal and progressively great and glorious, although how even so much can be known is more than I can see; but the individual man by man, woman by woman, child by child, perishes each one for ever. 310 Men and women with yearning, loving hearts, with tender and passionate affections, who have buried their dead out of their sight, and who could not endure to live if they were doomed

to sorrow without hope, cannot but reject with loathing and horror such doctrines as these. 311 People of various culture, of manifold intellectual resources, who live in the midst of refined and accomplished society, and who are not suffering from the pang of immedicable anguish and irreparable bereavement, 312 may possibly live so merely intellectual and speculative a life, may be so wholly absorbed in mere science, may have so far separated themselves from all that belongs to the heart's affections and the trembling religious sensibilities of human nature, as to adopt the philosophy of nihilism with hardy calmness, 313 although I confess that it passes my power to understand or conceive this; such people may be content to follow their speculative conclusions into the "blackness of darkness" for ever, and may thus, if not less, be more than the common crowd of humanity. 314 But such a philosophy will not content those who share the ordinary wants and sensibilities of our race. 315 The working, sorrowing, loving, hoping men and women of this human race will no more be able to satisfy themselves with any atheistic or, if any should prefer so to call it, pantheistic philosophy, than they can "feast upon the east wind." 316 They will cleave to that Christian truth and faith which has "brought life and immortality to light," 317 and which, in "showing" to the craving heart of needy, sorrowing, sinful person "the Father" reconciled in Christ, has blessedly "sufficed" a longing world.

318 Indeed, it would seem that, when, it comes to the point, even distinguished leaders in the ranks of those against whose views I have been arguing, find it impossible to give up their faith, at least in immortality. 319 Rénan is unquestionably one of the most distinguished leaders among those people of learning and culture who deny the existence of a creative will and Personal God. 320 Yet Rénan cannot make up his mind that he has lost for ever his beloved sister; that she has passed into the night of nothingness into which he must soon follow her. 321 In the dedication to her memory of his "Life of Jesus," he

addresses an invocation to "the pure soul of his sister Henriette, who died at Byblos, Sept. 24th, 1861;" 322 and appeals to her "to reveal to him, from the bosom of God in which she rests, those truths which are mightier than death, and take away the fear of death."

323 Rénan, then, after all, cannot give up his sister, nor, if it were only for her sake, his belief in immortality. 324 And yet how utterly unscientific is such a belief, if science is to be defined and limited in accordance with the principles of the anti-theistic philosophy.

325 Where can our people of mere sense-science find any physical basis of immortality? 326 There is no hope, no instinct or faith, at once so indissolubly bound up with our nature, so necessary to the development of all that is best in human, and so utterly destitute of evidence and basis in merely natural science, as our assurance of immortality. 327 If we are to retain our belief in immortality, we must maintain our faith in realities above and apart from sense, in realities which cannot be tested or investigated by any appliances of natural science. 328 If immortality be true, Pantheism cannot be true.

What, then, have we found respecting the seductive and too fashionable illusion which has led astray so many minds, especially of speculative, restless, and daring intelligence, in the present age? 329 We have found that Pantheism is essentially only atheism in disguise, and occupies a position in which it combines against itself the arguments which theists have to allege against atheism, and atheists against theism; 330 that, while it dethrones the true God, it sets up in His place Development and Natural Selection as its divinities, clothing them with the attributes which it denies to deity; 331 that its development hypothesis will not bear the test of science, of the natural science to which it professes to appeal; 332 that the origin of protoplasm, the attributes of human, and the growth and transformation of germ-cells, alike refuse to accord with the hypothesis; 333 that the very nature of science itself, as recognising law and organisation, is incompatible with any

philosophy which denies theism; 334 that the moral difficulties which rise up as a barrier against a denial of the Christian theism are no less insurmountable than the metaphysical and scientific difficulties; 335 that morality, conscience, natural affection, immortal hope, every deepest, most tender and sacred, most blessed and humanising, instinct of our nature is violated by the denial of a personal and holy God and Judge; in a word, that our whole humanity revolts against it.

336 May I venture to hope that the views which I have now endeavoured to set forth may have some weight with young and inquiring spirits? 337 No more terrible suffering can there be, than for an honest, loving, and virtuous nature to become involved in the meshes of pantheistic doubt and unbelief. 338 We must make up our minds to bear with many profound and painful mysteries which are not to be solved by human; 339 but may the good Spirit of God save us each and all from losing our childlike faith in His almighty, omnipresent, and absolutely good and holy government and providence!

POSITIVISM.

Rev. W. Jackson, M.A., *F.S.A*

3 Everybody has, I suppose, heard of the "positive" sciences, or "Positivism" in some shape or other. What does "Positivism" mean? 2 A system based on 'positive' facts. But what are facts? They are (says the Positivist) observed phenomena. 3 As for metaphysical conceptions of all sorts, these are 'negatives' with nothing real, nothing positively true in them. 4 Truth must be sought amongst observed phenomena. It is worth our while to examine this last proposition. Take a "'phenomenon'." You have all observed colour,-- what is it?

5 A physicist, if you ask one, will tell you of a modification in a ray of light variously produced-- by refraction, for example-- as when sunlight breaks a dark cloud into many-tinted beauty. 6 But how if all the world of humans and animals were blind? The physiologists will step in and

speak to you of the structure of the eye-- the susceptibility of its retina for special impressions; there they says you may find colour. 7 Put both accounts together, and they appear as part-causes, each a factor helping to make up a result; which result physicist and physiologist would agree to call colour.

8 Yet again: Suppose the human and animal world were deprived of all consciousness, all which in the widest meaning we call mind-- their eyes remaining like mirrors, telescopes, microscopes; perfect instruments, only every kind of intelligence, instinctive or rational, gone. Where would colour then be? 9 The sun might play upon cloud or rain, the light of a rainbow be reflected in the eye. Were there but perceiving mind, the impression would exist. 10 But we are supposing the impressible to be wanting; there is no sensation, no percipient; colour must remain unknown, for there is nothing capable of observing it.

11 Now this shows you, first, how important it is to emphasise the word 'observed' added to phenomenon. 12 It shows you, secondly, 'where' the ultimate seat of every observation really lies; each observed phenomenon, each positive fact, is at last neither more nor less than a mental state. 13 The evidence for each fact is the condition of your own mind, your consciousness as it is called. 14 You may sift the thing witnessed, verify, examine, and cross-examine; but after all, your own consciousness is the first real evidence you have got.

15 It would seem, then, that the most positive of all sciences would be the science of mind; 16 and the next most positive the sciences which enable us to draw conclusions from our positively existing mental states; the statements, we may call them, which our minds make to us. 17 Yet, strange to say, the very first thing Positivism does is to dispense with a science of mind, as mind, altogether. 18 Mr. Mill makes it a severe reproach against Comte, that he ignores both psychology and logic; recognises no power in the mind, even of self-observation; accepts no theory even of the inductive process. 19 Mr. Mill characterises Comte's

want of mental science as "a grave aberration." It is indeed so. This appears plainly enough in the example just adduced from our commonest sensation, the every-day phenomenon of colour.

20 It was made up, you saw, of three factors, a physical antecedent, a condition of the sensitive apparatus, and a mind which received into its consciousness the impression instrumentally conveyed to it. 21 This last, you will remember, was the 'first' fact to us. It is 'the' fact: the revelation of an outward world, its changes and its continuing presence, its rest and its constant motion. 22 Without this fact of inward consciousness, Nature would have possessed no more significance than pictures seen in the eyes of the newly dead.

23 Such being the case, it needs no argument to show the importance of making quite sure that our interpretation of Nature is correct.

24 If there be any unobserved illusion in our sensory instruments, or what must evidently be much worse, in our percipient mind, truth is at an end, and falsehood received in its stead.

25 Hence the necessity of observing our own observations, subjecting our consciousness to scrutiny, and being acquainted with the criteria, not only of our perceptions, but of our judgments.

26 It is this process of analysis and criticism which forms a large part of the method of verification,-- a method the value of which did not escape the great Greek philosophers, though some recent writers seem to fancy it a modern discovery.

27 Inexperienced observers are often so little aware of the pre-eminent importance of this critical process, that I will detain you with an illustration of it for the benefit of my younger auditors. 28 My example shall be taken from perception 'par excellence'-- our eyesight, 'the' sense pronounced surest both in poetry and prose. 29 You will remember your Horace

Segnius irritant animos demissa per aurem,
Quam quæ sunt oculis subjecta fidelibus, et quæ
Ipse sibi tradit spectator.

30 And almost everybody else has said the same, as witness the old

proverb, "Seeing is believing." 31 Now I will mention five instances in which people believe they see something, and do not see it; in other words, the objective antecedent is wanting, and the impression is produced partly by the sensory apparatus, partly by the mind itself. 32 As I describe these instances one by one, let my hearers ask themselves, ‘How does this illusion come about? Is it produced by our optic instrument or by our mental activity?’

33 First, then, Take a lighted stick, and whirl it rapidly round and round. You believe you see a circle of sparks-- in reality it is no more than a simple train, and on a like illusion the Catherine-wheel is constructed. 34 Again, put yourself in the hands of an optically inclined friend, and let your friend operate upon you thus. You shall place a cardboard down the middle axis of your face, quite close against your nose-- one side of your friend’s board, say the right, coloured a brilliant red, the left a vivid green. 35 After an instant or two let your friend suddenly substitute another board, white on both sides. Do my young friends guess what will follow? 36 Your right eye will see green, your left red--the reverse of what they saw before; yet neither will see correctly, for both eyes are looking at uncoloured surfaces.

37 Thirdly, Watch the full moon rising-- how large and round she looks, resting as it were upon that eastern hill, and seen amidst the tops of its forest trees! 38 How much larger and broader than when she hangs aloft in upper sky! Has every one here learned the true reason why? 39 If not, look at her through a slit in a card, and her diameter will be the same.

40 Fourthly, A schoolboy is crossing his bedroom in the deep dark night, anxiously hoping that his head may not come into collision with the bed-post. 41 Though carefully and successfully avoiding it, he imagines of a sudden that the blow is imminent. Quick as thought he stops to save his head, and, behold, the room is as quickly filled with sparks or flames of fire. Another moment, and all becomes dark once more. 42 I have heard many a schoolboy exclaim over this phenomenon, but

never knew one who could explain it.

43 Finally, did you ever, on opening your eyes in a morning, close them quickly again, and keep them shut, directing them as if to look straight forwards? 44 Most persons of active nervous power, after a few trials-- say a dozen, or a score-- are surprised to see colours appear and flit before the sight. 45 Some years ago, Germany's greatest poet tried, at the suggestion of her greatest physiologist, a series of experiments on these coloured images. 46 He found that by an effort of will he could cause them to come and go, govern their movement, march, and succession. And this took place under no conditions of impaired sensation, nor any hallucination of a diseased mind. 47 A thoroughly healthy will succeeded in impressing itself upon physical instruments, controlling their law, and creating at its own pleasure an unfailingly bright phantasmagoria.

48 Some here may, others may not, have apprehended the distinctions between our five cases. The first two are due to the sensory apparatus, its optical laws of continued impression and complementary colour. 49 In the latter three, mind intervenes. The enlarged size of the moon occurs through rapid comparison, the fiery lights in a dark room through instinctive apprehension, both influences of mind on the sensory system. 50 The fifth and most interesting of all is no bad example of interference between moral and material law. 51 The will truly causative (you may remark) overrules the natural process of physical impression, alters it, and creates a designed effect.

52 I wish I could induce my young friends to devise a number of experiments on similar mixed cases, and, having tried them, to dissect out their real laws. 53 These sharpenings of the critical faculty are exceedingly useful-- they cultivate clearness; and most people know that two-thirds among our mistakes in life are caused by confusion of thought.

54 Besides all other uses, such lessons teach at once the necessity, as we said before, of observing your own observations. 55 And as, first, the real witness of every

observation is our mind; 56 every fact which comes through our bodily senses being to us a mental impression, it seems but common sense to hear above all things what mind has to say for and about itself.

57 Then, secondly, where would be the benefit derived from our observations, if we could not reason upon them, or could place no confidence in our own reasonings? 58 Yet the art of reasoning is so purely a mental process, that it can be represented by symbols as abstract and free from material meaning as if they were bare algebraic signs.

59 Thirdly, in the most accurate of sciences mind extends our knowledge far beyond the circle of observation, and gives us axiomatic assurance of its own accuracy. 60 Who ever saw, or ever can see, all straight lines in all conceivable positions, yet who doubts that throughout the whole universe no two straight lines ever did inclose or can inclose a space?

61 And, fourthly, can it be a matter of indifference to any of us what evidence the mind offers concerning its own moral nature, and what is the value of that evidence, and the laws deducible therefrom? 62 How true it thus appears that "know thyself" lies at the root of all knowledge, and that the person who receives no witness from within can know nothing as you ought to know it!

63 Comte swept away all these and the like considerations by a neat little fiction of his own. We cannot observe ourselves observing, he said, we cannot observe ourselves reasoning. 64 So, then, logic becomes a chimera, and psychology a word of contempt. 65 Respecting this fallacy, Mr. Mill thinks the only wonder is that it should impose on any one. Clearly it imposed on Comte himself. 66 But, "what organon," asks Mill, "for the study of our moral and intellectual functions does M. Comte offer in lieu of the direct mental observation which he repudiates? 67 We are almost ashamed to say it is phrenology!" Mill regards this statement as a 'reductio ad absurdum', but the actual organon substituted is more absurd still. 68 Comte's phrenology was not the phrenology of Gall or Spurzheim, but a funny small

bantling of his own, a sort of "infant phenomenon," called into existence not without a Positive purpose. 69 In plain words, mind was no longer to give evidence respecting itself. We must study its laws in brain. 70 How any true correspondence of brain and mind could be known unless both were studied, does not appear. 71 Comte overlooked the question in his anxiety to substitute for psychology and its laws a bodily function and 'its' laws. Yet his motive appears to have been excellent! 72 He regarded this dwarfed superficial phrenology, Mr. Mill tells us, "as extricating the mental study of human from the metaphysical stage, and elevating it to the positive." 73 The chief gist of which sentence, bewildering to the uninitiated, opens up the very core and centre of the Positive system-- a subject for dissection of some considerable human interest.

74 Each science is brought into the positive stage when it is co-ordinated according to positive laws-- "systematised," Comte would say. 75 He has a perfect mania for systematisation; system is with him almost an equivalent for truth. 76 Of course, the real value of every system turns entirely on its co-ordinating method, or principle of formation; and Comte's, we see, was one of positive laws. 77 The nature of these laws is, therefore, the essence and turning-point of the whole matter. I cannot impress upon you too strongly the paramount importance of keeping this truth steadily in view.

78 But if any one inquires exactly what these laws are, he asks, I fear, a puzzling question. 79 Puzzling, for this reason that, say what one will-- employ any words, however carefully selected-- one may become liable to the charge of raising a false impression. 80 Positivist 'savans' themselves do not use any uniform phraseology, and many phrases they do use are necessarily derived from philosophies most disedifying to Positive ears. 81 Examples showing what sort of law is really meant are therefore always welcome; and few could be more instructive than this way of making mind Positive. 82 Comte did not falter in his purpose. Later

on he explained the necessity (for his system, you understand) of bringing our intellectual and moral phenomena under the same law with other phenomena of animal life; 83 and reduced them, not to brain action pure and simple, but to cerebral functions, controlled by the viscera and vegetative movements of our bodily existence.

84 Let us look at the meaning of all this. Soul used to be conceived of as different in 'kind' from body. The brain, the nervous system, the body, were its organs, allies, machines. 85 Sometimes they, especially the instruments through which the soul more immediately works, exercised reaction on their sovereign employer; they impeded or suspended her functions, and troubled her serenity. 86 But though they might cloud the manifestation, they could not destroy the essence of a living soul. What they did was temporal and transitory; but they shall pass away and be dissolved, while soul will endure for ever.

87 The word mind has been much used to signify soul, as acting in and through body. There is, however, some vagueness in its employment. 88 Yet we constantly speak of the laws of mind, because soul is in this life the partner of body; and therefore known to us as mind, and 'as' mind is studied through its laws. 89 One psychological task has always been to separate the pure activity of soul from the mixed workings of mind, by examination and cross-examination of our internal consciousness.

90 You will now easily understand how vast the change Comte intended by his physiological organon for the study of our moral and intellectual functions. 91 You will see what is meant by elevating mental science to the Positive stage, and systematising it under laws which people may variously describe as phenomenal, mechanical, or material; adjectives all roughly used to express the same general idea. 92 What we took for a spiritual essence is only a developed animal nature, the difference between humans and beasts of the field is not one of 'kind', but of degree. 93 humankind is a misnomer. Humanity is (as Comte thought) a higher degree of

animality. We have no right to suppose a personal immortality. 94 Human may be said to live after death in the memory of your fellow-humans, but the truly Positive philosopher believes in no other deathless existence.

95 What we really can see and investigate is a vast moving mechanism, 'our' universe. Beyond this all knowledge is a blank. 96 We know of nothing which set this mechanism in motion; it may have moved from all eternity; it may go on moving everlastingly; or it may wear itself out. 97 Philosophy can teach us no more than distinctions and degrees in the phenomenal law which pervades and rules a universe without a God.

98 Yet Comte said that he was no Atheist. He even denounced Atheism, and declared it as bad as theology. He did not wish to deny, only to ignore God. 99 Neither did he desire to appear ungrateful; God was a really useful hypothesis once; in the days when humans had recently issued from their primæval forests.

100 Thanking the Deity for His provisional services, Comte courteously dismissed Him from His throne. 101 All this will have seemed to you a most monstrous tissue of negations. But Comte held it to be a code of Positive faith; a faith firmly grounded on the self-sufficingness of human nature, 102 read according to his version of course-- void of belief in a personality which survives the grave, without knowledge of, trust in, or prayer to God. 103 The blessings of this advanced faith he desired to extend far and wide. At the present moment his desire is realising itself; for the like attitude of thought has become a favourite position among the 'savans' of our Western world. 104 When it penetrates the more active classes, we shall discern it easily by its 'fruits'! what those fruits will be, is a question for statesmen and for us all.

105 The chief hindrance opposing its spread amongst unsophisticated minds has been a point much dwelt upon of old by Plato, and by Cicero after him. It is the protest which that irrepressible entity called soul perseveres in alleging. 106 We are all apt to shrink from the picture of bodily dissolution:

SCEPTICS

"To lie in cold obstruction, and to rot;
This sensible warm motion to become
A kneaded clod!"

107 But what if the "delighted spirit" has been developed by brain, and with brain must be dissolved? 108 Our whole distinctive human life, our mind, moral, intellectual, spiritual, rebels against a doom of subjection to that crass material law! 109 Yet can we establish a difference? Can we show that the law of our true being differs from the law of things outside us?

110 This question, unspeakably interesting to every one of us, might be put in various shapes. We might ask, Can the protest of soul be set down as a mere sentiment only? 111 If it were no more than an instinct of our nature, it would deserve consideration; for why should so high and noble an instinct be aimless and misleading? 112 If we cannot trust our own souls, what are we to trust? Phenomena themselves are given us within.

113 Mathematical truths, which Positivists are obliged to exempt from phenomenal law, have a subjective validity-- we cannot help thinking them, and we cannot think their contradictories.

114 But suppose that a future state of recompence with its inferential moralities cannot be denied without denying our own consciousness-- pronouncing the clearest of our intuitions a will o' the wisp-- or, sadder still, a corpse light on the grave of hope-- 115 nay, more, without subverting the law which makes human society to differ from animal gregariousness, and gives to human action its spring, its liberty, its life-- suppose all this true, what shall, what can we say?

116 And such is the issue I propose to try. The plan I have devised for trying it fairly is, first, to get as clear an idea as short compass will allow of what Positivism says on our question. 117 Afterwards to state a case for moral law by way of antithesis. It is through the law of our moral being that we may most readily look for something to difference our souls from creatures below them. 118 The strain I shall

have to put on your attention lies in this; after grasping in brief the Positivist attitude, I must ask that you will not take my facts or arguments on trust, but will verify each severally by an appeal to your own consciousness. 119 It is always upon the law deduced from or applied to facts that you ought to exercise your greatest vigilance. 120 For law interprets facts to us--we might almost say that under its manipulation they bend like a nose of wax; nothing, you will remember, so flexible as figures, except facts.

121 Let me represent these maxims to you under a similitude. Everybody has looked (when young at least) through a kaleidoscope, and has observed the beauty of its many-coloured figures, their symmetrical shapes, and the enchantment of their succession. 122 What magic creates this phantasmagoria? Some pretty bits of coloured glass, shining gewgaws, scraps of lace, fripperies, and other odds and ends, are put into a translucent box, and beheld through a tube fitted with mirrors which are set at an angle determined by optical law. 123 The broken knick-knacks represent the facts of everybody's phenomenal kaleidoscope; the reflecting angle under which they are seen is its law; the coloured images are everybody's impressions of things, Nature, and humankind.

124 As long as you live, remember that whenever you are contemplating the world's phenomena--whenever you see facts of life, either great or small, you are looking at them through some optical instrument or another. 125 If its law accords with their law, your view is truthful; but then it will be all the less pretty, the less symmetrical. 126 There are dark spots in our real world, checks of all sorts, moral evil, anguish of heart and conscience, foresights, stern accountabilities!

127 You have lost your childhood's magic glass, and have got a clear reflecting telescope in its stead! Pity to forego the nice kaleidoscope where all was so bright, so harmonious, and arrayed in such regular shapes. 128 Yet the view it gave was worth what most people's views are worth--precisely nothing!

129 Comte had his kaleidoscope. Every systematiser who allows no mystery, no darkness anywhere, must keep the article; in point of fact, most people enjoy having one. 130 Alas! for the 19th century! It has such a feverish viewiness, such a fashion of incessantly turning its magic tube, that life seems little else than a dreamy phantasmagoria!

131 To construct a steady reflecting instrument for yourself requires industry, time, and thought, three things which few people care to bestow upon their beliefs. 132 Therefore the practice is to pick up kaleidoscopes ready-made at a cheap rate, and to feel as easy as stern realities will permit on the subject of their truthfullness. 133 Romances are the kaleidoscopes of one class, cram-books of a second, newspapers of a third, self-love the optical law of the greatest number.

134 We are met this morning to break up a grand kaleidoscope, and to look into its construction. I shall do my endeavour to prevent you all from replacing it by any instrument of a ready-made sort. 135 The easiest plan for all lecturers is to display a series of transparent conclusions; but I shall prefer furnishing you with facts and arguments, letting you put them together, look at them, and verify their law of true vision for yourselves.

136 Let us see Comte's law first. It was, strictly speaking, a law of succession and resemblance. 137 You will guess at once that were this all we could see in the phenomenal world, our insight would be very limited. And Comte's object was to limit us. We can never know,

138 Positively speaking, final causes; those which make up the common notion of design, purpose, intention. Nor yet any efficient causes; nothing truly productive of an effect, as humans usually say. 139 All we can know is the middle of a chain of successive phenomena. The two ends are absolutely hidden from our eyes. It was in this sense that Comte denied causation-- 140 his language was vigorous; he denounced it as metaphysical, and when Comte nicknames anything metaphysical or theological, he means, as everybody knows, Anathema maranatha.

141 The difficulty here is palpable. A law of averages-- a statistical law, as it is often called, does not profess to account for anything; it merely generalises crude material, and gets it ready for scientific thought to work out the true law. 142 But a law of succession has an imposing sound, and it does in the worst sense impose. The fallacy may be shown in an instant. 143 Day and night succeed each other regularly. Does either 'account' for the other? 144 The rotation of the earth is simultaneous with both-- it accounts for both. Its effect is to expose the earth's two hemispheres alternately to the sun's rays. 145 This rotation coincides again with other laws of our planetary system, and they account for it. It is on these laws, and not on such grounds as Hume, Comte's great Positive antecedent, alleged, 146 that we look for sunset and sunrise. When they fail, the system of which our globe forms part will have collapsed.

147 Such then was the original kaleidoscope of Positivism. It was condemned for reasons which will have plainly appeared to you. Other eyes have swept the field of vision this world offers, and other instruments to aid our insight have been adopted.

148 You will not have failed already to remark the extreme vagueness of that word "law." 149 There are very few English words more vague: it is applied to almost every sort of formula, force, principle, idea; besides being misused in ways almost innumerable.

150 You must therefore, when busy with questions like the present, fix your attention upon the adjectives added to it, and the examples selected by way of illustration.

151 The Positive system is, according to Littré, of immeasurable extent, embracing the whole universe. 152 Thus, whatever was conceived in dark preparatory ages, theological or metaphysical; whatsoever persons, who philosophise in either of those antiquated ways may even now dream;-- if the conception cannot be reduced under Positive laws, it must be regarded as non-existent. 153 All that really exists is included within such laws, the definition of which, therefore, becomes a subject of the greatest

possible importance. They are, he says, immanent causes.

154 The room we are in contains intelligent and educated people, but how many here could define this word "immanent"? 155 It and its correlative, transcendent, are in truth metaphysical terms. If you will turn to Mellin's Encyclopædic Word-Book (favourably known to metaphysicians for purposes of pillage), you will find 'immanent' explained, under the German 'einheimisch', into ten shades of usage. 156 Probably, in common English Littré might have said "inherent." "The universe," he writes, "now appears to us as a whole, having its causes within itself, causes which we name its laws. 157 The long conflict between immanence and transcendence is touching its close. 158 Transcendence is theology or metaphysic, explaining the universe by causes outside it; immanence is science, explaining the universe by causes within itself." 159 Now, one stock-in-trade example is that a stone falls to the ground by virtue of an immanent cause. In plainer words, the stone belongs to universal matter of which gravity is an inherent law. 160 Next, we find this same example Positively applied to the human will. Volition is free just as a falling stone is free; it obeys its own inherent law.

161 Further, we read of "the rigorous fatalities which make the world what it is." Comte, Littré, and others object against calling these fatalities materialistic, because they distinguish gradations of law. 162 Yet they limit all human knowledge within the materialistic circle, and Janet, who refuses to acquit them of Materialism, dwells on the point that, instead of defining mind as an unknown cause of thought, emotion, and will, 163 it is said to be, "when anatomically considered, the sum of the functions of brain and spinal cord; and when considered physiologically, the sum of the functions of brain in consciously receiving impressions." 164 We need not wish to dispute about words. But suppose it had been stated in plain French or English that all known or knowable objects in the universe are placed by Positivism under the rule of laws

as rigorous in their fatality as the laws of matter, would not the ultimate point in question have been more tangible, more intelligible? 165 People might indeed have said, "Why, after all Positivism comes to the same thing as Fatalism, or Materialism;" and with certain writers this risk may very possibly be held a decisive objection.

166 Once more,-- another explanation given by Littré is, that Positivism lies strictly within the "relative." 167 Many here are aware how, since Kant's time, England, France, and Germany have been flooded with metaphysic, good, bad, and indifferent, on the relative and the conditioned. Pity that Littré should have plunged into these whirlpools! 168 Ravaisson refers to Herbert Spencer and Sophie St. Germain for the point that this conception, the relative, must always imply the existence of an absolute, known or unknown. 169 I cannot follow him now, but any one interested in doing so will find the subject commenced of his "Philosophie en France," (one of the Imperial Reports). 170 It is a very important discussion. Ravaisson stands out amongst Frenchmen as a consummate master of his science; and he inclines to infer that Comte tended, and that Positivism generally now tends, towards a final return to metaphysic. 171 However this may be, I fear I have tired you, and am glad to quit this dry part of my lecture, and get away to more common-sense ground.

172 By way of introducing our most interesting topic, let me draw one common-sense conclusion from the difficult tract just shot over. 173 During our passage, a thought may have flashed upon you which I remember hearing in a Bampton Lecture, somewhat to this effect--"Positivism is the most negative system of all." 174 It appears hard to avoid this idea; for Positivism denies in express terms that human beings have any knowledge outside those generalised laws of experience which make up the Positive sciences. 175 It denies (in a word) the most essential part of what was formerly held to be a knowledge of mind, both human and Divine.

SCEPTICS

176 Positive thinkers rebut the charge of negativism this way. We confine ourselves, they say, to what we know; we do not venture, like Pantheists and Atheists, into the unknowable. 177 We do not deny God, we only ignore Him. We do not ask about the first cause of the world, or whether it has a constructural final end. Such questions as these are "disedifying." 178 "The Positive philosophy," says Littré, "does not busy itself with the beginning of the universe, if the universe had a beginning-- 179 nor yet with what happens to living things, plants, animals, humans, after their death, or at the consummation of the ages, if the ages have a consummation."

180 Littré's sentence, which I have rendered 'verbatim', reminds one of the prayer told to Bishop Atterbury, as offered by soldier on the eve of battle: "O God, if there be a God, save my soul, if I have a soul!" 181 I am sorry to repeat ill-sounding words again; but is not this really the exact religious attitude of an honest Positivist, who feels sometimes touched by visions of possible life after death, 182 "Of all the nurse and all the priest have taught;" that is, if we conceive his attitude according to the 'least' negative interpretation put upon the system?

183 Continuing this least negative interpretation, let us view under its light the Positive cosmology or theory of the world's existence; of creation,-- that is to say, if there ever was a creation. 184 A stone falls to the ground. Trying to account for the phenomenon, we grasp a law inherent in the material world. Other phenomena lead us to other laws. 185 We contemplate the material world with its laws in operation, a magnificent spectacle of moving forces; an organic whole, shining through its own intrinsic glory of never-ceasing development. 186 If we turn and pursue the reverse road, and trace evolution back to its elementary principles, we may dissolve worlds into primordial force, 187 or we may, as Professor Tyndall suggested at Liverpool, find the All in a fiery cloud occupying space. 188 Then comes the complex question, What beyond? What before? Whence, and How produced? 189 A

Positivist thinker may return one of two answers. He may either say, "We do not know," or he may say, "Nothing can be known." 190 Take the least negative first, as we proposed; it surely deserves this rejoinder: If you plead ignorance, but surmise that knowledge is possible, you ought not, for reasons valid with every true lover of wisdom, to stop here. 191 You are substituting for the ideas of creation and first cause, what you call a primordial universe, a material condition of some kind, producing phenomena regulated by inherent laws, successive, perishable, and nothing more! 192 All once believed beyond, a blank! Even the very name of philosophy consecrated by consent of ages to the First and to the Last, admonishes you. 193 Renounce your vocation, deny your name, or proceed. We demand a Positive result in the highest sense, not a fog of ignorance, not a slough of despond. 194 But if the second answer be the true one, if the teaching of Positivism is that nothing more can be known, let us be told so in plain words. 195 Let no one be charmed into the Positive circle by false allurements; for of all vices treachery and hypocrisy are the most cowardly. 196 Are you really wiser than the pagan Lucretius? If not, why boast of 19th century discoveries in wisdom, insight, happiness?

197 If you have examined the relics of a primæval world, explored the races of living and thinking creatures, 198 if you have ascended to the starry firmament, and traversed its shining hosts, to come back with shame and disappointment, and tell us this is 'your' all, 'our' all, then indeed the wages of your science is death. 199 While you speak your final verdict at least cover your faces,

"And, sad as angels for a good human's sin,
Weep to record, and blush to give it in!"

200 These thoughts have brought us to the most essential considerations of this lecture. Whether the Positive 'savant' puts in a plea of ignorance or of blank negation, we care not. 201 We will treat it as a challenge thrown down, and do our best to meet it.

Succeed or not, we will take no refuge in ambiguities, but maintain a truly positive assertion. 202 We say that the world we live in is not one world, but two, distinguishable through the laws by which each is governed.

203 There exists such a thing as phenomenal law; we accept the fact. But distinct, broadly distinct, apart in its working, its elements, and its final result, is moral law. 204 An appeal lies to facts, and we shall try to justify our assertion. The mode of proof now to be adopted is not metaphysical. I mention the circumstance because investigations into mind are apt to be confounded with metaphysic, and are then supposed too difficult to deserve attention. 205 My argument will demand nothing beyond a hearing and a scrutiny. It will consist of just so much mental dissection as may be needful to show, first, a structural law of our inward nature, and, secondly, to illustrate its workings and effects. 206 These two sets of facts will be placed side by side, in order that each may check the other, and that their coincidence may also (as I hope it will) furnish a fresh and sufficient proof of the contrast between moral and material law. 207 Everybody knows how convincing are, and ought to be, facts separately ascertainable, yet converging into one and the same conclusion.

208 One form of speech almost unavoidable ought to be remarked beforehand. I mean the word freedom as applied to the human will and its volitions. 209 When compelled to use it, I shall do so only in the sense of philosophic as contrasted with theological free will. 210 By philosophic freedom I understand that sort and degree of active choice free from constraint which is required for the idea of responsibility, an idea universally agreed on by divines opposed to each other on the point of theological freewill. 211 By this last-named idea I understand supposed powers of spiritual attainment, which go to make up a notion of self-sufficing moral strength. 212 With it the present lecture, being purely philosophical, can have nothing whatever to do, but I should much deplore misconception, because any theory of self-sufficingness

would be repugnant to my own personal convictions.

213 Look now at the life of an animal, with senses often more instrumentally accurate than ours. 214 Survey the world around, which furnishes the objects of your perception and your intelligence. 215 The mode in which that intelligence acts is held to be more or less under the absolute rule of instinct, and creatures below human are commonly described as those "that nourish a blind life within the brain."

216 Whether this be or be not perfectly correct makes no difference to our present purpose. The point I want you to fix your thoughts upon is the 'directness' of relation between the feeling or intelligent principle of mere animal life, and the object perceived, felt, or apprehended. 217 Perhaps it may give vividness to your thought, if you figure this relation under the similitude of a right line connecting two points--object without, apprehension within. 218 The line itself will then represent the impulsive activity of a creature, as, for example, when a hungry tiger leaps upon his prey.

219 Now this directness of action is 'not' the thing most marked in our own proper human existence. What is really marked is the exact reverse; 220 the more truly 'human' any action appears, the farther is it away from resemblance to that animal characteristic. 221 Suppose a person acts like a tiger, you are simply brutal; if you be governed by your feelings, however amiable, we pronounce you weak or unreasoning. 222 Absolutely impulsive doings, such as the indulgence of an appetite, blows struck in passion, or even in self-defence, we separate from our volitions proper, and call them irrational and instinctive. 223 In educating children we check displays of impulse, we bid them pause and reflect. 224 And it is obvious that education presupposes an educable power or principle, which principle self-education (the most important training of all) will place in a clear light before you. 225 Interrogate yourselves, then. You will see that the mental power you most wish to train and augment is distinguishable enough even in the commonest affairs of life. 226 Take

a case of feeling. Some object-- no matter what-- kindles an emotion within you-- anger, wish affection, pursuit, dislike, avoidance-- and you feel strongly impelled to take action thereupon. 227 This would be the movement which was imaged to our minds as a simple line. But to launch along it inconsiderately you would feel neither proper 'per se'-- 228 nor yet doing what is due to yourself, because it is your human prerogative to act, not according to impulse, but according to reason. 229 And observe, to do, or to forbear doing, is a question by no means determined by finding whether another emotion be or be not stronger than the first. 230 What reason demands is that the impulse you feel, or it may chance the strongest of a dozen impulses, shall become to you an object of careful scrutiny. 231 You are bound in honesty to scrutinise it; not only because it exists as an incitement felt within yourself, but much, much more because it is felt to be your actual self. 232 It is your character which gave the spring, and lives in the movement to action. 233 Perchance this point of character is a hidden nook, an unknown depth of feeling or desire, undiscovered, unsuspected by your fellow-creatures-- a secret of your inner self. 234 Nevertheless it is amenable to the tribunal of a more inward self still, to be brought before it as an object that shall be examined and cross-examined, sentenced either to vivid freedom or present suppression-- it may be even to extinction evermore! 235 Each human being possesses this wonderful self-objectivising power. You are able to look at yourself as a NOT-self-- a something partitioned off, and external; to be thought about, felt about, reasoned about; to be controlled, chastened, corrected. 236 This power is our inalienable heritage; we cannot resign it if we would; we cannot finally suspend its exercise. 237 Mountains could not crush, nor oceans drown it; flames of fire never burned it out from the breast of one single martyr. 238 Whether we use our birthright for good or for evil, it still remains with us; when we act, our will is not a feeling, an appetition, travelling simply from

one point to another. 239 It is a movement of our world within, a movement of that microcosm called Human. 240 Suppose a person resolves to employ this power aright. Some wish or feeling, such as might drive a lower creature to instinctive action, stirs within you, and becomes the object of your contemplation. 241 To the sessions of silent thought you summons whatever assistants you can get; the witnesses of experience, prudence, duty, the golden rules of the Gospel; 242 whatever seems most proper to determine the question at issue,-- fitness or unfitness, to act or to abstain from acting.

243 You says to yourself (as all here have done a thousand times), "This longing, thought, state of mind, is wise or foolish, good or bad, right or wrong; nay, 'tis I myself that am so!" 244 And in thus saying you are conscious of that sort of freedom to will or not to will, which makes up responsibility. 245 You does not deny-- contrariwise, with the might of your whole essential humanity you asserts-- 246 that the act of will is thus taken out of the direct line of inevitable antecedency, away from the physico-mechanical series, and enabled to commence a series of its own.

247 In a word, your consciousness evidences to you that functional law which makes the human soul a thing more wonderful than all the inorganic or all the animated universe besides. 248 And the law thus evidenced is the law of moral causation.

249 I said that our own soul thus becomes to us more wonderful than all the known universe besides. 250 I might have said more mysterious; so truly 'sui generis' and different from all things not ensouled, as to be inexplicable by human sciences, an enigma to itself, dwelling alone in its own awful isolation. 251 Do but think what 'cause' is-- nothing less than originating power; what then must it be in stern and sad reality for a soul to originate a sin! 252 Yet we cannot deny the fact. We confess it every day, not only in our hearts and deeper utterances, but in the commonest

though most tremendous of words, the word responsibility.

253 If a person were in no true sense the cause of own actions, you could never be held responsible either by God or Human. 254 But as long as Justice maintains her seat, each criminal will be so held, so judged, so recompensed. 255 And the only principle under which Justice can justify her judgments is the reality of moral causation.

256 If, then, this law be established, we have proved our point. Just as we recognise a material world by mechanical law-- and indeed our knowledge of matter itself is only a knowledge of its laws-- 257 so in like manner, and 'pari passu', we recognise a moral world by its distinctive law. 258 We live, therefore, not in one world, but in two:

"Human is one world, and hath
Another to attend you."

259 The point is of surpassing importance! Upon it turns the whole issue. "Can mechanism-- or, as it is vaguely called, materialism-- be or be not accepted, with its attendant theories, as the truth; that is, 'our' whole truth, all we have to live by and to die by?" 260 Infinitely important issue! Having much to do at this very moment with the happiness and real good of millions amongst our fellow-creatures and fellow-country-people. 261 It is for this reason we must not spare pains to demonstrate our moral law, for this reason also we will give some passing sentences to show how worthless in argument is the sophism most commonly circulated against it.

262 Humans speak of a "law of motives," with complete assurance, and without seeming to be aware of the twofold fallacy underlying it. 263 Writers on the subject furnish statistics of suicide, murder, and the like; and then ask how the freedom of moral cause can be compatible with so visible a law? 264 But what sort of a law is this? Clearly not a law upon which the results are conditioned, as sunrise on the earth's rotation; but a mere generalisation, like the laws of average before mentioned. 265 Such a law does not govern the acts, but the acts the law, or, in plain words, they 'are' the law.

266 It is an epitomised result, inferring no more consequence to our free moral causation, than a life assurance infers to the contingency of our individual life or death. 267 The sophism would be readily detected if it were not for that unfortunate word "motive." 268 People forget that a motive is not a power that compels us, but an object which we choose to seek. 269 "Will," we are seriously told, "must be determined by the strongest motive." 270 Now if, in thus speaking, the strongest motive 'objectively' be meant, that is the motive essentially and in its own nature the strongest, then indeed we may exclaim, "Would that this were true!" 271 For are not right, justice, goodness, absolutely and in themselves the strongest? Yet humans in general fail to pursue them; they are chosen by those of whom the world is not worthy. 272 But if, on the other hand, the phrase "strongest motive" is to be understood 'subjectively', and means that which on each occasion is 'felt' to be the strongest; what form of sounding words has ever yielded a more barren sense, a simpler truism? 273 "Will must be determined by the choice of will." It means this, and nothing more.

274 We may sum the whole matter of motive in a single sentence. Motives do not make the person, but the person your motives. 275 To conceive it otherwise would be to imagine each person a mere bundle of instincts, such instincts as we calculate with certainty in the brute animals we wish to allure, to subdue, or to destroy.

276 "Be not like dumb driven cattle," says the Psalm of Life, and old Herbert exhorts--

"Not rudely, as a beast,
To run into an action."

277 The beast feels an incitement, and rushes direct upon the pitfall. 278 It is the prerogative of a true human to subsume (as logicians speak) each line of impulse into the circle of own soul; 279 to deliberate in the secret chambers of a being impenetrable even to your own understanding, and to put in force the result which becomes as it were the free manifestation of yourself. 280 When therefore you examine the actions of a fellow-creature, and

discern their motives, you praise or blame what? Not the motives, but the person.

281 Permit me to close this discussion by an example of the manner in which we make and unmake our own motives. No one present is so young, or so careless, as never to have felt the pains of self-reproach. 282 Some light or shade of life projects before us the outline of ourself. By virtue of the law described, we view and review it, as if it were the picture of another being. 283 In contrast with it, we place our own ideal, all that our childhood fondly fancied our adulthood would become; 284 the semblances of those we have loved and lost; of the father, who taught us to prize truth and virtue above earthly wealth and distinction; 285 of the mother, at whose knee we knelt in prayer, and whose upraised eye imaged the serenity of that heaven to which she implored us to aspire. 286 These beloved forms, robed in the unfading freshness of a love stronger than death, stir our heart of hearts, with accents unmistakable. 287 They remind us of what we resolved and trusted one day to be found, in thought, in feeling, and in life.

288 But, close to the glowing portrait of our purposed self stands the dwindled figure of what we actually are; and, oh, the shame, the anguish of that stern, disappointing comparison!

289 Among the lower creatures (we ask in passing) what is there to resemble this self-reforming principle? 290 In the domesticated animal, both beast and bird, we see wounded affection, grief under a master's anger, and desire to win back own love. 291 In the gregarious tribes we find respect for a common bond of what we almost may call utility; but has any sense of wrong as wrong, or sin as sin, ever been found educable? 292 Human shows the mighty strength of this principle within you, even when you shows it in its most repulsive shapes. 293 The remorseful wretch who throws the self beneath the wheel of Juggernaut, is a different 'kind' of being from the horse or dog. 294 And considering the self-interest, self-flattery, and self-indulgence arrayed against it, may we not say that the root of such passionate

remorse has something sound in it, else it would long ago have been trodden out from the life and heart of humankind?

295 For now, as always, our honest anguish and shame sow the appointed seed of our noblest attainments. Those steps by which we climb our steep ascent are hewn in the travail of our souls. 296 David found it so, when he heard the voice of Nathan saying, "Thou art the man!" and wrote words which have come down near three thousand years;-- "The sacrifices of God are a broken spirit." 297 "Of all acts," asks Mr. Carlyle, "is not, for a human, 'repentance' the most divine? 298 The deadliest sin, I say, were that same supercilious consciousness of no sin; that is death; the heart so conscious is divorced from sincerity, humility, and fact; is dead; it is 'pure' as dead dry sand is pure. 299 David's life and history, as written for us in those Psalms of his, I consider to be the truest emblem ever given of a human's moral progress and warfare here below."

300 Truest emblem indeed! In it, we see, as in a glass, how living in two worlds we cannot but have a sympathy with each; insomuch that every human feels the self to be two selves, not one; a spiritual and a psychical human. 301 "There is," says Sir Thomas Browne, "another human within me, that's angry with me, rebukes, commands, and dastards me." 302 A 'double' consciousness which grows upon many a soul, until its truer choice and better motives are attained:

303 "The life which is, and that which is to come,
Suspended hang in such nice equipoise
A breath disturbs the balance; and that scale.
In which we throw our hearts preponderates."

304 This lecture started from the question, what is a phenomenon, and how do we know of its existence? 305 Seeing that our knowledge rests primarily on the evidence of our own mind, we drew the inference that Comte committed a fatal error when he banished the science of mind, as mind, from his cycle. 306 Reviewing his various devices, and some devices of his

successors, for eliminating psychology, and reducing the study of mind to a study of bodily functions, we approached the stronghold of Positivism,-- law. 307 And, after discussing the theories maintained respecting it, we boldly threw down our challenge to this effect: law phenomenal or mechanical admitted, we assert, the existence of another kind of law. 308 We say that the freedom of human choice between evil and good is utterly unlike the freedom of a stone which falls by mechanical law, and cannot choose but fall. 309 The inference from phenomenal law is the existence of a phenomenal world. The inference from another existent law is that there is another existent world. 310 Human, we affirm, lives in both; has sympathies with both; and, by virtue of your double nature, is a true citizen of both. 311 The ultimate principle of human's higher nature is to us inscrutable; for, even as the eye sees not itself, so neither does the spirit of a human discern that which makes it spirit. 312 But, though we cannot know the soul, we can know much and many things about it; things most important-- 313 nay, all-important for us to know, since they distinguish the spirit that burns within us from matter, from mechanism, and from mere animality. Hence we do not, with the Positivist, ignore the unknowable.

314 Contrariwise, confessing our ignorance, where we are ignorant, we strive to observe and gather all we can.

315 One thing that can be thus known is the principle of moral causation; and this we have inductively investigated. 316 We began by observing a process in our own minds, a process or law of self-objectivity. 317 I am sorry to use such an uncouth word; but it saves a long description, and you will all remember the fact. 318 That process carries, on the very face of it, adaptation to the purposes of moral choice, free from the material necessity which governs a falling stone, and disengaged from the control of such impulses as the incitement of ruling instincts. 319 We next verify this law by observing its operation; 'first', in single acts of the Will

accompanied, as you will recollect, by distinct consciousness of choice and responsibility. 320 It was in respect of this conscious certainty that Dr. Johnson said, "We 'know' we are free, and there ends the matter." 321 We verified, a 'second' time, the self-objectivising law, by its working and effects upon our motives, which it makes and unmakes; eliminating some, adopting others, so as to modify and alter our whole real character. 322 Any one who is happy enough to recall the slow advances of successful self-education, or a less ordinary process by which old things passed away and all things became new, may recollect with pleasure how this law served as an instrument of change; 323 how it placed yourself before your own inward eye, even daily, in freshly instructive lights, awakening new self-questionings, emotions, aversions, desires, hopes, and stimulating to new exertions; 324 how it opposed itself to the mastery of any single dominant passion, under which we say a human acts mechanically, because you have already surrendered yourself a slave to its sway; 325 how it became a check upon all day-dreaming or drifting with the tide, when again we are said to act mechanically because we yield to circumstances as they flow, and live a blind life, like creatures that cannot escape the chain of Instinct.

326 For, observe: let any instinct, even the noblest, be ever so nobly developed, if we act from its impulse only, and not from a reflective choice of the prompting which it gives, 327 we are living below the image of our true nature, because we are not striving to become a law unto ourselves.

328 You may verify our moral law in numberless ways among the common walks of life; and it really is a task of no great difficulty, if you take with you the truth that the whole issue is summed in one word-- Responsibility. 329 A falling stone cannot choose but fall; were a human subject to material law, you could have no choice whatever.

330 Neither would it make any real difference, if the Will were impelled by overpowering motive, and did not make its motive to itself. 331 The slate which slides

from a roof, and kills a child, we do not accuse of murder; we do not attach moral accountability to the hungry tiger. 332 It is because human is not impelled like stones or tigers, that we hold you responsible. 333 And we praise or blame in the highest degree your most deliberate acts. 334 The wrong you does with malice aforethought is a crime in the strongest sense; the good you works with considerate purpose we esteem your highest well-doing. 335 In our time the wills of individual humans have changed the destinies of nations; and any one who reads books, reviews, or newspapers sees a vigorous use of that word responsibility.

336 No one doubts that these powerful wills are the true causes of effects felt throughout all Europe, effects which will remain when those who caused them are in the grave; nay, even when generations-- perchance dynasties-- shall have passed away.

337 In lower life, we honour the truly causative human who conquers a habit of intemperance or any evil passion: 338 it is greater to overcome one's self than to conquer many cities. 339 We deem every one accountable for what you allows, or disallows, in relation to your God, your fellows, or yourself. 340 In a word, we consider each human so far the true cause of own conduct, as to load you with responsibility. 341 Yes, responsibility! Do not shrink from the thought; it is wholesome for all. 342 Do but practise self-control enough to look yourself with honest purpose in the face when you are about to act, you will never suppose that you act mechanically, and you will seldom act amiss. 343 If you wish to benefit your country-people, inculcate the grand lesson of responsibility; 344 for what well-informed person doubts that one main root of our present social and religious ailments lies in compromise with known immoralities, indolent acquiesence in hollow words, and lifeless outside shows, 345 where ought to be heard and seen the rigid truths of accountability, duty, consistency?-- all impossible without a practical law of self-scrutiny and self-control. 346 Yet

further: Responsibility is also an undeniable witness to a world of life beyond death. 347 Just as even Herbert Spencer himself has remarked, that the idea of relativity involves the correlative idea of an absolute; even so, in thought, responsibility involves its correlative belief, a recompence! 348 But, in morality, the evidence is stringent beyond expression. For, the idea of responsibility is fixed in the nature of things; unchangeable, eternal.

349 And it contains in itself the loftier idea of personality. Leading us to look for a world of righteous recompence, it leads also to belief in a personal Being, before whom we are responsible, and who will award to each of us our recompence. 350 David travelled the same road to the same conclusion, when he looked round upon people, who lacked mercy because they lacked justice, and said, "Unto thee, O Lord, belongeth mercy: for thou renderest to every human according to own work."

351 Did I not feel that my strain upon your attention must now cease, I should have liked to show at length how the law by which we discover moral causation, may be verified everywhere in the whole province of mind. 352 It is difficult, for instance, to look at the perplexing questions raised about language, without perceiving that there runs through its purely human formation the articulate results of an element resembling internal dialogue; in other words, a law of self-objectivising representation. 353 In art, again, the perpetual efforts of ages is to present our human manifoldness of thought, feeling, and idea, before our one individual self. 354 Hence the art formula of multeity in unity. And what is the true bond of society as distinguished from gregariousness? 355 Is it not the Gospel's golden rule? But how can our neighbour be viewed as a second self, unless self has been already objectivised before our moral intuitions? 356 We might follow the same thread throughout the conditions of all philosophy. 357 The one thing we have to remember in every research concerning human is that education, whether of self or

others, implies an educable principle; a germ, of which education and attainment are the bud, the blossom, and the fruit. 358 Therefore, if we want to know Humanity, we must look to the educated human being. 359 The philosopher, the artist, the thinker of every sort, must have risen into clearness ere you can become a typical person. 360 Is it not, therefore, a mistake to appeal for theories of human nature to the statistics (always statistics!) of ignorance and savagery? 361 When modelling our physical form, Buonarotti did not seek his type in hospitals for maimed or distorted limbs, and exclaim, Behold, such is human! 362 Curious too, and contradictory, the way in which appeals to barbarism have worked. In the 18th century we used always to hear of that golden age,

363 "When free in woods the noble savage ran,
And man, the brother, lived the friend of man."

364 In the 19th century, savage life is cannibalism, superstition, cruelty, terrible, revolting, loathsome; perchance, time must yet pass before we learn justice to our fellows of any age! 365 Meanwhile, we may feel sure that our human ideal is not to be found in the frost-bitten rickety infant species; nor yet in its dwarfed and stunted adult; 366 the cretin and the imbecile will not give its lineaments; and it may be hard to say which is least like a true person, the undeveloped or the perverted creature. 367 For example, what superiority in moral height has the 'savant', whose self-satisfied science ignores or denies a God, over the poor pigmy barbarian, 368 unskilled in the use of fire, and living upon berries and insects, who props themselves against a tree with earthward face, 369 and prays, saying, "'Yere', if indeed thou art, why dost thou suffer us to be killed? Thou hast raised us up. Why dost thou cast us down?"

370 Better perhaps the rude stammering of our race's childhood than its half-speechless, half-paralysed old age! 371 And here the argument of this lecture ends. Of causation in general, and the grand subject of design, it has not been my hint to speak.

372 These vast topics have fallen into higher hands than mine. My aim was limited to finding the 'differentia' of human-- the moral characteristic which places you in contrast with physico-mechanical laws.

373 It occurs to me, however, that you may employ ten minutes not unpleasantly, upon what we can hardly help calling the romance of Positivism. 374 The story, taken from first to last-- part comic, part tragic-- is as wild and weird as one of the Frenchman Doré's pictures,-- a story too strange to be thought true, if it did not happen to have been true! 375 It has also its stinging lessons, and they follow naturally; evolved, as it were, from the motley and mystifying commencement.

376 Comte's life has been written by friend and foe. For fullness of detail the right book is by his disciple and executor, Dr. Robinet, who has just figured among those who rule in the Commune of Paris. 377 Robinet is very interesting, for he thoroughly believes in his master, and accepts the whole Comtist religion, calendar and all, which Littré and others reject. 378 No reproach this to Comte's biographer, for that same worship is celebrated in our cooler atmosphere of England. The 'Pall Mall Gazette' has, by its notices, made the celebrations widely known.

379 There is an account of the grandest yearly solemnity which will suffice many, and excite the curiosity of more, in its number for January 7th, 1868. 380 It is not hard to see that the worshippers differ from the recusants by a strong feeling that they cannot live upon axioms sounding like negatives. They want sentiment, emotion, excitement to sustain them.

381 Let us observe how Comte caught the first glimpse of this requirement. His life was sombre-- a boy delicate and fractious, disliked by his masters, turned out of the Polytechnique, repudiated by his great socialist teacher St. Simon. 382 His family relations not happy, his marriage least of all. We cannot wonder at vagaries, for he had a real fit of rampant insanity, and after release from an asylum had nearly drowned himself in the Seine. 383 His wife

found him intolerable, and left her home. Mr. Mill speaks of her respect for him;-- it was oddly testified after his death, for she pleads in law that he was a madman, an atheist, and immoral; 384 repudiates his will, and seizes the consecrated relics of his dwelling. Littré supported her against those who, like Robinet, thought her little less than blasphemous. 385 If she had appeared in an English law court, we should have known more truth than we do. Let us now look at such facts as we have from the more favourable side. 386 The man lived a lonely life, as became a sort of conceptual alchemist, sustained by a belief that he was turning men's leaden thoughts into his own pure gold. 387 One brilliant projection of his has made him the idol of Positivists. I confess it puzzles me, among many others, to imagine how a qualified critic can treat such a philosophic solvent either as true or as original. 388 It supposes the history of all human thinking to pass necessarily through three stages, theology, metaphysics, positive truth; and that the world makes progress accordingly. 389 We will hope that the thing called theology, a benighted belief in the government and intervention of supreme will, is not altogether extinct in this age of progress; if it be so, Mr. Froude encourages us to look for a revival. 390 Among lesser matters, the hypothesis of metaphysical cookery is an idea one fails to realise. Was it a banquet with joints cut Laputa-like, after some fashion of concepts, or syllogistic figures? 391 Was it a

"feast of reason and a flow of soul,"

or, more probably, an abstraction pure and simple, as if a person could

"Cloy the hungry edge of appetite
By bare imagination of a feast"?

392 Comte's comicalities strike most people all the more because he writes on, always utterly insensible to his own comedy. 393 If any one wishes for a serious critique in small compass, I may mention Stirling's appendix to his translation of Schwegler's Handbook; Whewell in his Philosophy of Discovery, and elsewhere. 394 Comte was most confiding in his own theory. Littré

is not so confident, for he has another theory of his own. But, putting aside the question of its verification, we may remark that in the rough idea Comte showed himself before his age. 395 Positive thinkers have busied themselves with physical evolution; for example, the development of a brain from an oyster or an eozoon; but Comte was intent upon mental evolution.

396 Human need not much care about the congeners of a body sprung from earth; but soul is another thing. 397 We trust our own spirit, as carrying some image and superscription of God; we feel and conceive it to be different in kind from sensitive life; we love to think of it in its finality as a spark flowing out from Divine Light; a breath breathed into body from above. 398 In the reverse of this belief there is doubtless an element unfavourable to happiness; it makes some people cynics, some pessimists, some simply victims. 399 Comte's infinite self-satisfaction probably saved him from self-torture. But we judge that he felt his condition deeply, from the rapture with which he hailed a new and brilliant discovery! 400 Yes, it was the most wonderful of all his discoveries; he one day found an unsuspected law of life within himself; he discovered that he had a heart.

401 To many, this is the black spot on Comte's memory; they cannot receive his love, nay, his frantic adoration, of the lonely wife of a convict, absent in the gallies, as a piece of pure Platonism. 402 Had Madame Comte's allegations been sifted fully, we might have known all. As it is, I for my own part like to think him innocent; 403 he was mad from disease, and perhaps from conceit; a conceit, says Mr. Mill, too colossal to be believed without reading him up; but I trust he was not immoral. 404 His letters are against it, the lady's face is against it, and above all, there is against it the lasting effect upon himself. 405 After a year's happiness to Comte, she died and left him, as he thoroughly supposed, an enlightened and a religious man. 406 Poor Comte! His sweeter life was buried with the dead, who to him could never rise again. 407 His religion was no more than a funereal cult; a veil

thrown over it, no hope, no thought of reunion! 408 The episode of Clotilde was, in itself, one of those touches of Nature which make the whole world kin; the brief, bright, and long sad experience the solitary had of his heart; the love, the loss, the unforgetting sorrow! 409 But, did it not prove, beyond the force of reclamation to disprove, that Comte's system ends, at last, in what is commonly called materialism? 410 Its faith (or negation of faith) being in effect this, that we look for entire human dissolution coincident with bodily death. 411 And the end flows naturally from the beginning; all we think is phenomenal, all we know is phenomenal, first and last. Our life is only a phenomenon; and death, death joins us to the unreturning past. 412 We are absorbed, all that is good of us, into general and generic humanity; 413 an Eidolon, called the Great Being for our comfort; as if a name (what's in a name?) could console us! 414 The race we may have tried to serve is to be our Euthanasia, our sepulchre, I had almost said our cenotaph! 415 Strange thought, not without a kind of serpent-fascination! 416 Epidemic in England now, gaining force from its unhallowed audacity! 417 The consistent pessimist, who rates people at the worst, thinks the worst in the self, and does the worst by all others, 418 and by yourself, if you are but fixed in this unbelief, need not fear what the world, human, or God shall do unto you. It is the old whisper, "Ye shall be as gods!" 419 'Tis superhuman to sit and watch the storm; to have our strong sensations, illusions they are called in France; blood-poisons which circulate in our life, working hot passion and mischief; 420 sorrow to many a loving, many a confiding heart; passion, mischief, sorrow, what matters it? There comes an opiate by-and-by! 421 The person of overwrought brain, used up, worn-out feelings; the distempered dreamer; the reckless worker of wrongs; the disappointed striver for an earthly crown, all shall have their common slumber at last; unconscious, impervious, unbroken. 422 I will read you three stanzas from a longer piece written

by one not unknown always where that tree of knowledge grew:--

423 "Cessation is true rest,
And sleep for them opprest;
And not to be,--were blest.

424 Annihilation is
A better state than this;
Better than woe or bliss.

425 The name is dread;-- the thing
Is death without its sting;
An overshadowing."

426 If such be the thought to them whose natural heritage stands strong, fringed with luxurious hope to live beloved, to die regretted; 427 what will the "overshadowing" be when it passes, like a plague breath, over the children of toil and anxiety, over them whose life is at best hard, and their lot depressed and without "illusions"? 428 Will they not want their strong sensations? Will they respect any law, human or divine, which stands between them and their enjoyments? 429 Will they not crush all who bar their pleasures, aye, choke them in their own blood? 430 Why not? The opiate comes to all at last. 'Tis an act of oblivion! The overshadowing will cover all.

431 And this is the coming creed of the 19th century. To return to Comte, about whom I might say much, but must not;-- of course, he had no foresight of anything worse than an immediate realisation of his crowning ideas-- sociality, fraternity, Positivism. 432 Europe split into small states; women made incapable of property, but held objects of religious worship; men worked on a communistic principle; an oligarchy of rich; a spirituality of Positive believers, with a supreme infallible pontiff at their head; Paris the seat of infallibility and of order. 433 Clotilde had shown Comte a principle antagonistic to, and predominating over, all egoism; Altruism was to burn out of humans all selfish aims, nay, the ordinary feelings of a human! 434 A rigorous rule of life was to aid, and a religion without a God to enforce, this new law. 435 Two hours a day, divided into three private services, were to be spent in the adoration of Humanity under the form of a living or dead woman. 436 The image of the fair

idol, dress, posture, everything was to be brought distinctly to mind; and the whole soul to be prostrated in her honour. Comte, it has been said, gave woman everything except justice.

437 There is a grave moral in this tale. Theology was extinguished; but the desire to worship burned on-- a fire unquenchable. 438 Is that desire, or is it not, a broad reality, an inalienable truth of our nature? 439 Comte accepted it for himself, and not for himself alone, but for our whole human race. Along with it he accepted the only principle which could bestow universal validity. 440 Our moral intuitions were acknowledged safe guides, and something more; the rulers of an intellectual world, the revealers of truth higher than all beside. 441 Often and often he asserted the dominion of heart over mind. 442 Probably, if Comte had lived longer he would have acknowledged other revelations of our moral nature. 443 Moral causation, for example. That strange phrase of his-- "a modifiable fatality," self-contradiction in words, suicide in sense, what did it portend? Was it the first sound of a marriage-bell, freedom and duty once again united? 444 A change of his system wonderful to contemplate, yet not more wonderful than the state in which he left it.

445 One cannot help here asking how matters would have stood if Comte had died without knowing his Clotilde. 446 How incomplete according to his own account his philosophy! How wanting in that which perfected the whole!

447 A notable fact this, throwing great light on the value of such-like systematisation which, after all, much resembles secretion from that interesting viscus, the system-maker's own particular brain. 448 And there is another fact quite as notable. How curious that Comte should have lived so long without discovering whatever truth his own heart and a strong human affection disclosed to him! 449 Hence we might illustrate and confirm a previous remark, that any one not living a truly human life-- call him undeveloped, uneducated, dwarfed, or immature-- is no typical human; 450 and if we believe ancient maxims, scarcely a learner in

philosophy, certainly not a judge of its highest and widest problems.
451 The most notable fact and greatest surprise of all is, that Comte's prayer without petition, his passionate self-mesmerising adoration, his religion without a God, should have taken any hold on humans. 452 No one can transfer to others your private sorrow or your private joy; it is hard for a person to get your thought understood, harder still to make common pasture of your heart. 453 But Comte devised extraordinary propagandist expedients; those who consider his developments mere madness, should explain why sane people have accepted them. 454 Comte set no value on Protestantism in any shape. The religion of his own country he carried back to mediæval forms, and then travestied it.
455 There were many festivals, a calendar of saints, nine sacraments, and a horrible caricature of the Christian Trinity. 456 This idea crowned his sociology, which I need hardly say was communistic socialism, enfolding (as socialism always must enfold) and scarcely veiling the most iron of despotisms, both temporal and spiritual. 457 His mind delighted in contemplating a synthesis of the great Fetish, Earth, with the great Being Humanity; which last somehow assumes on occasion a feminine gender.
458 To Clotilde, symbolising that supreme object, Clotilde, his noble and tender patroness, he transferred Dante's homage of Beatrice; addresses to the mother of our Lord; 459 and stranger than all, the prayer of Thomas à Kempis to Almighty God, "May I love Thee more than self, nor self at all except for Thee."
460 Now consider: when Comte died, sixty-four years had not quite elapsed since goddesses of Reason were worshipped in the cathedral and other churches of Paris. 461 Upon each high altar a fair woman, chosen for her faultless beauty, sate enthroned, her feet resting upon the consecrated slab. 462 Gaily clothed in tunic and Greek mantle, she was so displayed by a torch behind her throne, so elevated above her worshippers, as to attract from Phrygian cap to Italic shoe their

passionate gaze and adoration. 463 Low down beneath her footstool lay the broken symbols of a faith then declared effete and passed away; just as half a century afterwards Comte declared theology passed away. 464 Music sounded, incense smoked, Bishop Gobel, who assisted at a parody of sacred rites, wept tears of shame, but in fear and trembling he assisted. 465 The object of this mad mockery of religion, this empire of heart over mind, this woman-worship, was to proclaim afresh Fraternity, Progress, Sociality. 466 Sociality, for the supposed law of which final development Comte worshipped humanity and Clotilde-- but disowned immortality and God.

467 These two madnesses, how near akin, how far apart were they? The world is not really made young by destroying old things; 468 yet the path of 18th century madness lay through fire and blood. Its deeds are sometimes spoken of, even now, as great crimes; but no great crime is criminal in the sight of people whose life is godless, dark, and unsubstantial. 469 Horrors pass before them like unrealities. "The world," writes Mercier on the trial of Louis XVI,-- "The world is all an optical shadow."

470 In our 19th century life, 'tis a skillfully prepared overshadowing, beneath which humans beat their brows till their blood-shot eyes see red. 471 "I see red," exclaimed Eugene Sue's ruffian, "and then I strike with the knife."

472 Let me end by telling you a dream, which is not all a dream. A company of 'savans' were seen in the visions of the night, busy with a new scientific invention. 473 Earth, they argued, earth has her volcanoes, her burning exhalations; humans have electric lights, fires, gas lamps, furnaces. These make up the world's proper illumination.

474 The effect intended was, therefore, to darken the air we breathe, so that no rays from the upper sky should pass through it. 475 The inventors hoped that a district, a country, nay, even a world, might thus be overshadowed by a gloom impervious to moon and stars by night, to sun by day; 476 and the human eye see no changes, save

those which the earth's activity, or human power and skill, might produce. 477 Terrestrial and artificial alternations excepted, all was to be changeless as winter midnight-- deep impenetrable darkness! 478 It was seen slowly, very slowly, to descend. In thirty years the people of science hoped and purposed its perfection.

479 Did those who had previously known the beautiful light of heaven, who had bathed and basked in the life-giving sunbeam, feel happy, or even calm, when they saw their children and children's children robbed of celestial glory and gladness?

480 Yet there is one thing worse than a world without a sun-- you know what I mean-- Humanity without a GOD.

SCIENCE AND REVELATION.

The Very Reverend
R. Payne Smith, D.D

4 The duty which has been imposed upon me to-day by the Christian Evidence Society is, I conceive, to state as clearly as I can, 2 what is our ground for believing that a revelation is not only possible, but is a necessary part of the system of this world. 3 As the programme further joins science and revelation, I conceive that I am debarred from any but a strictly scientific proof. 4 We may reasonably infer the probability of a revelation from God's necessary attribute of love. 5 We may ourselves feel morally sure that a creature, approaching so nearly to the spiritual world, and capable of so much good as is human, would not be left by your Maker in that miserable state of vice and misery in which we find ourselves. 6 There are many good and weighty reasons for believing that God would give us a revelation, and that the Christian religion is God's revelation-- 7 reasons drawn from the nature of God, from the actual condition in which human is placed, and from the direct teachings of Holy Scripture-- 8 all these, like a cord of many threads that cannot easily be broken, serve to confirm the faith of the believer, but I must forego their use. 9 In confining myself to what I conceive to be the strictly scientific basis of a revelation, I

would, nevertheless, beg you to remember that the evidences of Christianity are cumulative. 10 They cover a vast field, and it is in their united force that their strength lies. 11 The very vastness of the field often invites attack. Some outlying work seems capable of overthrow. 12 Some discovery in the domains of history, of philology, or of physical science, seems to provide new weapons for the assault. 13 Possibly not all the arguments used in defence of Christianity will endure the test of close and accurate examination. 14 Possibly, too, in our views of the nature of Christianity, and in our exegesis of the Scriptures, we have arrived only at partial truth, and do not distinguish with sufficient accuracy between what is certainly revealed, and what is nothing more than a possible explanation of the Divine word. 15 There are, moreover, I will candidly confess, difficulties in the way of faith. 16 However new may be the form of the attack, and however modern the materials which it uses, yet the strength of the attack lies in real difficulties, which are no new matter, but have ever lain deep in the minds of thoughtful people. 17 I do not believe that belief is a thing easy of attainment, any more than virtue is. I believe that both are victories, gained by a struggle-- gained over opposing forces. 18 But as certain as I am that this present state of things was intended to train human to virtue, though I cannot answer all the objections brought against the system of the world being exactly what it is, 19 nor solve all the doubts and difficulties, moral and metaphysical, which surround us: 20 so I am convinced, in spite of similar difficulties in the way of religion, that belief, and not unbelief, is the end at which human ought to aim. 21 I believe that human was intended to attain to a higher and more perfect state than that in which you now finds yourself, and that you can only attain to it by virtue and faith; 22 but as the very value of these lies apparently in their being won by an effort, long and earnestly maintained, I am not surprised at the existence of difficulties, least of all of such difficulties as arise from our ignorance. 23 Still belief

would be unnecessarily difficult, and we may even say, morally impossible, if the sum of the arguments in defence of a revelation did not largely exceed the sum of the arguments against one. 24 With these arguments I have to-day nothing to do. The evidences of Christianity, external and internal, will be treated of by others. My business is to show that a revelation was to be expected; 25 that it was probable, or at all events possible, and, therefore, that the evidences of Christianity have a claim upon the consideration of every right thinking human. 26 In showing that a revelation was to be expected, I shall at the same time show what is the exact position which it holds, and in what way revealed knowledge differs from all other knowledge, scientific and unscientific.

27 Now the argument which I shall use as my proof of the possibility of a revelation is simply this, that in the present system of things we find no being endowed with any faculties without there being also provided a proper field for their exercise, and a necessity imposed upon that being of using those faculties. 28 In this statement I assume nothing. I do not assume that there is a God who made these beings. 29 I do not assume that they were made or created; still less do I assume that they were intended to use their faculties. 30 I put aside all theories of design and causation, not because I do not believe that they possess force, but because the actual facts which I see around me, or which I am taught by scientific people, are enough for my proof. 31 The only thing which I assume is, that the laws of Nature are universal; and I assume this simply because it will be readily granted me. 32 The universality of Nature's laws compels us to admit that a law which holds good in all known cases, will necessarily hold good in all cases whatsoever.

33 Our whole language is so essentially based upon religious ideas that it would be very difficult for me to use only neutral words. 34 But in using religious words, I wish them to be understood in a neutral sense. If I speak of creatures, I mean only beings, things which exist now, or have

existed. 35 If I speak of them as endowed with faculties, I merely mean that they possess them. 36 By nature, I mean simply the present state of things, whether designed by an intelligent mind, or a mere come-by-chance. 37 I look simply around me at what is-- or at all events appears to be-- and I find myself in a world in which there is a very exact correspondence between the endowments and faculties of every existent being, and the state of things in which it happens to be.

38 So exact is this correspondence, that if you give Professor Owen a bone, he will tell you to what order of animals its owner belonged, what were its habits, the nature of its food, of its habitat, and mode of life. 39 Nature works out this correspondence even to the most minute detail. 40 By looking at the bone of a quadruped we can tell, not merely great things about it, but such trifles as which leg it used first in getting up from the ground. 41 For Nature is so undeviating that the outward habits, even in things of no apparent moment, correspond to the internal conformation.

42 Now, possibly, it will readily be granted that such is the present state of things. 43 Whatever may have been the stages through which we have, or have not, passed, we now find ourselves in a world of apparent cause and effect-- full of infinitely varied forms of life, but of which none are purposeless. 44 I cannot upon this point bring forward a better witness than Professor Huxley, who, in his most interesting essay on Geological Contemporaneity speaks as follows:-- 45 "All who are competent to express an opinion upon the subject are, at present, agreed that the manifold varieties of animal and vegetable form have not either come into existence by chance, nor result from 'capricious exertions of creative power'; 46 but that they have taken place in a definite order, the statement of which order is what people of science term a natural law." 47 The whole chain of animal and vegetable life seems to this great authority so perfect and complete, that even the variations which have taken place in it, have been governed, he considers, by a law, that is, a

regular and orderly succession. 48 These variations have been the result, apparently, of certain changes in the external state of things, to which the external conformation of the animal has somehow or other been made to correspond. 49 But as Professor Huxley points out, these variations have been confined to very narrow limits. 50 When people speak of the enormous changes which have taken place in the living population of the globe during geological eras, they refer, he says, to the presence in the later rocks of fossil remains of a vast number of animals not discoverable in the earlier rocks; 51 but the fossils which you do find in the early rocks differ but little from existing species. 52 He thus negatives on sure grounds the idea that a state of things ever existed on this globe essentially unlike what exists now. 53 What then exists now? I answer, first of all a vast chain of vegetable life, fitted in every portion of it to find its own subsistence, and to propagate its species. 54 Its main function is to "manufacture out of mineral substances that protoplasm, upon which, in the long run, all animal life depends." 55 I need not detain you by enumerating the many various contrivances by which plants are enabled to manufacture food for us out of carbon, hydrogen, oxygen, and nitrogen-- 56 substances upon which, in their original state, animals cannot feed-- nor the still more curious and elaborate processes by which their fecundation, and the propagation of each species is provided for-- 57 processes which seem often to require the intervention of animal life. 58 I need not detain you upon this point: you will readily grant that this correspondence does exist. 59 If a plant is not suited to its habitat, and cannot use its natural powers, Nature imposes upon it the severe penalties-- first, of degradation, and then of death. Upon the animal world She imposes just the same penalties. 60 There is neither excess nor defect in Her operations. Whatever She gives must be used, but animals, being governed in the main by instincts, have no choice. 61 They necessarily employ all their living powers, and apparently have no powers beyond those

indispensable for their existence. 62 This point, however, I will not press, though it seems to follow from the fact asserted by Professor Huxley, that no important difference can be observed between the fossil remains found in the earliest strata, and animals of the same species and order existent now. 63 For, as he tells you, facts establish a scientific law-- law in the mouths of scientific people, meaning an established order of facts. 64 Well then! I will put this fact of absence of progress aside, and with it the corollary of the absence of latent powers. 65 But of actual powers it is evident that animals do use them all, and have to use them all. 66 So close, too, is the agreement between the powers and the external position of every animal, that a change in its external relations will modify its powers to a certain extent. 67 But only to a certain extent; there are fixed limits to the adaptability of those living powers. 68 If the changes are such as to occasion a more active exercise of its living powers, the animal increases in strength, size, and beauty; 69 if unfavourable, but still permitting some use of its powers, it dwindles and decays. But pass the appointed bounds and the animal dies. 70 Nature is exacting the penalty of the non-use of what it has given. Nature exacts a severe penalty for the mis-use, and the last and final penalty for the violation of Her laws. 71 I do not know that an ascidian jelly-bag has any other faculties than those of sucking in water, and of sticking to a stone. 72 But this I know, that if it does not use all the powers it possesses and suck in its water, and stick to its stone, no process of natural selection will ever develop it into a monkey: it will go to the limbo of nonentity. 73 But what an alarming thought, that at a period separated from us by such vast geologic ages, that, according to the nebular hypothesis, held by so many of our leading astronomers as a probable theory, this whole universe was a mass of heated vapour; 74 what an alarming thought that the very existence of human should have depended upon a jelly bag sticking to a stone and sucking up water! 75 Alas! There was then no water, no stones, no jelly bags, and therefore

there are now no humans! Human escapes, poor thing, from your humble parentage: 76 you need not feel your ears to find the proof there of your monkeyhood: but your escape costs you dear. 77 What with astronomy and biology, people of science between them have cleared us out of existence. Scientifically, human is no more.

78 My argument, fortunately, depends upon matters of fact: facts for which the believer accounts by holding that this world is the work of a Being possessed of infinite wisdom and power, and who therefore has endowed all His creatures with those faculties which they needed, and with no others; 79 because to give useless faculties would be a violation of God's attribute of wisdom.

80 The student of natural science may take another view. It is no part of your business to do so. Your office is to discover and tabulate the order of facts, of phenomena, and this order you calls a natural law. Well and good. 81 But teleology, the science of ends, which gives the reason why a thing is what it is-- teleology belongs to the metaphysician. It is your business to inquire into causes and effects. 82 Still, as a matter of fact, scientific people do try their hand at accounting for the present state of things, and they say, perhaps, that there is a struggle, a competition in Nature, 83 so sharp and close that no creature can continue to exist save by the vigorous exercise of all its necessary faculties, while all useless qualities will be cast away as mere overweight and incumbrance. 84 I need no decision upon this point; the fact is all I want. I do not want you to decide whether mind preceded matter, and consequently that there is a God: 85 or whether matter and mind came into existence contemporaneously, in which case there is no room for the theory of development, but abundant room for impossibilities, metaphysical and actual; 86 or, lastly, whether matter preceded mind, the latter being simply the result of a high corporeal organisation, slowly attained to by the processes of selection, natural and sexual. 87 Whether this present state of things was worked out intelligently, by a Being possessed

of will and understanding, or is the result of blind and unintelligent powers, working fortuitously, this, to my argument, matters not. 88 All I want is the admitted fact--that every living organisation fully possesses all those faculties which it needs, and must use all its faculties under penalty, first of degradation, and, finally, in the long run, of extinction.

89 But human is a living organisation, and must, therefore, come under this law. Let us see whether the fact confirms this deduction. 90 Now, in all the long line, from the ascidian upwards to human, Nature had supplied none but physical wants. 91 Her children need food; She gives them each those senses and that conformation which enables them to get each their own food. 92 They need safety: She uses much ingenuity in providing for their safety. She is, moreover, liberal. 93 Their food is, in general, gained so easily, and their safety so well provided for, that their lives are full of enjoyment. 94 Her care, however, is taken in the main for the species, and not for the individual. 95 You enjoys your food because Nature has taken loving care for the whole family to which you belongs; and She further takes care that that family shall continue to exist.

96 If it perish, it is because by some change in temperature, or the like, the correspondence is destroyed between its faculties and its external position. 97 Short of this, the ingenuity employed by Nature in providing for the continued existence of every species of insect and animal is as wonderful as that employed by Her in continuing vegetable life; 98 and, as a rule, the lower the creature is in the scale of being, the more curious the contrivances used for its preservation.

99 Well, when we come to human we find these three leading necessities equally well provided for. Human is provided with the means for obtaining food, for providing for your safety, and for propagating your species.

100 But, though Nature's ends are the same, and reached with equal certainty, Her means are, in the main, different. 101 The animals are moved to gain their existence by their senses working upon their

instincts. This is a great advance upon vegetable life. 102 You had there neither senses nor instincts, but simply powers. But human rises above the animals as much as they transcend vegetables. You attains to these same ends of food, safety, and continued existence by the use of your reason.

103 Now, I wish you to notice this. Nature is not limited in Her resources, nor confined to one method. 104 She is not obliged to plant animals in the ground that they may suck up food through their legs; She can and does give them instincts by which they can get their food in a very different way. 105 But perfect as these instincts are, Nature can do still better. She can produce an animal capable of reasoning upon causes and effects, 106 and who, therefore, provides for everything which you imagines to be good for you by setting those causes in motion which produce the desired effect.

107 But with the possession of reason there also goes the possession of what we call mental faculties. 108 Not only can human by the use of your reason obtain food, provide for your safety, and continue your race, but higher ends are made possible for you, to be attained to by the use of this higher endowment. 109 Human has the power of articulate speech, and upon this follows the power of learning to read, to write, and to cypher; and upon the power of doing these three things follows a plenitude of other powers. 110 Now, I shall not stop to enquire how human gained these powers, whether by natural and sexual selection or not; but I venture to point out that there is a vast chasm between physical and intellectual powers. 111 The most sensible monkey is a parody rather than an imitation of human, and the difference between the two is enormous. 112 The points of agreement serve rather to enable us to measure this interval, and see how wide it is, than to bridge it over.

113 Now, let us suppose ourselves philosophers come, we will say, from the planet Jupiter, on a mission intrusted to us by the Jovians, to examine and report upon the nature of the creatures which people the four inferior

planets, Terra, Venus, Mercury, and Mars. 114 Of course, we should look upon the inhabitants of such small communities with contempt, but, being philosophers, we should not neglect anything because it was trifling. 115 Well, when we came to Terra we should report that it was a very curious region, inhabited by a long scale of beings, each one fitted to its place, 116 and that at their head there was a rather noxious, troublesome, and uppish creature called human, whose examination had caused us an infinity of trouble. 117 In examining this creature we should find that it shared in all the wants of those beneath you, but that it supplied its wants, not by the use of instincts, but of reason. 118 Over and above, however, human's physical wants, we should find that you had mental wants; and with these wants faculties also, by which you could supply them. 119 Supply all the physical wants of an animal, and having none besides, it will lie still for hours or days until hunger stirs it to renewed exertion. 120 Supply all human's physical wants, and your mental wants then develop into full activity. 121 Give human the lowest and basest drudgery; make you work morning, noon, and night in the meanest occupations, for the supply of merely physical necessities, and, though you can infinitely degrade, you cannot destroy your mental powers. 122 You still thinks, still connects causes and effects. But our purpose will be best answered by taking the case of those whose faculties are most highly cultivated.

123 Has Nature supplied a proper field for the exercise of the mental powers, not merely of Fuegians, but of the most highly developed human? 124 You know that She has. Take the senses which you have in common with the animals, but see what vast means have been provided by which you can make an intellectual use of them. 125 What arts and sciences, painting, music, harmony, numbers, eloquence, have grown out of their use. 126 As for our mental powers, think only of the vast number of ologies which are claiming admission into our very normal schools. 127 Think only of all our learned Associations, our Royal

Societies, our Social Congresses, our British Museums full of books, which have been written, and are waiting only to be read, 128 and you must own that humans do use their mental powers, and have means enough for a more ample use of them.

129 Nature makes us use our mental powers to some extent. She encourages us to use them thoroughly and earnestly. 130 Use them we must. Human is placed in such a position that you must study what passes round you. Human learns by experience. Instincts are but slightly progressive. 131 Unless brought into contact with human, the animals learn little-- perhaps nothing. 132 I do not doubt but that those huge monsters, whose remains we behold in geological museums, were the most dull and stupid creatures possible. 133 I think this simply because I suppose that human did not then exist, and, therefore, that these monsters had nothing to waken them up out of their sluggish torpor. 134 But scientific people tell me that existing mammals actually have larger brains than their ancient tertiary prototypes of the same order. Let human enter the stage, and the instincts of animals are quickened. 135 Nature did not create human without taking care to guard the inferior animals from your destructive powers. 136 But human in yourself, essentially, is at once progressive and retrogressive. Bound up with you is an infinite possibility of advance and decay. You are never stationary.

137 Both individuals and communities are perpetually either ascending or descending in the scale, morally and intellectually. 138 But this law of Nature obliges human to perpetual mental effort under the usual penalty of degradation. 139 We have not merely to advance, to win new ground. If this were all, at length we should have nothing to do. We have to win back lost ground. Our gains are, I hope, greater than our losses; 140 but the progress of no community will ever be fast enough, continued enough, and assured enough, to justify the members of it in living in a fool's paradise. 141 This, then, was our second point. The first was, that

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Nature has provided us with a proper field for the exercise of our mental faculties; the second, that She imposes upon us the necessity of using them.

142 We may add, that the law of scientific progress also makes it certain that no advance of science will ever deliver us from the necessity of using our faculties. The valuable part of every science is its theory-- the mental part. 143 Facts and fossils are of no value, except as being the materials for thought. 144 No geologist would care much for a discovery of fossils in agreement with an established theory, but if the theory were still debated, then every discovery that tended to prove or disprove it, would be canvassed with intelligent interest.

145 The pure sciences can grow, I am well aware, only by additions. But then they are simply instrumental. They are to the mixed sciences what arithmetic is to the ordinary business of life. 146 Logarithms, algebra, the integral and differential calculuses, are simply easy ways of doing difficult sums. 147 It is a great thing, no doubt, for science to perfect its instruments and processes, but scientific progress lies in the mixed sciences themselves, and these are constantly undergoing modification. 148 The spectrum analysis is largely modifying the science of astronomy. 149 Deep sea dredging, and other fresh means of information, have so modified geology, that no one holds now that similar strata are necessarily of the same date. 150 A vast cretaceous formation is probably going on at this very day in the bed of the Atlantic. The law, then, of scientific progress is constant modification; 151 fresh facts are discovered, new theories started, old theories revived, existing theories altered, recast, newly shaped.

152 Should a science become, practically, complete and perfect, scientific people would care for it no longer. The manufacturer and merchant would then seize upon it. 153 In this way what was once a problem in the mind of the student, becomes an article of use, comfort, and enjoyment in our daily lives. 154 Meanwhile, new sciences spring up, and old sciences take

new shape, and, as a matter of fact, so large has become the scientific domain, that no one person can master it. 155 Division of labour has become as necessary here as in the manual crafts. We are no longer encyclopædists, but each one must stick to your own page in the great book of learning.

156 Many of these sciences relate to our social condition. And of these the importance and value every day rapidly increases. 157 Good government largely depends upon knowledge of all those natural laws upon which moral and physical well-being depends. 158 Upon good government follow increased wealth, active trade, higher wages, and larger consumption of commodities. 159 Upon these follows increased population, and that population concentrated upon spots favourable for all this activity. 160 And upon this follow new social difficulties; fresh problems arise to be solved, and new questions to occupy the mind both of the student and of the statesman. 161 Unless solved, society will retrograde; it will suffer in health, in wealth, and morality; turbulence will take the place of quiet industry; and that community will decay.

162 Here again Nature provides a field for the employment of our faculties, and compels us to use them. If not there is the same penalty, degradation. 163 I do not know how many geological periods it would take before, by the neglect of our powers, we could retrograde back to our ascidian progenitor; 164 but I see everywhere around me the proofs that retrogression is as much a law of human's nature as progress. We can only continue what we are by using all our powers.

165 But I may have lingered over this part of my subject too long. No one perhaps will deny that human both can and must use your mental powers as thoroughly as an animal must use its instincts, and a plant its vegetative powers, or it will suffer for its neglect. 166 Only remember that my argument has nothing to do with individuals; I am treating of human as a species, and investigating the general laws which regulate your well being. 167 Well, now, has human any other powers than those already

described? 168 Has you merely physical powers to enable you to get food, and other bodily necessaries; and mental powers to enable you to read, write, and cypher? Is this all? 169 You know that it is not all. There is another broad distinction between human and all the other inhabitants of this earth. You alone distinguishes between right and wrong. 170 Now if human possesses this faculty, however acquired, and by whatever name called, then if Nature's laws are universal, you are both bound to use it, will suffer from not using it, and will have a proper field provided for its use. 171 Nature gives no faculty without imposing an obligation of exercising it: an obligation, however, which rests in its full force upon the species, and upon the individual only as belonging to the species. 172 Some powers every individual must use or you would die; there are other powers which, if you does not use, Nature will be content with a lighter penalty. 173 Far be it from me to affirm that every one here uses your reasoning powers. I hope you does; but if you does not use them, I am quite sure that Nature will exact of you the penalty of stupidity. 174 But the species must use them; if not, upon degradation would soon follow extinction. 175 Nature, for instance, would not let human exist as a mere animal. If you did not use your reason, the instincts of other animals are so superior to yours, that while they found food you would be unable to do so. 176 Even if necessity quickened your instincts, you would yet have ceased to be a human, and would be retrograding back to the ascidian. 177 To continue to be a human you must make some low use at all events of your mental powers. 178 Now, can you establish any such difference between human's intellectual and moral powers, as will justify you, while acknowledging that you must use the one, in neglecting the other? 179 Can you give any reason why you need not use the faculty which undoubtedly you possess of distinguishing between right and wrong, and the faculty, let us say, of "using the imagination in matters of science." I am sure you cannot. 180 By not using your mental powers you will

be in an inferior mental position; by not using your moral powers you will hold an inferior moral position.

181 But you may say the penalty is slight, and we will pay it. We will use our physical powers, and become grand animals and we will use our mental powers, and become grand intellectual humans. Not humans, I answer. 182 Add intellectuality to animality, and you merely get an intellectual animal. 183 Your moral powers are an essential part of yourselves. Confessedly too, there is ample field for using them. 184 The whole world is so constituted that morning, noon, and night, the question perpetually arises of right and wrong. 185 You cannot take a step in life without conscience intervening. It is so inseparably a part of yourselves that constantly it acts as a mere instinct, and approves or condemns your conduct as spontaneously as your palate distinguishes between sweet and bitter. 186 You may render your palate dull, so that you cannot taste what you eat and drink; you may render your conscience dull, but it has a strong recuperative force, 187 and, after years of dullness, will awaken, and exercise again its judicial functions with stern and decisive energy. 188 Struggle as much as you like, but the conclusion cannot be evaded, that you can distinguish between right and wrong, that you ought to do so, and that you must do so.

189 If so, what follows? I answer, the necessity of religion, and therefore of revelation. 190 Resist as humans will and do, they have but a choice between two alternatives. 191 Either all this present state of things, in which every faculty has its appropriate field of exercise, and every external possibility has opposite to it an internal faculty; 192 either all this is an illusion and deceit, a purposeless and objectless piece of jugglery; 193 or if it be a reality, then the existence in human of faculties, obliging you to distinguish between right and wrong, constitute you a 'responsible' agent. 194 If you are responsible, you are responsible to some one: and certain penalties are necessarily attached to the neglect,

the misuse, and the violation of your moral powers.

195 The person to whom human is responsible must be capable of forming an equitable judgment, and therefore must know the motives as well as the outward acts, and for this nothing less than omniscience will suffice.

196 You must have the power of apportioning adequate rewards and punishments to human actions, which will need little less than omnipotence. 197 And as no adequate reward or punishment follows in this life, there must be some other state in which humans will be dealt with according to their true deserts. 198 If not, then there exists in human a whole class of faculties, moral faculties, which seem to find in this present state of things an appropriate field for their exercise, but which human is under no necessity of using. 199 A person who lives in the habitual violation of every moral obligation, but does so with discretion, may have a very large enjoyment of the things of this world: 200 while generally a person whose conscience is tender, and whose life is regulated by the highest motives, necessarily and voluntarily abandons much, both of pleasure and prosperity. 201 Nature cannot have so bungled Her work. The highest possible exercise of the powers which She has given us must necessarily lead to the highest possible good. 202 It does not matter to the argument whether conscience and your other moral faculties be natural or acquired. If Nature endowed an ascidian with the power of acquiring moral faculties, it was bound to use them as soon as it had got them.

203 The question whether you are bound to use your mental faculties does not depend in the least upon the question whether human is an improved monkey. 204 You are bound to use them simply because you have them. So you are bound to live as a responsible being simply because you have the faculty of distinguishing between right and wrong. 205 You know, too, that you act yourselves upon this principle. 206 If any one were to push one of you out of your seat and take it to the self, not only would you be angry, but our chairman would call in a

policeman to expel the disturber, and give you your seat back again. Why? 207 Because the person would have been doing wrong, and need not have done it; and because it was wrong you are angry and punish the person. 208 But can you stop there? There are things which we know to be wrong, but which hurt none but ourselves; things we know to be wrong, but which benefit society.

209 A person may liberally support useful institutions from motives of ostentation, or as a bribe, if you are a candidate, let us say, for a seat in parliament. An act may be apparently right, but the inner motive wrong. 210 Now, conscience judges of things absolutely; it condemns or approves of things, not as they seem, but as they really are: not by results, but by their intrinsic character. 211 What is there which answers to this outside of human? Must there not be a judge who also judges humans absolutely? You can find no such judge but God. 212 Either, then, Nature is a sham, and Her laws not universal, and this present state of things a delusion, 213 or there is a universal judge, and a future state in which reward and punishment will be meted out in strict accordance with the rightness and wrongness of human action. 214 A being omniscient and almighty can alone judge actions absolutely in the same way as conscience judges us, both for our thoughts, words, and deeds.

215 I have chiefly spoken of conscience, but the argument takes in all human's moral and spiritual powers. 216 No person can doubt but that human has within you powers which exactly answer to religion outside of you. 217 The power of faith is as much a faculty as that of sight; and so also is that instinct, I had almost called it, which makes a human ever turn away in discontent from the present to struggle for the future.

218 And what is more, human's moral and religious faculties develop with advancing civilisation just as your mental faculties do. 219 The mental questions which agitate our minds would be entirely void of interest to a savage; 220 the social difficulties which occupy the attention of our political

economists and statesmen would be mere trash to a peasant: so, too, with religion. 221 I do not see any reason why a race may not sink so low as to lose the very idea of a God; but I am sure that such a race would hold the very lowest place in the scale of humanity. 222 Whatever round in the ladder of human progress you like to examine, I will make bold to say that you will find the religious and moral state of humankind there holding a very close relation to the degree of mental culture and civilisation to which it has attained.

223 Now, the only thing that acts powerfully upon human's moral faculties is religion. I do not say that this ought or ought not to be so; all I assert is that it is so. 224 Call, if you like, the great mass of your fellow people Philistines, and despise their low culture, but you will find nothing that acts powerfully upon these Philistines to give them culture, to raise, refine, and purify them, except religion.

225 Conscience, too, holds a most direct and evident relation to religion. You will not find conscience amenable to reasoning. 226 When virtue begins to reason, the proverb tells you it is lost. 227 When conscience condemns, it is because the thing condemned is a sin against God; when it approves, it is because the thing done is absolutely right, and as God commanded. 228 Conscience never asks whether a thing is a sin against society; it never troubles about consequences, knows nothing about political economy, or political morality either. 229 It judges by a higher and absolute rule. By so doing it makes human a responsible agent absolutely, 230 brings you into direct relation with God as the absolute judge, and renders necessary a more exact apportionment of rewards and punishments than exists at present. 231 There must be some other state of existence in which human will be judged in the same way as now you judges yourself, and in which the natural effects of this judgment will be fully carried out.

232 But, if there is thus a future judgment, and a state in which happiness and misery will follow as the natural results of our actions here, human will require a certain

amount of knowledge concerning this judgment. 233 By the possession of conscience and other religious faculties, human holds a definite relation towards God. 234 Plainly the most tremendous results may follow from this relation, and human ought to have some sure knowledge of these results. 235 Now it is conceivably possible that God might have given us this knowledge by means of the light of Nature, as we call it. But He has not. 236 Confessedly natural religion is neither clear enough nor certain enough to affect powerfully the masses. Human is not a quiet, orderly, neutral sort of being; 237 you bears about with you a nature fraught and fully charged with the most dangerous passions. Reason, with its prudential maxims, has never done much to restrain these passions. 238 To take, then, the lowest possible ground. As Nature has given us moral qualities, I suppose that moral excellence is a thing as necessarily to be attained to as physical and mental excellence. 239 But while Nature has provided ample means for attaining to the two last, She will not, without a revelation, have provided sufficient means for the attainment of the first. 240 By the aid of religion, about as many humans probably attain to moral excellence, as by other natural means attain to physical and mental excellence.

241 Without religion Nature will have broken down. You would have universally a state of things like that in ancient Greece-- one Plato, surrounded by the mass leading the most grossly sensual life.

242 Nature cannot develop any being higher than Herself, nor endow it with wants which She cannot supply. 243 If Nature develops intellect, morality, religion, then that power which developed these faculties must also be intellectual, moral, religious. 244 What, then, can this power in Nature be but the working of God? Out of nothing comes nothing. The effect cannot be greater than the cause. 245 The existence of human, with your mental, moral, and religious powers, forbids us to believe that that which caused human to exist can be less possessed of these

powers than you are. 246 Infinitely higher you may be, lower you cannot be. 247 And as surely as human's physical and mental wants are provided for by that power which called these wants into being, so surely will human's moral and religious wants be supplied. 248 They are not supplied by the light of Nature; nothing then remains but revelation. 249 Into the formal proof of revelation I must not enter; all that devolved upon me was to show the 'à priori' probability, or at least possibility, of a revelation. 250 I have endeavoured to show this by a consideration of what human is, viewed simply as a natural being, and by the consideration of your natural wants. 251 I have not taken into consideration any of the additional knowledge given us in the Bible concerning human. 252 I have treated you in much the same way as I might one of the creatures in the Zoological Gardens, if I had been asked to study it in order that I might see what its wants were, and tell the keeper what to give it to maintain it in the full possession of its powers. 253 No doubt it would have helped me if I had been told what and where the creature had been before. I should then have had no difficulty in explaining and accounting for everything. 254 Such knowledge, however, even revelation does not give us, because it is not indispensable. It gives us that only which is necessary for the supply of our wants.

255 Even with this knowledge my argument is not concerned; but certain general principles about revelation follow from what I have laid down. 256 And first, revelation has nothing to do with our physical state. Reason is quite sufficient to teach us all those sanitary laws by which our bodies will be maintained in healthful vigour. 257 If the Bible condemns drunkenness, gluttony, and the like, it does so not for sanitary reasons, but for moral reasons, because they are sins. 258 So revelation has nothing to do with our mental powers; whatever we can attain to by our mental powers we are to attain to by them. 259 Physical and metaphysical science alike lie remote from the object-matter of revelation. Because God has, in the Bible, given us

revelation in an informal way, in order, perhaps, to commend it to our entire nature, 260 people often forget that its proper object-matter is simply the moral relation in which human stands to God, especially with reference to a future state of being. 261 Religious people forget this. They often take up an antagonistic position to science, and try to make out systems of geology and astronomy and anthropology from the Bible and by these judge all that scientific people say. 262 Really the Bible never gives us any scientific knowledge in a scientific way. If it did, it would be leaving its own proper domain. 263 When it does seem to give us any such knowledge, as in the first chapter of Genesis, there is a very important differentia about it. What it says has always reference to human. 264 The first chapter of Genesis does not tell us how the earth was formed absolutely; geology ought to tell us that. It tells us how it was prepared and fitted for human. 265 Look at the work of the fourth day. Does any person suppose that the stars were set in the expanse of heaven absolutely that people might know what time of year it was? 266 But that is their special service, and in old time a most important service for human.

267 To the geologist human is just as much and just as little as a trilobite or a megatherium. 268 To the student of the Bible human is everything, and the first chapter of Genesis teaches you that human was the cause of all other terrestrial creation, the sum and crown of the Creator's work.

269 But if believers mix up science and revelation, so do the students of physical science. No sooner is a theory started, than it is immediately compared with what the Bible says, or is supposed to say. 270 Now, no doubt, the comparison between the teachings of revelation and science is inevitable. 271 Whatever is mixed up with revelation, owing to the manner in which God has been pleased to bestow it, must, at least, be true. 272 It would be impossible for us to accept the authority of the Bible upon those points in which we cannot judge of its truth, if in those points in which we are

competent judges we found it erroneous.

273 The teachings, therefore, of science and of revelation must be compared; but in this comparison not only must we remember that it is not the object of the Bible to teach science, and that, as it speaks to all people at all times, 274 it must use popular language, but also that the comparison must be made, not with the floating theories of the hour, but only with established truths. 275 If the wisest geologist of our days could show that there was an exact agreement between geology and the Bible, it would rather disprove than prove its truth.

276 For, as geology is a growing science, it would prove the agreement of the Bible with that which is receiving daily additions, and is constantly undergoing modification, and ten years hence the two would be at hopeless variance. 277 At the same time there is a good side to the discussion, and the theologian especially is the gainer. 278 In the present day the attack upon revelation draws its weapons from our increased knowledge of physical science, of philology, and of history, and the theologian can no longer neglect these studies. 279 I have no scruple in saying that I look with pride upon what my countrymen have done, and are doing, in enlarging the bounds of our scientific knowledge, even if I do not always approve of their spirit, or accept their conclusions; 280 and I am quite sure theologians must study, intelligently and dispassionately, all those branches of knowledge which are brought into contact with revelation, or they will lose their influence over the intellect of the country. 281 It is no use treating physical science as a bugbear. Let our theologians master it, and they will find it a humanly study, 282 which will give their minds breadth, will teach them what are the difficulties which press heavily on many thoughtful minds, and which must be fairly met. 283 An opposition between an old science like theology and new sciences there must be: but let both sides remember that revelation was never intended to teach us anything that we could learn by the use of our natural faculties, 284

and that what the Bible teaches must be compared not with floating and probable theories, but with proved theories. 285 These proved theories will, I believe, fall into their place in due course of time, as easily as Galileo's theory about the revolution of the earth round the sun. 286 If not, I do not see how the claims of the Bible to be the Word of God can be maintained: for I cannot believe that there is any chasm between the teachings of God in Nature and in revelation. 287 But I think it perfectly possible that people may misinterpret and misunderstand both one and the other.

288 I have detained you too long. But I must make one more remark. If the proper object matter of revelation is that knowledge, which being necessary for us as moral agents, was yet unattainable by our natural powers, then reason is no judge of what revelation teaches. 289 There may be in our relations to God, things which we never should have expected: deep truths opening onwards into mysteries past our present finite comprehension. 290 If everything had been plain, easy, commonplace, revelation would not have been needed. Nevertheless, reason holds a very high office with respect to revelation. 291 In a matter of so high consequence, as whether God has spoken to us or not, we are bound to examine most scrupulously the evidence upon which the fact of the revelation rests. 292 And this examination involves an enquiry into the teachings of revelation. The existence of mysteries in a revelation is reasonable: the existence of immorality in it would be fatal to its claims. 293 For if the scientific basis for my belief in the gift of a revelation is the existence in me of conscience, and of moral faculties which make me a responsible being, I am left absolutely without a basis for a revelation which makes me violate my conscience. 294 A revelation which degrades my moral and spiritual powers is as much against Nature as anything that degraded my physical or mental powers. 295 If religion be true, it must ennoble, elevate, purify, and perfect me, here as far as the present condition of my existence permits, entirely

in that other state to which our present responsibility points, provided, of course, that I submit myself to its teachings. 296 I know of no way by which I can make this examination except by reason and experience. And I hold this further, because I hold that a true religion must be commensurate with the whole of human. 297 It must make you better physically, mentally, morally, and spiritually, and consecrate all your powers to God.

298 I am only too well aware that much which I have said has been put in a feeble and confused manner. 299 Much also necessary for the support and elucidation of the argument had to be omitted because of the necessity of compressing it into so short an essay; 300 but I trust that the main line of thought is clear, namely, that religion outside of us stands in so plain a relation to what we are internally, that either it is real, or this whole state of things is a delusion. 301 Human, without a revelation, and therefore without religion, is the only one thing of all that exist upon the face of the earth that is a bungle, a failure, and a mistake.

THE NATURE AND VALUE OF THE MIRACULOUS TESTIMONY TO CHRISTIANITY.

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MIRACLES

5 One of the most touching narratives in the New Testament relates to a want of faith in miracles. 2 It is said that when Thomas was told of his Master's resurrection, he replied, "Except I shall see in His hands the print of the nails, and put my finger into the print of the nails, and thrust my hand into His side, I will not believe." 3 He was not denounced for this. No word of withering scorn, or cutting ridicule, or threatening anger, fell on the ear of the doubting disciple. 4 But evidence was offered. "Reach hither thy finger, and behold my hands; and reach hither thy hand, and thrust it into my side; and be not faithless, but believing." 5 As far as rebuke appeared, it was only by implication, in words respecting those whose faith is of keener eye, and swifter foot:

"Blessed are they that have not seen, and yet have believed."

6 I think that every one who speaks of miracles to doubting minds should from this narrative take a lesson. 7 Surely the gist and purpose of it is, that we should distinguish between intellectual difficulty and moral prejudice, and deal patiently and convincingly with honest seekers after truth. 8 Sometimes the subject before us has been so handled as to drive the unbeliever into deeper unbelieving-- I would rather strive to work upon a little faith, and make it more.

9 I. I am to speak to you respecting the 'nature' of the miraculous testimony to Christianity. My business is with mighty works, recorded in the New Testament as having been wrought for the purpose of testifying to a Divine mission. 10 No definition of their character in relation to physical law can anywhere be found in this ancient record.

11 They are not spoken of as 'violations' of law, or as 'suspensions' of law, or as 'interferences' with law, or as 'contradictions' to law. 12 They are described, not on the side of their physical nature, but on the side of their moral signification. 13 They are depicted, not in their connection with the obvious order of the material universe, or with any hidden powers and principles of a higher and harmonious description; 14 but in their connection with Him who claimed to be the Redeemer of humankind, who came, according to His own words, to seek and save that which was lost. 15 They are denominated "'wonders'," startling occurrences, things contrary to common experience; and "'signs',"-- 16 not mere marvels bursting idly on the public gaze, and exciting in a multitude of spectators a barren curiosity, but 'signs',-- 17 replete with an ulterior meaning, and testifying to the character and work of Him through whom they were accomplished.

18 There is no necessity, then, for us at the outset to define a miracle on the physical side of it-- to call it a violation of law, or a suspension of law-- an interference with it, or a contradiction to it. 19 In other words, there is no need imposed by the conditions of our argument,

to inquire into the mode in which such a phenomenon can be produced. 20 It is enough to show that it did occur, and to dwell upon the religious significancy of its occurrence first to the witnesses, and next to ourselves. 21 What is the exact position which miracles may be thought to occupy as wonders in the universe, whether, through breaking in upon common experience, they are referable to the operation of occult laws, known and controlled at a fitting moment by the mysterious touch of the wonder-worker; 22 or whether they are to be considered as resulting simply from the immediate fiat of the Supreme will, are questions which may with advantage be relegated for consideration elsewhere.

23 1. But, at the very threshold of our inquiry we are met by the assertion, that a miracle, however defined, is in itself simply impossible. 24 Impossible! In what sense impossible? Does it mean impossible to human, or impossible to God? Impossible to human, of course, it is. 25 That impossibility enters into the popular idea of a miracle. Human has no such control over Nature as to be able to produce one. 26 But if it be said a miracle is impossible to God, such an impossibility involves the extension of human inability to God Himself. 27 It involves either the idea, that Nature has ever been independent of God, or the idea, that if produced by Him, He is no longer Lord of His own works-- this Lordship having been surrendered by His will, or having escaped from His hands. 28 Summarily disposing of this gross anthropomorphism, we find behind it the dogma of Spinoza, that there is nothing transcendental anywhere, no transcendental beginnings, no transcendental interpositions; 29 for God and Nature are one through the eternities. 30 In the wake of Spinoza's philosophy follows the modern axiom-- "to recognise the impossibility even of any two material atoms subsisting together without a determinate relation-- 31 of any action of the one on the other, whether of equilibrium or of motion, without reference to a physical cause-- 32 of any modification whatsoever in the

existing conditions of material agents, 'unless through the invariable operation of a series of eternally impressed consequences, following in some necessary chain of orderly connexion'."

33 Here, 'in limine', before examining this principle, let me observe, once for all, that miracles do by no means cast any slur upon the settled order of Nature, 34 as if it were faulty and imperfect, and required correction or supplement for effectuating its proper ends-- as frail constructions in engineering departments of human contrivance need subsequent repairs. 35 Nature is perfect enough for Her own ends; miracles are introduced for other and higher purposes. This requires to be borne in mind throughout our entire discussion.

36 But to come to the antagonist principle, that there is a development in Nature through the agency of physical laws, apart from an original Creator and an everlasting Lord. I do not say-- far from it-- 37 that the principle denies the existence of such a Creator and Lord, but it supposes at least that the physical order of the universe is fixed in such a sense, as to have ever excluded from it the action, directly or indirectly, of a Divine will, beyond the inflexible maintenance of ordinary operations.

38 It is said, "The enlarged critical and inductive study of the natural world cannot but tend powerfully to evince the inconceivableness of imagined interruptions of natural order, 39 or supposed suspensions of the laws of matter, and of that vast series of dependent causation which constitutes the legitimate field for the investigation of science, whose constancy is the sole warrant for its generalisation."

40 In reply to this it may be fairly urged that science, whilst she maintains the invariable sequence of causes and effects, and the uninterrupted order of physical events, is a prophetess of truth and wisdom. 41 She enunciates lessons bound up with the welfare of the race. Thus far there is no antagonism between her and religion. 42 She can, without abandonment of her principles, nay, in the act of carrying them out, officiate as a priestess at the altar of God; nor is there anything in the position for which she

stipulates contrary to the claims of Revelation. 43 For Revelation, in appealing to miracles, supposes the ordinary course of physical phenomena to be inviolable, and no book more than the Bible exhibits the normal constancy of natural agencies. 44 But when science pronounces as impossible all such signs and wonders as are recorded in Scripture, she steps out of her province. 45 In her own province she may justly affirm there are no signs of miracles; she may sweep her telescope over the fields of the sky, and ply her microscope amidst the growths of the earth, and say, I can see no traces anywhere but of inflexible law. 46 These realms of existence are full of order. It is the perfection of their beauty, that they are free from violations, suspensions, disturbances, and interferences.

47 But to say this-- and I fully concur in it-- is not to demonstrate that the Scriptures relate impossibilities. 48 To do so, philosophy must pass beyond the range of physical observation, since 'there' no place can be found for working out the desired demonstration. 49 Philosophers do not always remember how difficult it is to prove a negative. Showing that certain things are, they are apt to slide into a belief that 'therefore' certain other things cannot be, the conclusion proving on logical examination a simple 'non sequitur'. 50 Doubtless it is a fact, that we can detect nowhere in Nature a provision made for producing miracles such as come under our review in this lecture, that no prophecy nor hint of them can be discerned throughout her measured realms; 51 but this is a very different thing from saying, that Nature teaches the belief of them to be absurd. 52 So far from its being absurd, there may, after all, be found in Nature something analogous to a miracle. 53 In Nature there are distinct worlds, worlds between which there are gaps and gulfs. 54 I do not dispute that there are striking approximations in the phenomena of some realms to the phenomena of others; but there are also broad deep spaces, here and there, never bridged over by the discoveries of science. 55 Hence, "an animal," as you have been told already, in the

words of Hegel, "is a miracle for the vegetable world." 56 It is a new creation in some way, and a new creation in any way is a miracle. 57 After wandering amongst rocks, we find in plants a new world. organised life is so; so also, compared with animal instinct, is the mind of human, with its spiritual reason, and its moral consciousness.

58 Not only do Coleridge, Kant, and Plato regard human's highest faculty as essentially different from the mere adaptive understanding of an animal nature; 59 but what is still more remarkable, Aristotle himself, whose turn of mind was so different from theirs, differentiates human from other creatures on the ground of own being endowed with the faculty of reason. 60 In his work on the Generation of Animals, he says that there is no resource except to believe, that the reason has no affinity with the material elements out of which the human embryo is formed, but that it comes from without, and that it alone, of all the component parts of human, is divine. 61 Thus, in the opinion of one of the greatest philosophers the world has ever known, the line of demarcation between human and all lower creatures is broad and clear, a line which in the simple order and development of Nature they could never cross. 62 The superior attributes of humanity, according to him, come 'from without'; here, then, amongst the component parts of humanity is something divine. In other words, we have a new world; a new creation. 63 I do not say there is a strict parallel between any new race or species in Nature and the occurrence of individual miracles on rare occasions, 64 but I do say that there is enough of resemblance between these two descriptions of change to exempt a believer in both of them from the charge of being absurd.

65 Furthermore, there are in human minds varieties of power of an astonishing description: although there be faculties common to all humans, the vigour of those faculties in some cases is such as perfectly to eclipse the vigour of them in others. 66 The superiority of individual minds, whose works have filled the world with wonder,

is such as to leave behind, at an unapproachable distance, the ordinary measure of human endowment. 67 Certain intellects (I need not name them) have long exercised a formative power upon the civilised portions of our race. They have been as crystals inserted in a solution, and other crystals have received shape from them. 68 Whence have come these typical energies in the intellectual world? 69 No law of development will account for a resplendent genius now and then flashing on the world; for the appearance of a master mind, after humanity has kept on a low level through generation after generation; 70 for the ascent again of gifted spirits into the highest heaven of invention, after another lapse into mere mediocrity. 71 No known laws of causality account for such facts in the realms of intellectual existence. 72 If, in the case of human, as compared with other animals, the difference, as Aristotle says, is something which comes ‘from without’, the same may be said with respect to the difference between ordinary mortals and William Shakespere or John Milton. 73 There is forced upon us the conviction, that these stars which dwell apart are kindled by fires burning in superhuman spheres. 74 I do not say, in this case, any more than in the others I have cited, that we find an exact parallel to a miracle; 75 but I do maintain, that we discover here a kind of inspiration which, like the miraculous, transcends all known laws, and brings to mind what was said by the first of those just named:

76 "There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."

77 What is called physical science must change her name, and renounce her office, and assume functions of another order, before she can pronounce a peremptory negative upon the point in controversy. 78 Physical science needs to become metaphysical, and to pass into fields of abstract reasoning in order to the utterance of a universal dictum.

79 To this kind of mental employment in itself I make no objection; for the science of

merely physical nature, without any outlook into higher regions, keeps the soul in humiliating imprisonment. 80 The excursions of thought, however, now before us are regarded in some quarters under the singular delusion of being strictly scientific, 81 whilst employed in devising a theory of the universe which excludes the constant control of a personal God, an Almighty will. 82 The assaults on what is miraculous can be carried on only with metaphysical weapons. 83 The facts of physical nature do not supply them; only from theories of physical nature, taking a metaphysical form, can they be gathered. 84 Even Positivism, with all its doubtfullness and denial-- strange contradiction that-- must, in order to deny the possibility of miracles, build up a wall to shut them out, by trenching first on ground beyond its own domain. 85 Pure Positivism, consistently with itself, is not competent to contradict the existence of the supernatural; it can but leave it an open question. 86 The common method of distinctly denying miracles is one involving either some atheistic or pantheistic principle. 87 Assume-- and it is but an assumption-- that matter is eternal and self-sufficient; that natural laws have not originated in, or are not administered by, a personal will; 88 and thus assuming what prepares for, if it does not necessitate, some atheistic or pantheistic hypothesis, you can plausibly maintain that the wonders of which we speak are utterly inconceivable. 89 But, as you see, it is not physical science simply considered which brings out this result; the result comes through adding to physical science what is really a metaphysical element.

90 At what a tremendous cost, it may be observed by the way, is such a result achieved. 91 The philosophy of universal necessity places human in the same predicament as it does simple matter. 92 If all nature excludes voluntary control, and is subject only to an iron rule of invariable succession, then human also must yourself be incapable of voluntary control, whether it comes from a supreme will or from your own. 93 Thus the warfare which assails

miracles, threatens to destroy all ideas of freedom and moral responsibility. 94 And this dark foreshadowing is not concealed. "Step by step," we are confidently and calmly told, "the notion of evolution by law is transforming the whole field of our knowledge and opinion. 95 Not the physical world alone is now the domain of inductive science, but the moral, the intellectual, and the spiritual are being added to the empire. 96 It is the crown of philosophy to see the immutable even in the complex action of human life."

97 But when all assumptions are denied, the whole question presents another aspect. Given the fundamental distinction between things physical and things moral; 98 given the higher nature of human, the personal existence of God, a moral element in the Divine rule, the immortality of the human soul, and the present vicinity of invisible spiritual realms; 99 and, immediately, miracles wrought by the Divine will for people's moral welfare are completely removed out of the sphere of the impossible.

100 Positivism, Atheism, and Pantheism are considered in other lectures of this course, and therefore it is not my office to examine them. 101 To what has been said by the Archbishop of York and the Rev. Mr. Jackson, and to what may be said by the Rev. Dr. Rigg, I must refer my hearers.

102 I would only observe in passing, what, indeed, I have hinted at already, that it puzzles me beyond description to conceive how, by any course of natural evolution, independent of the introduction of a new force by an overruling power, 103 the phenomena of the human will with its morally creative energy for good and evil could have been produced. 104 To solve, on the principle of pure development, the problem of the genesis of that mysterious faculty, is an insuperable task. 105 If we may speak of what is inconceivable--and scientific people set us the example-- 106 we should say the existence of volition in human, with its moral accompaniments, is utterly inconceivable, apart from

belief in a Divine will, of which ours is the offspring.

107 It appears, then, that science really presents no antecedent grounds for rejecting miracles, and that if we believe in a personal God, the presumed impossibility melts away. 108 This point has been conceded by one of the masters of modern reasoning. "A miracle," as was justly remarked by Brown, "is no contradiction to the law of cause and effect; 109 it is a new effect, supposed to be produced by the introduction of a new cause. 110 Of the adequacy of that cause, if present, there can be no doubt, and the only antecedent improbability which can be ascribed to the miracle, is the improbability that any such cause existed."

111 2. When we have disposed of the preliminary objection which, in some way or other, says miracles are impossible, we are met by another objection, namely, that they are immensely 'improbable'.

112 Hume's ingenious position,-- that miracles are contrary to human experience, that no amount of human testimony is sufficient to establish them, 113 and that it is far more likely people should be deceived or mistaken, than that such events as miracles must be, could ever take place,-- has been made to do abundant service in this controversy; 114 very little, if anything, has been added by those who have persistently used the argument, to improve its form or to increase its plausibility.

115 One of its latest modifications is, that incidents out of the common course of things, said to happen in the present day, are by all of us sceptically regarded, that supernatural pretensions are felt by us to be inadmissible, 116 and that where we are compelled to allow the honesty of witnesses, if they affirm anything involving a miraculous nature, we at once dispose of the whole matter by saying 'there must be a mistake somewhere.' 117 Undoubtedly it is true that miracles are contrary to common experience. They must be so, or they would not be what they are. 118 If they were of frequent occurrence, if they had happened in the history of the world so often as to become familiar to humankind, they would change their character completely.

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119 Their nature and purpose, in the view of those who receive them, is such as to render it necessary that we should bear this in mind. 120 But to allege that they are contrary to human experience, taken in the widest point of view, is to beg the question at issue, a fact remarked a thousand times. 121 That they are not contrary to the experience of certain persons who lived eighteen hundred years ago, is what Christians affirm; 122 to say that they are, is illogically to cut the controversy short, and, by a general denial of everything of the kind, to put out of court the very case about to be tried, in support of which there are credible witnesses waiting to give evidence. 123 The question of probability must be looked at all round. The circumstances under which any alleged wonders may have happened must be taken into account, before we pronounce upon their probability or improbability.

124 When extraordinary things, coloured with a supernatural tinge, are related to us as having occurred without any assignable purpose, or only for some sectarian or party end, in connection with beliefs long cherished and avowed, of course we look on them suspiciously; 125 giving to the authorities relating the narratives, credit for integrity and truthfullness, we naturally say 'there must be a mistake somewhere.' 126 And, no doubt, the general culture of the present age, however superficial that culture may be, makes us far less ready than our fathers were, to endorse popular tales of wonder.

127 There is a salutary scepticism which grows out of extensive knowledge. 128 Truth is of such immense value, that we should not be indifferent to it in the smallest communications and concernments of life. 129 Most assuredly any wayward, eccentric, unmeaning, and useless departure from the common course of things, tending only to shake our faith in Nature,-- 130 as if humans might gather grapes of thorns, or figs of thistles, as if barley being sown, wheat should spring up, or an apple tree by a sudden freak should bear oranges,-- 131 would deserve to be stigmatised as unworthy of belief. 132 But the

wonders in question come under another category. They are represented in the history which has recorded them, not only as being exceptional incidents in themselves, but as having been accomplished under exceptional circumstances. 133 They are not waifs and strays on the stream of time, floating no one knows why and whither; but growths rooted in what appears as a unique system of moral instruction and improvement, designed by the loving Father of spirits for His lost children. 134 They do not produce what may be called a disturbance of Nature-- that is, a throwing things in the physical world out of gear, so that humans are thereby puzzled to make out what Nature is, and how far it may be trusted. 135 The documents which contain our miraculous chronicles attest the immutability of Him who is the King of Nature, and the unchangeable foundation of His government and law, with a pre-eminent luminousness and with an unparalleled force.

136 The wonders chronicled were avowedly wrought for purposes of the highest order; and here, again, we fall back upon the distinction between what is physical and what is moral. 137 Those purposes of the highest order to which we refer are moral. They bear on the noblest destinies of humanity, 138 and they link themselves with the principles of natural religion, with the being and sway of a mighty, wise, and gracious God, with our conscience and responsibility, and with the future existence of the soul. 139 Natural religion, though it speaks not a word of miracles, though it gives no prophecies of their advent, yet prepares for their appearance so far, that its teachings, fairly considered, cut off all antecedent unlikelihood of their occurrence. 140 For natural religion suggests the desirableness of revealed religion, and revealed religion is only another name for supernatural interposition.

141 In a lecture upon Science and Revelation, by the Dean of Canterbury, it has been shown that human's moral nature, human's religious susceptibilities, render religion a necessity for the supply of your deepest wants; 142 but that what is called natural religion is not clear enough, nor certain

enough, to affect the generality of our race. 143 Revelation, then, it may be fairly argued, looking at human, is a desideratum, looking at God, is a probability; 144 and Revelation, being obviously a supernatural bestowment, seems to imply some authentication of itself, in part at least, by means of evidence corresponding with its own supernatural origin and character.

145 The conditions under which Scripture miracles are said to have been performed must be kept in view when we are told they are improbable. 146 They were not performed in one continued series by a succession of Thaumaturgists; but they are found grouped together in certain clusters. 147 As science indicates particular epochs of the energising power of Nature, so the Bible records particular epochs of an energising power above Nature.

148 The first great cluster of Bible wonders we find gathered round the Lawgiver of Israel; the second round the great Reformer of God's ancient Church; 149 the third round Him who is spoken of as The Word made flesh, who dwelt among us, and who imparted to His apostles miraculous powers akin to His own. 150 Miracles, for the most part, are halos of divine light encircling three grand names-- Moses, Elijah, Jesus,-- the last the greatest of the three.

151 Physical wonders we meet with in company with spiritual ones-- wonders in outward Nature in company with wonders in the great soul-world, of which sensible things are the types and shadows. 152 In other words, miracles occur in connection with inspiration, and, whilst marvels startle the eye, new truths or new applications of truth are addressed to the mind. 153 In harmony with facts in the intellectual universe already noticed, resembling the exceptional illuminations of genius which at intervals have flashed on the rest of humankind,-- 154 like the lightning that lighteneth out of the one part under heaven, and shineth unto the other part under heaven,-- 155 souls inspired with a grand moral message have come forth from the secret place of the Most High; and it has been in the pathway of these inspired souls that physical miracles have started

up; rather, it has been by their hands that physical miracles have been wrought.

156 There have been surprising coincidences in modern times between the wonderful in Nature and the wonderful in history; 157 for example, between the sailing of the invincible Spanish Armada, and the storm which strewed the shores of Great Britain with its ponderous wrecks-- 158 between the march of Napoleon's army and the winter's snow which blinded, benumbed, and destroyed so many thousands. 159 The connection is unexplained except on the principle of a Divine providence. 160 And so in ancient times there were coincidences between the lightning and thunder of Sinai, and the legislative wisdom of Moses--between the fire that fell on Carmel, and the reforming zeal of Elijah. 161 The connection is explicable only on the principle of these people having been the internunciators of the Divine will. This explication is strengthened by what they did with their own fingers or their own lips.

162 It may be considered as entrenching too much on the domain of doctrine to speak in this lecture of the Incarnation; 163 but I would venture to say thus much, that Jesus appears on the face of the evangelical narratives, as the Son of God, in a sense in which no other being can be rightly called so; 164 that in the opinions of early Christendom, the lowest as well as the highest, He was esteemed as a supernatural Person; 165 and that, by common consent, amidst diversities of theological sentiment, it is acknowledged, never human spake like this man, or lived like this man, or died like this man, or was like this man. 166 And being, by the perfection of His moral character, and by the purpose of His benevolent mission, a truly exceptional person, 167 it is only in keeping with the first blush, and with the deeper study of His wondrous life, to believe in signs and wonders attending His earthly career, showing whence He came, and illustrating what He came to do. 168 Christ Himself is the greatest of wonders in the history of the world. No other approaches Him in wisdom, love, beautifullness, and glory. 169 In more senses than

one His name is "above every name." Taking the four Gospels together, the Incarnation of the Word is associated with a supernatural birth. 170 The miracle in the spiritual world of the manifestation of God in Jesus Christ, is coupled with the miracle in the physical world of the Virgin's conception. 171 If Christianity be more than the republication of natural religion, if it be the revelation of God's redeeming love, it involves a miracle as the very starting-point of the process; 172 and the unfolding of the idea in the New Testament includes a divine manifestation, which is a miracle in history, and a divine birth, which is a miracle in Nature.

173 His advent in the world comes out in the four Gospels as a central sunlike marvel, and therefore it seems no improbability, but rather the clearest of all probabilities, that around Him there should revolve a planetary circle of miracles.

174 Difficulties are needlessly created by forgetfullness of the character ascribed to this extraordinary Person. 175 To argue as to what He did, or as to what He did not do, without a recognition of the actual 'One' painted in the Gospels, is really to argue about another Christ, not the one whom Christians follow.

176 In accordance with the view I have taken, is the manner in which the New Testament miracles are narrated. 177 It seems assumed that such things might be expected in the wake of such a personage as the Son of God. They are not introduced as a procession of facts challenging supreme admiration. 178 No flourish of trumpets heralds their march; but they follow as the fitting and humble retinue of Him who walked the earth its undisputed Master. 179 The Evangelists write as people who were not astounded at what their Master did, because they were so filled with reverence and admiration, at the thought of what their Master was.

180 Having considered the antecedent objections made to miracles, we are now prepared to look at what is really the 'nature' of the miraculous testimony afforded to Christianity. 181 And here, for the sake of simplifying the

argument, I shall confine myself to the miracles ascribed to Christ. Faith in His miracles will lead to faith in the miracles of His apostles. 182 If it be granted, as we contend from what has been said it ought to be, that this is a case in which historical proof is admissible, then it is impossible to find stronger historical proof than comes to hand in support of the truth of the evangelical narratives. 183 The historical proof, as such, has of late been comparatively little impugned; the assaults made on the prior credibility of supernatural facts being the main opposition with which believers in Christianity have to contend. 184 That opposition overcome, and the validity of competent witnesses, as to the question at issue, established, the course is free for an accumulation of evidence, 185 such as Dr. Lardner, with rare erudition, has piled up in his volumes on the Credibility of the Gospel History: 186 such as Archdeacon Paley, with unique ingenuity, and with singular felicity of arrangement and illustration, has condensed in his view of the Evidences of Christianity. 187 The works now mentioned do not, it must be confessed, supply all that is wanted for the settlement of the question, according to the phase it assumes at present. 188 But when scientific and metaphysical difficulties of modern creation have been grappled with and removed, the array of pagan and Christian testimonies in support of the original credibility of the Evangelists, as collected by these and other writers, comes to render service of immense value. 189 It is more than any one has yet attempted, to overturn, by citation against citation, criticism against criticism, argument against argument, the bulwarks of historical defence built up by the researches of learned advocates. 190 Indeed, the early historical evidence all goes one way. It is evidence without counter-evidence. 191 And to pass for a moment to foreign literature. After the endeavours of Strauss and others to resolve much of the Gospel story into myths of a later age, and of Rénan, to construct out of the original documents a French philosophical romance, 192 we are

provided with the works of Ebrard and Pressensé, who have vindicated the truth of the New Testament story.

193 It would be idle to attempt, within the compass of this lecture, any outline of the mass of matter brought together in this service. But I may be allowed to indicate that it may be arranged in three divisions.

194 'First', the concessions of the Jews. Talmudical writings imply that Jesus of Nazareth did many mighty works. 195 The 'Toldoth Jeschu' relates a number of things, such as raising the dead, healing lepers, and restoring the lame. It represents people as falling down before Him, exclaiming, "Truly Thou art the Son of God." 196 The Christian miracles are allowed, but they are attributed to magic. "There can be no doubt," says Whately, "that this must have been (as our sacred writers tell us it was) what the adversaries of Jesus maintained from the first.

197 For if those who lived on the spot in His time had denied or doubted the facts of the miracles, and had declared that the accounts of them were false tales, 198 and that no miracles had ever really been wrought, we may be sure that the same would have been said ever after by their descendants."

199 'Secondly', the admissions of heathens. The extracts from Celsus in Origen afford an abridged history of Jesus Christ, and acknowledge that He did many marvellous things. 200 Celsus explains the fact by saying, Jesus went into Egypt, and having made trial of powers practised there, returned highly elated, and pronounced Himself a God. 201 Porphry speaks of Christian miracles as wrought by poor rustics through magical arts. 202 Julian does not contradict them when he contemptuously affirms, that Jesus did nothing in His lifetime worthy of remembrance, 203 unless any one thinks it a mighty matter to heal lame and blind people, and exorcise demons in the villages of Bethsaida and Bethany. 204 To these heathen admissions, which are of considerable value, are to be added, 'thirdly', the affirmations of Christians.

205 Miracles are asserted by them in manifold forms and in manifold

writings. The Fathers follow in the wake of Apostles and Evangelists; 206 and, be it remembered, each New Testament author who testifies to these superhuman achievements is an independent witness, so that their statements bear the value of as many concurrent proofs: 207 and if it should be said that, because they were Christians, they are partial witnesses, on the other hand it can be said that some of the Fathers, and all the New Testament writers, had become so, 208 contrary to former habits and prejudices, in part, at least, through the very force of miracles, and that too at the cost of extraordinary self-sacrifice and suffering.

209 I have not sufficient space to exhibit adequately the argument for the credibility of the New Testament witnesses. 210 I must, however, observe that the force has not departed from the old-fashioned method of stating the case, namely, that you must accept them as competent and satisfactory; 211 or you must believe either that they were dishonest people, intending to deceive, or that they were dupes of their own or of other people's fancies. 212 I am disposed to extend the dilemma, and to say, that there is a third supposition, growing out of the junction of these two, the supposition (according to a not uncommon occurrence in the mysteries of human nature) 213 that the witnesses might be partly the victims of delusion, and partly the inventors of fiction, that credulity and imagination might be both at work, 214 the result being a fabrication of miracles, having no basis, or but an exceedingly slender one, in facts occurring before people's eyes. 215 With these alternatives under our view, the inquiry is, Which shall we apply to the witnesses of the miracles of Christ? 216 Rénan has applied the composite supposition to the witnesses of the resurrection. "On the Sunday morning, Mary Magdalene first came very early to the tomb. The stone was displaced from the opening, and the body was no longer in the place where they had laid it. 217 At the same time the strangest rumours were spread in the Christian community. The cry,

'He is risen,' quickly spread amongst the disciples. 218 Love caused it to find ready credence everywhere." "Such was the impression He had left in the hearts of His disciples, and of a few devoted women, that during some weeks more, it was as if He were living and consoling them. 219 Had His body been taken away, or did enthusiasm, always credulous, create afterwards the group of narratives by which it was sought to establish faith in the resurrection? 220 In the absence of opposing documents this can never be ascertained. Let us say, however, that the strong imagination of Mary Magdalene played an important part in this circumstance. 221 Divine power of love! Sacred moments in which the passion of one possessed gave to the world a resuscitated God!" 222 No one is more ready than I am to do justice to the extraordinary literary merits of the "'Vie de Jésus'," its lucid style, its descriptive power, its manifold charms; 223 but I cannot conceal my amazement that the author, with his exquisite genius, should adopt such a travestied rendering of the noblest of Bible stories. 224 There are no documents, as he confesses, to work upon but the four Gospels; and from these Gospels it distinctly appears that, so far from the witnesses produced being of the character he indicates, 225 so far from their love snatching at anything within reach, however airy, out of which to weave a web of wonders, there were people amongst them slow of heart to believe what the prophets had written, and what Jesus had said about the resurrection; 226 people who counted the report of that resurrection, when they first heard of it, as an idle tale,-- one of whom even would not yield to sight itself, but demanded to touch the nail-prints in the holy palms, and to thrust his hand into the sacred side. 227 And as to the women, when they came to the sepulchre on the third day, it was not to hail a risen Jesus, but to anoint a buried one. 228 That persons represented by the historians as burdened with doubts, and fears, and unbelief, and demanding demonstrative evidence, should have been finally convinced, 229 and should have staked their all upon that

conviction, removes them for ever utterly beyond all reasonable suspicion of dreaming strangely coloured dreams of their Lord's risen life,-- 230 to say nothing of collusion and fraud,-- and places them at once amongst witnesses, who well knew what they said, and whereof they affirmed.

231 The credibility of the witness borne to another resurrection is also well established. For evidence of the authenticity of the Gospel of St. John, I refer to Professor Lightfoot's lecture, and would only remark upon the narrative in this Gospel-- 232 a narrative so full of pathetic beauty-- that it is impossible to explain away its details by possibilities of misapprehension, and pardonable exaggerations of extraordinary incidents. 233 Thus much is indisputable, Lazarus was sick unto death. To all human appearance he died. He died, and was buried, and remained so long in the grave that it was believed the corruption of his corpse had commenced. 234 Coincident with the utterance by Jesus, at the door of the tomb, of the words, "Lazarus, come forth!" the body moved, arose, came forth, bound hand and foot with grave-clothes; 235 in consequence of which, "many of the Jews which came to Mary, and had seen the things which Jesus did, believed on Him."

236 Here were presented to the senses of witnesses phenomena involving the performance of a miracle. 237 A distinction has been justly drawn between testimony to phenomena cognisable by the senses, and miracles completely considered on their invisible and divine side, as well as their visible and human one. 238 "Testimony," it is said, "can apply only to apparent sensible facts; testimony can only prove an extraordinary and perhaps inexplicable occurrence or phenomenon; 239 that it is due to supernatural causes is entirely dependent on the previous belief and assumption of the parties. 240 "With the omission of the words "previous belief and assumption," and the substitution of the words "reflection and conviction,"-- whether exercised and experienced at the time or afterwards,-- I accept the statement. 241 Phenomena are

immediately apprehensible; the cause is not so. A persuasion that the cause is miraculous arises in the mind as an inference from what is directly witnessed. 242 But what is directly witnessed may be of such a nature as to compel the witness, as a reasonable person, to believe that what has taken place results from a supernatural interposition. 243 This conviction implies, indeed, that the person believes in the existence of supernatural power-- in other words, believes in the existence and agency of God-- which belief may be described as a "previous belief:" 244 but a conviction that particular phenomena are the result of a supernatural cause, depends on the exercise of reason in regard to the phenomena themselves. 245 "No testimony," I admit, "can reach to the supernatural," directly, but it may reach it by implication.

246 Keeping in view the distinction laid down, we say of the narrative of the resurrection of Lazarus, that no natural solution of the event recorded is within reach. 247 Fraud, collusion, trickery, are excluded by the character of Christ and of Lazarus: no reference to accidental coincidences, or to mesmerism, or to electric influences, or to any known physical agencies, meets the case. 248 Nor is there room for the anticipation that the advancement of science will ever solve this problem. If a solution be attainable, we are shut up to the one solution accepted by Christians. 249 To leave it unsolved, to refer it to the class of unaccountable phenomena, through a persistent determination not to believe in anything supernatural, in the face of all which can be said in reply to antecedent objections, is most unphilosophical.

250 Let me here add, in reference to narratives of the miraculous, that it is easy to marshal a number of general reflections together, casting a slur upon evidence, and to invest with some plausibility its denial or non-acceptance. 251 But, when we think how fallaciously, yet plausibly, general reflections may be employed for the contradiction of evidence,-- 252 how, by reference to the proverbial exaggerations of travellers' stories,

accounts of other countries, of their customs and productions, may be discredited; 253 how, by insisting upon people's liability to illusion, the observations of scientific inquirers may be set aside; 254 how, by dwelling on credulity and passion, party spirit, and the like, historic doubts may be conjectured respecting the existence of Napoleon I, 255 and how, in the same way, historic doubts may be hereafter raised respecting a large part of the career of Napoleon III; 256 we see how little such general reflections are to be trusted, how much more they may do to hinder the interests of truth than to help them. 257 The absurdity of the conclusions in such cases discredits the process by which they are reached.

258 Let us not pass from this part of the subject without saying one word as to the presumption in favour of the New Testament narratives of miracles, when compared with narratives of miracles found elsewhere. 259 Place side by side with the Scripture narratives the miraculous stories in the Apocryphal Gospels, in the writings of the Fathers, in mediæval chronicles, in modern legends of Saints, 260 and one sees the force of a remark by an eminent German theologian: "The critical acumen of Niebuhr was, as is admitted, inferior to that of no human, and he has done away with only too much of the ancient history of Rome. 261 Yet he acknowledged, 'with respect to a miracle, in the strictest sense of the word, it needs but an unprejudiced and searching investigation of Nature to perceive, 262 that the miracles related are anything but absurd, and a comparison of them with the legends or so-called miracles of other religions, to recognise what a different spirit dwells in them.'" 263 To take only one step farther in this direction, when it is asked, "What, if so many apparently competent witnesses were to assure you, that they had seen such and such a miracle-- mentioning the most monstrous absurd, fantastic, and ludicrous confusion of Nature-- would you believe them?" 264 We answer in the words of a modern Writer: "We are only concerned with the miraculous under that form and those conditions under

which it has actually by trustworthy report taken place, as subordinated to what has been called 'a general law of wisdom,' 'i.e.' 265 to a wise plan and design in the Divine mind under which check the course of miracles has, so to speak, kept near to Nature, just diverging enough for the purpose, and no more."

266 II. It is time to attend to the second part of our subject, the 'value' of the miraculous testimony to Christianity.

267 1. The miracles must not be taken alone; they form a part of Christianity; and therefore, to be rightly understood, they should hold in the mind an inseparable relation to the rest of Christianity. 268 Christianity is its own evidence. Each portion harmonises with the other portions. They yield mutual support. 269 Miracles, therefore, are concurrent with other proofs. "External" and "internal" are convenient words, but they are liable to mischievous application. 270 One objection to the word "external," as designating the evidence of miracles, is that it assumes them to be outside the Gospel-- only bulwarks for defence, not pillars identical with the inner structure. 271 It is curious that opposite classes of persons have attributed to miracles an externality which their place in Scripture will not allow. 272 By one class, consisting of advocates for the evidence, miracles are presented as the chief part of the evidence, as marks indispensable for the authentication of Divine truth, 273 yet quite 'ab extra' things, placed round about the temple to ward off evil-disposed persons who would dare to violate the shrine. 274 By another class, consisting of those who take exception to the miracles, they are also treated as things 'ab extra', things which may well be cut off from Christianity-- 275 burdens which there is no necessity it should be made to bear-- a dress which disfigures it rather than otherwise, and which, for the sake of its progress in the world, had better be stripped off and cast away. 276 These two modes of assuming one and the same thing, are as objectionable in themselves, as they are curious in their coincidence.

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277 The miracles really run into and intersect the lines of New Testament teaching from end to end. 278 They are not seals externally attached, but contents deposited inside-- not post-marks showing simply whence the letter comes, but paragraphs written in the folded sheet. 279 The "'internal'" and the "'external'"-- if we may use the words in their popular currency-- must occupy our attention together. 280 Miracles cannot be torn from the life of Christ. His nature, character, teaching, wonders, constitute an unparalleled spiritual unity. 281 Criticism here, of course, has its own department of duty to fulfilll. What really constitute the synoptical Gospels and the Gospel of St. John, is its province to determine. 282 Readings of MSS. require to be examined with an honest desire to render the 'textus receptus' as perfect as possible-- a desire which a reverential regard for the genuine contents of the record must serve to stimulate. 283 When all that labour has been accomplished, the miracles of the genuine rolls of Scripture are to be regarded as integral elements of faith.

284 "The facts of Christianity," says Archdeacon Lee, "are represented by some as forming no part of its essential doctrines; they rank, it is argued, no higher than its external accessories. It is impossible to maintain this distinction. 285 In the Christian Revelation the fact of the Resurrection is the cardinal doctrine, the doctrine of the Incarnation is the fundamental fact. 286 Christianity exhibits its most momentous truths as actual realities, by founding them upon an historical basis, and by interweaving them with transactions and events which rest upon the evidence of sense."

287 2. Miracles are reasonable attestations of a Divine mission. As such our Lord appeals to them, they "bear witness of me, that the Father hath sent me."

288 As such Nicodemus received them: "We know that Thou art a teacher come from God: for no human can do these miracles that Thou doest, except God be with you." 289 As such the poor blind man regarded them in that

exquisite piece of 'naïveté', in which he says, "Why herein is a marvellous thing, that ye know not from whence He is, and yet He hath opened mine eyes." 290 As it is reasonable, in the case of an ambassador, to refer to own credentials in proof of own legitimate authority; 291 so it is reasonable, in the case of a professedly Divine teacher, to refer to signs and wonders you are capable of working, in proof of your Divine commission.

292 Of vast importance is it that we should note precisely the point touched by the finger of miraculous evidence. 293 It may be said, not only are miracles incapable of enforcing a train of argument, but they are incapable of establishing any moral or religious proposition. 294 No physical demonstration, it may be alleged, can ever link itself on to a spiritual truth, because the two things belong to totally different spheres.

295 We should get involved in metaphysical subtleties, were I to inquire thoroughly into this position. 296 It is enough to say, that, admitting it, the exact point touched by miraculous evidence, is, according to the teaching of Scripture itself, the 'office' sustained and the 'commission' borne by a person. 297 "The works which the Father hath given me to finish, the same works that I do, bear witness of 'me'." 298 "Jesus of Nazareth, a man approved of God among you, by miracles, and wonders, and signs, which God did by 'Him'." 299 In these passages, the witness of miracles is attached to a person. "My works bear witness of 'me'," says Jesus. They are the approval of "'a man'," says Peter. 300 The evidential force of them bears on Christ Himself, the sent of God. Thus considered, miracles free themselves from objections made to their competency to serve as direct proofs of spiritual truths.

301 The miracles of Moses afford evidence of his Divine legation: in like manner the miracles of Jesus afford evidence of His Divine Messiahship. 302 It is said of Him that "He taught them as one having authority, and not as the scribes." Authoritativeness is characteristic of His mode of teaching. "Verily, verily, I say unto you." 303 He

claimed a right to speak, as one who had power to command people that they should obey. There is in His utterance little of argument, but much of law. 304 Miracles can add no force to a chain of reasoning, and you may say they cannot immediately demonstrate spiritual truth, but they afford a basis for the enunciation of a Divine message, a mandate of the Divine will.

305 Miracles, no doubt, come within relations to spiritual truth, through the medium of the miraculously demonstrated authority of its utterer; 306 but spiritual truth has other distinct and appropriate marks of its Divine origin and character. It contains an inward witness-- it shines by its own light. 307 It commends itself to human's consciences in the sight of God, and when believed, vindicates the justness and wisdom of such belief.

308 It cannot be too much insisted on, that miraculous evidence comes not out in Scripture 'by itself'. 309 The works of Jesus include more than His miracles. The whole beneficent influence of His life is covered by the words, "who went about doing good." 310 With the thought of what He did, stands associated the thought of what He was; and with the character of His matchless life is interwoven the character of His matchless teaching. 311 Miracles form but one strand in the cable which binds the Church's faith to Him who is the Anchor of her hope; 312 and 'they' expose the ship to peril who untwist the rope, and lay upon that single strand the whole amount of strain-- the entire stress of tension. 313 Holy Writ warrants no such course; but warns against it. 314 "If there arise among you a prophet, or a dreamer of dreams, and giveth thee a sign or a wonder, and the sign or the wonder come to pass, 315 whereof he spake unto thee, saying, 'Let us go after other gods which thou hast not known, and let us serve them;' thou shalt not hearken unto the words of that prophet, or that dreamer of dreams." 316 Moses, himself a worker of miracles, appeals to something beyond miracles as essential to the final establishment of religious authority. 317 The moral proof is

put in the foremost place, and no mere physical achievement can exercise exclusive force apart from that. 318 And, as if to remind us of these words in Deuteronomy, we read in the last chapters of Revelation of people being deceived by the miracles of the beast, of the spirits of devils working miracles, and of the false prophet that wrought miracles. 319 Thus the New Testament teaches us to bind the evidence of Christian miracles to that which shows how utterly different they are from all the pretensions of deceivers, from all the delusions of fanatics.

320 To dwell on extraordinary incidents, apart from other considerations, is to open a door to superstition, and even revolting credulity. 321 In this way, a belief in witchcraft, sanctioning most unrighteous and cruel laws, maintained its ground in England to the end of the seventeenth century.

322 From anything like the unreasonableness of staking religious faith upon physical events or historical circumstances, 'simply because' they are unaccountable upon any ordinary hypothesis of human affairs, the Gospel is perfectly free. 323 You who appeals to His own mighty works, appeals also to His own self-evidencing words, and to the moral disposition of His disciples. 324 "To this end was I born, and for this cause came I into the world, that I should bear witness unto the truth. 325 Every one that is of the truth heareth my voice." "My doctrine is not mine, but His that sent me. If any person will do His will, you shall know of the doctrine whether it be of God, or whether I speak of myself. 326 You that speaketh of yourself, seeketh your own glory; but you that seeketh your glory that sent you, the same is true, and no unrighteousness is in you."

327 The solitary position assigned to the evidence of miracles in the controversies of the last century was mischievous to the interests of religion. 328 I believe with Coleridge, "how little of divine, how little fitting to our nature a miracle is, when insulated from spiritual truths, and disconnected from religion as its end:"-- 329 and I would ask with you, "What then

can we think of a theological theory, which, adopting a scheme of prudential legality, common to it with 'the sty of Epicurus,' 330 as far at least as the springs of moral action are concerned, makes its whole religion consist in the belief of miracles!"

331 There is some room for this severe censure of theologians in the last century, who failed to insist "on the creating of a new heart, which collects the energies of a human's whole being in the focus of the conscience-- 332 the one essential miracle, the same, and of the same evidence to the ignorant and the learned, which no superior skill can counterfeit, human or demoniacal." 333 I should assign a higher place to the physical miracle than Coleridge did,-- but there is to my mind a true and deep sense in what you asks respecting the moral one:-- 334 "Is it not that implication of doctrine in the miracle, and of miracle in the doctrine, which is the bridge of communication between the senses and the soul?" 335 Christianity as a whole, at the present time, establishes its claims by the new spiritual creation which it effects in its sincere disciples. 336 And here, let me add: looking at the position of our inquiry at the present day, it appears of great importance, not to lay down as a principle, that miracles are indispensable in the authorisation of a Divine message. 337 To do so hampers our argument. To do so contradicts Scripture,-- "John did no miracle." If one eminent servant of the Most High could make good your authority without effecting any physical marvel, so might another. 338 Regarding Jesus simply as a Divine Teacher, there would, then, be no absolute necessity for His working wonders in the fields of material Nature. 339 His moral acts, His freedom from moral defects, and the whole moral tenor of His life, would evince the holiness of His character, 340 and the oneness of His own spirit with that of the Father of spirits, the fountain of love and truth; for what He said of humans applied to Himself, "By their fruits ye shall know them." 341 Yet, though I cannot see that miracles, as some think, were essential to the proof of what He said respecting Himself, they are,

as indicated already, what might be expected in one who was all that Jesus of Nazareth claimed to be; 342 they also corroborate claims to spiritual authority, resting on other grounds; and, still further, the manner in which some of them were performed, points to the higher nature which tabernacled in His humanity.

343 The place in the sphere of evidence occupied by the miracles of Jesus, is not exactly the same to us that it was to the multitudes who witnessed them. 344 I fully agree in the remark, "We do not ask any one to begin with the miracles,-- to regard power, and still more the record of power, centuries afterwards, as the one irresistible proof of the truth and Divine origin of a Revelation. 345 This has been done-- done perhaps too long-- done certainly in this age without conviction."

346 A miracle never was 'the one' irresistible proof. It never was more than one amongst others. But at first it had a power of awakening attention, which it does not possess now. 347 'Seen', it irresistibly produced excitement, which led to inquiry. 'Recorded', it fails of that effect. 348 It is wise, at this time of day, to begin the exposition of Christian evidence by insisting on Christianity as a fact-- as a moral spiritual power in the world; 349 and then, examining its principles, and tracing its achievements to the beginning, to bring out the evidential worth of Christ's miracles as a crown on the head of other proofs. 350 At the same time it should be observed, that their pertinency as proofs remains unaltered. They are not less true for being old. They are as good witnesses now as they were eighteen centuries ago. 351 What was done by Julius Cæsar, what was done by Alexander the Great, as it appears on record, is still as valid an indication as ever, of the genius and prowess which the humans possessed. 352 So, what Jesus did, as we find it recorded in His fourfold memoirs, produces undiminished assurance of His superhuman character. 353 If any one asks for miracles now, I reply, they are not wanted, they could not be used as credentials of one who left the world ages since. 354 His own miracles, ascertained by history, will, to the end of time, in

connection with His whole life, avail as guarantees for faith in His Divine might and goodness.

355 3. And, finally, the miracles promote the acceptance of Christian truths by the illustrations of them which they afford. 356 Christ's miracles are of the same description as the principles and precepts in Christ's teaching. They are animated with benevolence, instinct with love. 357 The Gospel perpetually offers to humans a spiritual salvation; Miracles at the beginning brought them salvation of a lower kind, which nevertheless pointed to a higher. 358 Of the author of Christianity it might be said literally, "He is the Saviour of the body." His wondrous works of healing sparkled with a tenderness, compassion, and help, like those with which His main mission to humankind was filled. 359 And, as they were eminently beneficial to human beings, and so were of the same class as the other bestowments the Christ of God came to confer, they exhibited types of the nobler blessings themselves. 360 They are mirrors reflecting larger and better gifts. Signs they are as well as wonders; parables as well as proofs. 361 In cures of the blind, there are parables of spiritual illumination; in the cleansing of lepers, parables of spiritual purification; and in exorcisms, parables of spiritual disenthralment.

362 The benevolent animus, and the didactic form of the miracles of Jesus seized the attention of early Christian writers, and were employed by them for the purpose of establishing and recommending the Christian religion. 363 They used them much more under their illustrative than under their strictly evidential aspect. 364 Arnobius (A.D. 306), in ten chapters of his seven books, "'Adversus Gentes'," lays special stress upon their kind and beneficent tendency. 365 Lactantius, his contemporary in his "Institutions," whilst regarding Christ's miracles as proofs of His higher nature, manifests particular delight in searching out their ethical significance. 366 He goes through the mighty works of our Lord in order, and points out, how they demonstrated the renewal of the human soul, the opening of its eyes, the unstopping of its ears, the

loosening of its tongue. 367 And Athanasius (A.D. 326) takes special pains to show that the miracles of Jesus were revelations-- self-representations of His Person as Divine Creator, not mere credentials of His doctrine, but veritable victories over Nature, 368 so that no one can doubt who Christ is, when once you beholds His works:-- and moreover, that by the manner of His working miracles, He at once proved his Divinity, and His humanity, His Godhead and His incarnation. 369 And Augustine insists much on their design as symbolical of redemption, as instructive acts, charged with prophetical import, and calculated to inspire delight more than wonder.

370 These remarks and quotations bear chiefly on the relation of miracles to the spiritual blessings of the Gospel at the beginning. 371 But miracles also sustain a very interesting relation to the like blessings as bestowed in after, and in present times. 372 When the spring is over, and its produce of blossoms has passed away, it is found, that though the ground is covered with leaves of white and pink, the blossoms have set into precious fruit. 373 They have bequeathed more than blossoms. Each folded up a promise of what is richer than itself. The peach flower, the peach-- the pear flower, the pear. 374 We read in the Apocalypse, of the Tree of Life. Is not the Gospel the Tree of Life? Is not Christ the Tree of Life? 375 It is not fanciful to speak of the miracles as early blossoms. Long since they burst out profusely. Long since they fell. 376 To some eyes, they may seem to lie in the paths of history, as withered leaves. But if the spring-time is past, the autumn-time has long since come. 377 Christianity can tell of spiritual blessings which it has conferred on the children of people down to this day, and is conferring still. 378 A tranquil conscience, a pure heart, a holy life, a hope that maketh not ashamed,-- these are the clustering felicities, the manifold beatitudes, of the Gospel of Love. 379 Thank God! abundant has been the in-gathering. Thank God! abundant is the harvest, still waiting to be gathered. 380 In Nature the bloom is more plentiful than the fruit, but

here the fruit is more plentiful than the bloom.

THE GRADUAL DEVELOPMENT OF REVELATION.

The Right Reverend
The Lord Bishop of Carlisle

6 When I undertook, at the request of the Christian Evidence Society, to deliver a lecture having for its title 'The Gradual Development of Revelation', I confess that I did not perceive that the title was open to criticism. 2 I thought that I understood the terms employed, and I still trust that this is so; 3 but a little consideration showed me that the language was not used very strictly, and that there was in it a confusion of metaphors, which might possibly be connected with a confusion of thought.

4 This being so, I propose to introduce what I have to say by a short examination of the words which express the subject of my lecture: 5 and I do so, as I need hardly say, not for the purpose of finding fault, but because it seems to me that I shall in this manner most easily explain the nature of the subject which I conceive to be committed to me, and indicate the manner in which I purpose to treat it.

6 Now the word ‘Development’, which like many other long words has become very common, is also, like many other words, not unfrequently used somewhat loosely. 7 The root of it, the word 'velop', is unknown in any other form than the two words 'envelope' and 'develope'. 8 In mathematics, the word 'develope' is used, as all words are, with the utmost precision. We speak of 'developing a function', that is, putting it into a new and unfolded form, which, however, shall be essentially equivalent to the original. 9 So also we speak of 'developable surfaces', that is, surfaces such as cones and cylinders, which can be unfolded and laid flat upon a plane without tearing. 10 It will be seen that in these applications of the word the essential thought is that of a change, by a process of unfolding, in the condition of something which you already possess; and this I take to be the true definition of development.

11 From this, however, we easily pass to a cognate meaning of the term. Thus we speak of the development of an idea, that is, the unfolding and applying of the results of an original thought, 12 a discovery or principle, which were truly contained in it from the first, but were not from the first perceived to be so contained. 13 For example, we say that railways are only a development of the original idea of turning to account the expansive force of steam; 14 or that Newton's "Principia" and Laplace's "Mecanique Celeste," and, in fact, the whole of modern physical astronomy, are developments of the idea, or fact, 15 call it which you will, of the universal gravitation of matter; or that the British constitution of this century is a development of 'Magna Charta'; and so forth. 16 What we mean by this language is that the essential principles of the development were implicitly contained in the original idea, 17 and that one has been derived from the other somewhat in the same way as that in which the bird comes from the egg and the plant from the seed.

18 Dr. Newman, in his Essay "On the Development of Christian Doctrine," takes a somewhat different view. 19 He speaks of the development of an idea as follows: "When some great enunciation, whether true or false, about human nature, or present good, or government, or duty, or religion, is carried forward into the public throng and draws attention, 20 then it is not only passively admitted in this or that form into the minds of people, but it becomes a living principle within them, leading them to an ever-new contemplation of itself, an acting upon it, and a propagation of it. 21 Such is the doctrine of the natural bondage of the will, or of individual responsibility, or of the immortality of the soul, or of the rights of human, or of the divine right of kings, or of the hypocrisy and tyranny of priestcraft, or of the lawfullness of self-indulgence.... 22 Let one such idea get possession of the popular mind, or the mind of any set of persons, and it is not difficult to understand the effects which will ensue." 23 Taking this view, there is manifestly a difficulty in

determining whether an idea has been rightly or wrongly developed, whether the growth be wholly from the root or partly parasitical; 24 and the prime intention of Dr. Newman's book is to supply tests of genuine development, and to apply them in one particular case; 25 but I wish it to be perceived that whether we take this wider view, or the stricter one which I endeavoured to present to you just now, it is essentially necessary to regard development as the exhibition in a new unfolded form of that which already existed in another.

26 When therefore we speak of development with reference to God, we must regard Him as the developer, and His eternal purposes as the thing developed: 27 the point which I have to bring before you with reference to its bearing upon the faith of Christians, and the unbelief of those who scruple to be regarded as disciples of Christ, is the gradual character of the process by which God has developed His purposes.

28 And this being the meaning of development, I think it is manifest that it is a confusion of figures to speak of the 'development' of a 'revelation'. 29 To 'reveal' is to 'draw back a veil', and so to uncover something which was concealed before. Hence we can properly speak of God as 'revealing' to us His person, His character, His will.

30 His person is eternal and unchangeable; so is His character; so is His will; but He uncovers and shows these to us; 31 it may be by Holy Scripture, it may be by the living voice, or the life, or the person of the Lord Jesus Christ; 32 but however it be, the conception appropriate to the word revelation is that of something which exists independently of our minds, and which is uncovered, so that our minds can perceive it. 33 Revelation, therefore, cannot be developed; if we use the word as meaning the process of revealing, then this is a different process from that of developing; 34 and if we use the word as meaning objectively the knowledge which has been revealed, the knowledge which we obtain of God by revelation, then this knowledge comes to us in an already

developed form: 35 it is not an idea to be developed, but a truth to be received.

36 On the whole, I regard as the most important word in the title of my lecture, the word 'gradual': whether we speak of the development of His eternal purposes and intentions, or the revelation of His person and character, 37 the process appears to have been a gradual one, and in a certain sense a slow one: and this gradualness of operation may be variously estimated according to the turn of mind and habits of thought of him who considers it: 38 some will be content simply to bow their heads and worship as being in the presence of Him whose ways are past finding out: 39 some will say that that which Christians believe to be the development of His purposes and the revelation of His person is inconsistent with their conceptions of God, and so will reject it: 40 others will hesitate to reject on 'à priori' grounds that which, to say the least, admits of a strong argument in its favour, but will confess that they feel the difficulties which have been urged against the creed of Christendom; 41 and with regard to that particular phase of difficulty with which I am professing to deal in this lecture, they will say, and perhaps say with sadness, that the revelation which the volume of Holy Scripture purports to contain, does not commend itself to their minds, 42 as corresponding to their highest thoughts of that which God might be expected to do in making Himself known to human. 43 Now it is to minds in this condition that considerations concerning the doings of God may be hopefully offered. 44 I do not see how it is possible to treat such a subject as mine, if I consider myself as speaking to persons who deny the impossibility of revelation as distinct from human knowledge: 45 if a revelation be impossible, 'per se', it is useless to discuss the qualities of that particular form of revelation which Christians profess to have received; 46 but if a person is willing to receive a revelation, and has something of the spirit indicated by the words, "Oh, that I knew where I might find Him," then it does seem to be possible to offer some suggestions

47 which shall tend to show that the manner of revelation which Holy Scripture exhibits is in harmony with all that we know of our Creator from other sources, 48 and that the gradual character of the Divine operations, as exhibited in that history which culminates in the Lord Jesus Christ, is wonderfully analogous to the character of every other operation which we can rightly call divine.

49 Let us then observe what the revelation of God purports to be; and for the special end which I have in view, I think we may suitably divide it into the following principal steps:-- 50

1. That made to Adam and Eve;
2. That made to Abraham;
3. That made to Moses;
4. That made in and by Jesus Christ our Lord.

51 Let us look at each of these for a moment. The revelation to Adam and Eve is represented as being of the simplest kind possible. 52 In fact it is difficult to conceive how anything beyond a very simple and partial revelation could be possible in the very infancy of humanity. 53 It amounts to little more than the revelation of God as a personal governor, whose will must be obeyed: 54 a command is given; that command is broken, and a punishment is inflicted; 55 and then humankind is represented as cast out of Eden into the wild, uncultivated world. 56 It is necessary to realise the extreme simplicity of this history, and the imperfect character of the revelation: 57 the more so, because there is some temptation to imagine Adam and Eve as being in the possession of more knowledge than Scripture attributes to them; 58 Scripture in reality attributes no knowledge to them, but rather represents the tree of knowledge as having been the cause of their fall.

59 Philosophically speaking, we may describe the condition of things which existed in Eden as being the dawn of human's religious consciousness; 60 you have no responsibility, and no sin; but a law is imposed upon you, and thus comes responsibility, and thus by the breach of law comes sin: 61 human "was alive without the law once, but when the commandment came sin revived," and human "died."

62 The sacred history represents the world as engaged, so to speak,

in working out the results of this primitive revelation till the time of Abraham. 63 God is represented as punishing the evil and rewarding the good, the punishment of the evil being the more conspicuous conduct of the two; 64 thus Cain is punished, the people in the days of Noah are punished, the builders of the tower of Babel are punished: 65 but I do not think it can be said that the being and character of God are any further revealed till the time of Abraham. 66 Then we have the new fact of God calling out a family; granting to that family special promises and special privileges, and making it (as it were) the depository of the fortunes of the world. 67 Probably this is a step which we should not have expected; possibly it may even be argued that it is no real step in advance; 68 but, be this as it may, it is represented in Scripture as the next step in the process of revelation; 69 whether it strike us as strange or not, we are compelled, on the hypothesis that Scripture contains the history of revelation, to regard Abraham and his family as a point, a station, in the process.

70 And so we come to Moses. I am disposed, however, to regard the Mosaic revelation as differing in degree rather than in kind from that made to Abraham. 71 A family was called in Abraham, a nation in Moses; but in the one case as in the other, the fortunes of the whole world were bound up with the history and conduct of a chosen few; 72 the family of Abraham was a peculiar and chosen family, the Israelites whom Moses made into a nation were a peculiar and chosen people: 73 the principle was the same, namely that of selection, and whatever difficulty belongs to one case, belongs equally to the other.

74 It would be a long task, and for my purpose an unnecessary one, to trace the gradual progress of the revelation made "in sundry times and in divers manners" to the Israelitish church and people; 75 beginning with the grand announcement of the Name of God from the Burning Bush, and continued by the declaration of the law in the wilderness, rendered visible, so to speak, by the sacrificial ritual, and expounded by priests and prophets, 76 it

gradually became clearer and clearer, until "the fullness of time" came, and "God sent forth His Son made of a woman." 77 I need not say that to Christians this is emphatically 'the' revelation of God-- "you who has seen the Son has seen the Father."

78 All previous revelations are only preparatory for this; and when we have received this, all others seem to be lost, just as the moon and stars which shine so brightly at night are absolutely extinguished as soon as the sun is risen. 79 Assuming all this, however, it may be worthwhile to remark, first, that Jesus Christ expressly connected Himself with all that had gone before, saying that He "came not to destroy, but to fulfill;" 80 and secondly, that He, like Moses and Abraham before Him, founded an ἐκκλησία [Greek: ekklêsia], or church, as a depository of the fortunes of humankind, 81 only with this difference or extension of principle, that whereas the church of Abraham was a family, and the church of Moses was a nation, 82 the church of Christ was catholic, knowing no distinction of family or nation, but embracing all who were willing to take Him as their Captain, and His Cross as their banner.

83 This sketch, slight as it is, of the progress of revelation, as presented to us in Holy Scripture, will be abundantly sufficient for my present purpose. 84 In considering its claims to be received by humankind, I think it should be at once candidly owned, as seems indeed to be conceded in Holy Scripture, 85 that the method of revelation is probably different from anything which we should have expected on general grounds of reason. 86 Perhaps it is difficult, it may be impossible, to say very precisely what we should have expected; but certainly I think we should 'not' have expected to have found the principal revelations of God made, as they are alleged to have been made, to a selected family, a selected nation, a selected corporate body. 87 It is only candid to acknowledge that, from a philosophical point of view, we may here see a great difficulty; and the difficulty becomes more salient when we look out of the narrow groove of

sacred history into the wide history of the world at large. 88 There we find a remarkable growth of knowledge, and an exhibition of the highest powers and gifts of humanity, quite separated from that region which is asserted to have been specially illuminated with light from heaven. 89 The progress of our knowledge of the literature of ancient nations, and a greater familiarity with the thoughts and feelings of people outside the Christian pale, have tended to throw this difficulty into stronger relief: 90 our old acquaintance with Greece and Rome, our more recent acquaintance with such countries as India and China, have made us aware that, somehow or other, great light did shine upon these countries in olden days, and it is harsh to say that the light did not come from heaven. 91 Let, therefore, the difficulty be frankly acknowledged; while at the same time it is also acknowledged that in a matter so much beyond the scope of our faculties as that of saying in what manner God can best reveal Himself to humankind, 92 all difficulties depending upon the strangeness or unexpectedness of a method alleged to have been adopted, must in the nature of things be of less than first-rate magnitude, and must give way to sufficient evidence.

93 Acknowledging, however, as frankly as can be desired, the difficulty here stated, I observe that there is anyhow a remarkable consistency in the scheme of revelation which Scripture contains. 94 One step leads naturally to another; and looking at the whole course of Scripture history, from the first verse of the Book of Genesis to the last verse of the Book of Revelation, it is wonderful (perhaps upon any infidel hypothesis, more than wonderful) how the various parts hang together, 95 and how the beginning, the middle, and the end seem to dovetail themselves together into one connected and consistent whole. 96 I do not know that I have ever been more struck with this, than when reading the recent work on "The History and Literature of the Israelites," by C. and A. de Rothschild. 97 In this work we have the advantage of seeing the Old Testament

exhibited in a reverent and loving spirit without the New, and as it might have appeared if Jesus Christ had not been born. 98 Any one reading the book would be impelled to say that the influence of the literature of the Israelites must be for the improvement and enlightenment of humankind; 99 but the questions press upon the mind of the reader-- at least they did upon mine-- "What does all this lead to? What has become of these Israelites? And what is the meaning of the language of their prophets?" 100 In fact, the book seems to put the reader very much in the position of the Ethiopian nobleman in the Book of the Acts of the Apostles, who was prepared by reading some of the "literature of the Israelites" to receive from Philip the evangelist the preaching of the name of Jesus. 101 The New Testament seems exactly to 'fit' upon the Old; and that gradual progress of revelation which we notice in the Old Testament, seems to lead up to, and find its completion and explanation in, the history which is contained in the New.

102 On the whole, looking at the scheme of revelation as it appears in Scripture, and as it has been illustrated by history, both profane and sacred, I believe that I discern these features. 103 I see the knowledge of God emerging from very obscure beginnings, and imparted in very unexpected ways; 104 I see, however, that this knowledge does somehow or another not merely remain with humankind, but increase and become clearer and more influential; 105 I see a particular family and nation selected for the reception and spread of this knowledge, 106 and the family and nation so selected, after going through much education and many vicissitudes, producing at length One in whom the whole history appears to culminate, and then disappearing from all position of influence upon the fortunes of the world except through this one pre-eminent member. 107 Still further, I perceive, and it is absolutely impossible for the most sceptical to deny, that the name of this remarkable member of the selected family and nation has been the most potent that has ever been

named, 108 and that His influence in the world has been and is far greater, more extended, and more intense in its action, than any other influence which has ever been brought to bear upon the human heart and mind. 109 Even in the work to which I referred just now, in which the Old Testament alone comes under consideration, the dates of the history are given by reference to the birth of Jesus Christ; 110 and whatever view people may be disposed to take of the more mysterious and transcendental allegations concerning the life of Jesus of Nazareth, it is impossible to deny 111 that the civilisation and improvement of the world, and the purification of human society and the like, are more connected with His Name than with that of any other philosopher or teacher or leader of humankind. 112 When I say that it is impossible to deny this, I am of course aware that it has been denied, 113 and that there are and have been persons who have asserted that Christianity has not only not been that which Christians believe it to have been, but has been positively detrimental to human progress; 114 but what I mean is, that to make the denial to which I refer, is so contrary to the general verdict of humankind that it is hard for any one to make it, and impossible for any one who is at all likely to be influenced by anything that I can say. 115 For those who are at all likely to be influenced are persons who are 'sceptical', not those who are 'antagonistic'; 116 a person may doubt-- who has not doubted?-- and a person may be tortured by own doubts, and it may be possible to relieve you; 117 but I see no probability of helping that person who has come to the conclusion that the influence of Jesus Christ has been a mischievous and obstructive influence in the history of human progress; 118 with such a person, I, at least, as a Christian apologist, do not feel that I have any common ground.

119 Taking then the view of revelation to which I have referred as being that contained in Holy Scripture, and acknowledging that such a view presents difficulties to thoughtful and inquiring minds, 120 I wish to examine and see whether we cannot find some help

towards a right appreciation of God's method of revelation by examining the course of Nature, or that which is supposed to be its course.

121 And when we look to Nature with this purpose, it is impossible not to be struck by this general fact, namely, that gradualness of development appears to be a universal law. 122 The manner in which the original design of the Creator (for I assume that there was an original design) has been carried out, so far from being sudden, has been very slow; 123 and more than this, the method of operation has been frequently such as we should scarcely have expected, and greatly opposed to those notions of creative majesty which most of us are very much disposed to preconceive. 124 In order to put this clearly before you, let me call your attention to the very picturesque and poetical view of creation, contained in Chateaubriand's "Genie du Christianisme." 125 That work appeared after the explosion of the volcano of the first great French revolution, and was intended to reconcile the minds of people, 126 weary with the infidelity and atheism which had so long been rampant, to the views of God contained in Holy Scripture, and maintained by Christians. 127 Writing with this purpose, M. Chateaubriand tells us that we may conceive of the Creator as having called the world into existence in a condition as complete, and having as many marks of antiquity, as we now see about us: 128 when this earth was created there would be already ancient forests, and abundance of animals, some in their maturity, others dancing about in the friskiness of youth; 129 the trees would be furnished with birds' nests, and the crows and pigeons would be hatching their eggs, or tending their young; 130 the butterflies and moths would be sporting on the plants; the bees would be making honey from the new-formed flowers; the sheep would be followed by their lambs; 131 and the nightingales would be astonishing themselves with their first, yet perfect songs, in all the groves. 132 Finally, Adam would be a man of thirty, and Eve a girl of sixteen. "Without this original antiquity," says our

author, "there would have been neither pomp nor majesty in the work of the Eternal; 133 and, which could not well be, Nature in Her innocence would have been less fair than She is now in Her corruption. 134 An insipid infancy of plants, animals, elements, would have crowned a world devoid of poetry." 135 No doubt this description is anything but devoid of poetry; it is perhaps the only way in which a poet would be disposed to conceive of creation; 136 it is difficult to imagine the music of Haydn set to any other description of the creative work; but undoubtedly it is not scientific, and, what is more, it is not Scriptural.

137 Chateaubriand no more got his picture of creation from the Book of Genesis than Ernest Rénan got his picture of Jesus Christ from the four Gospels; 138 and that there may be no mistake about this latter point, let me ask you to observe that the most marked and salient feature of the Bible picture of creation is the gradualness of the creative work. 139 I do not say that the picture is not poetical; I believe it to be quite as poetical as that which Chateaubriand would substitute for it, and I quite admit that it ought to be regarded from a poetical rather than a scientific point of view; 140 still gradualness of development is the most marked and salient of its features: first, a chaos of matter without life; then vegetable life; then the lower forms of animal life; then mammals; and lastly, human. 141 No one can deny that these and other steps, spread over the time which is indicated by the mysterious creative days, do together make up the Bible history of physical creation; 142 and no one can fail to perceive that the order of proceeding is as different as possible from that described by the French apologist.

143 According to this latter view, creation starts forth, Minerva-like, from the mind of God; according to Scripture, the work is expressly gradual and presumably slow. 144 We are so accustomed to the first chapter of Genesis, that I think we sometimes scarcely perceive its peculiarities; 145 but suppose that the reverse order of arrangement had been adopted, and that human in deference to your dignity had

been represented as coming in first, and that other creatures had been represented as being made afterwards for your use and pleasure, 146 would not this have made a radical change, and introduced an enormous scientific difficulty?

147 I remember once being told by a man, who held strong views with regard to the dangerous character of the conclusions of geology, that it seemed to him absolutely incredible that a period should have existed when the earth was inhabited by nothing but fishes, reptiles, and the like; 148 yet this is precisely what Scripture affirms to have been the fact; and if the creative work had been concluded with the fifth day, there would have been no mammals upon the earth, and no human.

149 Gradualness in creative work, therefore, is so far from being contrary to the indications of God's method given in Scripture, that it is one of the few things which stand out from the scriptural account with undeniable prominence. 150 That this same feature is not less prominent in the results of all the physical sciences, it would take more time and more ability to demonstrate than are at my command; 151 nevertheless it is necessary that I should ask you kindly to accompany me, while I endeavour to show you that the conclusions of science, and even the guesses of scientific people, point to this conclusion, 152 and tend to make untenable any objections to the revelation of God contained in Scripture, on the ground of the gradual manner in which that revelation is alleged to have been made.

153 The general evidence of geology is familiar probably to most of us, and it is only the general evidence with which I can desire to deal on such an occasion as this; 154 but pray observe that while the particular conclusions of geology, like those of other physical sciences, are liable to continued modification and amendment, the general drift of the conclusions is sufficiently clear and certain. 155 No one can doubt, for instance, the great antiquity of our globe, and the fact that it has gone through successive changes with regard to the character of its surface, the nature

of its inhabitants, and the like. 156 Undoubtedly there was a time when civilised people did not dwell upon it; undoubtedly there was a still more distant period when people did not dwell upon it in any form, civilised or uncivilised; 157 perhaps there was a period even more distant, when life was not to be found upon the earth's surface at all. 158 And physical astronomy will take us even beyond geology, and will make it probable that the earth was originally in a fluid condition, in which from the excessive temperature no form of life could have existed.

159 Few problems are more curious than that which deduces the present figure of our globe from the hypothesis of original fluidity. 160 Take a mass of fluid, and set it revolving slowly about an axis, as our earth revolves, and it can be shown that it will assume such a form as that which our earth has. 161 I do not lay stress upon the remarkable numerical coincidence of the ellipticity of the earth, as derived by Laplace from theory, with that which is discovered by observation, because this involves certain arbitrary hypotheses; 162 but taking those results which involve nothing arbitrary at all, it is almost impossible not to believe that the earth was at one time a hot fluid mass, and that it has gradually cooled down and hardened into its present permanent condition.

163 Look upon the earth then as being once in this hot fluid condition. It turns slowly round upon its axis and cools. 164 I cannot trace the whole of the process, but before it arrived at its present condition there must have been crackings and burstings and eruptions; and so continents and islands and mountains would be formed; 165 but upon the whole, even in the wildest times, the process would be very gentle, for the highest mountains on the earth's surface are but as the down upon the surface of a peach. 166 Then upon this globe appear creatures suited to its condition; 167 and the eye which could have watched the world in its progress would have seen animals of successively higher types occupying the earth's surface, till at length that surface was spotted

with cities built by the hand of human, and the ocean studded with your ships.

168 It is impossible to guess the time which must have elapsed between the epoch when the earth was a hot revolving mass of fluid, and the epoch in which we live; 169 neither is it very possible to say, though it is possible to guess, what would have been the successive scenes presented by the earth to the eye which should have witnessed the whole of the changes; 170 but whatever may have been the nature of the changes, this conclusion is inevitable, namely, that there has been a progression of some kind from the fluidity of the primæval dead revolving mass to the inhabited world of this nineteenth century; 171 it matters not for my argument whether the progression, so far as animal life is concerned, has been due to natural selection, or to such a process as that advocated by the author of "Vestiges of Creation," or to successive and distinct creative acts; 172 the fact holds good, upon any hypothesis, that the Almighty Creator has produced that universe which we see, not by one act, but by a gradual and apparently very slow creative process, whether continuous or discontinuous it matters not for my purpose to inquire.

173 Now this course of Nature is strikingly analogous to that gradual mode of proceeding which is alleged to belong to revelation; and any difficulty which belongs to one appears to attach equally to the other. 174 Nay, if we are to give any weight to the most recent physical speculations, it may be fairly argued that the difficulties connected with revelation are but as trifles compared with those which Nature presents. 175 I refer to those views of which the latest exposition is to be found in Mr. Darwin's "Descent of Human." Let me touch upon those views for a moment.

176 It seems that "the early progenitors of human were once covered with hair, both sexes having beards; their ears were pointed and capable of movement; and their bodies were provided with a tail, having the proper muscles.... 177 The males were provided with great canine teeth,

which served them as formidable weapons.... 178 At a still earlier period, the progenitors of human must have been aquatic in their habits." 179 And lastly, "the most ancient progenitors in the kingdom of the Vertebrata, at which we are able to obtain an obscure glance, apparently consisted of a group of marine animals resembling the larvæ of existing ascidians."

180 This is certainly a somewhat alarming conclusion; looking however to the 'ascent' (for so I think it ought to be called) rather than the 'descent', it would seem to be the view of some of our advanced natural investigators, 181 that the marine animals in question produced certain lowly organised fishes; these produced ganoids and the like; these produced amphibians;-- here there seems to be a difficulty-- 182 "No one," writes Mr. Darwin, "can at present say by what line of descent the three higher and related classes, namely, mammals, birds, and reptiles, were derived from either of the two lower vertebrate classes, namely, amphibians and fishes." 183 However, once get to the mammals, and all difficulty ceases: the Monotremata produced the Marsupials; these the placental Mammals: thus we come to the Lemuridæ, and from them the interval is not great to the Simiadæ; 184 the Simiadæ branched off into two great stems,-- the New World and Old World Monkeys; and "from the latter at a remote period, 'Human', the wonder and glory of the universe, proceeded."

185 Of this pedigree, which, "if not of noble quality," is "of prodigious length," Mr. Darwin tells us "we need not feel ashamed." 186 Perhaps not; though certainly the nerves of any one unaccustomed to anthropological investigations may be excused for trembling slightly as you hears it recited; 187 but the point which I wish to press is this, that supposing (for argument's sake) this view of human's origin, or anything like it, to be true, it is impossible to imagine a more thorough case of gradual development; 188 there is nothing in the religious history of humankind as expounded in Holy Scripture so amazingly marvellous as that which is contained in this physical history; 189 and certainly

those who are prepared to receive the Darwinian view of the development of human's body, ought not to find anything to offend them on the ground of improbability in the Scriptural account of the revelation made by God to the human soul.

190 I do not know to what extent Mr. Darwin's views are likely to be permanent; but supposing that they, or any view of the same class, should eventually overcome all existing difficulties, 191 and be generally regarded as representing the process by which it has pleased God to bring about human's physical and mental supremacy, 192 then it can hardly seem strange that the same God should have adopted a course of progress and development in the spiritual and religious world. 193 I say, emphatically, "if it has pleased God" to act thus; because if I accept the hypothesis of the nebular origin of planetary systems, or the supposition of the earth being a fluid globe gradually cooled, 194 or even the assertion that our most ancient progenitors were marine animals, I must do so with the underlying assumption that it has pleased God so to work. 195 I do not find fault with scientific people for not putting their theories in this form; but looking at the question from a religious, or even from a philosophical, point of view, I cannot consent to lose sight of God, as the intelligent maker of the whole. 196 If this earth was originally a fluid mass, then I believe that that was the best, or, for anything I know to the contrary, the only way of making a world; 197 if the marine animals, which Mr. Darwin sees through his scientific telescope, did become fish, and those fish eventually became humans, then I believe that that was the best, or, for anything I know to the contrary, the only way of making humans; 198 and this being so, why may I not deal in the same manner with the alleged course of human's spiritual history? 199 I have in my hands something which purports to be a revelation to my intellect, and to my soul, of the God who made me: 200 that revelation is contained in a history which tells me that God spake at sundry times and in divers manners to the people of

olden time, and that finally He spake by One who is called His Son. 201 Now I do not say that this revelation is or is not a real one; but I do say that there is nothing to render us suspicious of its reality in the fact that it has been communicated gradually, 202 that it has grown as the human race has grown, and that some of the steps in the process of revelation appear strange, or even, at first sight, unworthy of the grand scheme of which they form a part. 203 No one has a right to find fault on this ground who has read the lessons of natural science, and observed how it points to gradual progression as a characteristic of the doings of God. 204 Least of all can they find fault on this ground, who receive in whole, or even in part, the recent theories concerning the origin of human. 205 I will not undertake to answer for those students who have gone deeply into these physical questions; but I do assert, without fear of contradiction, that to people of ordinary education, and ordinary habits of thought, the difficulties of accepting Scripture as the revelation of God to the human soul, 206 however much those difficulties may be expounded or even exaggerated, are absolutely nothing as compared with the difficulty of accepting recent views of human's prodigious pedigree.

207 The fact is, that it is not so much the process by which a result has been brought about, as the result itself, which is the all-important thing. 208 Whatever may have been the history of our earth in the dark dim distance of incalculable ages, we know that its present condition is very beautiful, 209 and that it answers admirably well the purpose for which it seems to have been originally designed, namely, that of serving for the residence of intelligent human; 210 and whatever may have been the process by which that creative work was consummated, which is described in Scripture as the making of human out of the dust, and breathing into your nostrils the breath of life, 211 we know that human is high above all the rest of creation, and worthy of being spoken of as being made in the image of God. 212 And so in the

case of human's spiritual history, we need not be over-careful to criticise the several steps when we are able to see the result; 213 the question is, not so much whether the steps of God which we trace in Old Testament history be such steps as we should imagine that the Most High would have left, 214 as whether the mystery of the Incarnation, and the truth that God has spoken to us by His own Son, be not worthy of all acceptation. 215 If Christ be worthy of our adoration and love, then, though the way may have been long, and strange, and dark, and sometimes even weary, yet we may be sure that it is the right way, because it has led us to Him.

216 For there is this further analogy between Nature and revelation, namely, that in each the progress is not indefinite, but tends to a limit. 217 Whatever theory be adopted with regard to the history of the earth, we seem to see in its present settled condition the limit towards which everything has been moving in past geological ages; 218 and even if human has been a progressive animal, and has only gradually attained your present physical perfection, I presume it is not anticipated that the process of natural selection, or any other process, will carry you beyond the point which you have now reached. 219 Or, if we take the divine picture of creation, we see the creative work tending from the limit of chaos to the limit of human; 220 then physics cease and religion begins, and we hear utterances of the voice of God beginning with whispers, and becoming more and more distinct, until we are permitted to listen to divine oracles uttered by human lips. 221 Beyond this the dreams of philosophy, and the aspirations of the human heart, and the longings of the weary and heavy-laden cannot carry our thoughts or raise our desires.

222 Those who are acquainted with Bishop Butler's great work will perceive that I have now been endeavouring-- how imperfectly no one knows better than myself-- to apply to the question of "the gradual development of revelation," 223 those principles of reasoning which Bishop Butler has taught us to use. I was very sorry to see it stated in the evidence

taken before the select committee of the House of Lords on University Tests, that Bishop Butler's 'Analogy' was "out of fashion" in Oxford. 224 I trust that the witness only intended to assert that the 'Analogy' was not now so commonly chosen for examinations as formerly, 225 for it will be an evil day for us all when the method of reasoning which Bishop Butler taught us shall be "out of fashion" with thinking people. 226 In truth, the advantage of the method is that, properly speaking, it never can be out of fashion; it is like the method of Euclid, or that of the Differential Calculus; 227 it is an 'organum', an instrument, a machine, which may be applied in all the varying circumstances of theological controversy, and to almost all religious difficulties. 228 For the principle of the method is this. You find certain difficulties in that which professes to be a revelation of God; you think to get rid of these difficulties by denying the revelation; will you succeed in doing so? 229 Not if you find precisely analogous difficulties in the course of Nature; unless you go further, and deny not only that there is a God of revelation, but a God of Nature too. 230 Nay, the argument carries you beyond this point, and suggests to you that if there be difficulties in God's natural world, and if He be pleased to reveal the spiritual world to us, 231 then we ought to expect to find the same general method of proceeding in matters spiritual which we have been able to observe in the natural world. 232 I quite admit that this reasoning has no force for the person who says "There is no God;" you must be dealt with in another way; 233 but it has force and it has comfort for the doubting inquiring soul, by assuring it that it can find a logical resting-place, and that the refuge from the misery of blank and hopeless atheism is to be found in simple faith in the Lord Jesus Christ.

234 With the atheist, I honestly confess, that I have little or no sympathy; certainly I should not think it worthwhile to compose a lecture intended for your special behoof. 235 I should feel disposed rather to send you for your answer to the fourteenth and fifty-third

Psalms. 236 The difficulty of supposing the framework of the universe to have had no architect, appears to me to be so great, so absolutely immeasurable, that the person who can fancy that you have got over it must, as I believe, either not have understood the difficulty, or else have deceived yourself as to your power of solving it; 237 anyhow, I feel that you have cut away all ground of argument, as between you and me. 238 Not so the person whose mind is sceptically inclined. Be it ever remembered that the word 'sceptic' is derived from a word which means to 'look' or to 'see'-- it is the same word which forms the root of the word 'bishop' or 'overseer'; 239 and accordingly there is nothing radically reproachful in the name of 'sceptic'. It implies that a person is determined to look into matters for yourself, not to trust every assertion, not to repeat a parrot creed; 240 and so far as this determination is concerned, it is high and noble, and is in fact the very root and spring of all human knowledge; 241 but who can wonder if looking should lead to doubting, and that so the name of sceptic should popularly imply, not the person who looks and believes, but the person who looks and doubts? 242 And I am not ashamed to confess that I have much sympathy with this sceptical frame of mind. Not only is it closely connected with a noble instinct of inquiry and search for truth which God has implanted in the human mind, 243 but also, as I believe, it is well-nigh impossible that an inquiring mind should deal seriously with religious subjects and remain entirely free from doubt.

244 In my opinion, the amount of scepticism which has, during some period of your life, occupied the mind of each thoughtful earnest person, will be merely a question of degree; 245 while, at the same time, I most sincerely believe that scepticism ought not to be, and need not be the lasting condition of the human soul, and that all doubts may be made to vanish in the light which God has given to "lighten every human who is born into the world."

246 I know not what may be the condition of mind of those to whom I have been speaking to-

day. 247 I presume the hope of the Christian Evidence Society is that some persons who feel practically the pressure of doubt and unbelief, will come and see whether any of their difficulties can be resolved by this course of Lectures. 248 If there be such in this company, I beg them, in concluding this Lecture, to believe that they have been listening to one who does not wish to treat their speculative difficulties as trifles, 249 but who would consider it as an unspeakable privilege to be able to help a doubting brethren to get rid of your doubts, and to exchange them for the steady assurance of faith in the Lord Jesus Christ.

THE ALLEGED HISTORICAL DIFFICULTIES OF THE OLD AND NEW TESTAMENTS, AND THE LIGHT THROWN ON THEM BY MODERN DISCOVERIES.

The *R*ev. George Rawlinson, M.A

7 In addressing you on the historical difficulties of the Old and New Testaments, I must in the first place premise, that with difficulties which lie on the verge or outskirts of the historic field, on the debatable ground between Science and History, I do not on the present occasion profess to deal. 2 Questions as to the origin of human, whether by development or by direct creation, whether from one pair or from more; 3 questions as to your primæval condition, your possession from the first of the faculty of speech, your original savagery or civilisation, and the like, lie (I think) beyond the domain of history proper, 4 belonging to what has been properly termed the "'pre-historic' period" of our race, and so not coming within the terms of the subject on which I have undertaken to speak to-day.

5 History deals with human from the time to which written records reach back. Historical difficulties arise from divergence, real or apparent, between the different accounts contained in those records.

6 Now the profane records, to which any modern critical school would attribute an historical value, do not reach back within many ages of the origin of human, and thus no "historical difficulty" can

arise with respect to these primitive times. 7 It is only when we descend to an age of records, when the apparently authentic accounts of ancient countries preserved to our day can be compared with the Scriptural narrative that difficulty arises and that either agreement or disagreement can be shown.

8 The first difficulty, really historical, which meets us when we open the volume of Scripture, is the shortness of the time into which all history is (or at any rate appears to be) compressed, by the chronological statements, especially those of Genesis. 9 The exodus of the Jews is fixed by many considerations to about the fifteenth or sixteenth century before our era. 10 The period between the Flood and the Exodus, according to the numbers of our English version, but a very little exceeds a thousand years. 11 Consequently, it has been usual to regard Scripture as authoritatively laying it down that all humankind sprang from a single pair within twenty-five or twenty-six centuries of the Christian era, 12 and therefore that all history, and not only so, but all the changes by which the various races of humans were formed, by which languages developed into their numerous and diverse types, 13 by which civilisation and art emerged and gradually perfected themselves, are shut up within the narrow space of 2,500 or 2,600 years before the birth of our Lord. 14 Now this time is said with reason to be quite insufficient. Egypt and Babylonia have histories, as settled kingdoms, which reach back (according to the most moderate of modern critical historians) to about the time at which the numbers of our English Bible place the Deluge.

15 Considerable diversities of language can be proved to have existed at that date; markedly different physical types appear not much subsequently; 16 civilisation in Egypt has, about the Pyramid period, which few now place later than B.C. 2,450, an advanced character; the arts exist nearly in the shape in which they were known in the country at its most flourishing period. 17 Clearly, a considerable space is wanted anterior to the pyramid age for the

gradual development of Egyptian life into the condition which the monuments show to have been then reached. 18 This space the numbers of our English Bible do not allow. Such is the difficulty. Now how is it to be met? 19 In the first place, candour should (I think) induce all those who urge it to let their readers, or hearers, know that a special uncertainty attaches to the numbers in question, from the fact that they are given differently in the different ancient versions. 20 We possess the Pentateuch in three very ancient forms, in Hebrew, in the Greek version known as the Septuagint, and in Samaritan. 21 Our English numbers represent those of the Hebrew text. The numbers of the Septuagint and the Samaritan version are different. 22 Those of the Samaritan version extend the period between the Deluge and the birth of Abraham from the 292 years of the Hebrew text to 942 years,-- an addition of six centuries and a half-- 23 while those of the Septuagint, according to some copies, give 1,072 years as the interval, according to others 1,172 years, thus increasing the period between the Deluge and Abraham by a space of nearly eight, or nearly nine centuries. 24 Now if the Greek, or even if the Samaritan, numbers are the right ones, if they represent, that is, the original text, it may be questioned whether anything more is wanted. 25 It may be questioned whether a term of from six to eight centuries is not enough for the production of that state of things which we find existing in Babylonia and in Egypt when the light of history first dawns upon them, 26 whether within that space might not have been produced such a state of civilisation, so much progress in art, such differences of physical type, and such diversities of language as appear to have existed at that period.

27 If, however, the ultimate verdict of calm reason, and rigid scientific inquiry should be against this view, 28 if more time seem to be absolutely wanted for the development of settled government, of art, science, language, ethnical diversities, varieties of physical type, and the like, than even the enlarged chronology of the Septuagint

allows, 29 then I should not be afraid to grant that the original record of Scripture on this point may have been lost, 30 and that, as it is certain that we cannot possess the actual chronological scheme of Moses in more than one of the three extant versions of his words which have come to us with almost equal authority, so it is quite possible that we may not posses his real scheme in any. 31 Nothing in ancient MSS. is so liable to corruption from the mistakes of copyists as the numbers; 32 the original mode of writing them appears in all countries of which we have any knowledge to have been by signs, not very different from one another; 33 the absence of any context determining in favour of one number rather than another, where the copy is blotted or faded, increases the chance of error, 34 and thus it happens that in almost all ancient works the numbers are found to be deserving of very little reliance. 35 Where they to any extent check one another, they are generally self-contradictory; where they do not, they are frequently in the highest degree improbable.

36 A second historical difficulty connected with Genesis was much insisted upon by the late Baron Bunsen. The primitive Babylonian kingdom is declared in the tenth chapter of Genesis to have been Cushite. 37 Baron Bunsen held that there were no Cushites out of Africa, and that "an Asiatic Cush existed only in the imagination of Biblical interpreters, and was the child of their despair."

38 But an analysis of the earliest documents recovered from Babylonia has shown that the primitive Babylonian people, that which raised the first structures whereof any trace remains, in the country, 39 and whose buildings had gone to ruin in the days of Nebuchadnezzar, was (at any rate to a large extent) Cushite, its vocabulary being "undoubtedly Cushite or Ethiopian," 40 and presenting numerous analogies with those of the non-Semitic races of modern Abyssinia. 41 Hence, modern historical science, in the person of one of its best representatives, M. Lenormant, commences now the history of the East with a "First Cushite Empire," 42 which it regards as

dominant in Babylonia for several centuries before the earliest Semitic Empire arose.

43 A difficulty less noticed, yet one which was, in the state of our historical knowledge a few years since, more real, may be found in the narrative contained in the 14th chapter of Genesis 44 with respect to the invasion of Palestine in the time of Abraham by a number of kings from the vicinity of the Persian Gulf. 45 These kings act under the presidency of a monarch, called Chedorlaomer (or Chedor-lagomer), who is stated to be "king of Elam." 46 Now till very recently there was no profane evidence that Elam-- which is not Persia, as many have supposed, but Elymaïs or Susiana, the country between Babylonia and Persia-- 47 had ever been an independent state, much less a powerful kingdom, and still less one that at so remote a date could have exercised suzerainty over so many and such important nations. 48 But the Assyrian cuneiform inscriptions have shown that throughout almost the whole of the Assyrian period Elam maintained herself as an independent state and one of considerable military strength on the south-eastern borders of the empire; 49 and very recently it has further been discovered that, according to the Assyrian belief, an Elamitic king was strong enough to invade and plunder Babylonia at a date, which expressed in our ordinary manner would be B.C. 2,286, or somewhat earlier than the time commonly assigned to Abraham. 50 Further, the primitive Babylonian remains bear traces of the extension of Elamitic influence into Babylonia at a remote era; 51 and the possibility of such distant military expeditions at this far-off period of the world's history, receives illustration at once from the epithet "Ravager of Syria," 52 which is borne by a Babylonian monarch of about this date, and also from the numerous expeditions conducted not very much later by the Egyptian princes from the valley of the Nile into Mesopotamia.

53 No other historical difficulties, so far as I know, present themselves in the narrative of Genesis. 54 Some attempts were made in Germany, about thirty or forty years ago, to prove that the

description of Egypt contained in the latter portion of the book exhibited numerous "mistakes and inaccuracies;" 55 but the "mistakes and inaccuracies" alleged were scarcely of an historical character, and the writers who alleged them have been so triumphantly refuted by Hengstenberg, and others, 56 that the sceptical school has ceased to urge the point, and now allows the entire truthfullness and accuracy of the whole account. 57 Few things are in truth more remarkable than the 'complete' harmony and accordance which exist between the picture of ancient Egypt and the ancient Egyptians, as drawn for us by Moses, 58 and that portraiture of them which is now obtainable from their own contemporary writings and monuments.

59 With regard to the narrative contained in the last four books of the Pentateuch, modern criticism has chiefly employed itself in objections turning upon the numbers. 60 The multiplication of the Israelites, as related in Genesis and Exodus, has been declared to be utterly and absolutely incredible. 61 The sudden exodus from Egypt of a body of two millions of persons in the way narrated has been pronounced an impossibility. 62 The subsistence of such a multitude, with their flocks and herds, in the Desert of Tih for forty years, or even a single year, has been said to be inconceivable. 63 Many minor objections, turning on the same point of numerical difficulty, have been urged, and the conclusion has been drawn that the entire narrative of Exodus, Numbers, Leviticus, and Deuteronomy is unhistorical-- 64 a romance drawn up at a comparatively late period of the nation's history, having perhaps a certain historic foundation, but in its details wholly and entirely imaginary.

65 Now, with respect to these objections, let it be observed, in the first place, that they all turn upon the one point of number; 66 and that the numbers of the sacred texts are (as has been already observed) exactly the part of it which is most liable to corruption and least to be depended upon. 67 So that if the difficulties of the multiplication, as stated, of the exit from Egypt, the march, the

passage of the Red Sea, and the sojourn in the wilderness, were all allowed to be as great as represented, 68 it would be enough to reply that there may have been a corruption of the numbers-- the addition (say) of a cipher in each case-- 69 and that the whole narrative would stand good, and the difficulties disappear, if for "six hundred thousand that were humans" in Exodus xii. 37, we were to read 60,000, and so on-- the entire exodus being thus made one of 200,000 instead of two million souls. 70 But this mode of meeting the difficulty is not, perhaps, here the right one. The numbers may be defended as they stand. 71 In Germany the best critics, including so subtle and little credulous a writer as Ewald, accept them.

72 They seem required by the general tenor of the whole narrative, especially by the great unwillingness of the Egyptians to let the people go, and by their power, within little more than a generation to conquer and occupy Canaan. 73 Assuming therefore the numbers to be sound, to have come to us as they were delivered by Moses, let us inquire what the great difficulties are of which so much has been made, and see if they are really so insuperable.

74 In the first place, as to the multiplication in Egypt. Now here, before we can form any judgment, two things have to be determined-- "What was the number of the Israelites when they entered Egypt," and "What was the duration of their stay there?" 75 What was their number when they entered Egypt? We are commonly told, "seventy souls." Now, no doubt, these words occur in Scripture, "All the souls of the house of Jacob, which came into Egypt, were threescore and ten." 76 But, when we come to look into details, we find first, that the seventy souls of Jacob's descendants comprise only two women, the married daughters and grand-daughters of Jacob not being mentioned, 77 who yet, we are told, followed the migrations of the tribe, and no account being taken of the wives of his sons and grandsons. 78 Supplying these omissions, we have for the family of Jacob as it entered Egypt, the number-267, instead of the number

seventy, or nearly four times the ordinary estimate. 79 But this is far from being all. The children of Israel entered Egypt with their households, or retainers. 80 What the size of a patriarchal household was we may gather from the history of Abraham, who had 318 trained servants born in his house, capable of active military service.

81 It has been well observed that "we shall scarcely find so many in a clan of three thousand souls." 82 Jacob's retainers are likely to have been more numerous rather than less numerous than those of Abraham; and the conclusion of Kurtz, that they amounted to "several thousands" is therefore perfectly reasonable. 83 It appears to me quite probable that the tribe which took possession of the Land of Goshen on the invitation of Joseph and Pharaoh was a body of five or six thousand persons.

84 Next, as to the duration of the sojourn in Egypt, the Hebrew text lays it down very positively that it was 430-years. 85 The best MSS. of the Septuagint agree. There was a tradition among the later Jews which brought down the term to 215-years; 86 but this tradition cannot reasonably be set against the plain words of Exodus; and consequently we must take 430 years as the duration of the sojourn.

87 Is it then, or is it not, conceivable, that under the circumstances of the time and country, a tribe or clan of 5,000 persons may have increased in 430 years to one of two millions? 88 Here it has to be remembered that there were two modes whereby they might increase, one that of ordinary natural increase, the other by augmentation of the number of their retainers. 89 The natural tendency of population has been shown by Mr. Malthus, to be to double itself, if unchecked, every 25-years. 90 The Israelites, having the land of Goshen, a large fertile territory, capable of supporting a population of several millions, assigned them, would be in a position where the checks on the natural tendency, especially at first, would be very slight. 91 Now, according to the estimate of Mr. Malthus, a body of 5,000 persons increasing without check, would have become more than two millions at the end of 225-years; 92

a body of 267-persons would have exceeded the same amount at the close of 325-years; and a body even of seventy persons would have done the same at the expiration of 375-years; 93 so that, except for the operation of artificial checks, the family of Jacob, had it really consisted of seventy persons only, would have become one of above two millions fifty-five years before the time of the exodus. 94 But, no doubt, as the increase took place, the artificial checks, which keep down the natural tendency of population, began to operate, 95 and the result was, that if the original immigrants were, as I have supposed, about 5,000, the actual rate of increase had been a doubling, 96 not once each twenty-five years, but once each forty-eight years, or not very much beyond the rate which prevails in our own country at the present time.

97 If we add to this the consideration that the Israelites, being in a very flourishing condition during the earlier portion of their sojourn in Egypt, would naturally augment, by purchase, the number of their households, 98 and might even receive, by agreement, whole tribes into their body, we shall not be surprised that at the end of the 430 years, the clan had grown to be a nation of two million souls.

99 With respect to the difficulties of the exit of this large body of persons from Egypt in the sudden way which the narrative in Exodus seems to describe, they depend (I think) mainly on the broad and general manner of description habitual to Oriental writers, 100 who do not trouble themselves with details, or with exceptions, but describe 'in the mass', stating that to be done by all which was done by most, or by those of most account; 101 regarding a nation as concentrated in its heads; and directing attention to the main events, to the neglect of the various details into which they were broken up. 102 A candid reader, making fair allowance for these characteristics of Oriental style, and for the brevity of the sacred narrative, will scarcely be much troubled by the difficulties of the start and the march, as they have been urged by some critics. 103 It is certain migrations of

tribes, quite as large as that of Israel is said to have been, have from time to time taken place in the east, and indeed in the west also. 104 Such migrations have frequently been sudden-- the emigrants have started off with their women, children, and all their possessions on a certain day-- 105 they have traversed enormous distances, much greater ones than the Israelites traversed, and have finally settled themselves in new abodes. 106 That the Israelites made such a migration there cannot be a doubt. The Egyptians, Greeks, Romans, all accepted the fact as certain. 107 Cavils as to their exact numbers, or as to the particular expressions used in Exodus, do not touch the main fact, 108 but show (if they show anything) either that our ancient manuscripts are here and there defective, or that an early Oriental historian does not write in the exact and accurate style of a nineteenth-century occidental critic.

109 The difficulty which attaches to the subsistence of the Israelites for forty years in the wilderness of Tih, concerns almost wholly the sustenance of their flocks and herds, which are said to have been numerous, and have been calculated at two million head of cattle. 110 The answer to this difficulty may be very brief. In the first place, we are not told that the cattle did not very rapidly decrease; 111 for no mention is made of the people possessing any considerable number in the later portion of the sojourn, until an enormous booty is captured from the Midianites; 112 and in the second place, there is ample reason to believe that the wilderness was anciently very much more fertile than it is at present, and quite capable of furnishing pasturage to flocks and herds of a large size. 113 The recent explorations of Mr. Tristram and Mr. Holland have placed this fact beyond a doubt, and have shown that the Sinaitic peninsula, at any rate, was a "desert" merely in comparison with the richly agricultural countries of Egypt and Palestine.

114 Historical difficulties are scarcely alleged with respect to the portion of the Biblical narrative which follows upon the sojourn in

the wilderness. 115 The conquest of Canaan by the immigrant Israelites is a fact too well attested to be denied; 116 and the subsequent chequered history of the race, as delivered to us in Judges and in the First Book of Samuel, is for the most part too modest and unpretending an account to tempt the assaults of sceptics.

117 The exploits of Gideon and Samson are viewed indeed with incredulity; but merely on the ground that they are intrinsically improbable. 118 It is not until we come to the time of David and Solomon that any further difficulties, really of an historical character, present themselves, and that an examination of the difficulties by the light of historical documents becomes possible.

119 The sudden rise of the Israelites to power and greatness in the reign of David, the grandeur, magnificence, and extent of the kingdom of Solomon, and the entire collapse of the empire at his death 120 appear to some, not merely in themselves strange and improbable, but incompatible with what is known from history of the condition of the neighbouring countries. 121 The little country of Palestine was placed midway between the territories of two great and powerful monarchies, of which it may be said, in a general way, that for a thousand years before the rise of the Persians to power, they contested the sovereignty of the East. 122 Over-shadowed by the grand forms of Egypt and Assyria, how could Israel (it may be asked) emerge from obscurity, 123 how especially advance at a bound from a dependent to a dominant position, asserting, and for above fifty years maintaining, her place among the great ones of the earth? 124 We may answer, that, in the first place such a revolution has numerous analogies in the history of the East, where the rapid rise of petty states to greatness, the sudden conversion of an oppressed into a dominant power, is the rule rather than the exception; 125 where Babylon, Media, Persia, Parthia, where the histories of Timur, Yenghis Khan, Nadir Shah, all illustrate it. 126 But further, in this particular case, we can see not

only a general analogy, but a fitness in the peculiar circumstances of the time for the production of such a phenomenon as that which Scripture places before us. 127 The monumental evidence of the two countries shows, that exactly at the time when the conquests of David and the Empire of Solomon are placed, both Egypt and Assyria were exceptionally weak. 128 Egypt, after the time of Ramesses III. (ab. B.C. 1,200) ceased to be aggressive on the side of Syria, and continued until the accession of Sheshonk or Shishak, (ab. B.C. 990) to be a quiet and unwarlike power. 129 Assyria, which, about B.C. 1,100, extended her sway into the valley of the Orontes, and threatened Palestine with subjection, passed under a cloud soon afterwards, and did not again become a terror to Syria, till about B.C. 880. 130 For a Jewish Empire to arise it was necessary that Egypt and Assyria should be simultaneously weak. 131 Such simultaneous weakness is found for the hundred or hundred and twenty years between B.C. 1,100 and B.C. 990. 132 And exactly into this interval fall the rise of the Jews to power under Saul and David, and the establishment of their empire under Solomon.

133 Doubts were thrown a few years since, by an able writer, on the expeditions of Shishak against Rehoboam, Solomon's son, and of Zerah, the Ethiopian, against Asa, Rehoboam's grandson; which, it was suggested, might be mere embellishments of a history, otherwise tame and uninteresting. 134 The careful analysis which the inscription of Shishak at Karnac has undergone at the hands of Mr. Stuart Poole, and Dr. Brugsch, not to mention other scholars, 135 and the evidence thus furnished of the reality and the importance of his expedition into Palestine, render the continuance of incredulity, as to the former of these attacks, impossible. 136 The analysis has thrown a flood of light on what was previously obscure in the scriptural narrative. 137 It has shown that Shishak went up, not so much with any extensive scheme of conquest, as to settle his 'protegé', Jeroboam, in his kingdom, where he was in great danger from the Levitical and

Canaanite towns not being in his hands. 138 These Shishak reduced and made over to Jeroboam, thus giving him a firm hold on the northern kingdom. 139 Having done this, he was content to receive the mere submission of Rehoboam, and allowed him to retain the southern kingdom, perhaps not wishing to make Jeroboam too strong. 140 It was the constant practice of the great monarchs of Egypt, Assyria, and Babylon, to maintain, on dependent thrones, a large number of petty princes, who were checks upon each other, and could easily be dealt with, if they shewed any inclination to rebellion.

141 The expedition of Zerah has not yet received any distinct confirmation from monuments. But the recent discovery that there reigned about this time a king called 'Azerch'-Amen in Ethiopia, has removed the difficulties which attached to the name and the description of the invader, 142 and has indicated to the dispassionate and candid student, that here, too, the Jewish historian had probably contemporary records to guide you, and related real facts of history, not figments drawn from imagination.

143 A real historical difficulty meets us soon after this, in the sacred narrative, in the invasion of the kingdom of Samaria, by Pul, who is called a "king of Assyria," and is said to have put Menahem to a tribute of a thousand talents of silver. 144 We possess the history of Assyria for this period, apparently in a state of completeness; and this history shows us no monarch at this time (or indeed at any other time), bearing a name in the least resembling that of Pul. 145 The predecessor of Tiglath-pileser on the throne of Assyria, was a certain Asshur-lush (or Asshur-likkis), whose predecessor was Asshur-dayan, who followed on Shalmaneser III. 146 It seems impossible that any one of these kings can be Pul. Moreover, Assyria, in the time immediately preceding the accession of Tiglath-pileser, instead of being a great, aggressive power, capable of marching armies into Palestine, 147 was in a depressed state, troubled by frequent insurrections among her own subjects, and quite

incapable of sending out distant military expeditions. 148 Thus "Pul, king of Assyria," constitutes to the modern historical inquirer a real difficulty-- a difficulty which it has been proposed to meet in various ways.

149 The best explanation hitherto suggested is, I think, the following. Pul, who was called by Berosus, the great Babylon historian, "king of the Chaldeans," was probably a monarch who reigned at Babylon, while Asshur-lush was reigning at Nineveh. 150 In the troublous decade of years which preceded Tiglath-pileser's accession, he became a powerful prince, perhaps deprived Assyria of her western provinces, and invaded Syria and Palestine from the quarter from which Assyrian invasions had been wont to come. 151 Presenting himself to the Israelites as the representative of the great Mesopotamian power, with which they had been contending for centuries, they termed him loosely "king of Assyria" when he was in reality a king of Babylon, who had possessed himself of a portion of the Assyrian dominions. 152 In the same way, they subsequently termed Nabopolassar, the father of Nebuchadnezzar, and even Darius Hystaspis, "kings of Assyria."

153 A difficulty used to be felt with respect to "Sargon, king of Assyria," who is said to have taken Ashdod by the hand of one of his captains. 154 Sargon's name is not contained in the historical books of Scripture, nor is he mentioned by any of the classical writers, who speak of Shalmaneser, Sennacherib, and Esarhaddon. 155 The occurrence of his name in Isaiah was thought to indicate an irreconcilable difference between the historical data possessed by that prophet and those of the writer of Kings. 156 Even his existence was doubted, and different writers proposed to regard his name as a mere variant for those of each of the three princes just mentioned. 157 The Assyrian inscriptions have completely cleared up all this obscurity. Sargon is found to have been the successor of Shalmaneser; the predecessor and father of Sennacherib. 158 He speaks of having captured Ashdod. All that Isaiah says of him is confirmed; and it appears to have

been quite accidental that the writer of Kings, who more than once alludes to him, does not mention his name.

159 The strictly historical character of the later portion of the Old Testament narrative, especially of that delivered to us in Kings, Chronicles, Ezra, and Nehemiah, and in the contemporary prophets, Jeremiah, Zechariah, and Haggai, is generally admitted, even by sceptics. 160 The only writings belonging to this period, whereto exception is taken are the Books of Daniel and Esther, which many still regard as full of historical inaccuracies, and as quite unworthy of credence. 161 I shall therefore conclude my observation on the alleged historical difficulties of the 'Old' Testament, and the light thrown on them by modern discoveries, by a brief consideration of these two books and of the objections taken to them.

162 The chief historical inaccuracies alleged against Daniel are the following: He is said to have invented two kings, Belshazzar, and Darius the Mede, whose existence is not merely unknown to history, but precluded by it; 163 to have falsely ascribed a government by satraps to the Babylonians; to have incorrectly represented the condition of their "wise men"; to have made Susa a residence of the Persian monarchs when it was not even built; 164 to have wrongly made the last king of Babylon a son of Nebuchadnezzar, and to have misrepresented his fate; to have misconceived the relative position of the Medes and Persians at the time of the capture of Babylon; 165 and to have related an utterly incredible circumstance, viz. that Daniel was admitted among the Babylonian "wise men," and even constituted their head.

166 Now of these charges some are quite incapable of being either substantiated or distinctly refuted from our insufficient knowledge of the times to which they refer. 167 Nothing is really known of the classes into which the "wise men" of Babylon were divided in Nebuchadnezzar's time, excepting what we learn from Daniel himself.

168 The authors supposed to contradict Daniel on this point,

write of the state of things in their own day, which happens to be eight centuries later! 169 And they do not write about the Babylonian "wise men" at all, but about the divisions of the Persian magi, an entirely different class. 170 We do not even know enough about the "wise men" to say whether there was anything strange and unusual in a foreigner being placed at their head. 171 We may suspect that it was so, but we have really no sufficient evidence on the subject. The little evidence that we have is to the effect that the "wise men" were a learned, not a priestly, body; and that they admitted foreigners among them-- 172 more we do not know; but there is certainly not the slightest difficulty in supposing that the despotic power of a Babylonian monarch would have been amply sufficient to overcome any repugnance which any class of his subjects might have felt towards one of his appointments.

173 Similarly, we have no sufficient knowledge of the Babylonian governmental system to say that it was not, at any rate, to some extent, satrapial. 174 A satrapial system is simply one in which governors are appointed over the provinces, instead of their being suffered to remain under the rule of native kings. 175 Our present Indian system is in part satrapial, in part a government by means of kings. 176 The Assyrian government was one of the same kind; and, on the whole, it is most probable that so was the Babylonian. Gedaliah, who succeeded to King Zedekiah in Judea, was a "governor," 177 that is, a satrap, appointed by Nebuchadnezzar; and Berosus speaks of a "satrap of Egypt, Cœle-Syria, and Phœnicia," as holding office under Nabopolassar, Nebuchadnezzar's father. 178 Thus there is no "inaccuracy" in Daniel's speaking of Nebuchadnezzar as summoning, among his other great officers, his "satraps." 179 That the 'word', which is Persian, was not used in Babylonia is probable; but Daniel, writing for Jews under Persian government, who were perfectly familiar with the term, employed it for a corresponding Babylonian expression.

180 The charge that Daniel misapprehended the relative position of the Medes and Persians at the capture of Babylon, regarding the supremacy of the Medes as still continuing, is unjust, and rests on an omission to look carefully to the original text. 181 It is true that the Medes are placed before the Persians in the words of the handwriting upon the wall, and also in the formula, "according to the law of the Medes and Persians, which altereth not." 182 But this honourary precedence assigned to the Medes is a mere trace of their ancient supremacy--a trace much more strongly marked in Greek writers, who actually call Cyrus and his successors "Medes"-- and is not an indication of its continuance. 183 Daniel twice marks very strongly the subordinate position of the Medes, stating in one place that Darius the Mede "'received' the kingdom"-- 'i.e.', was given it by another; 184 and further declaring that he "'was made king' over the nation of the Chaldæans," using in this case an expression which distinctly implies that he derived his position from some superior authority, which made him king.

185 The notion that Susa, or at any rate, its palace, was not built at the time when Daniel says that he saw himself in vision there, rests wholly upon a statement made by Pliny, six hundred years later, that "Susa, the ancient regal city of the Persians, was built by Darius Hystaspis."

186 Now this statement, one of very weak authority, had we nothing to set against it, is contrary to the declarations of various other classical authorities, among them notably of Herodotus; 187 and is completely disproved by the Assyrian inscriptions, which show that Susa was one of the most ancient of all the Mesopotamian cities, and that its "palace" was famous for many centuries before the time of Daniel.

188 The truth which underlies Pliny's statement, is the fact that Darius Hystaspis was the first Persian monarch to build a palace at Susa after the Persian fashion; 189 but the ancient residence of the Susian kings, the Memnonium, as the Greeks called it, had existed for considerably more than a

thousand years when the son of Hystaspes began his edifice.

190 Of the two remaining charges, which concern Darius the Mede, and Belshazzar, one-- and that the more important of the two-- has been completely rebutted by the evidence of the Babylonian monuments. 191 These monuments show that Nabonnedus (or Labynetus), the king of Babylon attacked by Cyrus, had a son named Bel-shar-ezer, or Belshazzar, whom during some years he associated with him in the government. 192 This son may well have been on the mother's side descended from Nebuchadnezzar, as Daniel says that Belshazzar was; 193 he may have played the part in the siege which Daniel states that he did, while his father (as Berosus mentioned) defended the fortress of Borsippa; 194 and he may have fallen in the general massacre during the night in which Babylon was taken, while his father was subsequently made prisoner, and kindly treated by Cyrus.

195 All the supposed contradictions of profane history by Daniel in connection with this matter, are entirely removed by one little document, exhumed in our own day from the soil of Mesopotamia, by the exertions of an English gentleman.

196 With respect to Darius the Mede, nothing has been as yet discovered. It is clear from Daniel that he was not a king in his own right, but a viceroy set up by Cyrus. 197 He held his government probably for not more than two years. Perhaps he is to be identified with Astyages, the Median king, whom Cyrus deposed but treated kindly; 198 perhaps he was merely a Median noble, whom Cyrus advanced, as he did other Medes, to a position of trust and importance.

199 The monuments have not at present thrown any light on this matter; but he would be a bold person, who, after the discovery with respect to Belshazzar, would undertake to say that there may not, 200 ere many years are past, be as much light thrown upon the obscure history of this monarch, as has been recently thrown on the history, formerly at least as obscure, of his predecessor.

201 I cannot leave this matter and turn to another without strongly advising those who have any doubts as to the genuineness and authenticity of the Book of Daniel, 202 which have been of late so fiercely attacked, to study carefully the recent work of Professor Pusey upon the subject. 203 They will find in it a complete answer to all the objections, historical, and critical, which have been urged against this portion of Scripture.

204 The historical difficulties alleged against the Book of Esther, are chiefly the following. Assuming Ahasuerus to be Xerxes, which is no doubt a highly probable identification, 205 it is said that Esther's position is impossible, since Xerxes had but one wife, Amestris, who cannot be Esther. 206 Nor could any Persian king have married a Jewess, since there was a law that the kings should take all their wives out of seven noble Persian families. 207 Such a feast as that described in the first chapter, where all the princes of the provinces were entertained for 180 days, could not have taken place, 208 since the governors could not without ruin to the empire have been so long absent from their governments. 209 It is incredible that a Persian king should have given the command, said to have been given by Ahasuerus to Vashti. 210 The edicts ascribed to Ahasuerus are all incredible-- especially the second and third. No king would have consented to the murder of 2,000,000 of his subjects; 211 nor would any king ever have allowed at a later time those two millions to stand up and slay as many as they pleased of their enemies. 212 Finally, the honours granted to Mordecai are said to be excessive, and such as no monarch would have allowed to a subject.

213 With respect to the first of these objections, we may reply that though Amestris cannot be Esther, she may well be Vashti; 214 and that though the classical writers tell us of no other wife of Xerxes, yet it is quite possible that he may have had several. 215 Polygamy was the rule with the Persian kings. Amestris was no doubt on the whole the chief wife of Xerxes, and if she at one time fell into disgrace, must have been

afterwards restored to favour; 216 but the accounts which we have from the Greeks do not at all preclude the possibility of such a temporary disgrace, and of the elevation of another wife to the first place for a time. 217 As to its being impossible that any Persian king could have married a Jewess, it is sufficient to remark, that though the Persians had laws, the Persian kings were above the law, and could always disregard its restraints. 218 When Cambyses having conceived an affection for his full sister, Atossa, asked the royal judges if they could find a law allowing a Persian to marry such a near relative, 219 their reply was, that they could find no law permitting the marriage of brothers and sisters, but that they found a law, that the king of the Persians might do what he liked.

220 The objection to Xerxes feasting 'all' his princes for 180 days is an objection, not to anything contained in the Book of Esther, but to something which the critic who makes it has intruded into the book. 221 The writer of the book tells us that Xerxes "made a feast to all his princes and his servants", and subsequently relates that the feast lasted "an hundred and fourscore days"; 222 but he nowhere states that the princes were all present during the whole of the time.

223 Indeed, the reader possessed of common sense sees clearly enough that the very duration of the festivity was probably contrived, in order that all the princes might in their turn partake of it. 224 The critic says, "it is not so stated in the text," which is true: but neither is that stated which he has thought that he saw in it.

225 The command given to Vashti is undoubtedly strange and abnormal. It was an outrage on Oriental custom; and as such the narrative sets it before us. 226 The king does not issue the order until he is "merry with wine"; and the Queen refuses to obey, because she feels the order to be an insult. 227 But can we say that no Oriental king could possibly have issued such a command? 228 Is it not more reasonable to allow, with a German critic of the sceptical school, that the narrative is here "possible on account of the advancing corruption in Xerxes'

time, and through the folly of Xerxes himself"? 229 Indeed is it not clear that we can set no limit to the caprices of absolute power, or to the orders that may not be issued by a proud and silly despot? 230 Considerations of this kind go far also to remove the difficulty which has been felt as to the main facts of the narrative of Esther, the intended massacre of the Jews, and the counter-edict allowing them to defend themselves and slay their enemies.

231 Such facts are altogether out of the ordinary experience of Western nations; and it is not surprising that they have been met with incredulity on the part of those whose knowledge of the past is limited to an acquaintance with the course of European, and especially of modern European, history. 232 But can it be said that they are altogether out of nature? that they have no counterpart in the history of the East? That they transcend altogether what authentic history relates of the doings of Oriental tyrants? 233 Here again the German sceptic is more cautious than some of those who have sought to popularise him, and allows that from what we know of the base character and despotism of Xerxes 234 it may perhaps be believed that Haman obtained from him a decree for the extirpation of the Jews, and Mordecai in return a corresponding counter-decree. 235 All that he objects to is, the fierceness with which the Jews set to work, and the consequent massacre by them of above 75,000 persons. 236 This fact he thinks "incredible." It may be allowed that had the persons slain been, as the objectors suppose, "Persians," the circumstances related would have been extremely hard of belief; but it is on the whole most probable that there were few or no "Persians" among them. 237 A religious sympathy united the Persians with the Jews; and it is scarcely likely that any of them would have taken part in the proposed destruction of the Jewish nation. 238 The adversaries of the Jews were to be found in the ranks of the conquered nations, not of the conquering one. They were Persian subjects, not Persians. 239 There is no reason to think that the loss even of 75,000 of such persons

would have been felt by Xerxes as a matter of much importance.

240 We must remember, however, that the number 75,000 is doubtful. The Septuagint version has 15,000; and this number is more in harmony than the other with the 800 slain in the capital.

241 Finally, to the objection that the honours granted to Mordecai are excessive, it may be replied, in the first place, that they are analogous to those granted to Joseph, and Daniel, and therefore such as were occasionally allowed to subjects by Oriental sovereigns; 242 and secondly, that if there were anything abnormal in them, it would be sufficiently accounted for by the wild and extravagant temper of Xerxes, which delighted in strange acts and exhibitions of an unusual character. 243 Haman, who knew his master's weakness, might well speculate upon it, and suggest extraordinary honours, since he imagined that it was himself for whom they were intended.

244 I have now noticed 'all' the historical difficulties of any force or weight, which have come before me in the course of my studies on the history of the Old Testament. 245 I have dwelt particularly on those connected with the Pentateuch and with the two Books of Daniel and Esther, because of late years the attacks of sceptics have been especially directed against those portions of the Sacred volume. 246 I have left myself but scant time for noticing historical difficulties connected with the narrative of the New Testament; 247 but this is of the less consequence, since there are no more than one or two such difficulties on which any stress has recently been laid by our opponents.

248 It has been said that St. Luke, in connecting the name of Cyrenius with the "taxing" which caused Joseph and Mary to go from Nazareth to Bethlehem, "undeniably contradicts history." 249 Cyrenius (or Quirinus) was appointed governor of Syria about ten years after the death of Herod the Great, and made a census of his province shortly afterwards. 250 This census St. Luke is accused of placing ten years too early. The answer to this charge is, that the words of St. Luke cannot

possibly mean that Cyrenius was governor at the time of the taxing; 251 had it been St. Luke's intention to express this, the verse would have ran thus: "This taxing was made when Cyrenius was governor of Syria," and not "this taxing was first made," etc. 252 "First," that is, which is manifestly the emphatic word of the sentence, would then have been absent from it. Evidently, therefore, St. Luke's words must bear some other meaning. 253 They may signify, "'this' taxing was made 'before' Cyrenius was governor," and so before that better known taxing which he ordered. 254 This is an allowable translation of the passage. Or they may mean, and I think they do mean, "this taxing was first completed-- first took full effect-- when Cyrenius was governor;" 255 that is to say, the taxing ordered by Augustus, and commenced under Herod the Great, was interrupted (as it may easily have been, since the Jews were very bitter against it), and the business was first accomplished under Cyrenius. 256 This is a sense which the Greek verb translated incur version "was made" sometimes has.

257 Again, it has been said that St. Luke erred in stating that Lysanias was tetrarch of Abilene (iii. 1) in the fifteenth year of the reign of Tiberius Cæsar. 258 Lysanias, it is said, died sixty years previously; and St. Luke has ignorantly made him alive, being deceived by the fact that Abilene continued to be called "the Abilene of Lysanias," after its former ruler, for sixty or seventy years subsequently. 259 Now here it is in the first place assumed, without any word of proof, that the Lysanias who died B.C. 34 once ruled over Abilene. 260 Secondly, it is assumed, also without any word of proof, that Abilene came to be known as "the Abilene of Lysanias," from him. 261 I venture to assert that there is absolutely no ground for believing that the old Lysanias was ever ruler of Abilene; and I venture to maintain that Abilene came to be called "the Abilene of Lysanias" from a second or later Lysanias, a son of the former one, who is the person intended by St. Luke. 262 Till recently, Christian apologists were defied to show historically

that there was ever more than one Lysanias, and were accused of inventing a second to escape a difficulty. 263 But a few years since, a discovery was made which must be regarded by all reasonable persons as having set the whole matter at rest. 264 This was an inscription found near Baalbek, containing a dedication of a memorial tablet or statue to "Zenodorus, son of the tetrarch Lysanias, and to Lysanias, her children," 265 by (apparently) the widow of the first, and the mother of the second Lysanias. Zenodorus was already known as having succeeded the first Lysanias in his government. 266 It is thus clear, that there were, as previously suspected, two persons of the name, a father, and a son, and there is not the slightest reason for doubting St. Luke's statement that the latter was tetrarch of Abilene in the fifteenth of Tiberius.

267 I know of no other cavil against the historical accuracy of the New Testament, that I can regard as worthy of being dignified with the name of difficulty. 268 It has been denied that any decree ever went out from Cæsar Augustus, that all the world should be taxed, but as Savigny, the best authority on Roman antiquities, holds the contrary to be certain, this denial need not detain us. 269 It has been asserted that if the massacre of the Innocents had taken place, it 'must' have been noticed by Josephus; but this argument from omission is too weak to deserve more than a passing notice.

270 Nothing is more familiar to historical students than the unaccountable omissions which occur in the works of almost all historians. 271 Scepticism has searched in the most minute and unsparing way every detail of the Gospel and the Acts, and has endeavoured earnestly to find "differences" and "divergences" between these facts and those of profane history; 272 but again and again has it been compelled to own that the divergences are slight, and the differences such as may be reconciled by natural and probable suppositions. 273 The entire result of the searching criticism, whereto the historical character of the New Testament has been exposed, has been to

show that not only the general narrative, but all its minutiæ, are trustworthy. 274 No evangelist has been convicted of error in respect of any historical statements. Where a shallow learning and a defective knowledge of the records of the past have led people to think that they had found a slip or a mistake, and a shout of triumph has been raised, 275 profounder research has always demonstrated the veracity and accuracy of the sacred writer, and has exposed the ignorance of his assailant.

276 The historical character of the New Testament is, I think I may say, in the eyes of all sober historical critics established.

MYTHICAL THEORIES
OF CHRISTIANITY.
The Rev. Charles Row, M.A

8 It is hardly possible to over-estimate the importance of the issues to which it will be my duty to address myself in this lecture. 2 They involve the central position of Christianity; viz., the all-important question whether Jesus Christ was an historical person, or a creation of the imagination. 3 Is the Church which is erected on Him founded on an historic fact, which had an objective existence; or is the Jesus of the Evangelists a subjective creation which existed only in the minds of its originators?

4 Many of the attacks which have been made on Revelation are directed against its outworks merely; this is one directed against the very key of the Christian position. 5 If it can be carried by our opponents, the whole line of our defences becomes untenable. 6 Let us not deceive ourselves. If the Gospels are not 'in their main outlines' historically true, Christianity is no more divine than Shakespeare. 7 It may be the highest development of human; but it can have no pretence to be esteemed a revelation from God.

8 The objections of this school have done more to undermine the belief of the educated classes in Christianity as a divine revelation than any one single cause. 9 They have largely created the so-called rationalism of the Continent. They are widely diffused in America. 10 In our own country, a numerous

class of writers who obtain ready access to our periodical literature are not only imbued with similar views, but write with the quiet assumption that the historical foundation of Christianity cannot be defended.

11 As my subject is a wide one, I must address myself to it without any preliminary observations. 12 The question before us is simply this, Are the Gospels credible histories, in the sense that other writings of the same description are? Or are the larger portion of their contents fictitious?

13 It should be observed that although these schools support their views by an immense critical apparatus, the real σκάνδαλον [Greek: skandalon] of the Gospels is the supernatural element which they contain. 14 Apart from this, their historical character would never have been questioned.

15 The theory that miracles are impossible underlies the entire mass of these objections. But the question of the miraculous has been already handled by another lecturer. 16 I shall therefore only observe on it that it forms no portion of a strictly historical inquiry. It appertains to the abstract regions of thought. 17 History has to deal with evidence, not with abstract dogmas or philosophical questions. 18 To begin an historical inquiry with the assumption that miracles are impossible, and that any event which involves the supernatural must be a fiction, is quietly to assume the point at issue.

19 But as the Christian Church is an institution which actually exists, and as its origin can be traced up to the times of Jesus Christ, and as it is erected on the Gospels as its foundation, these schools are fully aware that the question cannot be settled by the quiet assumption that miracles are impossible. 20 The case stands thus. The Christian Church exists. It has had its origin in the events of past history. 21 The Church itself asserts now, and has asserted in all ages, that it is founded on the historical truth of the divine person of Christ our Lord, as He is depicted in the Gospels. 22 If the Gospels are true, they give a rational account of its origin, But those with whom I am reasoning deny that they are a statement of

historic facts, and consequently that they are not the true account of it. 23 But as the Church is an historic fact, they are quite aware that any mere general assumption that miracles are impossible is not sufficient.

24 They find themselves, therefore, compelled to do two things,-- first, to invent a critical apparatus to destroy the credibility of the Gospels; 25 and, secondly, to propound a theory which shall account for the origin of the Church on principles purely human.

26 The solution propounded is the mythical and Tübingen theories. This critical apparatus keeps two aims in view,-- first, to prove the existence of statements in the Gospels at variance with those of contemporaneous history; 27 secondly, to show that these narratives abound with a multitude of contradictions. 28 To effect this latter purpose, every variation of statement is made to assume the character of a contradiction. 29 The extent to which this has been carried is scarcely credible. This process having as they hope destroyed the substance of the Gospels, the next procedure is to invent a theory out of the imagination as the account of the origin of Christianity, and to propound it as true history.

30 At first sight it would appear to have been the easiest course to assert that they are simple forgeries, in the same sense in which the Donation of Constantine or the False Decretals are forgeries. 31 But this is what no unbeliever of the present day who regards own literary reputation ventures to propound as the alternative to their historical credibility. 32 Why is the simple course abandoned, and an infinitely complicated theory substituted in its place? 33 The answer is that their entire phenomena negative the supposition that they could have originated in directly conscious fraud.

34 A more elaborate theory, therefore, has to be substituted for the simple one. It must be observed that I can only speak of it in its general aspect, for its modifications are extremely numerous, and hardly any two

writers can be found who take precisely the same view.

35 But the following may be stated as the principles which underlie these systems of modern unbelief, throwing aside their minor details.

36 First. That miracles being impossible, no supernatural element whatever enters into the character of the historical Jesus.

37 Second. That He was probably a very great man, though, whenever the exigencies of the system require it, it is necessary to assume that He was deeply implicated in the prejudices and superstitions of the age in which He lived.

38 Third. That He probably believed Himself to be the Messiah expected by His country-people, though as to the precise nature of His Messianic claims my opponents are not agreed.

39 Fourth. That He succeeded in inspiring a crowd of followers with an enthusiastic attachment to Him.

40 Fifth. That they were honest people after their fashion; but were impelled by an enthusiasm only equalled by their credulity.

41 Sixth. That they invented a multitude of fabulous stories, ascribed them to Jesus, and in time mistook them for facts.

42 Seventh. That out of these and kindred elements, aided by a succession of developments, the human Jesus was gradually metamorphosed, 43 in the course of the seventy years which followed the crucifixion, into the Christ of the Synoptic Gospels, and in a hundred and thirty into that of the Gospel of St. John.

44 Now, as these schools deny the existence of the supernatural, this whole development must have been due to causes which are purely human; in one word, to the laws which regulate the developments of the moral and spiritual worlds. 45 As those of the natural world have been effected through the agency of natural laws, so the creation of the Jesus of the Evangelists is due to laws which regulate with equal potency the action of the mind. Both sets of laws are equally constant and invariable.

46 To examine the critical apparatus which has been applied to the Gospels for the purpose of proving their unhistorical character, could only be

accomplished in a work of considerable length. 47 I shall therefore only make two observations on the principles adopted.

48 First. These schools assault the Gospels by charging them with containing a multitude of inaccuracies, discrepancies, and contradictions. 49 While they do this they carefully keep in the background the minute accuracies, agreements with contemporaneous history, and plain indications of autoptic testimony with which they abound. 50 Such a line of conduct is the same thing as to place before the Court which is to try the cause everything which an acute counsel can adduce in opposition, and to suppress the whole evidence for the defence.

51 Secondly. A great majority of these objections are founded on a view of the Gospels which their writers expressly repudiate. 52 It is taken for granted that the Gospels are histories in the strictest sense of that word. By a strict history I mean a narrative in which the events are connected together in accordance with the sequences of time and place. 53 This is the arrangement which is generally adopted in modern histories and biographies. But the Gospels expressly assert that they belong to a different class of writings. 54 They are not 'histories', but 'memoirs'. In a memoir, the arrangement of events in the strict sequence of time and place is not the predominant idea. The Gospels are not only memoirs, but memoirs of a peculiar character. 55 They are details of the actions and teachings of Jesus Christ written for the express purpose of teaching the Christian religion. 56 In works of this kind the arrangement and grouping of events are formed on very different principles from those adopted in the composition of pure histories. 57 As this is a most important point, I must adduce proof of it which is beyond all contradiction. 58 St. John's Gospel asserts, in as many words, that it was the purpose of its author to write such a memoir, and not a strict history. 59 He says, "And many other signs truly did Jesus in the presence of His disciples, which are not written in this book: but these are written, that ye may believe that Jesus is the Christ, the

Son of God; and that believing ye may have life through His name." 60 Again, in the last verse of the Gospel it is expressly stated that Jesus did many things which the writer has not recorded. 61 The author therefore clearly asserts that he has made a selection of certain events in the life of Jesus Christ, from a very much larger number, with which he was acquainted, and that the principle which guided him, both in the selection and arrangement, was a religious one. 62 "These are written that ye may believe that Jesus is the Christ," etc. It is impossible more distinctly to assert that the Gospel is a religious memoir.

63 No less clear is the statement of St. Luke. He says "that he wrote in order to the most excellent Theophilus, that he might know the certainty of the things in which he had been instructed." 64 The original shows that the instruction was given with a definite religious purpose. The Gospel is "a declaration of those things most surely believed among Christians." 65 In one word, the work is a memoir, and not a history.

66 If it be replied that Luke says that he wrote "in order," εν ταξει [Greek: en taxei], I answer that there are other orderly arrangements besides those of time and place; 67 and that if a work is a religious memoir, the arrangement would be regulated, though not exclusively, by the reference of the facts to the religious end in view.

68 The assertions of the other two Gospels are not so express, but viewed in connection with their contents they prove that they belong to the same class of writings. 69 Mark writes, "The beginning of the good news of Jesus Christ, the Son of God." Here a religious purpose is asserted to be the guiding principle of the work. 70 Matthew, in accordance with Hebrew phraseology, entitles his work "The book of the generation of Jesus Christ, the Son of David, the son of Abraham." The whole contents of the Gospel answer to this description. 71 It was written to prove that Jesus was the Messiah of prophecy according to the conceptions of Jewish Christianity.

72 Such being the distinct assertions of the writers of the Gospels as to the character of their works, it is absurd to critcise them 73 as one might be justly entitled to do if four Boswells had set forth four lives of Dr. Johnson, the arrangement of which was professedly regulated by the historical sequence. 74 The writer of a religious memoir is entitled to adopt a very different order of events in his narrative from that which ought to be adopted by the writer of a history.

75 An illustration will make this matter plain. If I were to compose a biography of Wesley, I should be bound to narrate the events in the order of time, with a distinct specification of the order of place; 76 but if I were to compose a memoir for the purpose of teaching the doctrines of Wesleyanism, I should follow a very different arrangement. 77 Still more remarkable would be the variation in the arrangement if I wrote his memoir for the purpose of proving that Wesley never designed that the Church which he founded should dissent from the Church of England.

78 Such being the character of the Gospels, objections which would be serious as against regular histories are harmless against compositions of this description. 79 A large portion of their alleged discrepancies arise from the different arrangement of the events narrated in them, owing to the predominance in them of the religious idea.

80 Now observe that in compositions of this description it frequently happens that the connecting links which would make events perfectly harmonise together, are wanting, simply because the purpose of the writer has not led him to record them. 81 I adduce a single instance where the connecting link has been accidentally preserved, and which at once converts a narrative against which most serious objections might have been alleged, into one of the strongest proofs of the historical truthfullness of the Evangelists.

82 We all remember the account of the murder of John the Baptist. It is told with all those minute and delicate touches which are the peculiar indication of autoptic

testimony. 83 It places before our eyes the great feast-- the young lady dancing her lascivious dance-- the words of Herod's vow-- the girl's going out with excitement to her mother-- the demand of the Baptist's head in a large dish-- 84 the sorrow and reluctant consent of Herod-- the mission of the executioner-- the presentation of the head to the girl, and by her to her mother. Everything betokens the presence of an eye-witness. 85 The narrative is open to this obvious objection: How could the disciples of Christ, mean and low as they were, procure so accurate a description of an event which happened in the palace at the great feast? 86 There were neither newspapers nor reporters in those days. But this is only the beginning of the difficulty. 87 The authors of the Gospels profess to give us the 'ipsissima verba' which were uttered by Herod, in the retirement of his palace, when the reports brought him of the fame of Jesus rendered him conscience-stricken. 88 The words are most remarkable, and leave no alternative between their being the words of Herod or a forgery. 89 "It is John," says he, "whom I beheaded: he is risen from the dead, and therefore mighty works do show forth themselves in him." 90 Our version spoils the force of the last words-- "The powers energise in him." This is certainly a most singular expression, and one open to a strong suspicion of forgery; 91 for how could the followers of Jesus have got hold of the very words of an utterance of Herod spoken in the retirement of the palace?

92 But besides all this, the words αἱ δυνάμεις ἐνεργοῦσιν ἐν αὐτῷ [Greek: hai dunameis energousin en autô] plainly imply that it was the general idea that a large number of miracles had been wrought by our Lord.

93 My opponents suppose that the historic Jesus only attempted to work miracles in a very few questionable cases, and that the multitude of miracles which have been subsequently ascribed to Him are the inventions of His deluded followers. 94 Such are the difficulties. Now for their solution.

95 It has been observed that the author of the Acts of the Apostles tells us that among the teachers of

the Church at Antioch during Paul's sojourn there, was Manaen, who was a foster-brother of Herod the Tetrarch. 96 This is told us in a manner which is purely incidental, and supplies us with a possible source from whence the information might have been derived. 97 Still it by no means follows that a man who had the same wet-nurse as Herod was an inmate of his palace, or witnessed the great feast.

98 But a passage of the most incidental character in St. Luke's Gospel supplies us with the source of information which we want. 99 In narrating our Lord's last journey to Jerusalem, Luke tells us that He was accompanied by the twelve apostles, and several women who ministered to Him. 100 Of these he designates three by name. One of these is described as Joanna, the wife of Chuza, Herod's steward.

101 Here then we have the very person we are in want of. Chuza's office of ἐπίτροπος [Greek: epitropos], or steward, imposed on him the duty of superintending the great feast. 102 He therefore witnessed the whole procedure, and his wife was in constant communication with the disciples. His office must have brought him into daily communication with his master. 103 What more likely than when he waited on Herod for his orders, he would ask him the news; and that he should report to him the fame of the great teacher with whom his wife was in attendance? 104 He was therefore in the exact situation to have heard Herod's conscience-stricken exclamation. The source of information is before us. 105 The incidental mention of Joanna and her husband affords to this narrative an attestation such as few events in past history possess. If this incident had been lost, the difficulty would have been insuperable. 106 The manner in which little circumstances dovetail into one another in the Gospels is only consistent with their historical character. It would be impossible if they were bundles of myths or legends.

107 I adduce one instance of the manner in which the Gospels fulfill the conditions of history, even where the absence of the connecting link has occasioned serious difficulty. 108 You all

know that the want of any reference in the Synoptics to the miracle of the resurrection of Lazarus is the stronghold of those who deny its historical credibility.

109 In the absence of any direct information, we are driven for the solution of the difficulty to the regions of conjecture.

110 Let us suppose, then, that the story is a myth. If so, it is obvious that it is a very grand and perfect one. The inventor must have been a man of the highest genius in his way. 111 If a person wished to invent a description of a resurrection, he would find it impossible, in the same number of words, to surpass its perfection. 112 If the author of St. John's Gospel has failed to depict another resurrection in an equally graphic manner, it was not for want of sufficient genius. 113 Yet the Gospel asserts the fact of another resurrection-- that of Jesus Christ; but it utters not one word descriptive of it. All that it says is that Mary Magdalene came in the morning, and found the tomb empty.

114 I put it to your common sense to determine, on the sup position that this Gospel was written by a partisan for the purpose of throwing a halo of glory around the person of his Master, 115 whether the author of the resurrection of Lazarus would not have forged a still more magnificent description of the resurrection of Jesus Christ. His failure to do so is clearly not owing to lack of ability.

116 But how stands the case on the supposition that the Gospel is historical? Everything is exactly as it should be. 117 The Evangelist has given his pictorial description of the resurrection of Lazarus, because he witnessed it. He has not done so with respect to the resurrection of Jesus Christ, because no human eye beheld it. 118 The narrative therefore fulfills the conditions of history, and breaks down under the tests which belong to fiction.

119 The limits of a single lecture necessarily preclude me from entering on any minor consideration. I therefore proceed at once to address myself to the demolition of the central position of my opponents, 120 that while the Gospels contain a few grains

of historic truth, buried beneath a multitude of fables, the greater portion of their contents is a spontaneous growth which sprung up in the bosom of the Christian society in the last seventy years of the first century; 121 and that by means of a number of mythical and legendary inventions, and a succession of developments, a good and holy Jew, named Jesus, was metamorphosed into the divine Christ of the Evangelists. 122 In reasoning on this point, I shall assume nothing but what is conceded by the Schools in question. What are the concessions which I ask as the foundations of my reasoning? Very simple ones indeed, and such that no person can deny me.

123 First, that the Gospels exist; secondly, that the three first Gospels were in existence about A.D. 100, and the fourth about 160; 124 thirdly, that in addition to the facts or fictions which make up our Gospels, they contain the delineation of a great character--Jesus Christ.

125 On the existence of this character my argument is founded. I now concentrate your attention on it, which I shall call for the future the portraiture of Jesus Christ our Lord. 126 I need not prove that it exists in the Gospels, for the most ordinary reader perceives that it is there. The question is, How did it get there? 127 It is very easy to say that the Gospels consist of a mass of fictions. But this is no account of the origin of the portraiture. St. Paul's Cathedral undoubtedly consists of an immense multitude of stones. 128 But to say that a multitude of quarrymen dug them, and that a multitude of masons arranged them according to their spontaneous impulses, is no account of the origin of that magnificent structure.

129 Let us carefully observe what this great portraiture of Jesus Christ, as it is exhibited in the Gospels, consists of. It is the delineation of a great moral and spiritual character dramatised over a wide sphere of action. 130 This portraiture is not the result of the artificial delineation of a character such as we see very commonly presented to us by historians, 131 and of which we see very numerous examples in Lord

Macaulay's History of England. 132 Such characters are the artificial creations of the historians, and exhibit their view of what their heroes actually were. But neither of the authors of the Gospels have once attempted thus to delineate the character of his Master. 133 But the portraiture of Jesus Christ is delineated in the Gospels most clearly and most distinctly. Of what materials then does it consist? 134 Only one answer can be returned. It is the combined result of all the facts, or, as my opponents say, fictions, which compose the Gospels.

135 Now as the existence of this portraiture is not a theory, but a fact, it is plain that it must be accounted for. 136 The assumption that the Gospels are historically true, and that their authors have truly delineated the actions and sayings of one who had an historical existence, is a rational account of its origin. 137 But as these Schools deny their historical character, they are bound to tell us how the portraiture got there. The only answers which they propound are the mythic and Tübingen theories.

138 According to these theories, a good and holy Jew, who had attracted a crowd of enthusiastic and credulous followers, was gradually metamorphosed by them into the divine Christ of the Evangelists. 139 The inventors of the character were impelled by purely spontaneous instincts. They had no intention of conscious deception. They mistook their Master for the Messiah. 140 In the depths of their enthusiastic credulity, they invented multitudes of fictions, and in time mistook them for realities, and innocently ascribed them to Jesus. 141 Development succeeded development. The fruitful mind of the infant Church created myth after myth. Party spirit raged. Compromise followed compromise.

142 Spontaneous impulse by the end of the century had created the materials of our present Gospels. At last three unknown people appeared who arranged these materials into their present form, and produced the Synoptics. 143 Sixty years later, another great unknown arose, whose character must have been a compound of

mysticism, enthusiasm, and imposture, and produced the fourth Gospel, 144 which he successfully palmed off on the Church as the work of the Apostle John, some seventy or eighty years after he was silent in the grave. 145 Such is the alternative which modern unbelief presents as a substitute for the historical reality of the portraiture of Jesus Christ as we behold it in the Gospels.

146 One cannot help pausing to observe the kind of analogy which exists between these theories and those of a certain class of philosophers who attempt to prove that the moral and religious being whom we designate human has been slowly developed out of the lower forms of life by causes purely physical. 147 Like as in the one case each development became an improvement on its predecessor, so in the other the lower fabulous creations must have died out, and the nobler ones prevailed, until at last there emerged from them Christianity and the glorious Christ of the Gospels.

148 Physical philosophers, however, work at a great advantage in developing an ape into a moral being, compared with the mythologists who developed a Jew of the year 30 into a Christ. 149 The one can draw cheques to any extent on the bank of eternity. If a million of years is not sufficient, a million of millions may be easily had. 150 But in the other case my opponents are limited by the stern conditions of history; and the respective periods of seventy and one hundred and thirty years are all that they venture even to demand.

151 Now, observe; the portraiture of the Jesus of the Evangelists consists of a multitude of parts which harmoniously blend into a complicated whole. 152 It is composed, in fact, of as many distinct portions as there are incidents recorded in the Gospels, which all concur in imparting to it a common effect. 153 Those with whom I am contending admit that the character is a very great one. Many of them allow that it is greater and more perfect than any which has ever existed as a fact or been conceived as a fiction. 154 Yet the character, taken as a whole, presents us with an

essential unity. This is obviously the case in the three first Gospels, and will hardly be disputed except on a very few subordinate points. 155 But it is equally remarkable that of the various traits which compose the character, and which are very numerous, each presents us with a similar unity, although they are dramatised over a very wide sphere of action. 156 To this fact I earnestly invite your attention. In the portraiture of Jesus at least twenty distinct aspects of moral character are blended together, and a number of subordinate ones not easy to be counted; 157 and each of these constitutes a separate unity, which harmoniously blends with the others, and together compose the great unity of the portraiture. 158 Numerous as they are, and dramatised over a wide sphere of action, they are yet depicted with a faultless propriety, even in the most minute details. Nor does it to any serious extent differ with the fourth Gospel. 159 This is certainly the case as far as the actions attributed to Jesus are concerned, though it is not so obvious in the case of the discourses. Still even in these an underlying unity of conception can be found. 160 The four Gospels contain, in fact, four portraitures of one and the same Christ, only differing from each other in the point of view from which they are taken.

161 Now the obvious course would have been to have assumed that the conception of the original character was the creation of some great poet, and that the fourfold modification of it which our present Gospels exhibit has been the work of four subsequent poets. 162 But this supposition the facts and phenomena of the case consign to the region of hopeless impossibilities. 163 It is therefore necessary to assume that the character itself, and the Christianity of the New Testament, have been gradually elaborated bit by bit, not by a succession of great poets, but of credulous, enthusiastic mythologists; 164 and that the Synoptic Gospels originated in piecing together a multitude of tales which in the latter end of the first century were floating on the surface of the Christian Church.

165 It is impossible to deny that the Jesus of the Evangelists is an immeasurably finer conception than either the Prometheus of Æschylus, which exhibits the divine in suffering, or the Macbeth or Hamlet of Shakspeare. 166 Each of these characters is distinguished by a unity of conception which proves that as characters they are the creation of a single mind. 167 But supposing we were to be told that these, and the dramas which contain them, were not the creations of single poets, nor even of a succession of poets, 168 but had been slowly elaborated, step by step, during a considerable interval of time by a number of credulous enthusiasts. 169 My opponents would be the first to receive such a suggestion with shouts of derision.

170 It is plain that if the portraiture of our Lord be an ideal creation, those who framed it must have been gifted with a high order of genius.

171 Let me illustrate the position by the art of painting. High genius in painting is analogous to high genius in poetry. 172 Let us suppose that we are contemplating a great ideal picture,-- 'e.g.', the Marriage Feast in Cana of Galilee, at the Louvre,-- and that we are told that it is not the work of a single artist, nor even of four, but of a succession who gradually developed it. 173 Nor, to make the case a parallel one, is this all which we should be asked to believe. As I have already observed, the portraiture of the Jesus of the Evangelists is made up of a multitude of parts, each of which has a separate unity, from the union of which the unity of the whole results. 174 These are said to have been elaborated out of a number of myths and developments which have been the creations of many minds. 175 In a similar manner the picture of the Marriage Feast at Cana consists of a number of separate figures which harmoniously blend into a whole, and to which the magnificent colouring has been adapted.

176 Now suppose that we were told that each of these figures had been gradually developed into its present form by a set of improvements effected unconsciously by a succession of painters; 177 and that all that the

artist who formed the picture did was skillfully to combine these separate figures, and place them in juxtaposition. 178 Surely one would not be uncharitable in assuming that the author of such a suggestion had escaped from a lunatic asylum.

179 Similar is the theory of these Schools as to the origin of the Gospels, and of the great character contained in them. 180 Such a theory of their origin demands our acquiescence in a greater miracle than all the miracles of the New Testament united together. 181 Viewed in its great outlines, this theory is self-condemned by its inherent absurdity. But when we apply a sound logic to its details, it vanishes like one of the palaces of the Arabian Nights. 182 Professing to be based on rational principles, it violates all the laws of reason. For historic truth it substitutes wild dreams of the imagination. 183 You will please to keep steadily in mind that the means by which my opponents undertake to metamorphose a Jew of the year 30 into a divine Christ, stated generally, are a succession of mythical and legendary creations and developments, contests and compromises, 184 between hostile sects evolved in conformity with the laws of the intellectual and moral world. Let us now assume the truth of their position, and see how it will work.

185 If the Jesus of the Evangelists be a development, it is evident that it must have had a starting-point. 186 This could have been none other than the atmosphere of thought and feeling which existed in Judæa during the first thirty years of the first century.

187 But none more firmly profess their belief in the reign of law in the world of mind and matter than those whose theories I am controverting. 188 In consequence of this belief they pronounce all supernatural interventions in human affairs impossible. 189 I thankfully concede to them the fact that all developments affecting the mind of human which are of purely human origin must be brought about in conformity with law. 190 Let it be clearly understood, therefore, that my reasoning is based on this assumption. This point being clear, the question immediately presents

itself, 191 what is the nature of the laws which regulate the mental developments of human, especially in your character of a moral and religious being? 192 Are they rapid, or do they require long intervals of time for their elaboration? Are great changes in our moral or religious ideas of a quick or a slow growth? 193 The answer to these questions is of vital importance to the argument, because on the showing of my opponents they have only seventy years at their command during which they can develop the Christ of the Synoptics, 194 and the Christianity of nearly all the Epistles, from the religious and moral ideas of the Judaism of the year 30. 195 Fortunately for us, the universal testimony of history answers these questions with no ambiguous voice. The developments of human, whether moral, social, or religious, are slow. 196 The whole course of civilisation, including within that term everything which relates to the growth of the mind of human, and which tends to your refinement and higher culture, is a very gradual one; 197 and its successive stages require long intervals of time for their development.

198 Whenever unbelievers attempt to account for the growth of human civilisation from a savage state, or to develop a human out of an ape, in the one case they demand tens of thousands and in the other millions of years for its accomplishment. 199 As this point is of great importance to the argument, I must adduce distinctive proof of it.

200 No truth is more certain than that it is impossible for humans, either individually or collectively, to raise themselves except by very gradual stages above that moral and spiritual atmosphere in which they were born. 201 We are united by the closest ties of habit and education with the past. We breathe from the dawn of our consciousness the very atmosphere of its thought and feeling. 202 Every succeeding state of society is most closely bound to that which preceded it. Every great change in thought or feeling has been produced by a succession of changes leaving no deep gulf between. 203 Individual progress,

unless external influences are brought to bear on the mind, follows the same law of gradual growth. 204 Even genius, and what are called the creative powers of the mind, are fettered by these conditions. All greatness is relative to and bears the impress of the age which produced it. 205 Great people differ from others only in being able to advance a few stages beyond ordinary humanity. But the greatest genius is unable to elevate itself into a very high region of thought or feeling at a single bound, or to sever the links which unite it with the past. 206 The utmost effect which the greatest of people have been able to produce on those by whom they have been surrounded is to cause their actual developments to advance at a somewhat accelerated ratio.

207 To the truth of these general principles all history testifies. When we measure each stage of human growth, we find that it has occupied long intervals of time. 208 So gradual is the process, that considerable changes can only be discovered after the lapse of lengthened periods.

209 The whole history of philosophy, art, morality, and religion testifies to this. All philosophic schools of thought have been of gradual growth. 210 The daub of a savage has never suddenly develop itself into the creations of a Michael Angelo or a Rubens, nor have one's rough imitations of the human form passed but by a succession of gradual stages into the perfection of a Phidias. 211 Poetry, the most creative of arts, is subject to similar conditions. The ideas with which the poets works are those of the age in which they lives. 212 You paints the phenomena and reflects the line of thought, the morality, the religion, the intellectual and social conditions of the times which gave you birth. 213 What you accomplishes is to exhibit them under new combinations. A bushman never at a single bound became a Homer or a Shakspeare. 214 The history of philosophy bears witness that the universal law of our nature is a gradual growth. Each of its developments was closely allied to that which preceded it, and directly grew out of it. 215 Each

School has occupied a considerable time in its development, has grown out of that which preceded it, and prepared the way for its successor. 216 The interval which separates the respective stages is small. Each great race of humankind has also created a philosophy stamped with its own impress, and directly related to its peculiar character. 217 A native of Australia has never suddenly elevated the self into a Socrates. The same law is no less applicable to religions. We know no instance of the direct creation of one. 218 It is true that the origin of many is buried in the obscurity of the past. 219 Yet as soon as they emerge into the light of history, it is clear that they are subject to a law of gradual growth; and after they have attained their full development, to a no less remarkable law of gradual decay. 220 All the religions on earth, with the exception of Christianity, bear witness to this rule. What have been called new religions, have been evolved out of previously existing materials, modified and adapted to the growth and decay of civilisation. 221 No Fetish worshipper, however lofty your genius, could have evolved the systems of Brahmanism or Buddhism by a single bound of your imagination. 222 If the law of the growth of religions is a very gradual one, that of our moral ideas is far more so. Improvements in the great moral principles which regulate the life of human are most painfully slow. 223 All the great races of humankind have presented the same general outlines of character, with only slight improvements, from age to age. 224 I quote only two examples, the modern French and Germans. How strikingly like are certain portions of the character of the former, to the picture of the Gauls given in the pages of Cæsar; 225 or to the descriptions of the same race inhabiting a distant region which the great apostle has drawn in the Epistle to the Galatians. 226 We may still read the general outline of the character of the German race in the pages of Tacitus. Developments there have been, and the slowness is sadly disappointing to the philanthropist. 227 To be able even to recognise

progress, we must survey long intervals of time. 228 The optimist has indeed need of patience; and the most enthusiastic may be certain that long ages before any considerable advance is made, according to the mere laws of natural development, you will be slumbering in the grave.

229 But it must not be forgotten that the developments which our opponents postulate are always in the way of progressive improvements. 230 Stern historical fact compels us to assert that developments are frequently retrogressive. No less gradual is the moral progress of the individual. 231 It is also a painful but undeniable fact that retrogressive ones are much more rapid than progressive ones. The moral ideas in the midst of which we are educated cling to us with the firmest grasp. 232 The best people exhibit only a slight advance above the general morality of their age.

233 I now draw your attention to the fact that the inventive powers of the composer of fiction are limited by the same laws. 234 You too, in the strict sense of that term, is unable to create the new. The materials with which you can work are the idealisation of the times in which you lives. 235 Whether you be poet or novel writer, you can neither invent a new religion or a new morality. Mythical inventions of every kind embody the state of thought, feeling, and general idealisation of the times which produced them. The entire mass of existing mythology testifies to this fact.

236 Such, then, are the instruments and materials with which my opponents have to work in the elaboration of Christianity out of Judaism, and in metamorphosing a human Jesus into a divine Christ. Let us examine the possibility of the attempt.

237 We must place ourselves in the position of the followers of Jesus on the evening of the crucifixion. 238 His individual influence had gathered around Him a number of enthusiastic and credulous followers who mistook Him for the Messiah of popular expectation. 239 The crucifixion certainly dashed their hopes. But according to the theory of my opponents, in the height of their

enthusiasm they determined to believe in Him as the Messiah still. 240 To carry out this resolution, it is obvious that new ground had to be taken. A development of some kind was absolutely necessary. No amount of credulity could mistake a dead body mouldering in the grave for the Messiah of Jewish expectation.

241 It was absolutely necessary, therefore, if His Messiahship could become a possibility, that the crucified Jesus should be rescued from the tomb. 242 If a resurrection could not be effected in reality, it was indispensable that one should be in imagination. 243 Until His followers could be brought in considerable numbers to believe that this had happened, no developments in the direction of the Gospels were possible. 244 The most obvious expedient to have accomplished this would have been for some of the disciples to have done that which, according to one of the Evangelists, the Jews accused them of, viz., to have stolen the body, and report that Jesus was risen from the dead. 245 But those against whom I am reasoning do not venture to accuse them of conscious fraud. This assumption all educated unbelievers have long abandoned as hopelessly untenable. 246 Such a basis will certainly not bear the weight of the Christianity of the New Testament. In place of this, they assume that the credulity, idealism, and enthusiasm of the followers of Jesus was bottomless. 247 With this machinery they think that He can be rescued from the grave.

248 Two theories have been propounded for this purpose. One is that some enthusiastic woman--Mary Magdalene, for example--thought that she saw Jesus with the mind's eye, or mistook the gardener for Him, and converted this appearance into a bodily reality. 249 She communicated her enthusiasm to the rest. Others may have imagined that they saw Him in a similar manner, and committed a similar mistake.

250 The other theory is that He was buried in a swoon, that He managed to creep out of His grave, that He partially recovered, and died shortly after in retirement. 251 On such a foundation my opponents propose to erect the

whole weight of the historic Church, and from such a chimera to develop the portraiture of the divine Christ.

252 The second theory I should not have mentioned if it had not been dignified by the name of Bunsen. It is obvious that it will not support the weight of the Christian Church. 253 What! a man who died from weakness shortly after creeping out of his grave, metamorphised by his followers into a divine Messiah, and seated on the right hand of God! 254 If He lived in retirement, and died in Phœnicia shortly afterwards,-- according to an assumption for which there is not even the ghost of historical testimony,-- His followers had access to Him or they had not. 255 If we adopt the former part of the alternative, no amount of credulity could have mistaken Him for a glorious Messiah rescued from the tomb. 256 The very sight of Him must have acted as a complete extinguisher on the powers of the imagination. 257 If we adopt the latter, it falls under the general head that the belief in the resurrection was merely due to an excited imagination. All the assistance which it renders is to dispose of the dead body.

258 Now, in theory, nothing is easier than to say that an excited woman saw Jesus with her mental eye, mistook it for a bodily reality, and communicated her enthusiasm to the rest of His followers. 259 But in practice, such things are not quite so easy. Although it is no hard matter to persuade the credulous to believe in the appearance of ghosts and phantoms, 260 yet I do not know that the whole history of human presents us with a single example of a great institution which owes its origin to such a belief. 261 But even the credulous believers in such apparitions are very difficult to persuade that they have actually seen a man who once had died again restored to life. 262 I doubt whether the entire mass of fictitious literature presents us with anything at all analogous to the supposed belief of the credulous followers of Jesus in the resurrection of their Master. 263 Even persons who have a most imperfect knowledge that Nature is governed by law, are quite

aware that dead humans do not revive. 264 The followers of Jesus could have been hardly more credulous than modern spiritualists, yet these latter have not yet succeeded in erecting a great institution on the basis of an actual resurrection from the dead, or even on the presence of a spirit in a table. 265 Supposing, therefore, that some fanatic follower of our Lord made the mistake in question, it could really have been no easy matter to have communicated this enthusiasm to the rest, damped as their spirits were by the crucifixion. 266 Still more difficult would it have been for any considerable number to have made the mistake of converting a flight of the imagination into an objective fact. 267 At any rate my opponents must concede that to have persuaded any number of people under such circumstances that the crucified Jesus was actually risen from the dead must have required a considerable interval of time.

268 It would be much more easy to create a belief in a resurrection after the lapse of a century, than within a few years of the event. 269 When we survey a past event through the haze of time, it helps to confuse our ideas as to what is possible. 270 But long intervals of time so convenient for the physical speculator are precisely the things which my opponents have not at their disposal. 271 Seventy years is all which they themselves think it possible to ask for; and as all developments are slow, one or two entirely exhaust it, and they require a multitude to effect their purpose. 272 But not only was it necessary to get some of the enthusiastic followers of our Lord to believe in His resurrection, but also to constitute a society founded on its basis. 273 Until this was done, all development was impossible. But each step requires a considerable interval of time. But how could the Church be held together while the belief in the resurrection was forming?

274 But even supposing that Jesus by the power of the imagination had been rescued from the grave, it became a very serious question what to do with Him. 275 No amount of credulity could have brought Him into daily communication with His

followers. If He continued on earth, His not doing so was a very serious affair. 276 The obvious expedient was that He should be taken up into heaven, from which at some future day he should come back again and take possession of his Messianic throne. 277 Such is the idea adopted by these schools of thought, and they are never wearied with telling us that the chief if not the only article in the primitive belief of the followers of Jesus was His speedy return to realise their expectations of His Messianic glory.

278 Be it so; for the consequences are very serious to the position of those whose views I am combating. 279 His followers then expected Him to return as the Jewish Messiah. Now nothing is more certain than as long as this expectation lasted there could have been no development in the direction of the Christ of the Gospels. 280 How long, then, did this state of stagnation last in the bosom of the Church? When did it occur to the followers of Jesus that the expectation of the speedy return of their Master was a baseless one, and that they must set themselves to work to develop a different conception of a Christ? 281 It is a fact that such beliefs do not speedily die out, and that they can survive many a disappointment. 282 The modern prophetic School affords a striking proof of the tenacity of such hopes. 283 They have repeatedly prophesied that the Advent will happen in our times; and notwithstanding the falsification of their predictions, I believe that they still cling to this belief. 284 At any rate it has required a long interval of time to undeceive them; and as credulity was, according to the views which I am combating, the leading trait of the followers of Jesus, it must have been a considerable interval of time before they could have been persuaded to part company with their darling expectation. 285 But as long as a Jewish Messiah satisfied their aspirations, the Church could have developed no new Messianic conceptions.

286 But to afford something like a basis for reasoning, I will suppose these obstacles to have been surmounted; 287 that the work of development has commenced, and

that the womb of the Church is at last become pregnant with its future Christ. 288 Fresh and ever-increasing difficulties present themselves for solution.

289 Let it be observed that, after they have effected the resurrection, all which has been accomplished was to repair the damage inflicted on the Church by the crucifixion, and to restore to it, as a necessity of its existence, a living instead of a dead Messiah. 290 That Messiah was still the Messiah of Judaism. They have scarcely advanced a stage in the creation of the Gospels, and of the Christ therein delineated,-- not to say of the entire moral and spiritual teaching of the New Testament.

291 Let us observe the steps of the process by which the metamorphose must have been effected. 292 It is, say my opponents, very uncertain whether the historic Jesus ever attempted to perform a miracle. But according to the conceptions of the times, His followers thought that the Messiah ought to have performed them. 293 To supply the defect, they invented a mass of miraculous stories, and in their fond credulity thought that Jesus had actually performed them, and thus the delusion of His miraculous wonder-working was propagated in the Church. 294 But all experience proves that mythic and legendary miracles are grotesque. Yet those in the Gospels are all sober ones, and stamped with a high moral tone. 295 They must therefore have undergone a succession of developments before they could have assumed their present form. 296 Still a Jewish Messiah has yet to be transformed into the Jesus of the Evangelists. After a while a happy thought occurs to these uninstructed Jews. They determine to invest the Teacher with whom they had habitually conversed with a character at once divine and human. 297 The mythic faculty is again invoked, and the human Jesus, by the aid of development after development, gradually assumes the aspect of the divine Christ. 298 In a similar manner they feel that the moral aspect of the Messiah of their fondest expectations must undergo a change, 299 and in due time the triumphant King becomes the

meek and the lowly Jesus, and the morality of Pharisaism becomes that of the New Testament. 300 Few persons are at all aware of the enormous difficulties which would have beset any persons who, whether consciously or unconsciously, set themselves to metamorphise a Jew of the year 30 into the Christ of the Gospels. 301 Familiarity with the character induces numbers to think that poets or fabulists, inventors of myths and legends, might easily have created it. 302 To form a correct estimate of the difficulty, it is necessary to transport ourselves out of the nineteenth century into the Jewish atmosphere of thought and feeling of the century which preceded the Advent. 303 A starting-point it must have had. There could have been no other than it.

304 Let it be observed that before the elaboration of the Jesus of the Gospels, those who fabricated the conception were wholly without a model to guide them. 305 All ancient fact or fable fails to furnish anything at all analogous to this great character. Such models as they had would have guided its inventors wrong. 306 The only ones which they possessed were the popular Messianic conceptions of the period, and the prevailing Jewish ideas of religion and morality. 307 Besides these, they might have fallen back on the general ideas contained in the Old-Testament Scriptures and the apocryphal books. 308 The ideal of a Jewish hero would certainly not have helped them in forming the conception of the Evangelical Jesus. One apocryphal book has been frequently referred to as affording considerable aid-- the Book of Enoch. 309 I have fully discussed this subject elsewhere, and the conclusion to which I have arrived is, I think, incontrovertible, that even if we grant that its Messianic portions were composed prior to the Christian era (a concession which I am by no means prepared to make), 310 the aid which it would have afforded the mythologists who invented the Christ of the Gospels would have been inconsiderable. 311 To avoid a lengthened controversy as to its date, I am quite willing that these schools of thought should make all the use they can of them.

312 Let me point out a few of the difficulties which must have beset the path of the inventors of the great portraiture of the Gospels. 313 Every reader at once recognises that the character who is there depicted is a superhuman one; or rather, to speak more accurately, it is exhibited as uniting the human and the divine. 314 This is a plain matter of fact, and is quite independent of the question whether the Evangelists were right in so representing it. 315 Nor is my argument at all affected by any supposed difficulty in defining, in the terms of an abstract creed, the precise measure of the divine which they have ascribed to it. 316 All that I contend for is that the Jesus of the Evangelists is dramatised as uniting a divine and human consciousness, and that it is exhibited with a faultless propriety.

317 Now the moment the mythologists made a movement in this direction, a hundred problems of a most difficult character must have demanded their solution before they could advance a single step. 318 I can only adduce one or two examples. How was the human to be represented as acting in union with the divine, and the divine with the human? In what proportions were they to be combined? How was the one to be prevented from swallowing up the other? 319 Let it be observed that there was no model to guide them. The attempt to exhibit the divine and human in a single personality had never been attempted before.

320 The difficulty will be at once seen from a reference to the Old Testament. The nearest approach which it exhibits to uniting the human and the divine is in the act of prophetic inspiration. But in this the two factors are invariably distinct. 321 The Old Testament prophet, when under the influence of the prophetical illapse, invariably prefaces own utterances with "Thus saith the Lord." 322 These words are never once placed in the mouth of Jesus throughout the entire Gospels. Instead of them, His most solemn utterances are introduced with the words, "I say unto you." 323 The prophet is generally vehemently excited. The Jesus of the Evangelists is invariably calm.

324 You must never forget that the position of those against whose theories I am reasoning compels them to assume that the contents of the Gospels have been elaborated by the action of a multitude of minds. 325 Be it so. It follows that these problems must have received as many different solutions as there were minds engaged in the attempt. 326 Instead of the character which resulted therefrom presenting a unity of aspect, it would have been a mass of hopeless confusion.

327 My limits will only allow me to draw your attention to one or two of these difficulties out of the vast multitude. The historical Jesus was unquestionably crucified. How was a crucified man to be represented as divine? 328 He died in agony. How was an artist to dramatise the divine in suffering? 329 If my hearers are not aware of the difficulties which would have attended the solution of these and kindred questions, I advise them to study the creation of the great Grecian dramatist, the Prometheus Vinctus of Æschylus, and compare it with the Jesus of the Gospels. 330 I am sure that correct taste will pronounce that the creation of the fishermen of Galilee utterly transcends that of the genius of the great tragedian.

331 Nothing is more difficult, even in works of fiction, than to combine the attributes of holiness and benevolence as harmoniously acting in the same person. 332 In living humans they almost invariably jar. They possess them imperfectly, and one generally counteracts the action of the other. 333 The difficulty of combining them is greatly increased if the being uniting them is to be represented as both human and divine.

334 Holiness and benevolence are in fact opposite sides of character, and no more difficult problem can be presented to the imagination than to exhibit them as acting harmoniously in the same character. 335 No question in theology is more embarrassing than the mode in which they coexist in God. 336 It follows that if the contents of the Gospels were due to a multitude of minds, they must have exhibited as many aspects of the character of a Christ as there were fabulists engaged in

its creation. 337 But the character of the Jesus of the Gospels, in its combination of holiness with benevolence, presents us with a complete unity. Not only is the unity complete, but the perfection of the picture is inimitable. 338 Where can we find, either in fact or fiction, anything like the perfection of the holiness and benevolence of the Jesus of the Evangelists? Yet we are asked to believe that it has been a gradual growth created by successions of credulous mythologists.

339 The moral and religious teaching of the Gospels forms a subject by itself of large dimensions, and it is impossible for me within the limits of a lecture to do more than glance at it. 340 It consists of two perfectly distinct portions: first, the subject of morality and religion as it is exhibited in the person of Jesus Christ; 341 secondly, as He taught them for the use of ordinary people. Most unbelievers will admit that the portraiture of Jesus Christ, as it is exhibited in the Gospels, is one of the most spotless moral beauty, and the greatest elevation. 342 I am quite aware that a few exceptions have been made to it; but some of them are obviously founded on misapprehension, and others are evidently incorrect. 343 At any rate it cannot be denied that the entire moral aspect of the person of Christ is unique in human literature. No less remarkable is His moral teaching for the use of ordinary people. 344 It is pure, elevated, beneficent, grand. It bears the unquestionable marks of having been the elaboration of a single mind. The parts are adapted to each other and to the whole.

345 But our Lord's moral character, and His moral teaching as they are exhibited in the Gospels, consist of a number of detached portions, which together make up a complicated whole. 346 Their solution involves such a multiplicity of questions, as to render it difficult to count them. They are questions which the profoundest thinkers have solved in the most varied manner. Yet in the Gospels the mode of their solution is a complete unity. They coalesce with an inimitable beauty. 347 Let unbelievers cavil as they may, an overwhelming majority of

the holiest and the best of people have bowed before the character of the Jesus of the Evangelists in humble adoration, and felt that it was immeasurably above them. 348 Numbers of these subjects were inquired into by ancient philosophers with the keenest interest, but they found no adequate solution. 349 My opponents assert that this great character, around which the entire morality of Christianity centres, is not an historical one. How did it then originate? 350 The answer is, that it is founded on the traditional reminiscences of the teaching of a Jewish peasant who died in early humanhood; 351 and that the numerous parts of which the character and His teaching consist were unconsciously elaborated in the course of many years by a multitude of credulous, enthusiastic mythologists.

352 I must now advance to another stage of my argument. As my opponents assert that the development of the Gospels, and of the portraiture of the Christ which they contain, were entirely due to natural causes, 353 it is evident that they must have been effected in conformity with the laws which regulate the developments of the human mind. Let us test this principle.

354 Taking the atmosphere of Jewish thought and feeling as it existed in the year 30 as the starting-point, 355 it is evident to every one at all acquainted with the subject, that the interval which separates its conceptions from those of the Gospels is far greater than that which separates any two types of human thought. 356 To take a single example. The interval between the free spirit of morality as it is exhibited in the New Testament, and the casuistic and ritualistic tendencies of moral thought which ultimately developed themselves into Rabbinism, is profound. 357 If, therefore, Christianity grew out of Judaism by a succession of natural causes, the interval between them must have been bridged over by a succession of developments. 358 So, again, with respect to Messianic conceptions. A profound interval separates that of Christ from that of Barchocebas, to which Jewish Messianism was then tending. 359 That of

Barchocebas was a natural growth out of the popular Messianic conceptions of the year 30, and separated from them by no great interval. But their development occupied no less than a century. 360 But if the Jesus of the Evangelists grew out of the popular idea of the year 30, it is evident that the succession of developments must have been very numerous, and have required long intervals of time, before it was possible to create the portraiture of Christ.

361 Let me take another example, which those against whom I am reasoning cannot refuse to accept. 362 The interval which separates the state of religious and moral thought involved in the primitive Mosaic institutions from that of the year 30 is considerable, though far less than that which separates the latter from that contained in the Gospels. 363 In adducing this example, I use one most favourable to my opponents. Christians maintain that this development was accelerated by supernatural causes. 364 The proper subject of comparison would have been one which both sides are agreed to have been effected by causes purely natural. 365 I need not however fear making the concession, for it will more than bear the weight of my argument. We will suppose that the entire history of Judaism, as those with whom I am reasoning say, contained in it nothing supernatural. 366 I ask you therefore to observe that the development in question was completed only after an interval of more than a thousand years from its commencement. 367 Yet we are invited to believe that the Christianity of the Synoptics, and of the larger portion of the Epistles, was evolved in a period of seventy years, and the Christian Church erected on them, as its foundation, and that of the fourth Gospel in 130 years.

368 Let us take another mode of measurement of my opponents' own choosing. The Synoptic Gospels, as they say, are separated from that of St. John by an interval of sixty years. 369 Is it possible to bridge over the interval which separates the Synoptics from the Jewish atmosphere of thought and feeling of the year 30, in seventy

years, if it required sixty years to effect the development in question?

370 Against one convenient assumption I must present a most respectful protest. Whenever it suits their purpose, the human Jesus is represented as a very great man, who towered high above the ordinary conditions of humanity. 371 Again, when it is convenient He is represented to have been a very little man, the prey of all the superstitions of His age. 372 I am prepared to reason on either side of this alternative, but not on both. 373 These Schools postulate greatness whenever they want to make a prodigious leap in religion and morality; littleness when they want to account for the miraculous element in Christianity. 374 But while I am ready to assume as the basis of the argument that the human Jesus was a great man, let it be understood that He could have been great only in the sense in which all other great people have been great. 375 Those who deny the possibility of physical miracles must not, when it suits their purpose, assume the existence of moral ones. 376 His greatness must have been limited by the conditions imposed on it by the environment of a Jew of the year 30 who was born a peasant, and perished at thirty-five years of age.

377 Observe again, the miracles of the Gospels have to be invented somehow. I am ready to concede that miraculous stories of a certain type have been invented in rich abundance. 378 But the whole class of fictitious miracles invented in credulous ages are stamped with a peculiar trait from which those of the Gospels are free. 379 The one are monstrous, undignified, and grotesque. The others are sober, dignified, and I think that my opponents will allow, if miracles are possible, worthy of God. 380 The preservation of the apocryphal Gospels enables us to know what sort of miracles the mythic spirit commencing with the next century attributed to Jesus Christ. I have examined the subject elsewhere. The following passage sums up the result:--

381 "The case stands thus: our Gospels present us with the picture of a glorious Christ; the mythic Gospels with that of a

contemptible one. 382 Our Gospels have invested Him with the highest conceivable form of moral greatness; the mythic ones have not ascribed to Him one action which is elevated. 383 In our Gospels He exhibits a superhuman wisdom; in the mythic ones a nearly equal superhuman absurdity. 384 In our Gospels He is arrayed in all the beauty of holiness; in the mythic ones, this aspect is entirely wanting. 385 In our Gospels, not one stain of selfishness defiles His character; in the mythic ones, the Lord Jesus is both pettish and malicious. 386 Our Gospels exhibit to us a sublime morality; not a ray of it shines in those of the mythologists. The miracles of the one and the other are contrasted in every point. 387 A similar opposition of character runs through the whole current of thought, feeling, morality, and religion."

388 I ask my opponents to account for this difference, and specially to say why in the second century the mythic spirit began to create a ridiculous Christ, and in the first it produced a glorious one; 389 and through how many stages of development the creation passed until it culminated in what we read in the Gospels, and the interval of time to be assigned to each.

390 But according to the theories I am combating, the Messianic aspects of the character of the Jesus of the Evangelists must have passed through a succession of developments before they could have attained their present form. 391 Different parties had to invent different aspects of it. Next, these had to procure acceptance in the various Churches. Each party would cling to its own views. The formation of hostile sects in the Church was a certain consequence. 392 If they gradually wore themselves out, all experience of sectarian warfare proves that the interval must have been long. 393 We know as fact that nothing is more difficult than to effect compromises between contending religious factions; and that they are only, if at all, possible after long and bitter experience. 394 I ask you to compute for yourselves how many developments and compromises must have been

required, and the interval of time each must have occupied?

395 Far more difficult and more numerous must have been the developments by which the moral aspects of the Gospels and of their divine Christ must have been elaborated out of the Judaism of the year 30, and the popular conceptions of its Messiah. 396 I shall select for illustration only two examples out of a vast multitude. One of the most marked distinctions between Gospel and ancient moral teaching is this: 397 the whole aspect of ancient moral teaching assigned the highest place to the heroic and political virtues, and a subordinate one to the mild, meek, benevolent, and humbler ones. 398 This is precisely reversed in the morality of the New Testament. 399 Again: the aspect of a Jewish saint and hero, as it is depicted in the Old Testament, forms a singular contrast to that which the New Testament has assigned to Jesus Christ. 400 I have proved that moral developments in the direction of improvement are very slow. I propose, therefore, the following problem for my opponents to solve. 401 Through how many stages must these have passed before the creation of the Gospels became a possibility, and how many years must they have occupied?

402 But all the while that the Christian Church was creating a mythology, and struggling with developments and contentions and external opposition, it is an historical fact that it succeeded in extending itself over a wide geographical area. 403 This greatly aggravates the difficulty of developing an improved Christ out of her pregnant womb. 404 The wider the geographical area over which she gradually extended herself, the more difficult would have become the interchange of ideas necessary for developments and compromises. 405 It by no means follows that one little society would immediately swallow the mythic creation of another.

406 I must observe that this portion of the argument is cumulative, and admits of being pressed to an indefinite extent. 407 It now remains for those against whose theories I have been reasoning to count the number of these

developments, and to assign a reasonable interval for each. 408 If they will do so, they will then find that these theories are hopelessly untenable. I have hitherto argued, on the chosen position of my opponents, that the Synoptic Gospels were written about the year 100, and the fourth about 160. 409 Such dates are entirely fallacious, and against all evidence. But as far as my reasoning is concerned, it matters little when the Gospels were composed. 410 If I can prove that the portraiture of Christ and the general aspect of the Gospels were familiarly known in the Church at a much earlier period, it is not the smallest difference for my argument whether they existed in an oral or a written form. 411 The concession of seventy years for the creation of the Synoptic Gospels, and one hundred and thirty for that of St. John, has now to be entirely revoked.

412 The most extreme of the School that I am opposing concede that the four most important epistles of St. Paul are unquestionably genuine, and written by him within less than thirty years after the resurrection. 413 The genuineness of at least four others is conceded by the most eminent unbelievers. We have, then, before us genuine historical documents of Christianity, 414 composed by its most active missionary at about the same distance of time from the resurrection as that which separates us from the repeal of the Corn Law Act.

415 Now by the aid of these epistles it is possible to prove by a multitude of incidental allusions that all the great features of the portraiture of Jesus Christ were fully developed when St. Paul wrote them. 416 Nay, what is more, the manner in which the allusions are made prove that this portraiture was not a new one, but that it had been long known in the Christian Society. 417 To exhibit this proof would require a lecture of equal length to the present. As I have given it already elsewhere, and it has not been assailed, I shall assume that my position is incontestable.

418 The period of time during which the human Jesus must have been developed into the divine

Christ of the Gospels, if the portraiture be a fictitious creation, must be reduced to one of less than ten years. 419 But whether it be ten, seventy, or one hundred and thirty, it contradicts the laws by which all human developments are regulated. Its creation involves a moral miracle of the most stupendous character. 420 My opponents postulate a number of conditions which history and philosophy refuse to concede. They require a long interval of time; history will only grant them a short one. 421 They require that developments should be rapid; they are always slow, especially moral ones. 422 They require the creation of elevated moral sentiment; their only instruments with which to work are credulous mythologists. 423 They require that developments should be always progressive towards higher perfection; history declares that they are frequently retrograde ones. 424 They postulate party spirit, but it produces endless division. 425 They require compromises, but they must be made by credulous enthusiasts. 426 They require unity of result; they postulate a multitude of agents. 427 They ask for credulity, and are confronted by sobriety. 428 They ask for seventy years; historical fact will concede them less than ten. 429 They deny physical miracles, and ask us to believe in moral ones.

430 Such is the position of the school of thought against whom I have been reasoning. They are called by a sad misnomer rationalistic. I ask, are these theories rational, probable, or possible? 431 Defenders of revelation have no grounds for dreading an appeal to reason. 432 If the Gospels, and the glorious Christ therein delineated, have been evolved in accordance with the various theories against which I have been contending, it involves a greater miracle than all the miracles of the New Testament united together.

EXPLANATORY PAPER
The Right Rev. The Lord Bishop
of Gloucester and Bristol

9 Having been requested by the Committee of the Christian

Evidence Society to draw up a short paper which might serve as a partial introduction to the Lectures, 2 and especially might set forth their general plan and connexion, as originally designed by the Committee, I have much pleasure in submitting the following brief comments to the many readers of this valuable series. 3 The Lectures were delivered in the course of the spring in the present year, to large audiences, in St. George's Hall, Langham Place, and were specially designed to meet some of the current forms of unbelief among the educated classes.

4 They were delivered at the request of the Christian Evidence Society, and represent a portion of the work undertaken by the Committee of that Society in the present year. 5 As they thus stand in such close connection with our Society, it may not be unsuitable for me to make a few explanatory remarks on the Society itself, and its general objects, 6 as well as on the plan of the lectures which have been delivered at its request, and which are now presented to the reader in a collected and continuous form.

7 First, then, as to the Society, and its present working and design.

I. The Society was established in the spring of the past year. It had long been felt by earnest and thoughtful persons, both Churchmen and Nonconformists, 8 that some combined attempt ought to be made to meet in fair argument the scepticism and unbelief which for the last few years have been distinctly traceable in all classes of society. 9 Into all the causes of this state of things it is not now our object to inquire. These are, probably, many and various, and may defy any formal classification. 10 It is, indeed, seldom that those who live in the stream and current of a quickly moving generation can properly estimate the variously combined movements around them, or can always very successfully refer them even to their more proximate causes. 11 We may, however, very profitably, as thus illustrating the general design of the lectures, pause to advert to two or three of what would seem to be leading causes

of this present prevalence of doubt and scepticism.

12 We may, in the first place then, venture to express the opinion that it does seem to stand in some degree of connection with the historical criticism, 13 or, to speak more exactly, with the philosophical mode of treating ancient history, which, especially since the time of Niebuhr, has so honourably marked the present and the latter half of the preceding generation. 14 It was obviously impossible that a system which appeared to yield results judged to be eminently satisfactory and trustworthy in regard of the general history of the past, should not be applied to sacred history, and to the various documents which together make up the Holy Bible. 15 And it 'has' been applied, sometimes cautiously and reverently, and with a due regard for the religious convictions of Christian readers, 16 but sometimes also with an eagerness and persistence which may not unfairly be characterised as both inconsiderate and unjustifiable. 17 This method of criticism, especially in its more unfavourable manifestations, may certainly be specified as one of the earlier causes of that suspended belief in the historical truth of several portions of the Old and New Testament, which many entertain at the present time, and make no scruple of avowing and justifying.

18 We may also as certainly specify as a second cause the tendency to over-hasty generalisation that has of late marked the rapid development of some of the natural sciences. 19 From true science true religion has nothing to fear. 20 But it is otherwise when results newly obtained, and at present, from the very circumstances of the case, imperfectly tested and verified, are confidently put forward; 21 and when inferences of perhaps doubtful validity are set, if not in actual opposition to the statements of Revelation, yet in such a studious juxtaposition, that comparison is challenged, and by consequence many an early conviction weakened and impaired. 22 We say by consequence,-- for no acute observer of the heart and its mysteries can have failed to mark

how, even in minds of higher strain there is often a secret sympathy with the attacking party, 23 not so much on the merits of the case, as from the simple fact that it 'is' the attacking party; and that while on this side there is only the passivity of prescription, on the other there is all the vigour of assault and progress. 24 This obvious fact, which,-- like some other mental facts of a similar nature,-- is, we fear, proved by almost daily experience, has not been sufficiently taken into consideration; but if estimated properly, it will account for much that is otherwise perplexing. 25 It will even tend to reassure us, as it will enable us to assign to its true though hidden reason much of the present startling readiness with which scientific inferences, supposed generally to be unfavourable to received views, have received at least some measure of sympathy and approval. 26 It may be, too, that this latent feeling of sympathy with the attack will be neutralised when it is found that the defence is not deficient in energy or vigour, 27 and when English fair play seems to suggest that each side should be allowed to fight it out without having any advantages arising from prepensions or prejudice. 28 However this may be, there is no doubt that the cause we have specified is a real and a prevailing one. Over-hasty scientific generalisation is certainly one of the causes of the present state of modern religious belief.

29 One more cause we may also pause to specify, as it involves in it much that will minister comfort and reassurance. This cause is the eager and often impatient search for solid ground whereon religion and morality may be based. 30 With all their faults, humans are now certainly seeking for truth. There may be misapplications of historical criticism, there may be misuses and misapprehensions of the real testimony of science, but amid all there is clearly a searching for truth and firm ground. 31 The processes of destructive criticism are in fact nearly over, and the difficult process of reconstruction is commencing.

32 The due remembrance of this will help us in estimating a little more calmly, and perhaps also a little more fairly, some of the startling phenomena presented by the present state of religious belief. 33 Let us, for example, take for a moment into consideration two remarkable characteristics of the present time,-- first, the attempts to form a system of morality independent of revealed religion; 34 and, secondly, the acceptance on the part of several earnest and truthful minds of such a system as Positivism. 35 These really would seem to be at first sight two inexplicable phenomena. Both, however, are to be accounted for by that searching for something to rest on, which has just been mentioned. 36 It has been assumed in the one case, far too hastily, that the uncertainties connected with the belief in the facts of revealed religion are so great, that no system of morality could be considered securely founded if it rested only on the Scriptures. 37 It has been felt by many earnest thinkers that any such system, to be a true one, ought to rest solely on principles acknowledged to be of universal application, and on maxims that have received the assent of all the better part of civilised humankind. 38 If the teaching of Scripture be in general harmony with such maxims and principles, its concurrence is not to be slighted; 39 but it is not deemed as of more real moment than the concurrence of any other form of religious teaching that has exercised a real influence over any large portion of the human family. 40 Religion generally is accepted as a buttress to the rising edifice of morality, but as nothing further. 41 The tower is being builded really with the desire to reach heaven: if the sequel be what it was of old, it may still be conceded, with all fairness, 42 that the attempt is not made in a bad spirit To change slightly the allusion, the effort is not made in the spirit of the Titans who piled Pelion on Ossa, but with all the earnestness and anxiety of hoping, enquiring, and searching, though we are bound to add, mistaken people.

43 In the other case, though it may seem to many rash to say one word to mitigate the severity of the judgment that both is and ever will

be passed on such a system as Positivism, yet, even here, let us be just and sympathising. 44 There is, no doubt, in Positivism much that is plainly repulsive, and really calls for severity; still, even in this system, we may trace the prevailing desire to find something solid, something which appears to be proof to the changes of opinion or the fluctuation of creeds. 45 So the attempt is made to secure a scientific basis, and to place thereon fact after fact, when each has become verified and established, and so to build onward-- 46 we cannot honestly say upward-- until something like a system is so far constructed that succeeding generations may feel induced to continue it. 47 So even in this sombre and cheerless system there is, we believe, really at work a desire to touch ground. To that desire, however, it must be sorrowfully added, every loftier aspiration, every nobler incentive, is necessarily sacrificed. 48 Science and scientific truth is used in a way that warrants the apprehension that-- if such is to be the use made of it-- the progress of science may tend, first, to impair, and, next, to obliterate, the sense of 'responsibility' on which the present and the future alike so solemnly rest. 49 It is not without reason, then, that this is dwelt gravely upon by all sober thinkers; nor is it too much to say that this is now one of the gravest considerations connected with the advance of modern scientific investigations. 50 The tendencies of such investigations certainly do 'appear' to hinder the due recognition of these two momentous principles-- first, the sense of responsibility; and, secondly, the sense of dependence on something higher than law, order, and evolution. 51 This hindrance, we trust, is only in appearance; still that appearance is accepted by many as reality, 52 and it is not without reason that we are again and again reminded that the acceptance of the truth of the Christian creed will with many depend on its power of assimilating the doctrine of universal causation, 53 or, to speak more precisely, of demonstrating that that doctrine is itself only a form of a yet higher and holier truth.

54 We turn, however, back again to the design and working of the Society. It was established to meet this growing scepticism, and with a due recognition of the causes which have just been specified. 55 It was not started, as has been sometimes said, with a little irony, for the purpose of restoring a belief in Christianity, but for the purpose of meeting argument with argument, 56 and of supplying the many that are now fluctuating between belief and no belief with sober answers and valid arguments drawn forth anew from the great treasury of Christian evidences. 57 This is the true design and object of the Society. Its mode of carrying out this design has hitherto been threefold-- first, by means of lectures addressed to the educated; 58 secondly, by the formation of classes under competent class-leaders, for the instruction of those in lower grades of society 59 who are exposed to the thickening dangers arising from that organised diffusion of infidel principles which is one of the saddest and most monitory signs of the present time. 60 Thirdly, the Society is endeavouring to stimulate private study by the circulation of useful tracts, 61 and by the offer of prizes to such as may be willing that their private study should be tested by competitive examination.

62 All these three modes of carrying out its work have been adopted during the present year; 63 and, so far as can be inferred from the work that has been done, and from the various expressions of public opinion, with considerable success. 64 Popular attention has naturally been directed more especially to the first of the modes specified-- the lectures to the educated; 65 but it is satisfactory to state, ere we pass at once to our explanatory comments on the plan of these lectures, that the formation of classes has answered even beyond expectation, 66 and that, from the amount of the competition for the prizes that have been offered, examination in Christian evidences will form a large and most interesting portion of the future work of the Society.

67 II. We may now turn our attention to the lectures that are included in the present volume-- our first year's work. The number

of the lectures was twelve. 68 One of these, the lecture on the *Internal Evidence of the Authenticity of St. John's Gospel,* is unfortunately not included in the present volume, owing to the desire expressed by the learned writer that it should not be published. 69 The absence is much to be regretted; first, on account of the value and importance of the lecture; and, secondly, on account of the partial break which has thus been caused in the sequence of the lectures.

70 The lectures were not delivered in the order in which they are here presented to the reader. The convenience of the active as well as distinguished men who consented to act as lecturers, had naturally to be consulted; 71 adjustments had to be made, and interchanges of days of lecturing acceded to, so as to secure the continuous delivery of the lectures on the days specified. 72 In this collective edition, however, the proper order is restored, and may now be briefly explained, as some criticisms have been passed on the subjects of the lectures, which would certainly have been modified if the whole series had been delivered in the order originally designed.

73 The first three lectures were designed to be preparatory and prelusive. They were directed against the three systems which are now more especially, in different ways, coming into collision with Christianity--Materialism and its theories, Pantheism, and Positivism. 74 It was judged by those who sketched out the plan of the lectures, that until these subjects were shortly dealt with, and until the objections against Christianity, founded upon them or derived from them, were briefly noticed, the evidences for Christianity could hardly be expected to have a fair hearing. 75 The internal arguments in favour of the leading truths of the Christian religion could scarcely be fairly estimated if there were to be antecedent objections of a grave and general character left wholly unnoticed and unanswered. 76 Hence the three opening lectures: The first of these breaks ground by the consideration of some leading materialistic opinions, and especially by an exposition of the argument from design. 77 It thus

prepares the reader more fully to accept the deep truth so well and succinctly stated by Bishop Martensen, 78 that the "world has not merely a cosmogonic but also a creational origin," and that the mysterious problem of creation and life can "never be solved in a merely natural way, but demands a supernatural solution, that is, a solution through a 'creative teleology'."

79 The second lecture very suitably follows by a clear exposition of that great system which has of late been found to exercise such a fascination over thoughtful and cultivated minds that it becomes, to far more than we may suppose, the conclusion of all controversy.

80 We allude to the system of Pantheism, into which of late many noble spirits have seemed willing to merge all their hopes and all their fears. 81 Swayed to and fro, unable to accept Law for their God, and yet equally held back from the blessed truth that the God of the universe is a PERSON, 82 thousands fall back upon the subtle and fascinating system which supplies a moving Principle, but withholds the blessed idea of a holy Will; 83 which discloses to them a 'natura naturans', but denies the existence of a loving Creator and a personal God. 84 It was thus very properly provided that the lecture on this subject should follow the lecture on Design in Nature, 85 as exhibiting the true characteristics of that modified Atheism which only too often becomes the refuge of people whose minds have been shaken by the inferences of pure materialism, 86 or who may have been drawn towards the disguised forms of it which lurk in many of our popular treatises on the origin and evolution of Human.

87 After a careful study of these two lectures, the thoughtful reader will be enabled to recognise the true nature and force of the argument from design, 88 and so will be led the better to appreciate the enduring validity of that great 'natural' foundation for our belief in a personal God. 89 Of the four great arguments by which human is permitted to rise to the knowledge of God, the argument from design, or, as it is technically called, the teleological argument, is the most important, as it, in fact,

includes the moral argument, which, properly estimated, is only its subjective aspect. 90 Apart from revelation we rise to the knowledge of God in two ways, by the consideration of ourselves, and by the contemplation of the world around us; 91 what the moral argument is in the former method, that the teleological argument is in the latter. 92 Hence the importance to the general reader of having an argument of such validity clearly set before you on different sides, and from different points of view.

93 The third lecture, on Positivism, completes the first group, and forms, as it were, a kind of useful appendix to the other two. 94 Here we have the investigation of a special system,-- a system that professes to be based on positive and observed phenomena, 95 and claims to extricate the mental study of human from metaphysics and abstractions, and to place it in the realm of the realisable and the positive. 96 Such a system, though neither now prevailing to any extent, nor ever likely to become prevalent or popular, is still worthy of attention, 97 as it stands in close connection with current materialistic conceptions, and suggests some instructive contrasts to Pantheism. 98 In the latter system we have, at any rate, some idea of pervading Deity; but in Positivism, if we understand the system aright, God, and all conceptions of God, are not so much denied as simply and entirely ignored. 99 If Pantheism be deemed fascinating, Positivism will appear to most minds utterly repellent: 100 still it is a system that claims some distinguished people among its professed exponents, and perhaps a larger number than we may suppose of conscious or unconscious adherents. 101 It may therefore well claim from us investigation, and, in the position it occupies in the order of these lectures, may fairly be considered to be in its right place.

102 We have dwelt upon the first group of the lectures, as both the position and the importance of the subjects considered in it have seemed to require a fuller notice. 103 On the remaining groups we may speak more briefly, as their connection and the special subjects on which they treat are much more

self-explanatory. 104 The first three lectures having, as it were, cleared the ground, and having demonstrated, as we believe, successfully the untenable nature of the systems that have been placed in competition with Christianity, 105 the two next lectures, which form the second group, deal with the chief difficulties arising from the supposed conflict between science and the Holy Scriptures. 106 The first of these two lectures, that on Science and Revelation, enters into the subject generally, by showing how, on scientific considerations, a revelation was to be expected, 107 and how, consequently, the evidences of Christianity have a strong claim upon the attention of every right-thinking human. 108 The second of these two lectures is confined to a special but prerogative case, in which science and religion are supposed to be more particularly in opposition to each other,-- viz., the case of miracles. 109 Here it is necessary, not only to investigate generally the nature of the miraculous evidence to Christianity, but fairly to face the antecedent question, whether miracles, however defined, are not in themselves impossible.

110 In facing that question, however, attention is rightly called to the nature of the weapons that are used in the conflict, and especially to the fact, so often overlooked, 111 that all the assaults on the miraculous that can in any degree be deemed worthy of consideration, are carried on only with metaphysical weapons. 112 The whole question really turns upon the belief in a personal God: if it be conceded that this belief is just and reasonable, then, as the writer of the lecture rightly observes, the presumed impossibility in reference to miracles at once melts away. 113 The very idea of a free-creating God carries with it the possibility of new manifestations of the Divine will, whether in history or Nature. 114 The sustaining power of God, which we recognise in the form of law and orderly progress, changes whensoever it shall have seemed good to His holy will for it to pass into the creative; 115 His immanent workings are then seen in the realm of the transcendental,

and the result is that which Pantheism, Naturalism, and all similar systems must, if consistent, regard as impossible, 116 a new movement from the Divine centre, an epiphany of a creative and overruling will, a wonder, a miracle. 117 When Spinoza said that God and Nature are one from eternity to eternity, he was quite consistent in adding that there is no transcendental beginning, and that miracles are impossible; 118 but for any one who believes in a personal God, or who believes Nature to be what it is,-- not a system eternally fixed, but a system passing through a development characterised by design,-- 119 to deny the possibility of miraculous interpositions, reason and consistency must certainly, in this particular, be suspended or sacrificed.

120 The third group of lectures, which may be regarded as subdivided into two portions, naturally connects itself with, and follows, the subjects just specified. 121 After the general consideration of difficulties connected with religion and Christianity, the attention of the reader is now directed to the more special difficulties connected with the Holy Scriptures. 122 In the first portion of the group the subject of the Gradual Development of Revelation, or, as the title was re-defined by the lecturer, the Gradual Nature of Divine Revelation, properly occupies the first place. 123 It is followed by a lecture in which there will be found a careful consideration of some special instances of difficulty connected with the historical portions especially of the Old Testament. 124 These two lectures were to have been followed by a consideration of the moral difficulties that have been felt in reference to some parts of the Old Testament; 125 but for this subject, which, if properly treated, would have probably claimed a large share of attention, the Committee were not able to secure the services of a lecturer for the present year. 126 This is to be regretted, as there is no subject connected with the Holy Scriptures which at the present time more requires a candid and sober consideration; 127 no

discussion which, if fairly conducted, would do more to remove many honestly felt difficulties, and to many minds to bring probably lasting reassurance. 128 Without presuming to enter, however slightly, into such a subject in a discursive paper like the present, we will venture to make this general remark, which perhaps may be found helpful, viz., 129 that in dealing with all such difficulties we must carefully distinguish between those connected with Divine workings, and those connected with human actions. 130 The former are, in their real nature, utterly beyond the finite judgment of human. All that we may presume to consider is the way or manner in which they are brought before us by the writer, 131 and all that we can either safely or wisely subject to criticism are the aspects or colouring under which they are presented. 132 We really are not competent to sketch out theories of Divine government, even in the simplest matters, and with all the advantages of contemporaneous knowledge; 133 nay, in the lives of ourselves and those around us, there are, as has been wisely observed, innumerable events of sorrow, and countless circumstances of suffering, 134 of which the economic purpose cannot even be guessed at in our present state of knowledge, and of the exact purposes of which no sober or reverent thinker ever dreams of attempting to form any estimate whatever. 135 It is thus utterly out of the question to attempt to consider the difficulties connected with the Divine workings, 136 except as to the manner of their representation by the human narrator, whose human powers were the instruments by which God was pleased to communicate the outward facts of those workings to the children of humans. 137 In regard of the Divine workings themselves, especially when they come before us in the general forms of judgments on individuals or nations, 138 all we may presume safely to do is to regard them as manifestations of Divine righteousness in judicial relations or contradistinctions to the sins or transgressions of humans. 139 In reference, however, to the moral

difficulties connected with recorded human actions, we may venture to go farther, and to take into consideration the fact already referred to of the gradual nature of God's revelation, and all the modifying thoughts which such a fact brings with it.

140 It is thus not only right, but necessary, to accept as our guide in all such investigations or discussions this sober spiritual principle,-- 141 that the Old Testament must be interpreted from the stand-point of the New Testament, and under the fuller light which is afforded by the later dispensation. 142 If we cling to these two great truths-- first, that the history of the past, as we find it in the Old Testament, ever involves a reference to final purposes; 143 and, secondly, that every attempt to realise the deeper significance of that history must use Christianity as its basis-- 144 we shall probably find our way in this difficult domain of speculation as far and as safely as the finite powers of human can be deemed capable of advancing; 145 we shall see as clearly as we can be permitted to see, when poor human reason is endeavouring to survey the adorable mysteries that surround the recorded workings of the manifold wisdom of God.

146 The second portion of this third group is more especially devoted to difficulties connected with the New Testament, the first place being naturally reserved for the questions relating to the life of our Lord and the Gospel narrative. 147 The first lecture is thus directed to a consideration of the Mythical Theories of Christianity; the second to the Evidential Value of St. Paul's Epistles. 148 As has already been mentioned, the lecture on St. John's Gospel, which would have occupied a position between the two just specified, owing to the request of the writer, has not been published, and the series in this part of it has in consequence suffered.

149 The two remaining lectures, viz., that on *Christ's Teaching and Influence on the World*, and that which follows it, on the *Completeness and Adequacy of the Evidences of Christianity*, form the last group, and worthily conclude the interesting series. 150 A third lecture on the additional strength

which is brought to the evidences of Christianity by the convergence of various lines of independent testimony, was intended to have been added to this group, 151 but for this important and comprehensive subject, as in the case of another subject recently mentioned, the Committee were not able to procure a lecturer.

152 The series, as above described, is now commended to the thoughtful reader. It will be found to be marked throughout with learning, candour, and we believe also with gentleness and sympathy. 153 On this last characteristic we ourselves lay great stress. If we would reclaim the wandering, or confirm the wavering, it is not by hard words and unkindly imputations, 154 but by the expression of that love and gentleness which an apostle reminds us are numbered among the fruits of the Spirit. 155 We must regard ourselves as far as possible in their places, endeavour to see as they see, and feel as they feel, and then it may be permitted to us to return from our charitable quest, bringing back the friendly wanderers with us, 156 and ourselves sharing some portion of that holy joy which is felt in heaven and in earth when the doubter is led back to belief, and the lost is found. 157 This rightful characteristic of all true Christian controversy is not, we believe, anywhere wanting in this volume, 158 and we thus, with fullest confidence, commend it to the consideration of all who love the truth, and humbly seek it in history, science, and theology.

159 Lastly, we may call attention to the encouraging fact, that in this great work good people have agreed to forget minor differences. 160 Among the distinguished people whose independent lectures are now, for convenience, gathered together in a common volume, are members of the Church of England and members of other religious communities. 161 It is long that this co-operation has existed in the circulation of the Holy Scriptures; 162 it is recently that it has again appeared in the effort to present those Scriptures in their most accurate form to the English reader; 163 it is now again happily exemplified in the present attempt

to defend and maintain the truth as it is in Jesus Christ our Lord.

164 These things are of good augury. Though there may be dissensions, sad and pitiful, within the Church, and assaults made upon it from without, often sadly characterised with the marks of political strife, 165 yet we may thank God that in efforts such as the present, and in the calm and serenity of studies such as those which this volume commends, a true union has been felt and acted on. 166 Yes, it is a cause for thankfullness and rejoicing that the love of Christ is more and more binding us together in companionships of high duty and gentle sympathy, 167 and that reverence for His Holy Word, His Word of Life and Truth, is making us feel that our work is a common one, 168 and that as we have in common freely received, so it is a blessed thing in common freely to give.

169 We may humbly pray then that God's gracious favour may rest on this Course of Lectures, and may be permitted to bear a blessing to those that read it. 170 May they feel anew convinced in heart and spirit that we have not "followed cunningly devised fables," but that in the Holy Scriptures of the Old and New Testament there is light and truth, 171 even because they bring us nearer to Him who is the Truth, as He is the Way and the Life, for evermore.

The Book of Divine Panagogue called

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POPULAR IMPEACHMENTS
OF CHRISTIANITY
Pearson McAdam Muir

1 That there is at present a widespread alienation from the Christian Faith can hardly be denied. 2 Sometimes by violent invective, sometimes by quiet assumption, the conclusion is conveyed that Christianity is obsolete. 3 Whatever benefits it may have conferred in rude, unenlightened ages, it is now outgrown, it is not in keeping with the science and discovery of modern times. 4 'The good Lord Jesus has had His day, is murmured in pitying condescension towards those who still suffer themselves to be deceived by the antiquated superstition. 5 The statements in which our forefathers embodied the relations between God and human are no longer, except by a very few, considered adequate; and there is everywhere a demand that those statements should be recast. 6 Is not all this an irresistible proof that the beliefs of the Church have been abandoned, that the old notions of the Divine care, the spiritual world, the everlasting life, cannot be maintained, must be relegated to the realm of imagination? 7 The blessings with which Christianity is commonly credited spring from other sources: the evils with which society is infected are its result, direct or indirect.

8 I. Such accusations, it may occur to us, cannot be made seriously: they bear their refutation in the very making; they cannot be propounded with any expectation of being accepted. 9 This may seem self-evident to us: it is not self-evident to multitudes of eager, earnest people. 10 The accusations are persistently made by vigorous writers and impassioned speakers, and are received as incontrovertible propositions. 11 However astonishing, however painful, it may be for us to hear, it is well that we should know, what, in largely circulated books and periodicals, and in mass meetings of the people, is said about the Faith which we profess, and about us who profess it.

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12 Listen to some of the terms in which Christianity is impeached. 'I undertake,' says Mr. Winwood Reade, 'I undertake to show that the destruction of Christianity is essential to the interests of civilisation; 13 and also that human will never attain your full powers as a moral being, until you have ceased to believe in a personal God, and in the immortality of the soul.

14 Christianity must be destroyed.' 'The hostile evidence,' says Mr. Philip Vivian, 'appears to be overwhelming.

15 Christianity cannot be true. Provided that we see things as they really are, and not as we wish them to be, we cannot but come to this conclusion. We cannot get away from facts.

16 Modern knowledge forces us to admit that the Christian Faith cannot be true.' 17 'I want,' exclaims Mr. Vivian Carey, who has apparently, like Lord Herbert of Cherbury, received a revelation to prove that no revelation has been given, 18 'I want to destroy the fetish of centuries and to instill in its place a life of duty, and of faith in God and human, and I believe there is a power that has impelled me to attempt this task.… 19 A system that has produced such results must be essentially bad.... 20 It will not be difficult to create a faith and a religion that will serve the needs of humanity, where Christianity has so deplorably failed.'

21 'If Christianity,' argues Mr. Charles Watts, 'were potent for good, that good would have been displayed ere now.... 22 The ties of domestic affection, the bonds of the social compact, the political relations of rulers and ruled, all have surrendered themselves to its influence. 23 Yet with all these advantages, it has proved unable to keep pace with a progressive civilisation.'

24 'In a really humane and civilised nation,' Mr. Robert Blatchford contends, 'there should be and need be no such thing as Ignorance, 25 Crime, Idleness, War, Slavery, Hate, Envy, Pride, Greed, Gluttony, Vice. But this is not a humane and civilised nation, and never will be while it accepts Christianity as its religion. 26 These are my reasons for opposing

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Christianity.' 'Christianity,' he iterates and reiterates, 'is not true.'

27 'Onward, ye children of the new Faith!' exultantly cries Mr. Moncure D. Conway. 'The sun of Christendom hastes to its setting, but the hope never sets of those who know that the sunset here is a sunrise there!'

28 Such is the manner in which the downfall of Christianity is now proclaimed. And the impression is prevalent that, though in all ages Christianity has been the object of doubt and of scorn, 29 yet never has it been rejected with such intensity of hatred as now, never have keen criticism and deep earnestness, wide learning and shrewd mother-wit been so combined in the attack. 30 It is not merely the reckless, the dissolute, the frivolous who turn away from its reproofs, seeking excuses for their self-indulgence, 31 but it is the thoughtful, the austere, the high-principled, the reverent, the unselfish, who are engaged in a crusade against all that we, as Christians, hold dear. 32 'To the old spirit of mockery, coarse or refined, to the old wrangle of argument, also coarse or refined, has succeeded the spirit of grave, measured, determined negation.' 33 People whose integrity and elevation of character are beyond suspicion, take their places among the rebels against the authority of Christ. 34 They are fighting, they assert, not for the removal of a check to their vices, but for the introduction of a nobler ideal. 35 In the demolition of Christianity, in the sweeping away of every vestige of religious belief, religious custom, religious hope, they imagine themselves to be conferring inestimable benefits upon humankind. 36 Christianity, in their view, is the product of delusion and the buttress of all social ills.

37 II. The contrast which so many are drawing between the present and the past is not a little exaggerated. 38 There have been few periods in which Christianity has not been the object of animadversion and attack, in which its speedy downfall has not been confidently predicted. 39 It was two hundred years ago that Dean Swift wrote 'An Argument to prove that the Abolishing of Christianity in England may, as

things now stand, be attended with some Inconveniences, and perhaps not produce those many good effects proposed thereby": 40 the Dean, with scathing sarcasm, ridiculing at once the conventional customs by which Christianity was misrepresented, and the supercilious ignorance which assumed that it was extinct. 41 It was about a quarter of a century later that Bishop Butler, in the advertisement to his '*Analogy of Religion to the Constitution and Course of Nature*', stated, 42 'It is come, I know not how, to be taken for granted by many persons that Christianity is not so much as a subject of inquiry, but that it is now, at length, discovered to be fictitious. 43 And accordingly they treat it as if, in the present age, this were an agreed point among all people of discernment; and nothing remained but to set it up as a principal subject of mirth and ridicule, as it were, by way of reprisals for its having so long interrupted the pleasures of the world.' 44 And the Bishop dryly gave as the aim of the 'Analogy': 'Thus much, at least, will be here found, not taken for granted but proved, 45 that any reasonable person who will thoroughly consider the matter, may be as much assured as you are of your own being, that it is not, however, so clear a case that there is nothing in it.' 46 The assumption that Christianity is a thing of the past can hardly be more prevalent now than it was then; and the groundlessness of the assumption then may lead to the conclusion that the assumption is equally groundless now.

47 Since the days of Butler or of Swift, the progress of Christianity has not ceased: its developments of thought and life have been among the most remarkable in its whole career. 48 The exultation over its decay in the twentieth century may possibly be found as premature and as vain as the exultation over its decay in the eighteenth century, or in any of the centuries which have gone before.

49 III. The most popular impeachments of Christianity are mainly these. It is a mass of false and superstitious beliefs long exploded. 50 It is the opponent of progress and inquiry, the discoveries of science having been

made in direct defiance of its teaching and its influence. 51 It is the champion of oppression and tyranny. It aims at keeping the poor in ignorance and destitution. It prostrates itself before the rich and seeks the patronage of the great. 52 It so insists on people being absorbed in the thought of heaven that it practically precludes them from doing any good on earth. 53 It is a system of selfishness, inculcating the dogma that no one need care for anything except the salvation of your own soul. 54 It is the foster-mother of all the evil and misery by which society is distressed. Dishonesty, cruelty, slavery, war, persecution, avarice, drunkenness, vice, would seem to be its natural fruits.

55 'How calm and sweet the
victories of life,'

shrieked Shelley in one of his early poems.

56 'How terrorless the triumph of the
grave ...
... but for thy aid
Religion! but for thee, prolific fiend,
Who peoplest earth with demons,
hell with humans,
And heaven with slaves!
hou taintest all thou look'st upon!'

57 What shall we say to these accusations? Christians have been credulous and superstitious, have argued and acted as if only in the abnormal and exceptional could the Divine Presence be found, as if God were a hard Taskmaster and capricious Tyrant. 58 They have resisted progress and inquiry, blindly refusing to see the light which was streaming upon them. 59 They have unquestionably been guilty of miserable pride towards inferiors in wealth or in station, and guilty of miserable sycophancy towards the rich and the powerful. 60 Christians have too frequently neglected the material well-being of the community, have suffered disgraceful outward conditions to remain without protest, have not striven to shed abroad happiness and brightness in squalid and wretched lives. 61 Christians have been art and part in fostering such conditions as wrung from compassionate and indignant hearts the 'Song of the Shirt' and the 'Cry of the Children'. 62 Christians have imagined that correctness of belief would make up for falseness of heart, and

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loudness of profession for depravity of practice. 63 Christians have supposed that in religion all that has to be striven for is the salvation of one's own soul, have even represented the joy of the redeemed as heightened by a contemplation of the torments of the lost. 64 Christians must bear the responsibility of much of the abounding vice which they have not earnestly tried to combat where it already exists, and which, in various forms, they have introduced into regions where it was unknown before.

65 Lawlessness and degradation in the slums, fraud and dishonesty in trade, gross revelations in the fashionable world; bigotry, slander, scandals in the ecclesiastical world; plots, wars, treacheries, assassinations, in the political world: these things ought not so to be. 66 The fiercest denunciations, the most withering satires, which unbelievers have employed, do not exceed in intensity of condemnation the judgment which Christian preachers and Christian writers have pronounced.

67 In all ages of the Church the most powerful weapon against Christianity has been the example of Christians. 68 The Faith which they nominally hold has been judged by the lives which they actually lead. 69 'Christianity,' said a bishop of the eighteenth century, 'would perhaps be the last religion a wise person would choose, if you were guided by the lives of those who profess it.'

70 But is this to admit that the hope of the world lies in renouncing Christianity? That in confining ourselves to the seen and the temporal, we shall best elevate humankind? 71 That the prospect of annihilation and the absence of wisdom, love, and Providence in the order of the universe constitute the most glorious gospel which can be proclaimed? Nothing of the kind. 72 It is only proved that many Christians are not acting according to their belief, that their practice does not square with their profession. The belief and the profession are not proved to be wrong and bad.

73 It would be unreasonable to argue that, because a person who has been vehemently sounding the

praises of truthfulness is convicted of deliberate lying, therefore truthfulness is shown to be worthless.

74 It is equally unreasonable to identify Christianity with everything to which it is most definitely opposed, to represent it as the enemy of everything which it was intended to maintain, and then to conclude that Christianity is discredited. 75 As we should argue from the detection of a liar, not that lying is right, but that you should return to the ways of truth, 76 so we should argue from the lives of Christians who live in flagrant contradiction to the precepts of our Lord and His Apostles, not that the precepts should be rejected, but that they should be kept; 77 not that Christianity should be abolished, but that it should be obeyed.

78 Christians have created prejudice, hatred, against Christianity, but it is not Christianity which they have been exhibiting. 79 We repudiate the hideous travesty which they have made, the hideous travesty which is credulously or maliciously accepted by assailants as a correct representation. 80 Christianity is not a religion of darkness and superstition: it calls to its disciples 'Be children of light: prove all things: hold fast that which is good.' 81 Christianity does not sycophantishly court the rich and despise the poor: it tells the stories of the Rich Man and Lazarus, and of the Rich Fool, and it declares 'Ye cannot serve God and Mammon.' 82 Christianity does not teach that the life which a person leads is of less consequence than the belief which you professes: it demands, 'Why call ye Me, Lord, Lord, and do not the things which I say?' 83 Christianity is not selfish, is not a system which inculcates the saving of one's own soul as the first and last of duties: 'He that loveth own life shall lose it. Bear ye one another's burdens, and so fulfill the law of Christ. 84 By this shall all humans know that ye are My disciples if ye have love one to another.' 85 It is surely reasonable to demand that Christianity shall be judged, not by its misrepresentations, but by what it is in itself, 86 not as it has been perverted by bitter enemies, or by false disciples, but as it is

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proclaimed and manifested in its Author and Finisher.

87 IV. In the face of such tremendous indictments, what is the duty incumbent on us who profess and call ourselves Christians? 88 Certainly not that we should abjure the name, but that we should remember what the name signifies. We ought to consider our ways, to give ourselves to self-examination. 89 There must be something amiss when such hideous portraits can be painted with any expectation of their being taken as correct likenesses. 90 It is right that we should repel with indignation the ludicrous and intolerable caricatures which are presented as our belief, the unwarrantable consequences which are deduced from it. 91 It is right that we should remove misapprehensions and refute calumnies; but, above all it is necessary that we should take heed to our own conduct and our own character. 92 The scandals which we have so much reason to deplore owe their existence, not to Christianity, but to the absence of Christianity. 93 And the very sneers which greet any departure from rectitude or morality on the part of a professing Christian prove that such a departure is not a manifestation, but a renunciation of Christianity, 94 that what is expected of Christians is the highest and the best that human nature can produce.

95 'If,' argues Mr. Blatchford, 'if to praise Christ in words and deny Him in deeds be Christianity, then London is a Christian city and England is a Christian nation. 96 For it is very evident that our common English ideals are anti-Christian, and that our commercial, foreign, and social affairs are run on anti-Christian lines.' 97 As Mr. Blatchford's life is spent in deploring the baseness of 'our common English ideals,' and in exposing the iniquity of the methods in which 'our commercial, foreign, and social affairs' are conducted, 98 the logical inference would seem to be that, as anti-Christian ideals and anti-Christian lines have so signally failed, it might be well to give Christian ideals and Christian lines a trial. 99 'In a really humane and civilised nation,' Mr. Blatchford maintains, 'there should

be, and there need be, no such thing as Poverty, Ignorance, Crime, Idleness, War, Slavery, Hate, Envy, Pride, Greed, Gluttony, Vice. 100 But,' he continues his curious argument, 'this is not a humane and civilised nation, and never will be while it accepts Christianity as its religion. 101 These,' so he adds as an irresistible conclusion, 'these are my reasons for opposing Christianity.' Very good reasons, if Christianity taught such a creed and encouraged such a morality. 102 But that any human being should give such a description of the purpose of Christian Faith indicates either that the describer is swayed by blindest prejudice or else that no genuine Christian has ever crossed your path.

103 'What if some do not believe? Shall their unbelief make the faith of God of none effect?

104 God forbid: yea, let God be true, but every human a liar.' 105 Truth continues to be truth, though people who talk much about it may be false. 106 Goodness continues to be goodness, though people who sing its praises may be thoroughly depraved.

107 Generosity does not cease to be generosity, though its beauty should be extolled by a miser. 108 Courage does not cease to be courage, though its heroism should be extolled by a coward. 109 Temperance is temperance, though we should be assured of the fact by the thick speech of a drunkard. 110 The virtue is admirable, even when those who acknowledge how admirable it is do not practise it.

111 That Christianity towers so far above the attainments of its average disciples, nay, above the attainments of its saintliest, is itself a kind of evidence of its divine origin. 112 'When the King of the Tartars, who was become Christian,' says Montaigne, 'designed to come to Lyons to kiss the Pope's feet, and there to be an eyewitness of the sanctity he hoped to find in our manners, 113 immediately our good S. Louis sought to divert him from his purpose: for fear lest our inordinate way of living should, on the contrary, put him out of conceit with so holy a belief. 114 And yet it happened quite otherwise to this other, who going to Rome to the same end, and

there seeing the dissolution of the Prelates and people of that time, settled himself so much the more firmly in our religion, 115 considering how great the force and dignity of it must necessarily be that could maintain its dignity and splendour amongst so much corruption and in so vicious hands.' 116 God's truth abides whether humans receive it or deny it. Christ is the Way, the Truth, and the Life, though every so-called Christian should become apostate. 117 The woes of the world are to be cured by more Christianity, not by less; and on us, in whose hands have been placed its holy oracles, rests the responsibility of proving its inestimable advantage ourselves and of conferring it on all humankind.

118 Wherever Christianity has really flourished, untold blessings have been the result. 119 With all the sad deficiencies and sadder perversions by which its course has been chequered, no influence for good can be compared with it in elevating character, in diffusing peace and goodwill, in fitting humans to labour and to endure. 120 The diffusion of the spirit of Christianity is a synonym for the diffusion of all that tends to the true well-being of the world. 121 Only as genuine Christianity, the Christianity of Christ, prevails, will humankind be morally and spiritually lifted into a higher sphere. 122 Put together the wisest and most ennobling suggestions of those who regard Christianity as obsolete and you find that it is virtually Christianity which is delineated. 123 It is in the prevalence of principles and practices which, however they may be designated, are in reality Christian, that the salvation of society and of individuals will be found. 124 In the absence of such principles and practices will be found the secret of ruin, disorder, dissolution, and decay.

125 It is false Christianity against which the tornado of abuse is really directed. Where genuine Christianity appears, and is recognised as genuine, it commands respect. 126 Even the most virulent of recent assailants, who seriously considers that, until we get rid of the 'incubus of the modern Christian religion, our

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civilisation will so surely decay that we shall become an entirely decadent race,' 127 and who complacently announces that 'it will not be difficult to create a faith and a religion which will serve the needs of humanity where Christianity has so signally failed,' even he is graciously pleased to allow, 'I have no quarrel with Christianity as a code of morals. 128 The Sermon on the Mount, no matter who preached it, is quite sufficient, if its teaching was only practised instead of preached, to make this world an eminently desirable place in which to live. 129 My quarrel is concerned with the professional promoters and organisers of religion who have made the very name of Christianity to stink in the nostrils of honest people.' 130 In other words, it is not to Christianity, but to Christians by whom it is misrepresented, that he is opposed, and he cannot refrain from granting, though surely with transparent inconsistency, that it is by the noble lives of Christians that Christianity has been so long preserved.

131 'It won, with its beauty and sentiment, the allegiance of many who were true and humanly. And it is such as these who have raised the Gospel from the slough of infamy. 132 It is such as these who, in the darkest ages, have perpetuated by the goodness of their lives the faith that is left to-day. 133 It is the virtues of Christians, not the virtue of Christianity, that keeps the faith alive.' The very opposite is nearer the truth.

134 The virtues of Christians are simply the outcome of the virtue of Christianity: it is the vices of Christians which compose the deepest 'slough of infamy' into which the Gospel has ever been plunged.

135 But from all these charges and counter-charges, it would seem to be clear that real Christianity compels respect even where it is viewed with aversion, 136 that its progress is hindered by nothing so much as by the unworthiness of its adherents, that it gains assent by nothing so much as by the manifestation of Christian lives.

137 Will any one venture to deny that the world would be vastly

improved were every one in it to be a genuine Christian, animated by Christian motives, doing Christian deeds?

138 The revolution would be immense, indescribable: it would be the end of all evil: it would be the establishment of all good. 139 No human's hand would be against another, all would strive together for the welfare of the whole, there would be no contention save how to excel in love and in good works. 140 The human imagination cannot depict anything more glorious, more ennobling, than the will of God done on earth as it is done in heaven, and this is what would be if the thoughts of every heart were brought into captivity to the obedience of Christ. 141 The most splendid dreams of the most exalted visionaries would be more than fulfilled: everything true and lovely and of good report would be ratified and confirmed: 142 everything false and vile would be changed and purified, and nothing to hurt or destroy or defile would remain. 143 The fulfillment of that ideal is simply the universal prevalence of Christianity, the universal triumph of Christ.

144 The systems and tendencies at which we are about to glance owe their vitality to the Faith which they attempt to supersede. 145 They are, in so far as they are good, either tending towards Christianity or borrowing from it. 146 The insufficiency of mere material well-being, the irresistible association of Religion with Morality, the worship of the Universe, the worship of Humanity, all are signs of the ineradicable instinct of the Unseen and Eternal, of the unquenchable thirst for the Living God; 147 and belief in the Living God finds its noblest illustration and confirmation in Him Who said, 'He that hath seen Me hath seen the Father,' 148 in Him to whom the searching scrutiny of critical inquirers, as well as the fervid devotion of believers, bears so marvellous a witness.

149 We hope to show not only that the abolition of Christianity might 'be attended with sundry inconveniences,' or that the assumption of there being 'nothing in' Christianity is 'not so clear a case,' 150 but we hope to show that if, amid present perplexity and

estrangement, many feel themselves obliged to go back and walk no more with Christ, we, for our part, as we hear His voice of tender reproach, 'Will ye also go away?' 151 Can only, with heartfelt conviction, give the answer, 'Lord, to whom shall we go? Thou hast the words of eternal life.'

MORALITY WITHOUT RELIGION

Pearson McAdam Muir

2 That Religion and Morality have no necessary connection is a popular assumption. 2 In books, in pamphlets, in magazines, on platforms, in ordinary conversation, it is loudly proclaimed or quietly insinuated that the morality of the future will be Independent Morality, Morality without Sanction. 3 Morality, it is iterated and reiterated, can get on quite well without Religion: Religion is a positive hindrance to Morality. 4 This view is, no doubt, extreme. Perhaps it is only here and there in the writings which fall into the hands of most of us, or in the circles with which most of us mingle, that the matter is stated so bluntly and so plainly. 5 But in not a few writings of wide circulation, and in whole classes of the community, the statement is made as if beyond contradiction. 6 Even in works which we are all reading, and in companies where we daily find ourselves, the logical conclusion of arguments, the natural inference from assumptions, would be simply that extreme position. 7 There is no use in evading the fact that if some highly popular opinions are accepted, no statement of the uselessness of Religion in any form or system can be too extreme. 8 The mere assurance that Religion is a reality, is a benefit, is a necessity, though it may not seem a great deal to establish, though it may leave a host of problems still to solve, would be a gain to many, would sweep away the chief doubts by which they are perplexed.

9 There need not, on our part, be any hesitation in declaring, to begin with, that Religion without Morality is worthless. 10 The attempt to keep them apart, to regard them as independent of

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each other, has often enough been made by nominal champions of Religion.

11 The upholding of certain views regarding God and His relations to humankind has been considered sufficient to make up for neglect of the duties incumbent on ordinary mortals.

12 The performance of certain rites and ceremonies has been considered an adequate compensation for the commission of deliberate crimes. 13 Instances might easily be cited of persons engaged in villainous schemes, achieving deeds of dishonesty which will cause ruin to hundreds of innocent victims, 14 executing plots of fiendish revenge, with little regard for human life, and no regard at all for truth, but exceedingly punctilious in attention to religious observances. 15 One of the most cold-blooded murderers that ever disgraced the habitable globe was careful not to neglect any act of devotion, and while perpetrating the most nefarious basenesses never failed to write in his diary the most pious sentiments. 16 That kind of religion is worse than nothing, was rightly regarded as increasing the horror and loathsomeness of the monster's life.

17 In a minor degree, we have all seen illustrations of the same incongruity, we may even have detected indications of it in ourselves, 18 the tendency to imagine that the more we go to church or frequent the Sacraments or read the Bible, we are entitled to latitude in our conduct. 19 There is no tendency against which we need to be more constantly on our guard, none which is more strongly, more terrifically, denounced in the Old Testament and in the New, by prophets and apostles, and by the Lord Jesus Christ Himself. 20 Unbelievers in Christianity are perfectly right when they say that Religion without Morality is absolutely worthless.

21 (II.) We may go further. We may admit, nay, we must vehemently maintain, that Morality without Religion is far better than Religion without Morality. 22 Look at this person who makes no profession of Religion, but who is temperate, honest, self-sacrificing for the

public good. 23 Look at that person who made a loud profession, but who was leading a life of secret vice, who was false to the trust reposed to self, who appropriated what had been committed to own charge. 24 Can there be any doubt, we are triumphantly asked, that of these two, the religious is inferior to the irreligious? 25 There can be no doubt whatever, would be the reply of every well-instructed Christian.

26 Morality without Religion is incalculably better than Religion without Morality. But what does this prove with regard to Christianity? 27 It simply proves how eternally true is the parable of our Lord: 'A certain man had two sons, and he came to the first and said, Son, go work to-day in my vineyard. He answered and said, I will not, but afterwards he repented and went. 28 And he came to the second and said likewise. And he answered and said, I go, sir, and went not. 29 Whether of them twain did the will of his father? They say unto Him, The first,' and our Lord confirmed the answer.

30 (III.) That kind of comparison between Religion and Morality is most misleading, for such 'Religion' is not Religion at all. 31 It may be hypocrisy, it may be superstition, it may be self-deception: Christianity it is not, and never can be. 32 The contrast is not really between Morality and Religion, but between Morality and Immorality, Falsehood, Fraud, and Wilful Imposition.

33 Whatever else the Kingdom of God may be, it is at least Righteousness: where there is no Righteousness, there can be no Kingdom of God. 34 Whatever else Christian doctrine may be, it is at least a doctrine according to godliness, a teaching in accordance with the eternal laws of righteousness. 35 For purposes of analysis and convenience, we may distinguish between Religion and Morality, and show them working in different spheres, but it is utterly erroneous to suppose that they can be actually divorced. 36 In every right and rational representation of the Christian Religion, Morality is included and imbedded, otherwise it is only a maimed and mutilated Religion

which is held out for acceptance. 37 On the other hand, in all true Morality, especially in its highest and purest manifestations, Religion is present.

38 It is possible to decry Morality. 'Mere Morality,' in the current acceptation of the phrase, may lack a good deal, may be a phase of self-righteousness, self-interest, cold calculation, a keeping up of appearances before the world, 39 but Morality itself is of a higher strain: it is the fulfillment of every duty to one's self and to one's neighbour: 40 it implies that each duty is done from the right motive: the purer and loftier it becomes the more it encroaches on the religious domain: 41 it is crowned and glorified with a religious sanction: it is, visible or hidden, conscious or unconscious, a doing of the will of God. 42 Morality, to hold its own, must be 'touched by emotion,' and Morality touched by emotion is identical with Religion. 43 To admit moral obligation in all its length and breadth, and depth and height, is to admit God.

44 (IV.) A curious illustration of the fact that Morality, to be permanent, needs the inspiration of Religion, that Morality, at its best and purest, tends to become Religion, 45 is afforded in such a work as Dr. Stanton Coit's 'National Idealism and a State Church'. Dr. Coit has for twenty years been engaged in founding ethical societies, and his high and disinterested aims need not be called in question. 46 But the book is evidence that in order to support the lofty principles which he so earnestly expounds, he is obliged to call in the aid of principles which he imagined himself to have discarded.

47 He begins by denying the Supernatural in every shape and form. He will have none of a personal God, or of a personal immortality. 48 There is no higher being than Human. All trust must be shifted from supernatural to human agencies. 49 'Combined human foresight, the general will of organised society, assumes the rôle of Creative Providence.' 50 'This is, then, the presupposition of all moral judgment in harmony with which I would reconstruct the religions of the world: 51 that no crime and no good deed that happens in this world shall ever

be traced to any other moral agencies than those actually inhabiting living human bodies and recognised by other human beings as fit subjects of human rights and privileges.' 52 In other words, Morality, Morality alone, Morality without any sanction from Above, or any hope from Beyond, is the all-sufficient strength and ennoblement of human.

53 But what is the superstructure which Dr. Stanton Coit proceeds to build upon this foundation? 54 One would naturally expect that Prayer and Churches and Sacraments would have no place. But these are exactly what he insists on retaining; 55 these will apparently be more important, more necessary, in the future than in the past. 'We should appropriate and adapt the materials furnished us by the rites and ceremonies of the historic Church. 56 As the woodbird, bent on building her nest, in lieu of better materials makes it of leaves and of feathers from her breast, so may we use what is familiar, old, and close at hand. 57 It is all ours; and the homelike beauty of the Church of the future will be enhanced by the ancient materials wrought into its new forms.' 58 So much enhanced, indeed, that most people will be inclined to tolerate the new forms simply because of the ancient materials which are allowed to remain. 59 Among the ancient materials which Dr. Coit appropriates or adapts, prayer occupies a prominent place. And he is severe upon those, 'e.g.', Comte and Dr. Congreve, who would banish petition from the sphere of worship. 60 He delights in pointing out that, in despite of themselves, they include requests for personal blessings. Nor is prayer to be a mere aspiration or inarticulate longing of the soul. 61 'No mental activity can become definite, coherent, and systematic, and remain so, except it be embodied and repeated in words.... 62 A petition that does not, or cannot, or will not, formulate itself in words, and let the lips move to shape them, and the voice to sound them, and the eye to visualise them on the written or printed page, becomes soon a mere torpor of the mind, or a meaningless movement

of blind unrest, or a trick of pretending to pray.

63 Perfected prayer is always spoken. 64 To whom, or to what, this prayer, uttered or unexpressed, is to be offered, may be difficult of comprehension. 65 It is not to God, as we have hitherto employed that sacred name; but Dr. Coit insists that the word 'God' shall be retained, and that we have no right to deny to this God the attribute of Personality.

66 'Any one who worships either a concrete social group or an abstract moral quality may justly protest against the charge that your God is impersonal: you may insist that it is either superpersonal or interpersonal, or both.' 67 The worship of Nature appears to be discouraged, and to be considered as of comparatively little worth. 68 'We dare never forget that moral qualities stand to us in a different dynamic relation from the grass and the stars and the sea-- no effects upon us or upon these will result from petitions even of a most righteous person to them. 69 But no one can deny that prayers to Purity, Serenity, Faith, Humanity, England, Man, Woman, to Milton, to Jesus, do create a new moral heaven and a new earth for you who thirsts after righteousness.'

70 Leaving the name of our Lord out of the discussion, why should a prayer to Serenity have more moral influence than a prayer to the Sea? 71 Why should a prayer to the Stars be less efficacious than a prayer to Milton, whose soul was like a star and dwelt apart? 72 We have only to invest the stars and the sea with certain qualities evolved from our own imagination to make them as worthy of worship as either Milton or Serenity. 73 Dr. Coit is scathing in his criticism of the Positivist prayers, whether of Comte or of Dr. Congreve: they are 'screamingly funny': 'the most monstrous absurdity ever perpetrated by a really good and great man.' 74 The epithets are possibly justified; but are they quite inapplicable to one who supposes that an invocation of the Living and Eternal God means no more than an invocation of England, or Faith, or Woman? 75 It is only when God has become to us an abstraction that an

abstraction can take the place of God.

76 A manual of services fitted to a nation's present needs is what, according to Dr. Coit, is required to ensure the progress and triumph of the ethical movement. 77 'Until the new idealism possesses its own manual of religious ritual, it cannot communicate effectively its deeper thought and purpose. 78 The moment, however, it has invented such a means of communication, it would seem inevitable that a rapid moral and intellectual advancement of human must at last take place, 79 equal in speed and in beneficence to the material advancement which followed during the last century in the wake of scientific inventions.' 80 The ritual of ethical societies will not outwardly differ much from the ritual to be found in existing religions. Its details have yet to be arranged or 'invented.' 81 The only things certain are that a book of prayers ought to be provided at once, and that in Swinburne's 'Songs before Sunrise' may be found an 'anthology of prayer suitable for use in the Church of Humanity,' 82 prayers 'as sublime and quickening in melody and passion as anything in the Hebrew prophets or the Litany of the Church.'

83 Dr. Coit does not denounce theology as theology, he even insists on being himself ranked among theologians. His readers may be surprised to learn on what doctrines he dwells with particular fondness. 84 He laments that belief in the existence and power of the devil should be waning. 'We may not believe in a personal devil, but we must believe in a devil who acts very like a person.' 85 He predicts that teachers will more and more teach a doctrine of hell-fire. Out of kindness they will terrify by presenting the evil effects, indirect and remote, of selfish thoughts and dispositions. 86 'We must frighten people away from the edge of the abyss which begins this side of death.'

87 Finally, though, of course, the word is not used in the ordinary sense, the necessity of the doctrine of the Incarnation is upheld. 88 'The Incarnation must for ever remain a fundamental conception of religion. Until all humans are incarnations of the principle of

constructive moral beneficence, and to a higher degree, Jesus will remain pre-eminent; 89 and it is quite possible that in proportion as he is approached, gratitude to him will increase rather than diminish.' 90 'Even should any one ever in the future transcend him, still it will only be by him and in glad acknowledgment of the debt to him. 91 There never can in the future be a dividing of the world into Christianity and not Christianity. It will only be a new and more Christian Christianity, compatible with liberty and reason.'

92 Thus the drift and tendency of this book bring us back, however unintentionally, to the Faith of which it appears, at first sight, to be the renunciation.

93 It establishes irresistibly that Morality, to be living and permanent, must have religious sanction and inspiration, that we need to be delivered from the awful thraldom of evil, 94 that the supreme realities are the things which are unseen; that prayer is the life of the soul; that public worship is a necessity; 95 that in Christ the greatest redemptive power has been embodied, and the purest vision of the Eternal has been granted; 96 and that, in its adaptation to human needs, its fostering of human aspirations, its ministering to human sorrows, its renewal of human penitence, its consecration of life and its hope in death, 97 no Ethical Society yet devised gives any symptom of being able to supplant the Church of Him Who said, 'Come unto Me, all ye that labour and are heavy laden and I will give you rest.'

98 V. Now, from the fact that Morality at its best assumes a religious tinge, merges itself in Religion, we may legitimately infer that, without the inspiration of Religion, Morality at its best will not long prevail.

99 'Love, friendship,' said Sir James Fitzjames Stephen, 'good nature, kindness carried to the height of sincere and devoted affection, will always be the chief pleasures of life, whether Christianity is true or false; 100 but Christian Charity is not the same as any of these, or all of these put together, and I think that if Christian Theology were exploded, Christian Charity would

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not survive it.' 101 At present, when Religion has pervaded everything with its sacred sanctions, it is easy to say that Religion would not be greatly missed were it discarded, and that Morality would be unaffected. 102 This is pure conjecture. To test its worth we should need a state of society from which every vestige of Religion had disappeared. 103 It will not do to retain any of the beliefs or the customs which owe their origin to a sense of the Unseen and Eternal, to a sense of any Power above ourselves, ruling our destinies and instilling into our minds thoughts and desires and hopes beyond the visible and the material.

104 If Morality, in the limited acceptation of the term, is sufficient for the elevation and welfare of humankind, it is not to be supported by any admixture of Religion: it must prove its power by itself. 105 Religion must be utterly abolished, its every sanction must be universally rejected, 106 its every impulse must have universally ceased before it can be contended with any measure of assurance that the world will be none the worse, may be even the better, for its vanishing.

107 If Religion is a delusion, remember what must be eliminated from our convictions. There can be no higher tribunal than that of human by which our actions can be judged. 108 A life of outward propriety is the utmost that can be demanded of us, if it is only against the wellbeing of our neighbour or the promotion of our own happiness that we can transgress. 109 What has human law to do with our hearts? What legislation can deal with 'envy, hatred, malice, and all uncharitableness,' unless they manifest themselves in outward acts?

110 A base, unloving, impure, acrimonious, untruthful person may crawl through life, never having been arrested, never having been sentenced to any term of penal servitude. 111 You can stand erect before all the laws of the country and say, 'All these have I kept from my youth up.' 112 And unless there be a higher law than the law of human, unless there be a law written on our hearts by the

Finger of God, unless there be One to whom, above and beyond all earthly appearances, we can mournfully declare, 'Against Thee, Thee only, have I sinned,' nothing more can be reasonably demanded. 113 If there is nothing higher than the visible, it can be only visible results which are of any value. 114 The giving of money to help the needy, and the giving of money in order to obtain a reputation for generosity, must stand on the same level. 115 The widow's mite will be worth infinitely less than the shekels which come from those who devour widows' houses. 116 If there be none to search the heart, none save poor frail fellow-mortals to whom we must give account, what an incentive to purity of motive and loftiness of aspiration is removed! 117 But let people talk as they will, there is a conscience in them which whispers, It does matter whether our hearts as well as our actions are right; it does matter whether we have good motives, good intentions; 118 there is a scrutiny of hearts, making and to be made more fully yet; there is One before Whom, even though we have not broken the law of the land, we confess with anguish, Against Thee have I sinned and done evil in Thy sight: 119 where I appear most irreproachable, Thine eye detecteth error: it is not the occasional trespass that I have chiefly to lament, it is the sin that is almost part and parcel of my very being, the sin that corrodes even where it does not glare, the sin that undermines even where it does not crash.

120 (VI.) The most thoughtful of those who have lost faith in the Living God and in fellowship with Him hereafter, look on this life with a pessimistic eye. 121 Without trust in the Unseen and Eternal, life is worthless, an idle dream. 122 With its harassing cares, with its petty vexations, with its turbulence and strife, its sorrows, its breaking up of old associations, its quenching the light of our eyes, 'O dreary were this earth, if earth were all!' 123 On the stage of the world, 'the play is the Tragedy Human, the hero the conqueror worm!'

124 We cannot but extend the deepest sympathy, the warmest admiration to those who, bereft of

belief and of hope, yet cling tenaciously to moral goodness. 125 'What is to become of us,' asks the pensive Amiel, 'when everything leaves us, health, joy, affections, the freshness of sensation, memory, capacity for work, when the sun seems to us to have lost its warmth, and life is stripped of all its charms? 126 There is but one answer, keep close to Duty. Be what you ought to be; the rest is God's affair.… 127 And supposing there were no good and holy God, nothing but universal being, the law of the all, an ideal without hypostasis or reality, duty would still be the key of the enigma, the pole star of a wandering humanity.' 128 Who does not see that it is the lingering faith in God which gives strength to this conviction and that, were the faith obliterated, the natural conclusion would be for the cultured, 'Vanity of vanities: all is vanity'; and for the multitudes, 'Let us eat and drink, for to-morrow we die.'

129 'I remember how at Cambridge,' says Mr. F. W. H. Myers of George Eliot, 'I walked with her once in the Fellows' Garden of Trinity on an evening of rainy May: 130 and she, stirred somewhat beyond her wont, and taking as her text the three words which have been used so often as the inspiring trumpet calls of men-- 131 the words 'God, Immortality, Duty'-- pronounced with terrible earnestness, how inconceivable was the 'first', how unbelievable the 'second', and yet how peremptory and absolute the 'third'. 132 Never, perhaps, have sterner accents affirmed the sovereignty of impersonal and uncompromising Law. 133 I listened and night fell: her grave, majestic countenance turned toward me like a sibyl's in the gloom, and it was as though she withdrew from my grasp one by one the two scrolls of promise, and left me the third scroll only, awful with inevitable fates. 134 And when we stood at length and parted, amid that columnar circuit of the forest trees, beneath the last twilight of starless skies, I seemed to be gazing, like Titus at Jerusalem, on vacant seats and empty halls, on a sanctuary with no presence to hallow it, and heaven left lonely of a God.'

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135 Withdraw belief in a God above and in a life beyond, the only reason for obedience to Duty and Morality will be either our own pleasure, the doing what is most agreeable to ourselves; 136 or sympathy, the bearing of others' burdens, in the hope that when we have passed away there may be some on earth who will reap the harvest which we have sown; 137 or public opinion, the views which are prevalent in a particular time in a particular region; and these reasons are hardly likely to produce a morality which will be other than that of self-indulgence, of despair, or of conventionality.

138 'We can get on very well without a religion,' said Sir James Fitzjames Stephen, 'for though the view of life which Science is opening to us gives us nothing to worship, it gives us an infinite number of things to enjoy. 139 The world seems to me a very good world, if it would only last. It is full of pleasant people and curious things, and I think that most people find no difficulty in turning their minds away from its transient character.' 140 If it would only last! But it does not last: those dearer to us than ourselves are snatched away. 141 Could anything be more selfish, more despicably base than to go about saying, All that is of no consequence, so long as I meet with pleasant people and have an infinite number of things to enjoy? 142 It is true that an infinite number of my fellow-creatures may not be enjoying an infinite number of things, may have trouble in recalling almost anything worthy of the name of enjoyment, but why should I be depressed by that? 143 I find no difficulty in turning away my mind from the misfortunes of others. 'We can get on very well without religion.' No doubt without it some of us can have agreeable society and a variety of pleasures more or less refined; but this does not prove that religion is no loss. 144 On the same principle, we can get on very comfortably without honesty, without sobriety, without purity, without generosity. 145 We can get on very comfortably indeed without anything except without a heart which is intent on self-gratification, and which excludes all thought of the wants and woes of the world. 146 'Let us

eat and drink, for to-morrow we die,' is the irresistible, though rather inconsistent, conclusion of that sublime austerity 147 which so indignantly repudiates the merest hint of reward or hope within the veil, and which so sensitively shrinks from the mercenariness of the Religion of the Cross.

148 'The wages of sin is death: if the wages of Virtue be dust, Would she have heart to endure for the life of the worm and the fly! 149 What are the facts? What is the growing tendency where humans think themselves strong enough to do without religious beliefs, when they have been proclaiming that the suppression of Religion will be the exaltation of a purer Morality?

150 There are plenty of indications that the laws of Morality are found to be as irksome as the dictates of Religion. 151 The first step is to cry out for a higher Morality, to censure the Morality of the New Testament as imperfect and inadequate, as selfish and visionary. 152 The next step is to question the restraints of Morality, to clamour for liberty in regard to matters on which the general voice of humankind has from the beginning given no uncertain verdict. 153 The last step is to declare that Morality is variable and conventional, a mere arbitrary arrangement, which can be dispensed with by the emancipated soul. 154 The literature which assumes that Religion is obsolete does not, as a rule, suffer itself to be much hampered by the fetters of Morality. 155 The non-Religion of the Future is what, we are confidently told, increasing knowledge of the laws of Sociology will of necessity bring about. 156 Should that day ever dawn, or rather let us say, should that night ever envelop us, it will mean the diffusion of non-Morality such as the world has never known.

THE RELIGION OF THE UNIVERSE

Pearson McAdam Muir

3 Among proposed substitutes for Christianity, none occupies a more prominent place than Pantheism, the identity of God and the universe. 2 'Pantheism,' says

Haeckel, 'is the world system of the modern scientist.' 3 Pantheism, or the Religion of the Universe, is, in one aspect, a protest against Anthropomorphism, the making of God in the image of human. 4 It is in supposing God to be altogether such as we are, to be swayed by the same motives, to be actuated by the same passions as we are, that the most deadly errors have arisen.

5 Robert Browning, in 'Caliban upon Setebos', represents a half-brutal being who lives in a cave speculating upon the government of the world, wondering why it came to be made, and what could be the purpose of the Creator in making it. 6 Every motive that could sway the savage mind is in turn discussed: pleasure, restlessness, jealousy, cruelty, sport. 7 'Because I, Caliban,' such is the process of his reasoning, 'delight in tormenting defenceless animals, or would crush any one that interfered with my comfort, or do things because my taskmaster obliges me to do them, so must it be with Him Who made the world.' 8 With great grotesqueness, but with marvellous power, the degraded monster argues as to the reasons which could have prompted the Unseen Ruler to frame the earth and its inhabitants. 9 Everything that he attributes to God is in keeping with his own base nature. What is the explanation of the horrors which have been perpetrated in the Name of God?

10 The sacrifice of human beings, of vanquished enemies, or of the nearest and the dearest, the agonies of self-torture, did not these originate in the transference to the Invisible God of the emotions and principles by which humans were guiding their own lives? 11 They had no notion of forbearance and forgiveness and patience, therefore they did not think that there could be forgiveness with God. 12 They were to be turned aside from their fierce, revengeful purposes by bribes and by the protracted sufferings of their foes, therefore they thought that God might be bribed by gifts or propitiated by pains. 13 What they were on earth, delighting in bloodshed and conquest and revelry, that, they supposed, must be the Being or the

Beings who ruled in the world unseen.

14 (I.) God is not as human is, this was a lesson which ancient prophets struggled to teach. 15 He is not a human that He should lie, or a son of human that He should repent. He is not to be conceived as influenced by the petty hopes and fears and jealousies which influence the mass of mortals. 16 'My thoughts are not as your thoughts, neither are your ways my ways, saith the Lord. 17 For as the heavens are higher than the earth, so are My ways higher than your ways and My thoughts than your thoughts.' 18 He is infinitely exalted above the best and wisest of His children and to see in Him only their likeness is not to see Him aright.

19 It is not to be denied that the writers of the Old Testament employ anthropomorphic language to vivify the justice and goodness of the Eternal. 20 They speak of His Eyes and of His Face, of His Hands and of His Arm and of His Voice. They speak of Him walking in the Garden and smelling a sweet savour. 21 They speak of Him repenting and being jealous and coming down to see what is done on earth. 22 Such figures, however, as a rule, have a force and an appropriateness which never can become obsolete or out of date. 23 They even heighten the Majesty and Spotless Holiness of God. They are felt to be, at most, words struggling to express what no words can ever convey: 24 they are the readiest means of impressing on the dull understanding of humans their practical duty, of letting them know with what purity and righteousness they have to do. 25 It is not in such figures that any harm can ever lie. The error of taking literally such phrases as 'Hands' or 'Arm' or 'Voice' is not very prevalent, but the error of framing God after our moral image is not distant or imaginary. 26 There is a mode of speaking about Divine Purposes and Divine Motives which must jar on those who have begun to discern the Divine Majesty, to whom the thought of the All-Embracing Presence has become a reality.

27 (II.) The representation of the Almighty and Eternal as one of ourselves, a animated by the

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lowest passions and paltriest prejudices of humankind, as a 'magnified and non-natural' human being, is recognised as ludicrously inadequate and terribly distorted. 28 The representation of the Creator as 'sitting idle at the outside of the Universe and seeing it go,' as having brought it into being and afterwards left it to itself, as mingling no more in its events and evolution, is utterly discarded. 29 It is, however, to such representations that the assaults of modern critics are directed, and in the overthrow of such representations it is imagined that Christianity itself is overthrown.

30 The assailants maintain that Christianity in attributing Personality to God makes Him in the image of human, and separates Him from the Universe. 31 But what is meant by Personality? It does not mean a being no higher than human, with the limitations and imperfections of human.

32 Mr. Herbert Spencer, who would not ascribe Personality to God, yet affirmed that the choice was not between Personality and something lower than Personality, but between Personality and something higher. 33 'Is it not just possible that there is a mode of being as much transcending Intelligence and Will as these transcend mechanical motion?'

34 The description of Personality given by the author of the 'Riddle of the Universe' would be repudiated by every educated Christian. 35 'The monistic idea of God, which alone is compatible with our present knowledge of Nature, recognises the divine spirit in all things. 36 It can never recognise in God a "personal being," or, in other words, an individual of limited extension in space, or even of human form. 37 God is everywhere.' That conclusion,-- we are not concerned with the steps by which the conclusion is reached,-- does not strike one as a modern discovery. 38 In what authoritative statement of Christian doctrine God is defined as 'not' being everywhere, or 'an individual of limited extension in space, or even of human form,' we are unaware. 39 There is apparent misunderstanding in the supposition that we have to take

our choice between God as entirely severed from the world, and God existing in the world. 40 God, it is asserted in current phraseology, cannot be both Immanent and Transcendent; He cannot be both in the world and above it.

41 'In Theism,' so Haeckel draws out the comparison, 'God is opposed to Nature as an extra-mundane being, as creating and sustaining the world, and acting upon it from without, 42 while in Pantheism, God, as an intra-mundane being, is everywhere identical with Nature itself, and is operative within the world as "force" or "energy."' 43 If there is no juggling with words here, it can hardly be juggling with words to point out that so far as 'space' goes, an intra-mundane being, rather than an extra-mundane, is likely to be 'limited in extension.'

44 (III.) The imagination that the Christian God is a Personality like ourselves, and is to be found only above and beyond the world, finds perhaps its strangest expression in some of the writings of that ardent lover of Nature, 45 the late Richard Jefferies. 'I cease,' so he writes in 'The Story of my Heart', 'to look for traces of the Deity in life, because no such traces exist. 46 I conclude that there is an existence, a something higher than soul, higher, better, and more perfect than deity. Earnestly I pray to find this something better than a god. 47 There is something superior, higher, more good. For this I search, labour, think, and pray.… 48 With the whole force of my existence, with the whole force of my thought, mind, and soul, I pray to find this Highest Soul, this greater than deity, this better than God. 49 Give me to live the deepest soul-life now and always with this soul. For want of words I write soul, but I think it is something beyond soul.' 50 Could anything be more pathetic or, at the same time, more self-refuting? How can anything be greater than the Infinite, more enduring than the Eternal, better than the All-Pure and All-Perfect? 51 It could be only the God of unenlightened, unchristian teaching, Whom he rejected. 52 The God Whom he sought must be not only in but beyond and above all created or developed things. 53 It was,

indeed, the Higher than the Highest that he worshipped. It was for God, for the Living God, that his eager soul was athirst, and it is in God, the Living God, that his eager soul is now, we humbly trust, for ever satisfied.

54 (IV.) 'The heaven and heaven of heavens cannot contain Him.' 'Whither shall I go from Thy Spirit? Or whither shall I flee from Thy presence?' 55 'My thoughts are not your thoughts, neither are your ways my ways saith the Lord.' 'In Him we live and move and have our being.' 'Of Him and through Him and to Him are all things, to Whom be glory for ever. Amen.'

56 Now it cannot be denied that some who have striven to express after this fashion the unutterable majesty and the universal presence of God, 57 who have endeavoured to demonstrate that God is in all things, and that all things are in God, have at times failed to make their meaning plain. 58 Either from the obscurity of their own language, or from the obtuseness of their readers, they have been considered Atheists. While vehemently asserting that God is everywhere, they have been taken to mean that God is nowhere. 59 The actual conclusion to be drawn from the treatises of Spinoza, the reputed founder of modern Pantheism, is still undecided. But no one now would brand him with the name of Atheist. 60 He was excommunicated by Jews and denounced by Christians, yet there are many who think that his aim, his not unsuccessful aim, was to establish faith in the Unseen and Eternal on a basis which could not be shaken. 61 So far from denying God, he was, according to one of the greatest of German theologians, 'a God-intoxicated man.' 'Offer up reverently with me a lock of hair to the manes of the holy, repudiated Spinoza! 62 The high world-spirit penetrated him: the Infinite was his beginning and his end: the Universe his only and eternal love.... 63 He was full of religion and of the Holy Spirit, and therefore he stands alone and unreachable, master in his art above the profane multitude, without disciples and without citizenship.'

64 Dean Stanley went so far as to say that 'a clearer glimpse into the nature of the Deity was granted to

Spinoza, the excommunicated Jew of Amsterdam, than to the combined forces of Episcopacy and Presbytery in the Synod of Dordrecht.' 65 Such a judgment is rather hard upon the divines who took part in that celebrated Synod, but at any rate it indicates that the great philosopher, misunderstood and persecuted, was elaborating in his own way, 66 this great truth, 'In him we live and move and have our being.' 'Of Him, and through Him are all things.'

67 (V.) In their loftiest moments, contemplating the marvels of the heavens above and the earth beneath, devout souls have, wherever they looked, been confronted with the Vision of God. 68 'What do I see in all Nature?' said Fénelon, 'God. God is everything, and God alone.'

69 'Everything,' said William Law, 'that is in being is either God or Nature or Creature: and everything that is not God is only a manifestation of God; 70 for as there is nothing, neither Nature nor Creature, but what must have its being in and from God, so everything is and must be according to its nature more or less a manifestation of God.'

71 It is the thought which has inspired poets of the most diverse schools, which has been their most marvellous illumination and ecstasy. 72 Now it is Alexander Pope:

All are but parts of one stupendous whole
Whose body Nature is, and God the soul.

73 Now it is William Cowper:

There lives and works
A soul in all things and that soul is God.

74 Now it is James Thomson of 'The Seasons':

These, as they change, Almighty Father! these
Are but the varied God. The rolling year
Is full of Thee.

75 Now it is William Wordsworth:

I have felt
A Presence that disturbs me with the joy
Of elevated thoughts, a sense sublime
Of something far more deeply interfused,

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76 Whose dwelling is the light
of setting suns,
And the round ocean and the
living air,
And the blue sky, and in the
mind of human
A motion and a spirit which
impels
All thinking things, all objects
of all thought,
And rolls through all things.

77 Now it is Lord Tennyson:

The sun, the moon, the stars, the
seas, the hills and the plains,
Are not these, O Soul, the vision of
Him Who reigns?

* * * * *

78 Speak to Him thou, for He hears,
and Spirit with Spirit can meet.
Closer is He than breathing and
nearer than hands or feet.

79 Certainly, we may say, nothing atheistic in utterances like these: they are the utterances of lofty thought, of profound piety, of soaring aspiration, and of childlike faith. 80 They have a pantheistic tinge: what is there to dread in Pantheism? Not much in Pantheism of that kind: would there were more of it! 81 But it will be observable that, in the instances cited, though God is in Nature and manifesting Himself through it, there is a clear distinction between Nature and God. 82 It may seem as if it were merely the sky, the sun, the stars, the ocean, that are apostrophised: in reality it is a Life, a Spirit, a Power not themselves, in which they live and move and have their being: not to them, but to That, are the prayers addressed. 83 And, we venture to think, it is scarcely ever otherwise: scarcely ever is the Visible alone invoked: identify God as humans will with the material universe, or even with the force and energy with which the material universe is pervaded, 84 when they enter into communion with it, in spite of themselves they endow it with the Life and the Will and the Purpose which they have in theory rejected. 85 But the absolute identification of God and the Universe, the assumption that above and beneath and through all there is no conscious Righteousness and Wisdom and Love overruling and directing, 'that' is a belief to be resisted, a belief which enervates character and enfeebles hope. 86 'Whoever says in his heart that God is 'no

more' than Nature: whoever does not provide 'behind the veil of creation' an infinite reserve of thought and beauty and holy love, that might fling aside this universe and take another, 87 as a vesture changing the heavens and they are changed, ... is bereft of the essence of the Christian Faith, and is removed by only accidental and precarious distinctions from the atheistic worship of mere "natural laws."' 88 'In our worship we have to do, not so much with His finite expression in created things as with His own free self and inner reality ... all 'religion' consists in 'passing Nature by', in order to enter into direct personal relation with Him, soul to soul. 89 It is 'not' Pantheism to merge all the life of the physical universe in Him, and leave Him as the inner and sustaining Power of it all. 90 It is Pantheism to rest in this conception: to merge Him in the universe and see Him only there: 91 and not rather to dwell with Him as the Living, Holy, Sympathising Will, on Whose free affection the cluster of created things lies and plays, as the spray upon the ocean.'

92 (VI.) God is 'not' as we are, and yet He 'is' as we are. God is not made in the image of human, but human is made in the image of God. 93 It is through human goodness and human purity and human love that we attain our best conceptions of the Divine Goodness and Purity and Love. 94 'If ye being evil know how to give good gifts unto your children, how much more will your Heavenly Father give the Holy Spirit to them that ask Him?' 95 Picture to yourself what is highest and best in the human relationship of father and child: be sure that the Heavenly Father will not fall below, but will infinitely transcend, that standard. 96 All the justice and goodness which we have seen on earth are the feebler reflection of His. 97 It is by learning that the utmost height of human goodness is but a little way towards Him that we learn to think of Him at all aright. 98 But the justice and the love by which He acts are different only in degree, and not in kind, from ours. 99 When we think of God as altogether such as we are, we degrade Him, we have before us

the image of the imperfect; 100 when we try to think of Him under no image and to discard all figures, He vanishes into unreality and nothingness, 101 but when we see Him in Christ, we have before us that which we can grasp and understand, and that in which there is no imperfection.

102 If there is no God but the universe, we have a universe without a God. Worship is meaningless, Faith is a mockery, Hope is a delusion. 103 If the universe is God, all things in the universe are of necessity Divine. The distinction between right and wrong is broken down. 104 In a sense very different from that in which the phrase was originally employed, 'Whatever is, is right.' Nothing can legitimately be stigmatised as wrong, for there is nothing which is not God. 105 'If all that is is God, then truth and error are equally manifestations of God. 106 If God is all that is, then we hear His voice as much in the promptings to sin as in the solemn imperatives of Conscience. This is the inexorable logic of Pantheism, however disguised.'

107 'I know,' says Mr. Frederic Harrison, 'what is meant by the Power and Goodness of an Almighty Creator. I know what is meant by the genius and patience and sympathy of human. 108 But what is the All, or the Good, or the True, or the Beautiful? ... The "All" is not good nor beautiful: it is full of horror and ruin....

109 There lies this original blot on every form of philosophic Pantheism when tried as the basis of a religion or as the root-idea of our lives, 110 that it jumbles up the moral, the unmoral, the non-human and the anti-human world, the animated and the inanimate, cruelty, filth, horror, waste, death, virtue and vice, suffering and victory, sympathy and insensibility.' 111 Where these distinctions are lost, where this confusion exists, what logically must be the consequence? 112 Honesty and dishonesty, truth and falsehood, purity and impurity, kindness and brutality, are put upon a level, are alike manifestations of the One or the All.

113 It is said that in our day the sense of sin has grown weak, that

humans are not troubled by it as once they were. 114 There is a morbid, scrupulous remorsefulness for wrong-doing, a desponding conviction that repentance and restoration are impossible, which may well be put away.

115 But that sin should be no longer held to be sin, that evil should be wrought and the worker experience no pang of shame, would surely indicate moral declension and decay.

116 Were the time to come when, universally, humankind should commit those actions and cherish those passions which, through all ages in all lands, have gone by the name of sin, should become so heedless to the voice of conscience, that conscience should cease to speak, 117 the time would have come when humans, being past feeling, would devote themselves with greediness to anything that was vile, so long as it was pleasant, the bonds of society would be loosened and destruction would be at hand.

118 The Religion of the Universe ignores the facts of life, the sorrow, the struggle, the depravity, the need of redemption. 119 Fortunately, human beings in general are still inclined to mourn because of imperfection or of baseness: still they are inclined at times to cry out, 'Who shall deliver me from the body of this death?' 120 And still they have the opportunity of joyfully or humbly saying, 'I thank God through Jesus Christ our Lord.'

121 'And now at this day,' listen to the ungrudging admission of perhaps the most earnest English apostle of Pantheism, Mr. Allanson Picton: 'We of all schools, whether orthodox or heterodox so-called, 122 whether believers or unbelievers in supernatural revelation, all who seek the revival of religion, the exaltation of morality, the redemption of human, draw, most of us, our direct impulse, and all of us, directly or indirectly, our ideals from the speaking vision of the Christ. 123 Such a claim is justified, not merely by the spiritual power still remaining in the Church, but almost as much by the tributes paid, and the uses of the Gospel teaching made in the writings of the most distinguished among rationalists.... 124 Such

writers have felt that somehow Jesus still holds, and ought to hold, the heart of humanity under His beneficial sway. 125 Excluding the partial, imperfect and temporary ideas of Nature, spirits, hell, and heaven, which the Galilean held with singular lightness for a man of His time, 126 they have acquiesced in and even echoed His invitation to the weary and heavy laden, to take His yoke upon them and learn of Him. 127 And that means to live up to His Gospel of the nothingness of self, and of unreserved sacrifice to the Eternal All in All.'

128 If such is the conclusion of Rationalism and of Pantheism, how much more ought it to be the conclusion of Christianity. 129 The imagination of a God confined to times and places, visiting the world only occasionally, manifesting Himself in the past and not in the present, ought to be as foreign to the Christian Church as to any Rationalist or Pantheist. 130 Be it ours to show that we believe in God Who filleth all things with His presence, Who is from Everlasting to Everlasting, 131 that to us there is but one God the Father, by Whom are all things and we in Him, and one Lord, Jesus Christ, by Whom are all things and we by Him, that God has identified Himself with us in Jesus Christ, His Son. 132 Be it ours to lose ourselves in Him. For, after all our questionings as to the government of the world, as to abounding misery and degradation, as to what lies beyond the veil for ourselves and for others, this is our hope and our confidence: 133 'God hath concluded all in unbelief that He might have mercy upon all. O the depth of the riches both of the wisdom and knowledge of God! How unsearchable are His judgments and His ways past finding out. 134 For who hath known the mind of the Lord? Or who hath been His counsellor? Or who hath first given to Him, and it shall be recompensed unto Him again? 135 For of Him and through Him and to Him are all things: to Whom be glory for ever. Amen.'

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THE RELIGION
OF HUMANITY
Pearson McAdam Muir

4 The position which Religion, and especially the Christian Religion, assigns to human, to human as you ought to be, is very high. 2 You are made in the image of God, you are a little lower than the angels, a little lower than God, you are a partaker of the Divine Nature. 3 But as the corruption of the best is the worst, there is nothing in the whole creation more miserable, more loathsome, than human as you have forgotten your high estate and plunged yourself into degradation. 4 'What human has made of human,' is the saddest, most deplorable sight in all the world. Amid the awful splendour of the winning loveliness of Nature, 'only human is vile.'

5 That is the terrible verdict which may be pronounced upon you renouncing your birthright, surrendering yourself to the powers which you was meant to keep in subjection. 6 It is not the verdict to be pronounced on Human as Human, the child of the highest and the heir of all the ages. 7 The appeal of Religion, the appeal of Christianity above all, has continually been, O sons of humans, sully not your glorious garments, cast not away your glorious crown.

8 I. It is irreligion, it is unbelief, which comes and says, Lay aside these fantastic notions as to your greatness: 9 you are the creatures of a day: you belong, like other animals, to the world of sense, and you pass away along with them: a human hath no pre-eminence above a beast. 10 Banish your delusive hopes; confine yourselves to reality; waste not your time in the pursuit of phantoms: 11 make the best of the world in which you are: seize its pleasures: shut your eyes to its sorrows: enjoy yourselves in the present and let the future take care of itself: 12 follow the devices and desires of your own hearts in the comfortable assurance that there is no judgment to which you can be brought, save that which exists in the realm of imagination.

13 Listening to such whispers, obeying such suggestions, walking in such courses, the spectacle which human presents can be

viewed only with compassion, with horror, or with disdain. 14 Your ideals, your aspirations, your self-sacrifices are only so many phases of self-deception. 15 The natural conclusion to be drawn from denying the spiritual origin and eternal prospects of human must be that you are of no more account than any of the transitory beings around you, 16 that, if you have any superiority over them, it is only the superiority of a skill with which you can make them the instruments of your purposes. 17 With no glimpses of a higher world, with no inspirations from a Spirit nobler than your own, you can hardly regard the achievements of heroism as other than acts of madness, 18 you can be fired with no desire to emulate them, you cannot well be trusted to perform ordinary acts of honesty and morality, let alone extraordinary acts of generosity and magnanimity, should they come in collision with your objects and ambitions. 19 Unless above himself you can Erect yourself, how mean a thing is Human! 20 Deny your divine fellowship, extirpate your heavenly anticipations, and it might seem as if no race on earth would be so poor as do you reverence.

21 (II.) One thing is assumed by not a few, the absurdity of the Almighty caring for such a race, and therefore the impossibility of the Incarnation. 22 'Which,' asks Mr. Frederic Harrison, 'is the more deliriously extravagant, the disproportionate condescension of the Infinite Creator, or the self-complacent arrogance with which the created mite accepts, or rather dreams of, such an inconceivable prerogative? 23 Your planet is one of the least of all the myriad units in a boundless Infinity; in the countless æons of time you are one of the latest and the briefest; 24 of the whole living world on the planet, since the ages of the primitive protozoon, human is but an infinitesimal fraction. 25 In all this enormous array of life, in all these æons, was there never anything living which specially interested the Creator, nothing that the Redeemer could care for, or die for? 26 If so, what a waste creation must have been! ... Why was all this tremendous tragedy, great enough to convulse the

Universe, confined to the minutest speck of it, for the benefit of one puny and very late-born race?'
27 But is it not the fact that along with the discovery of Human's utter insignificance, there has come the discovery of powers and faculties unknown and unsuspected, 28 so that more than ever all things are in subjection to you, your dominion has become wider, your throne more firmly established? 29 Is it not the fact that the whole realm of Nature is explored by you, is compelled to minister to your wants or to unfold its treasures of knowledge? 30 Is it not the fact that more than ever it can be said:

The lightning is your slave: heaven's utmost deep
Gives up her stars, and, like a flock of sheep,
They pass before your eye, are numbered, and roll on.
The tempest is your steed: you strides the air.
And the Abyss shouts from her depth laid bare
'Heaven, hast thou secrets? Human unveils me: I have none.'

31 Is it not the fact that deposed from your position of proud pre-eminence as centre of the universe, Human has by your labours and your ingenuity reasserted your high prerogative to be lord of the creation? 32 The printing-press, the railway, the telegraph, how have inventions like these invested you with an influence which you did not possess before! 33 And is it not the fact that when most conscious of our nothingness before the immensities around us, when humbled and prostrate before the Infinite of which we have caught a transitory glimpse, we are also most conscious of our high destiny, 34 we are lifted above the earthly to the heavenly, we discern that, though we cannot claim a moment, yet Eternity is ours?
35 'What, then, is Human! 36 What, then, is Human! You endures but an hour and is crushed before the moth. 37 Yet in the being and in the working of a faithful human is there already (as all faith, from the beginning, gives assurance) a something that pertains, not to this wild death element of Time; that triumphs over Time, and 'is', and will be, when Time shall be no more.'

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38 Human's place in the universe may, according to Dr. Alfred Russel Wallace, be nearer the centre of things than has so commonly come to be accepted. 39 Modern discovery, he maintains, has thrown light on the interesting problem of our relation to the Universe; 40 and even though such discovery may have no bearing upon theology or religion, yet, you thinks, it proves that our position in the material creation is special and probably unique, 41 and that the view is justified which holds that 'the supreme end and purpose of this vast universe was the production and development of the living soul in the perishable body of human.'

42 And another, a convinced and ardent disciple of Evolution, the late Professor John Fiske, argues that, 'not the production of any higher creature, but the perfecting of humanity is to be the glorious consummation of Nature's long and tedious work....

43 Human seems now, much more clearly than ever, the chief among God's creatures.... 44 The whole creation has been groaning and travailing together in order to bring forth that last consummate specimen of God's handiwork, the Human Soul.' 45 If this be so, this conclusion arrived at by those who do not hold the ordinary faith of Christendom, then the objection that the Incarnation could not have taken place for the redemption of such a race as ours, in a world which is so poor a fraction of the infinite universe, falls to the ground; 46 and the protest of a devout modern poet carries conviction with it:

This earth too small
For Love Divine! Is God not Infinite?
If so, His Love is infinite. Too small!
One famished babe meets pity oft from human
More than an army slain! Too small for Love!
Was Earth too small to be of God created?
Why then too small to be redeemed?

47 Human may, or may not, occupy a 'central position in the universe': other worlds may, or may not, be inhabited: 48 this earth may be but a minute and insignificant speck amid the mighty All, this at least is certain,

49 that not by mere magnitude is our rank in the scale of being to be decided, and that in the spirit of human will be found that which approaches most nearly to Him who is Spirit.

50 'The person who reviles Humanity on the ground of its small place in the scale of the Universe is,' according to Mr. Frederic Harrison, 'the kind of person who sneers at patriotism and sees nothing great in England, on the ground that our island holds so small a place in the map of the world. 51 On the atlas England is but a dot. Morally and spiritually, our Fatherland is our glory, our cradle, and our grave.'

52 III. Hence, one of the ablest attempts to supersede Christianity is that which goes by the name of Positivism or the Religion of Humanity, which sets Human on the throne of the universe, and makes of you the sole object of worship.

53 'A helper of humans outside Humanity,' said the late Professor Clifford, 'the Truth will not allow us to see. 54 The dim and shadowy outlines of the Superhuman Deity fade slowly away from before us, and, as the mist of His Presence floats aside, we perceive with greater and greater clearness the shape of a yet grander and nobler figure, of you who made all gods and shall unmake them. 55 From the dim dawn of history, and from the inmost depths of every soul, the face of our Father 'Human' looks out upon us with the fire of eternal youth in your eyes, and says, "Before Jehovah was, I am."

56 The founder of the organised Religion of Humanity was Auguste Comte, who died in the year 1857. 57 He held that in the development of humankind there are three stages: the first, the Theological, in which worship is offered to God or gods; 58 the second, the Metaphysical, in which the human mind is groping after ultimate truth, the solution of the problems of the universe; 59 the third, the Positive, in which the search for the illusive and the unattainable is abandoned, and the real and the practical form the exclusive occupation of the thoughts.

60 On Sunday, October 19, 1851, he concluded a course of Lectures on the General History of

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Humanity with the uncompromising announcement, 61 'In the name of the Past and of the Future, the servants of Humanity, both its philosophical and practical servants, come forward to claim as their due the general direction of this world. 62 Their object is to constitute at length a real Providence, in all departments, moral, intellectual, and material. 63 Consequently they exclude, once for all, from political supremacy, all the different servants of God, Catholic, Protestant, or Deist, as being at once behindhand and a source of disturbance.'

64 All religions were banished by the truly 'uncompromising announcement': they were all condemned as futile and unreal. 65 The best that could be said of the worship of the past was that it directed 'provisionally the evolution of our best feelings, under the regency of God, during the long minority of Humanity.' 66 But the fact that Religion will not be banished, that it must somehow find expression, never received fuller verification. 67 We do not dwell upon the private life of Comte, its eccentricities and inconsistencies, but this at least cannot be omitted: 68 he practised a course of austere religious observances, he worshipped not only Humanity at large, but he paid special adoration to a departed friend such as hardly the devoutest of Roman Catholics has ever paid to the Virgin Mary.

69 Positivism became, what Professor Huxley called it, 'Catholicism 'minus' Christianity.' 70 Comte laid down for the guidance of his disciples, who are potentially all humankind, rules which no existing religious communion can surpass in minuteness. 71 The Supreme Object of Worship is the Great Being, Humanity, the Sum of Human Beings, past, present, and future. 72 But as it is only too evident that too many of these beings in the past and the present, whatever may be said about the future, are not very fitting objects of worship, 73 Humanity, the Great Being, must be understood as including only worthy members, those who have been true servants of Humanity. 74 The emblem of this Great Being is a Woman of

the age of thirty, with her son in her arms; and this emblem is to be placed in all temples of Humanity and carried in all solemn processions.

75 The highest representatives of Humanity are the Mother, the Wife, and the Daughter; the Mother representing the past, the Wife the present, and the Daughter the future. 76 These are in the abstract to be regarded as the guardian angels of the family.

77 To these angels every one is to pray three times daily, and the prayers, which may be read, but which must be the composition of you who uses them, are to last for two hours.

78 Humanity, the World, and Space form the completed Trinity of the Positivist Religion. 79 There are nine sacraments: Presentation, Initiation, Admission, Destination, Marriage, Maturity, Retirement, Transformation, Incorporation.

80 There is a priesthood, to whom is committed the duties of deciding who may or may not be admitted to certain offices during life, 81 of deciding also whether or not the remains of those who have been dead for seven years should be removed from the common burial-place, and interred in 'the sacred wood which surrounds the temple of humanity,' 82 every tomb there 'being ornamented with a simple inscription, a bust, or a statue, according to the degree of honour awarded.' 83 The priests are to receive so comprehensive a training that they are not to be fully recognised till forty-two years of age. They are to combine medical knowledge with their priestly qualifications. 84 Three successive orders are necessary for the working of the organisation: the Aspirants admitted at twenty-eight, the Vicars or Substitutes at thirty-five, and the Priests proper at forty-two.

85 The Religion of Humanity has a Calendar, each month of twenty-eight days being in one aspect dedicated to some social relation, and in another to some famous person representing some phase of human progress: 86 Moses, Homer, Aristotle, Cæsar, St. Paul, Gutenberg, Shakespeare. Each day of the year is dedicated to one or more great men or women, five hundred and fifty-eight in number, and the last day of the year is the

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Festival of All the Dead. 87 'Our Calendar is designed to remind us of all types of the teachers, leaders, and makers of our race: of the many modes in which the servants of Humanity have fulfilled their service. 88 The prophets, the religious teachers, the founders of creeds, of nations and systems of life: the poets, the thinkers, the artists, kings, warriors, statesmen and rulers: the inventors, the people of science and of all useful arts....

89 Every day of the Positivist year is in one sense a day of the dead, for it recalls to us some mighty teacher or leader who is no longer on earth.... 90 But the three hundred and sixty-four days of the year's calendar have left one great place unfilled.… Those myriad spirits of the forgotten dead, whom, no man can number, whose very names were unknown to those around them in life, 91 the fathers and the mothers, the husbands and the wives, the brothers and the sisters, the sturdy workers and the fearless soldiers in the mighty host of civilisation--shall we pass them by? ...

92 It is those whom to-night we recall, all those who have lived a life of usefulness in their generation, though they tugged as slaves at the lowest bank of oars in the galley of life, 93 though they were cast unnoticed into the common grave of the outcast, all whose lives have helped and not hindered the progress of Humanity, we recall them all to-night.'

94 (IV.) The Religion of Humanity has numbered among its adherents, in part or in whole, several celebrated persons in this country, such as Richard Congreve, Dr. Bridges, Professor Beesley, Cotter Morison, George Eliot. 95 But at present it has no more eloquent and earnest advocate than Mr. Frederic Harrison, who, in 'The Creed of a Layman', and several other recent volumes, has passionately proclaimed its principles. 96 For more than fifty years he has been its apostle: 'every other aim or occupation has been subsidiary and instrumental to this.' 97 It is true that in some points he has retained his independence, and while those outside accuse him of fanaticism,

some of his fellow-believers suspect him of heresy. 98 But he himself is assured that in the worship of Humanity he has obtained the solution of his doubts and the satisfaction of his spirit, and on his gravestone or his urn he would have inscribed the words, 'He found peace'. 99 There is much that is marvellously elevated in thought as well as exquisite in expression, profoundly devout as well as brilliantly argued, in the narrative of his progress towards his present position. 100 But when his vehement statements are carefully examined, it will almost inevitably be seen that all that is good and sensible in them is an unconscious reproduction of Christianity. 101 His negations disappear: the affirmations which he makes are those which the Church has always maintained. The faith of his childhood permeates and strengthens and beautifies the creed which he adopted in his maturer years. 102 The unity of humankind, the memory of the departed, the necessity of living for others, these are no novelties in Christianity. 103 It is in Christ that they have specially been brought to light, in Him that they find their highest ratification, without Him they remain unfulfilled, with Him they attain to consistency and power.

104 The Great Being, Humanity, is only an abstraction. 'There is no such thing in reality,' 105 Principal Caird reminds us, 'as an animal which is no particular animal, a plant which is no particular plant, a human or humanity which is no individual person. It is only a fiction of the observer's mind.'

106 There is logical force as well as humorous illustration in the contention of Dean Page Roberts, that there is no more a humanity apart from individual men and women than there is a great being apart from all individual dogs, which we may call Caninity, 107 or a transcendent Durham ox, apart from individual oxen, which may be named Bovinity.' 108 Nor does the geniality of Mr. Chesterton render his argument the less telling: 'It is evidently impossible to worship Humanity, just as it is impossible to worship the Savile Club: both are excellent institutions to which we may happen to belong. 109 But we

perceive clearly that the Savile Club did not make the stars and does not fill the universe. 110 And it is surely unreasonable to attack the doctrine of the Trinity as a piece of bewildering mysticism, and then to ask people to worship a being who is ninety million persons in one God, neither confounding the persons nor dividing the substance.'

111 Can it be doubted that the Great Being, the sum of human beings, is less conceivable, less worthy of worship than the Great Being, the God and Father of our Lord Jesus Christ? 112 Can it be doubted that the claim of Humanity to worship is less credible if we exclude the Perfect Man, Christ Jesus, from our view? 113 Can it be doubted that the Positivist motto, 'Live for others,' gains a force and a meaning unapproached elsewhere from the Life and Death of Him Who said, 'The Son of Human came not to be ministered unto, but to minister and to give His Life a ransom for many?' 114 Humanity knit together in One, purified from every stain, glorious and adorable, is a lofty and inspiring idea, but nowhere has it been disclosed save in the Man Christ Jesus, the Word made Flesh, the Brightness of the Father's glory and the Express Image of His Person.

115 V. Dr. Richard Congreve owns that much of the Religion of Humanity exists already in the Christian Faith, but, in one respect, he asserts that the Religion of Humanity can claim to be entirely original. 116 'We accept, so have all humans. We obey, so have all humans. We venerate, so have some in past ages, or in other countries. We add but one other term, we love.' That is what distinguishes this new religion and proves its superiority to the old: 117 its votaries have attained this new principle and mode of life: they love one another. 118 The boldness of the claim may stagger us. We turn over the pages of the New Testament. We see that Love is the fulfilling of the Law; 119 is the end of the commandment; is the sum of the Law and the Prophets; is placed at the very summit of Christian graces; is the bond of perfectness; is manifested in a Life and a Death which, after

nineteen centuries, remain without a parallel.

120 We recall the touching legend that in his old age the Apostle S. John was daily carried into the assembly of the Ephesian Christians, simply repeating to them, over and over, the words, 'Love one another. This is our Lord's command, fulfill this and nothing else is needed.' 121 We recall that in early centuries the sympathy and helpfulness by which Christians of all ranks and races were united called forth from heathen spectators the amazed and respectful exclamation, 'See how these Christians love one another!'

122 Recalling these things, we cannot but be startled that, in the nineteenth century of the Christian era, a teacher should, with any expectation of being believed, have ventured to affirm that the great discovery which it has been reserved for the present day to make is that of loving one another.

123 Ignorance of Christianity, misrepresentation of Christianity, we may well call it: 124 ignorance inconceivable, misrepresentation inconceivable: and yet, as we consider the state of Christendom, do we not see what palliates the ignorance and the misrepresentation? 125 Have we not reason to confess that, if the commandment be not new, universal obedience to it would be new indeed? 126 May the calm assurance that love is foreign to Christianity not startle us into the conviction that we have forgotten what, according to our Lord's own declaration, the chief feature of Christianity ought to be? 127 'By this shall all humans know that ye are My disciples, if ye have love one to another.'

128 VI. 'How can we,' it has been well said, 'be asked to give the name of Religion of Humanity to a religion that ignores the greatest human being that ever lived, and the very source from which the Religion of Humanity sprang?' 129 Human in yourself, human so full of imperfections, human having no connection with any world but this, human unallied to any Power higher, nobler than yourself, is this to be our God? 130 Which is more reasonable: to set up the race of human, unpurified, unredeemed, worthless and polluted, as the object of adoration, or to maintain

that 'Human indeed is the rightful object of our worship, but in the roll of ages, there has been but one Human Whom we can adore without idolatry, the Man Christ Jesus'? 131 The Religion of Humanity, so called, would have us worship Human apart from Christ Whom yet all acknowledge to be the glory of humankind, 132 but we call on humans to worship Christ Jesus, for in Him we see Human without a stain, we see our nature redeemed and consecrated, we see ourselves brought nigh to the Infinite God. 133 We adore Humanity, but Humanity in its purity: we adore Humanity, but only as manifesting in the Only Begotten Son the glory of the Eternal Father. 134 Thus we place no garland around the vices of the human race: thus we abase, and thus we exalt: thus are we humbled to the dust, thus are we raised to the highest heavens. 135 Apart from Christ, the magnitude of the creation may well depress and overwhelm: apart from Christ the human race is morally imperfect instead of being a fit object of blind adoration. 136 Seeing Christ, we not only feel our inconceivable nothingness in presence of the Infinite Majesty, but we stand erect and unpresumptuously say, 137 'We wonder not that Thou art mindful of those for whom that Son of Human lived and died, we are in Him partakers of the Divine Nature. There thou beholdest Thine Own Image.'

138 Made in the image of God, such is the ideal of Human that comes to us from the beginning of your history; and such is the ideal that once, and once only, has been realised. 139 "Ecce Homo"! Behold the Human!' said Pontius Pilate, in words more full of significance than he knew, pointing to the victim of priestly hatred and popular fickleness. 140 Behold the Human! human as you ought to be, the Image of God. 141 Before that Divine Humanity we reverently bow, to that Divine Humanity we humbly consecrate ourselves, in fellowship with It alone we learn and manifest the true worth and dignity of Human.

142 One writing frantically to exalt humankind and to depreciate Christianity, tells us how he sat on a cliff overhanging the seashore

and gazed upon the stars, murmuring, 'O prodigious universe, and O poor ignorant, that could believe all these were made for you!' 143 but the sight of a steamship caused him to rejoice at the triumph of Art over Nature, and to exclaim, 144 'If human is small in relation to the universe, you are great in relation to the earth: you abbreviates distance and time, and brings the nations together.' 145 Then he saw that human is ordained to master the laws of which you are now the slave; he believed that if human could understand this mission, a new religion would animate your life, 146 and, in the strength of this revelation, the writer says that he sang in ecstasy to the waters and winds and birds and beasts, he felt a rapture of love for the whole human race, 147 he resolved to preach the New Gospel far and wide, and proclaim the glorious mission of humankind.

148 On the whole the Old Gospel will be found as ennobling, as inspiring, as practical as the New. All that this new Gospel aims at, 149 we, as Christians, already believe: and we possess a Divine Token, a Sacred Pledge which is foreign to it: 150 we believe that a higher destiny is in store for us than even the construction of wonders of mechanical skill. 151 Stripped of all rhetoric, the conclusion of unbelief in God and Immortality can only be 'Human is what you eats': 152 the conclusion of Christianity, 'There is but one object greater than the soul, and that is its Creator.'

153 One in a certain place testified, saying, 'What is human, that Thou art mindful of you, or the offspring of human that Thou visitest you? 154 Thou madest you a little lower than the angels: Thou crownest you with glory and honour, and didst set you over the works of Thy hands: Thou hast put all things in subjection under your feet.' 155 For in that He put all in subjection under you, He left nothing that is not put under you. But now we see not yet all things put under you. 156 But we see JESUS Who was made a little lower than the angels for the suffering of death, crowned with glory and honour. 157 We see Him Who is our Brother and our Forerunner within the veil; and in

His Exaltation we behold our own. 158 No vision of the future can surpass that which the Christian Church has cherished from the beginning, that we shall all 'come in the unity of the faith, and of the knowledge of the Son of God, unto a Perfect Human, unto the measure of the stature of the fullness of Christ ... 159 from Whom the whole body fitly joined together and compacted by that which every joint supplieth, according to the effectual working in the measure of every part, maketh increase of the body unto the edifying of itself in love.'

THEISM WITHOUT CHRIST

Pearson McAdam Muir

5 By Theism without Christ is not meant a system like Judaism or Mohammedanism, but a modern school which maintains that faith in God becomes weakened and impaired by being associated with faith in Jesus. 2 There are those who cling with tenacity to the first article of the Apostles' Creed, 'I believe in God the Father Almighty,' but who reject with equal fervour the second article of the Creed, 'And in Jesus Christ, His only Son, our Lord.' 3 They resist with horror the suggestion that the world is under no overruling Providence, or that the humblest human being is not regarded with the tender love of the Infinite God: 4 they rival the most mystical worshipper in the ardour of the language with which in prayer they address the Father in Heaven, but they refuse to bow in the Name of Jesus: 5 they go to the Father, as they think, without Him: they assert that to look to Him is virtually to look away from God. 6 They are as hostile as we can be to the Substitutes for Christianity which we have been considering. 7 They have no sympathy with those who loudly deny that there is a God, or with those who say that it is impossible to find out whether there is a God or not, 8 or with those who think that the Creator and the Creation are one, that the universe is God, or with those who, not believing in any Unseen and Eternal God, insist that the proper object of the worship of humankind is human.

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9 In the proclamation of the existence of an All-Wise and All-holy Being, in the proclamation that He has made the world and rules it to its minutest detail, in the proclamation that there is a life beyond the grave, they are the allies of the Christian Church.
10 But then they go on to argue, For those who hold these doctrines, Christ is quite superfluous: to hold them in their purity Christ must be dethroned and His name no longer specially revered. 11 Some may still wish to speak of Him as among the Great Teachers of the world, but some, in order to preserve these precious truths unmixed, decline in a very fanaticism of unbelief to assign Him even that position.
12 (I.) The declaration of our Lord, 'No human cometh unto the Father but by Me,' has been a chief stumbling-block and rock of offence. 13 Are we to believe, it is asked, that only the comparatively few to whom the knowledge of Jesus Christ has come can possibly be accepted of the Father? 14 When the words were spoken the number of His disciples was exceedingly small. Did he mean that the Father could be approached only by that handful of people, that all beyond were banished from the Divine Presence and must inevitably perish? 15 That this is what He meant both the friends and the foes of Christianity have at times been agreed in holding. The friends have imagined that they were thereby exalting the claim of Christ to be the One Mediator. 16 It may be a terrible mystery that the vast majority of the human race should have no opportunity of believing in Him, should be even unacquainted with His Name. 17 We can only bow before the inscrutable decree, and strive with all our might, not only that our own faith may be deepened, but that the knowledge of Christ may be diffused over all the earth, so that some here and there may be rescued. 18 There is little wonder that such a view should have given rise to questionings and opposition, should have been rejected as inconsistent with mercy and with justice. 19 It is an interpretation on which hostile critics have laid stress as incontestably proving the

narrowness and bigotry of the Christian Creed.

20 If we bear in mind Who it is that is presumed to say, 'No human cometh unto the Father but by Me,' the misconception disappears. 21 It is not merely an individual man, separate from all others, giving Himself out as a wise and infallible Teacher. 22 He Who makes the stupendous claim is One Who by the supposition embodies in Himself Human Nature in its perfection, Who is identified with His brethren, Who says, 'He that hath seen Me hath seen the Father.' 23 The Life which He manifests is the Life of God. He is set forth as the Way to the Father: in mercy and in blessing the Way is disclosed in Him: 24 it is not in harsh and rigid exclusiveness that He speaks, debarring the mass of humankind: it is in tender comprehensiveness, inviting all without distinction of race or circumstance, opening a new and living way for all into the Holiest. 25 It is the breaking down of all barriers between human and human, between human and God, not the setting up of another barrier high and insurmountable. 26 When Christ declares 'No human cometh unto the Father but by Me,' He is not declaring that the way is difficult and impassable, He is pointing out a way of deliverance which all may tread. 27 So far from laying down a hard and burdensome dogma to be accepted on peril of pains and penalties, He is imparting a hope and a consolation in which all may rejoice.

28 If we believe Him to be the Word of God made Flesh, if we see in Him the Brightness of the Father's glory, it becomes a truism to say that only through Him can life and healing be imparted to humankind. 29 When He Himself says, 'I am the Way, the Truth and the Life,' it is natural for Him to add, 'No human cometh unto the Father but by Me.' 30 It will be granted by all who believe in God that, apart from God, no soul of human can have life eternal. 31 The most strenuous advocate of the salvation of the virtuous heathen will grant that their salvation does not descend from the idol of wood and stone before which they grovel.

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32 It is from the True God, the Living God, that the blessing proceeds. It is His touch, His Spirit, His Presence which has consecrated the earnest though erring worship of the poor idolater. 33 No one who believes in the Infinite and Eternal God could possibly say that the monstrous image whose aid is invoked by the devout heathen is itself the answerer of your prayer, the cause of your deliverance from sin, the bestower of immortality upon you. 34 The utmost that can be said is that in the costly sacrifices, the painful penances, the passionate prayers which you presents to the object of your adoration, 35 the Almighty Love discerns a longing after something nobler and better, and accepts the service as directed really, though unconsciously, to Him.

36 The feeble hands and helpless,
Groping blindly in the darkness,
Touch God's right hand in that darkness
And are lifted up and strengthened.

37 But it is the hand of God that they touch. It is from the One Omnipotent God that every blessing comes: 38 it is the One Omnipotent God Who turns to truth and life and reality every sincere and struggling and imperfect attempt to serve Him on the part of those who know not His Nature or His Name.

39 And what is true of God is equally true of Christ, the manifestation of God. 40 Only grant Him to be the Incarnate Word of God, and it becomes plain that salvation can no more exist apart from Him than apart from the Father. 41 This Word of God is the Light that lighteth every human. Whatever truth, whatever knowledge of the Divine, anywhere exists is the result of that illumination. 42 The sparks which shine even in the darkness of heathendom betoken the presence of that Light, not wholly extinguished by the folly and ignorance of human. 43 That is the One Sun of Righteousness which gives light everywhere, though in many places the clouds are so dense that the beams can scarcely penetrate. 44 Now, if that Word has become Flesh, if that Light has become embodied in Human Form, we are still constrained to

say, There is no true Light but His, it is in His Light that all must walk if they would not stray, there is no Guide, no Deliverer, save Him. 45 Christ discloses, brings to view, all the saving health which has ever been, all the power of restoring, cleansing, healing, which has ever worked in the souls of humans. 46 The one Power by which any human being, in any age or in any land, has ever been fitted for the presence of the All Holy God, is made manifest in Christ. 47 'Neither is there salvation in any other, for there is none other name under heaven given among humans whereby we must be saved.'

48 We need have no hesitation in asserting that all who in any age or in any land, or in any religion, have come to the Father must have come through the Son of Human, the Eternal Word made Flesh. 49 We do not contend, as has too frequently been contended, that beyond the limits of Christianity, beyond, it may be, the limits of one section of Christianity, there is no truth believed, no acceptable service rendered. 50 We hail with gratitude the lofty thoughts and the noble achievements of some who do not in word acknowledge Christ as Lord. 51 In the vision of the Light that lighteth every human, we see How light can find its way
To regions farthest from the fount of day.

52 'Now,' as is well said by the present Bishop of Birmingham, who will hardly be accused of any tendency to minimise the claims of Christianity, 'this is no narrow creed. 53 Christianity, the religion of Jesus, is the Light: it is the one final Revelation, the one final Religion, but it supersedes all other religions, Jewish and Pagan, not by excluding, but by including all the elements of truth which each contained. 54 There was light in Zoroastrianism, light in Buddhism, light among the Greeks: but it is all included in Christianity. 55 A good Christian is a good Buddhist, a good Jew, a good Mohammedan, a good Zoroastrian; that is, you have all the truth and virtue that these can possess, purged and fused in a greater and completer light. 56 Christianity, I say, supersedes all other religions by including these fragments of truth in its own

completeness. 57 You cannot show me any element of spiritual light or strength which is in other religions and is not in Christianity. Nor can you show me any other religion which can compare with Christianity in completeness of light: 58 Christianity is the one complete and final religion, and the elements of truth in other religions are rays of the One Light which is concentrated and shines full in Jesus Christ our Lord.'

59 (II.) From whatever cause, whether as a reaction against the mode in which this great truth has been at times presented, there have been, and there are, attempts to supersede Christianity because of its narrowness. 60 Religion must not be identified with any one name: God manifests Himself to all, and no Mediator is needed. 61 Theism, therefore, the worship of the One Almighty and Eternal Being, not Christianity, in which a Human Name is associated with the Divine Name, can alone pretend to be the Universal Religion, the Religion of all humankind. 62 It is not the first time that such an attempt to do without Christianity and to do away with it has been made. In the eighteenth century there was a similar movement. 63 To this day at Ferney, near Geneva, is preserved the chapel which Voltaire erected for the worship of God, of God as distinguished from Christ as Divine or as Mediator between God and human. 64 Voltaire thought that he could overthrow and crush the Faith of Christ, but he none the less erected a temple to God. 65 The Deists upheld what they called the Religion of Nature and repudiated Revelation. 66 'Christianity not Mysterious; Christianity as old as the Creation', were among the works issued to show the superiority of Natural Religion, its freedom from difficulties, its agreement with reason, its universality.

67 The most enduring memorial of the controversy is Bishop Butler's 'Analogy of Religion to the Constitution and Course of Nature', in which it was argued that the Natural Religion of the Deists was beset by as many difficulties as the Revelation of the Christians, 68 that those who were not hindered from believing in

God by the problems which Nature presented need not be staggered by the problems which were presented by Christianity. 69 Bishop Butler's argument was directed against a special set of antagonists, an argument, it may be said, of little avail against the scepticism of the present day. 70 The argument seems to have been unanswerable by those to whom it was addressed. The grounds on which they rejected the Revelation of Christ were shown to be inadequate. 71 When they accepted this or that article of Natural Religion, they had accepted what was as difficult of belief as this or that part of the Revelation which they rejected. 72 The mysteries which existed in the religion with which they would have nothing to do were in harmony with the mysteries which existed in the religion which they declared to be necessary for the welfare of society. 73 That retort may be made with even more effect to those who so far occupy that same ground to-day. They rejoice to believe that there is a God, that He is not far off, that He communicates Himself to their souls, 74 that the love which we bear to one another is but a faint image of the love which He bears to us, that the noblest qualities which exist in us exist more purely, more gloriously in Him, that we are in very deed His children and are called to manifest His likeness. 75 It is by prayer, both in public and in private, both in congregations and alone with the Alone, that His Love and His Help can be comprehended and used. 76 He is no absent God: His Ear is not heavy that it cannot hear, nor His arm shortened that it cannot save. With this belief we, as Christians, have no dispute: 77 we gladly go along with Theists in asserting it: we only wonder at their unwillingness to go along with us a little further.

78 For if God be such as they glowingly depict Him, if our relations to Him be such as they esteem it our greatest dignity to know, there is nothing antecedently impossible in the thought that One Man has heard His Voice more clearly, 79 has surrendered to His Will more entirely, than any other in the history of the ages and the races of

humankind: nothing antecedently impossible in the thought that to One Man His Truth has been conveyed more brightly, more fully than to any other; 80 that in One Man the lineaments of the Divine Image may be seen more distinctly than in any other.

81 If God be such, and if our relations to God be such, as Theists describe, why should they shrink with distrust or with antipathy from a Son of Human Who has borne witness to those truths in His Life and in His Death with a steadfastness of conviction which none other has ever surpassed; 82 Who, according to the records which we possess of Him, habitually lived to do the Father's Will and died commending His Spirit into the Father's Hands: 83 a Son of Human Who could truly be said to be in heaven while He was on earth? If God be such, and our relations to God be such, as Theists describe, would not that Son of Human be the confirmation of their thoughts? 84 Would not His testimony be of infinite value on their side? Would He Himself not be the radiant illustration, the eagerly longed for proof of the truth for which they contend? 85 They believe in God: why should it, on their own showing, be so hard to believe in Christ?

86 (III.) The Theism of the nineteenth and twentieth centuries is in some respects different from the Deism of the eighteenth. It is not so cold, the God in whom it believes is not so distant from His creatures. 87 But it is not less vehement in its depreciation of Christianity as a needless and even harmful addition to the Religion of Nature. 88 Conspicuous among the advocates of this modern Theism have been Francis William Newman, Miss Frances Power Cobbe, and the Rev. Charle Voysey.

89 Francis Newman, in his youth, belonged, like his brother the famous Cardinal, to the strictest sect of Evangelicals, but, like the Cardinal also, drifted away from them, though in a totally different direction. 90 As he found the untenableness of certain views which he had cherished, the insufficiency of certain arguments which he had employed, he came with much anguish of mind to the

conclusion that the whole fabric of historical Christianity was built upon the sand. 91 He rapidly renounced belief after belief, and caused widespread distress and dismay by a crude attack upon the moral perfection of our Lord. 92 His conviction that Christianity had nothing special to say for itself, and that one religion was as good as another, seems to have been mainly brought about by a discussion which he had with a Mohammedan carpenter at Aleppo. 93 'Among other matters, I was particularly desirous of disabusing him of the current notion of his people that our Gospels are spurious narratives of late date. 94 I found great difficulty of expression, but the man listened to me with much attention, and I was encouraged to exert myself. He waited patiently till I had done and then spoke to the following effect: 95 "I will tell you, sir, how the case stands. God has given to you English many good gifts. You make fine ships, and sharp penknives, and good cloth and cottons, and you have rich nobles and brave soldiers; 96 and you write and print many learned books (dictionaries and grammars): all this is of God. 97 But there is one thing that God has withheld from you and has revealed to us; and that is the knowledge of the true religion by which one may be saved."'

98 But although Newman was led to give up Christianity, and practically to hold that one religion was as good as another, he clung tenaciously to what he supposed to be common to all religions, belief in God, a belief deep and ardent. 99 The rationalism of the Deists did not approve itself to him. 'Our Deists of past centuries tried to make religion a matter of the pure intellect, and thereby halted at the very frontier of the inward life: they cut themselves off even from all acquaintance with the experience of spiritual people.' 100 He nourished his soul with psalms and hymns: he sought communion with God. He saw the weakness of Morality without the inspiring power of Religion. 101 'Morals can seldom gain living energy without the impulsive force derived from Spirituals.... 102 However much Plato and Cicero may talk of the surpassing beauty of virtue, still

virtue is an abstraction, a set of wise rules, not a Person, and cannot call out affection as an existence exterior to the soul does. 103 On the contrary, God is a Person; and the love of Him is of all affections by far the most energetic in exciting us to make good our highest ideals of moral excellence and in clearing the moral sight, so that that ideal may keep rising. 104 Other things being equal (a condition not to be forgotten) a spiritual person will hold a higher and purer morality than a mere moralist. 105 Not only does Duty manifest itself to you as an ever-expanding principle, but since a larger and larger part of Duty becomes pleasant and easy when performed under the stimulus of Love, 106 the Will is enabled to concentrate itself more on that which remains difficult and greater power of performance is attained.' 107 Where shall we find a more vivid or more spiritual description of the rise and progress of devotion in the soul than in the words of this man, who placed himself beyond the pale of every Christian communion? 108 'One who begins to realise God's majestic beauty and eternity and feels in contrast how little and transitory human is, how dependent and feeble, longs to lean upon you for support. 109 But He is 'outside' of the heart, like a beautiful sunset, and seems to have nothing to do with it: there is no getting into contact with Him, to press against Him. 110 Yet where rather should the weak rest than on the strong, the creature of the day than on the Eternal, the imperfect than on the Centre of Perfection? 111 And where else should God dwell than in the human heart? For if God is in the universe, among things inanimate and unmoral, how much more ought He to dwell with our souls! 112 And they, too, seem to be infinite in their cravings: who but He can satisfy them? Thus a restless instinct agitates the soul, guiding it dimly to feel that it was made for some definite but unknown relation towards God. 113 The sense of emptiness increases to positive uneasiness, until there is an inward yearning, if not shaped in words, yet in substance not alien from that ancient strain, 114 "As the hart

panteth after the water-brooks, so panteth my soul after Thee, O God; my soul is athirst for God, even for the Living God.'"

115 Mr. Newman, in his later days, we understand, had modified the bitterness of his opposition to historical Christianity and was ready to avow himself as a disciple of Christ.

116 Miss Frances Power Cobbe was another devout spirit who, with less violence but equal decisiveness, accepted Theism as apart from Christianity. 117 In her case, even more visibly than in Mr. Newman's, it was not Christianity which she rejected, but sundry distortions of it with which it had in her mind become identified. 118 She wrote not a few articles so permeated with the Christian spirit and imbued with the Christian hope that the most ardent believer in Christ could read them with entire approval and own himself their debtor. 119 She took an active part in many philanthropic movements, and she was an earnest and eloquent advocate of faith in the Divine Ordering of the world and in human immortality.

120 'Theism,' she said, 'is not Christianity 'minus' Christ, nor Judaism 'minus' the miraculous legation of Moses, nor any other creed whatsoever merely stripped of its supernatural element. 121 It is before all things the positive affirmation of the Absolute Goodness of God: and if it be in antagonism to other creeds, it is principally because of, and in proportion to, their failure to assert that Goodness in its infinite and all-embracing completeness.' 122 'God is over us, and heaven is waiting for us all the same, even though all the people of science in Europe unite to tell us there is only matter in the universe and only corruption in the grave. 123 Atheism may prevail for a night, but faith cometh in the morning. 124 Theism is "bound to win" at last: not necessarily that special type of Theism which our poor thoughts in this generation have striven to define: 125 but that great fundamental faith, the needful substruction of every other possible religious faith, the faith in a Righteous and Loving God, and in a Life of human beyond the tomb.'

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126 'All the monitions of conscience, all the guidance and rebukes and consolations of the Divine Spirit, all the holy words of the living, and all the sacred books of the dead, these are our primary Evidences of Religion. 127 In a word, the first article of our creed is "I BELIEVE IN GOD THE HOLY GHOST." 128 After this fundamental dogma, we accept with joy and comfort the faith in the Creator and Orderer of the physical universe, and believe in GOD THE FATHER ALMIGHTY, MAKER OF HEAVEN AND EARTH. 129 And lastly we rejoice in the knowledge that (in no mystic Athanasian sense, but in simple fact) "'these two are One'." 130 The God of Love and Justice Who speaks in conscience, and Whom our inmost hearts adore, is the same God Who rolls the suns and guides the issues of life and death.' 131 In an able paper, 'A Faithless World', in which Miss Cobbe combated the assertion of Sir James Fitzjames Stephen, that the disappearance of belief in God and Immortality would be unattended with any serious consequences to the material, intellectual, or moral well-being of humankind, 132 she forcibly said, 'I confess at starting on this inquiry, that the problem, "Is religion of use, or can we do as well without it?" 133 seems to me almost as grotesque as the old story of the woman who said that we owe vast obligations to the moon, which affords us light on dark nights, whereas we are under no such debt to the sun, who only shines by day, 'when there is always light'. 134 Religion has been to us so diffused a light that it is quite possible to forget how we came by the general illumination, save when now and then it has blazed out with special brightness.' 135 The comment is eminently just, but does it not apply with equal force to Miss Cobbe herself? 136 The Theism which she professed was the direct outcome of Christianity, could never have existed but for Christianity, was, in all its best features, simply Christianity under a different name. 137 That Theism, as a separate organisation, gives little evidence of conquering the world is shown by the fact that, after many years, it boasts of only one congregation, that of the Theistic

Church, Swallow Street, Piccadilly, of which the Rev. Charles Voysey is minister.

138 Mr. Voysey was at one time vicar of a parish in Yorkshire, where he issued, under the title of 'The Sling and the Stone', sermons attacking the commonly accepted doctrines of the Church of England, and was in consequence deprived of his living. 139 He is distinctly anti-Christian in his teaching; strongly prejudiced against anything that bears the Christian name: 140 criticising the sayings and doings of our Lord in a fashion which indicates either the most astonishing misconception or the most melancholy perversion. 141 But his sincerity and fervour on behalf of Theism are unmistakable. He describes it as 'Religion for all humankind, based on facts which are never in Dispute'. 142 The book which is called by that title is written for the help and comfort of all his fellow-people, 'chiefly for those who have doubted and discarded the Christian Religion, and in consequence have become Agnostics or Pessimists.' 143 It is prefaced by a dedication, which is also a touching confession of personal faith: 'In all humility I dedicate this book to my God Who made me and all humankind, 144 Who loves us all alike with an everlasting love, Who of His very faithfulness causeth us to be troubled, Who punishes us justly for every sin, not in anger or vengeance, but only to cleanse, to heal, and to bless, in Whose Everlasting Arms we lie now and to all eternity.'

145 Mr. Voysey has compiled a Prayer Book for the use of his congregation. The ordinary service is practically the morning or evening service of the Book of Common Prayer, with all references to our Lord carefully eliminated. 146 The hymn 'Jesus, Lover of my Soul' is changed to 'Father, Refuge of my Soul'; 147 and the hymn

Just as I am without one plea,
But that Thy blood was shed for me,
And that Thou bidst me come to Thee,
O Lamb of God, I come,

148 is rendered:

Just as I am without one plea,
But that Thy lore is seeking me,
And that Thou bidst me come to Thee,
O loving God, I come.

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149 The service respecting our duty, and the service of supplication have merits of their own, but, except for the wanton omission of the Name which is above every name, there is nothing in them which does not bear a Christian impress.

150 'Christianity 'minus' Christ' would seem to be no unfair definition of their standpoint: and without Christ they could not have been what they are. 151 The Father Who is set forth as the Object of worship and of trust is the Father Whom Christ declared, the Father Who, but for the manifestation of Christ, would never have been known. 152 Far be it from us to deny that the Father has been found by those who have sought Him beyond the limits of the Church: 153 this only we affirm that those by whom He has been found, have, consciously or unconsciously, drawn near to Him by the way of Christ. 154 Nothing of value in modern Theism is incompatible with Christianity: nothing of value which would not be strengthened by faith in Him Who said, 'He that hath seen Me hath seen the Father.'

155 (IV.) The strange objection to faith in Christ is sometimes made that it interferes with faith in the Father. The notion of mediation is regarded as derogatory alike to God and to human. 156 There is no need for any one to come between: no need for God to depute another to bear witness of Him: no need for us to depute Another to secure His favour, as from all eternity He is Love. 157 The assumption, the groundless assumption, underlying this conception is that the Mediator is a barrier between human and God, a hindrance not a help to fellowship with the Divine: that one goes to the Mediator because access to God is debarred. 158 Whatever may occasionally have been the unguarded statements of representatives of Christianity, it is surely plain that no such doctrine is taught, that the very opposite of such doctrine is taught, in the New Testament.

159 'We do not,' says M. Sabatier, 'address ourselves to Jesus by way of dispensing ourselves from going to the Father. Far from this, we go to Christ and abide in Him, precisely that we may find the Father. 160 We abide in Him that

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His filial consciousness may become our own; that the Spirit may become our spirit, and that God may dwell immediately in us as He dwells in Him. 161 Nothing in all this carries us outside of the religion of the Spirit: on the contrary, it is its seal and confirmation.'

162 The whole object of the work of Christ, as proclaimed by Himself, or as interpreted by His Apostles, was to show the Father, to bring people to the Father. 'Believest thou not that I am in the Father, and the Father in Me? 163 The words that I speak unto you I speak not of Myself: but the Father that dwelleth in Me, He doeth the works.' 164 He 'came and preached peace to you which were afar off and to them that were nigh. For through Him we both have access by one Spirit unto the Father.'

165 To argue that to come to Christ is a substitute for coming to God, is an inducement to halt upon the way, is an absolute travesty and perversion. 166 To refuse to see the glory of God in the Face of Jesus Christ is not to bring God near: it is to remove Him further from our vision. 167 That God should come to us, that we should go to God, through a mediator, is only in accordance with a universal law. 168 'Why,' says one, who might be expected from his theological training to speak otherwise, 'Why, 'all' knowledge is "mediated" even of the simplest objects, even of the most obvious facts: 169 there is no such thing in the world as immediate knowledge, and shall we demur when we are told that the knowledge of God the Father also must pass, in order to reach us at its best and purest, 170 through the medium of "that Son of God and Son of Human in Whom was the fullness of the prophetic spirit and the filial life?"... 171 Of this at least I feel convinced, that where faith in the Father has grown blurred and vague in our days, and finally flickered out, the cause must in many instances be sought-- I will not say in the willful rejection, but-- in the careless letting go of the message and Personality of the Son.' 172 So far from the thought of the Father being ignored or set aside by the thought of Christ, we may rather say with S. John, 'Whosoever denieth the Son, the same hath not

the Father: he that confesseth the Son hath the Father also.' 173 'He that abideth in the doctrine of Christ, he hath both the Father and the Son.'

174 The homage that we render Thee
Is still our Father's own;
Nor jealous claim or rivalry
Divides the Cross and Throne.

175 (V.) The notion that Theism as contrasted with Christianity is a mark of progress and of spirituality is a pure imagination. 176 'More spiritual it may be than the traditional Christianity which consists in rigid and stereotyped forms of practice, of ceremonial, of observance, of dogma: 177 but not more spiritual than the teaching of Christ Himself, the end and completion of Whose work was to bring people to the Father, to teach them that God is a Spirit, and to send the Spirit of the Father into the hearts of the disciples. 178 It would be a strange perversity if people should reject Christ in the name of spiritual religion when it is to Christ, and to Him alone, that they owe the conception of what spiritual religion is.' 179 To preach the doctrines of Theism without reference to Christ is to deprive them of their most sublime illustration, their most inspiring force, and their most convincing proof.

180 It is as Christ is known that God is believed in. The attempt to create enthusiasm for God while banishing the Gospel of Christ meets with astonishingly small response. 181 The 'Religion for all humankind' makes but little progress, is, in spite of the labours of five-and-thirty years, confined, as we have seen, almost to a solitary moderately sized congregation. 182 And whether or not the 'facts' on which the religion is based 'are never in dispute,' the religion itself is often-times disputed very keenly. 183 Modern assaults upon religious faith are, as a rule, directed quite as much against Theism as against Christianity. 184 It is the Love, or even the existence, of the Living God, it is human responsibility, it is life beyond the grave, that are called in question as frequently as the Resurrection of Christ. 185 The assurance that God at sundry times and in divers manners has spoken by prophets renders it not more but

less improbable that He should speak by a Son: 186 the assurance that there is life beyond the grave for all renders it not more but less improbable that Jesus rose from the dead. 187 Conversely those who believe in Jesus believe with a double intensity in Him Whom He revealed. 'Ye believe in God,' said Christ, 'believe also in Me.' 188 For many of us now, it is because we believe in Christ that we believe also in God. 189 The Almighty and Eternal is beyond our ken: the grace and truth of Jesus Christ come home to our hearts. 190 The Word that was in the beginning with God and was God, is wrapt in impenetrable mystery: 191 the Word made Flesh can be seen and handled:

has wrought
With human hands the Creed of Creeds
In loveliness of perfect deeds,
More strong than all poetic thought.

192 And however it may be in a few exceptional cases, where people nominally renouncing Christ desperately cleave to a fragment of the faith of their childhood, 193 the fact remains that, where He ceases to be acknowledged, faith in the Father Whom He manifested tends, gradually or speedily, to vanish.

194 (VI.) The superiority of Theism to Deism simply consists in its being more Christian. With the ideas of God which 'Theists' hold, we can, as Christians, most cordially sympathise. 195 We can sincerely say, 'Hold to them firmly, they are your life: let no person rob you of them by any vain deceit.' 196 But we cannot help also asking, 'Whence have you drawn those lofty ideas? 197 Where have you obtained so exalted a conception of the Divine Being in His mingled Majesty and lowliness, in His inconceivable greatness, and His equally inconceivable compassion? 198 We turn from the picture of God which, with so much labour, so much skill, so much moral earnestness, you have exhibited, and we behold the Original in Christ and His Teaching. 199 However unconsciously, it is His Truth, it is His Features, that you have reproduced. You have been brought up in the Church of Christ, 200 or you have been brought into

contact with its influences, and you have imbibed its teachings, perhaps more deeply than some who would not dare to question its smallest precepts. 201 Still, Christ's teaching you have not outgrown, from Christ Himself you have not escaped. You cannot go from His presence or flee from His Spirit. 202 Those views which you hold so strongly, which are to you the most ennobling that have ever been given of God and of religion, where is it that alone they are to be found? In places where Christianity has gone before.

203 No doubt, belief in God is not confined to Christian countries: worship of the Maker of heaven and earth exists where the name of Christ has never been heard, but not such belief, 'such' worship, as that for which those persons contend. 204 The God Whom they adore will not be found anywhere save where Christianity has penetrated. 205 In this country it is the desperate clinging to one portion of the Christian Faith when all else has been abandoned: 206 in other lands, in India, for example, where representatives of this way of thinking are not uncommon, it is the rapturous welcome of one of the sublime truths of Christianity before which the idolatries of their forefathers are passing away. 207 It is safe to call it a transition stage: it will either part with the fragment of Christianity which it retains and become merged in doubt and speculation and unbelief; 208 or it will include yet more of the Christianity of which it has grasped a part: its belief in God will be crowned and confirmed by its belief in Christ.

209 For, speaking to those who cherish faith in the All-Righteous and All-Loving God as the only hope for the regeneration of humankind, we cannot shut our eyes to the fact that where faith in Christ fades, faith in God has a tendency to become vague and dim. 210 He ceases to be thought of as a Friend and Help at hand: He is resolved into a Creator infinitely distant or into a Law, immovable, inexorable, a blind, unconscious Fate. 211 It is Christ Who gives life to the thought of God. It is the Word made Flesh that makes the Eternal Word more

real. 212 The attempt of the Deists to purify religion by the preaching of a God who had not revealed Himself, and could not reveal Himself, in a Son, came to nothing. 213 Voltaire's chapel at Ferney still stands, but nobody worships in it. Religion seemed to slumber: 214 belief in God seemed to be decaying, when the preaching of the name and the work of Christ again aroused it into life. And so it is now. 215 Whatever the ability, whatever the sincerity of the advocates of belief in God without reference to Christ, it lacks motive-power, it lacks the missionary spirit. 216 If we may judge by the past, Theism without Christ is a faith which will not spread, which will not lay hold on the labouring and the heavy laden: 217 which may be maintained as a theory, but which will not be as a fire in the souls of humans diffusing itself by kindling other souls.

218 It is from Christ alone, from Christ the manifestation of what God is in Heart and Mind, from Christ the manifestation of what human ought to be, from Christ Who said, 'In My Father's house are many mansions: you that hath seen Me hath seen the Father,' 219 that there comes with an authority to which, in face of the difficulties besetting the present and the future, the human soul will bow, with a soothing power to which the human spirit will gladly yield-- 220 it is from Christ alone that there comes the Divine injunction, 'Let not your heart be troubled, ye believe in God, believe also in Me.' 221 It is as He is clearly seen and truly known that the clouds of error and superstition vanish from the Face of God, and humans are drawn to worship and to trust.

THE TRIBUTE OF CRITICISM TO CHRIST

Pearson McAdam Muir

6 Of the investigations of modern criticism the most serious are those which have concerned the person of our Lord. 2 It has been felt both by assailants and by defenders of the Faith that, so long as His supremacy remains acknowledged, Christianity has not been overthrown.

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3 Other doctrines once considered all-important may fall into comparative abeyance: whether they are upheld or rejected or modified, matters little to Christianity as Christianity. 4 But more and more it has grown clear that Christ Himself is the Article of a standing or a falling Church. 5 If this doctrine is not of God, if He is not the Way, the Truth, and the Life, Christianity, whatever benefits may have been associated with its career, must be ranked among religions which have passed away. 6 But so long as He is admitted to be the Authority and standard in the moral and spiritual realm, so long as His name is above every name, the work of destruction is not accomplished. 7 Hence, renewed attempts have of late been made to tear the crown from His brow, to reduce Him to the level of common humans, to relegate Him to the domain of myth, even to deny that He ever existed. 8 Although, in certain quarters at present, this last and extreme position is loudly asserted, it is hardly necessary to occupy much time in examining it, the trend of all criticism, even of the most rationalistic, being so decidedly opposed to it. 9 To deny that He existed is commonly felt to be the outcome of the most arbitrary prejudice, the conclusions of Whately's 'Historic Doubts relative to Napoleon Buonaparte' remaining grave and weighty in comparison. 10 That Jesus of Nazareth lived and taught and was crucified, that, immediately after His Death, His disciples were proclaiming that He had risen, and was their living inspiration, these are facts which can be denied only by the very extravagance of scepticism. 11 And the admission of these simple facts implies a great deal more than is commonly supposed.

12 (I.) It is the fashion for hostile critics to say, 'Christianity is not dependent upon Christ: it is the creation of the semi-historical Paul, not of the unhistorical Jesus. 13 There is at best no more connection between Christendom and Christ than between America and Amerigo Vespucci. 14 See how much Christians have been obliged to give up: see how belief after belief has had to be surrendered; see how they are now

left with the merest fragment of their ancient Creed, how evidently they will soon be compelled to part with the little to which they still desperately cling.' 15 The conclusion is somewhat hasty and premature. The fragment which remains is after all the main portion of the Creed of the early disciples. Where that fragment is declared and held and lived in, there is the presence and the power of the Christian Faith.

16 We need not trouble ourselves about sundry points which, at one epoch or another, have come to be denied or ignored: we need not say anything either for them or against them. 17 We have to take our stand on what is accepted, not on what is rejected. 18 And for the moment we may venture to take our stand only on what is accepted by the critics least biassed in favour of the traditional views of Christendom. 19 Those who have come to imagine it to be a mark of advanced culture to break with all religion, to confine their attention to the fleeting present, to reject all that claims to have Divine sanction, may listen with respect to the words of some who appear in fancied hostility to Christianity. 20 We are not assuming that because people are great in Science or History or Philosophy they must be great in spiritual things. 21 Their achievements in their own sphere, let us gratefully recognise; their uprightness, their single-heartedness, let us imitate; 22 and if by chance they are sincere Christians as well as able people, let us rejoice; 23 if they are not professing Christians at all and yet bear witness to the beneficial influence of Christianity and the unique power of the words and character of Christ, let us hail with pleasure their tribute of admiration 24 as a testimony impartial and unanswerable to the pre-eminence of our Lord, but let not our faith in God, our knowledge of our Saviour, be dependent on their verdict. 25 The Faith of the Gospel does not stand or fall with their approval or disapproval. In matters of criticism we do well to defer to scholars, in matters of science we do well to defer to people of science. 26 But in matters pertaining to the inner life, to the development of character, to the

knowledge of things pure and lovely and of good report, such people have no exclusive claim to be listened to. 27 And it would be absurd to say that we cannot make up our minds as to whether Christ is worthy to be revered and loved and followed until we have ascertained what is said about Him 28 by authorities in physics, or geology, or astronomy, by statesmen or novelists or writers of magazine articles, by inventors of ingenious machines or authors of sensational stories. 29 If they speak scoffingly, if they do not recognise any sacredness in His Spirit and Life, it will be impossible for us to take Him as our Moral and Spiritual Guide.

30 We might almost as well say that we will not trust the truthfulness or goodness of our father or mother or brother or friend of many years, 31 unless, from persons eminent in literature or science or politics, we have testimonials assuring us that our affection for those with whom we are so closely associated is not a delusion. 32 That is a matter, we should all feel, with which the great and distinguished, however justly great and distinguished, have really nothing to do. 33 It is a matter for ourselves, a matter in which our own experience is worth more than the verdict of people, however learned in their own line, who do not, and cannot, know the friend or relative as we know them ourselves. 34 Still, we regard it as an additional compliment to your worth, and an additional confirmation of our own faith, if those who have been jealously scrutinising your conduct declare that they can find no fault in you.

35 If it is made plain that the positive teaching of people unconnected with any Church, untrammelled by any creed, is a virtual assertion of much that is most dear to Christianity, 36 if it is made plain that even where there is strong denial there is also much reference to Christ, 37 it may have more weight than the most cogent arguments or the most glowing appeals of orthodox divines or devout believers.

38 The Evangelists delight to record instances of unexpected, unfriendly, unimpeachable testimony to the power of Christ. 39 It is not only that the simple-

minded people were astonished at His doctrine, but that the soldiers who were sent to silence Him returned, smitten with amazement, saying, 'Never man spake like this Man.' 40 It is not only that a grateful penitent washed His Feet with tears, but that the unprincipled governor who sentenced Him to death declared 'I find in Him no fault at all.' 41 It is not only that an Apostle confesses, 'Thou art the Christ the Son of the Living God,' but that the centurion who watched over His Crucifixion exclaimed, 'Certainly this was a Righteous Man: this was a Son of God.'

42 It is similar unprejudiced witness that we may hear around us still, the witness of those who profess to have another rule of life than ours, and to be in no degree influenced by our traditions. 43 We must not expect too much from this kind of evidence: we must not expect clear logical proof of every article rightly or wrongly identified with the popularly termed 'orthodox' Creed. 44 It would destroy the value of the evidence simply to quote orthodox doctrines in orthodox language. 45 What we rather offer is the testimony of those who have resigned their grasp on much that we may deem essential. 46 It is because in a sense we may call them 'enemies' that we ask them to be 'judges' in the great controversy. 47 It is exactly because they are incredulous, or sceptical, or irreligious that we cite them at all. 48 We confine ourselves to the utterances of people who are commonly cited as hostile to the commonly accepted Faith of Christ, or who do not rank among the number of His nominal disciples, 49 or who at least have discussed His claims by critical and historical methods, endeavouring fairly to take into account all the facts which the circumstances warrant.

50 We say to those who disown the authority of Christ: It is not to the words of Evangelists or preachers that your attention is sought: 51 it is to the words of those whom you profess to respect, of those because of whose supposed antagonism to Christianity you are rejecting Him. 52 We ask you to listen to them and to consider whether He of Whom such people

speak in such terms is to be so lightly set aside as you have fancied.

53 (II.) It will be strange if, accepting even that scanty creed, we do not find ourselves speedily accepting much more. 54 When it is heartily acknowledged that Jesus of Nazareth lived and died, and that His first followers found strength and irresistible power in the conviction that He had conquered death and the grave, it is of necessity that we go further. 55 The extreme sceptics who maintain that He never existed are, for the purpose of controversy, wise in their generation, for, once His existence is admitted, His mysterious power begins to tell. 56 We are confronted with an Influence by which, consciously or unconsciously, we must be affected, a knowledge which we must acquire, an Authority to which we must bow. 57 Let us not think merely of those who have, in utter devotion, yielded their hearts and souls to Him through all the centuries, of the institutions and customs which owe their existence directly to Him; 58 let us think of the manifestations which are so often visible in those who do not suspect whence the manifestations come, 59 let us think of the tributes of affection, of homage, of devotion which are paid by those to whom the ancient faith in His Divinity appears to be an illusion or an impossible exaggeration.

60 Scarcely any critic of recent years has been regarded as more destructive than Professor Schmiedel. Indignant attack after indignant attack has been made upon him for arguing that only nine sayings attributed to our Lord can be accepted as genuine, that all else is involved in suspicion. 61 What Schmiedel really does maintain is that these nine sayings must of necessity be accepted as genuine, cannot be rejected by any sane canon of criticism, 62 and that the acceptance of these nine sayings, these 'foundation-pillars,' compels the acceptance of a great deal besides. 63 "What then have I gained in these nine foundation pillars'? You will perhaps say "Very little": I reply, "I have gained just enough." 64 Having them, I know that Jesus must really have come forward in the way He is said to have done.…

65 In a word, I know, on the one hand, that His Person cannot be referred to the region of myth; on the other hand, that He was human in the full sense of the term, 66 and that, without of course denying that the Divine character was in Him, this could be found only in the shape in which it can be found in any human being. 67 I think, therefore, that if we knew no more we should know by no means little about Him. But as a matter of fact the foundation-pillars are but the starting-point for our study of the life of Jesus.' 68 And this study, he concludes, gives us nothing less than 'pretty well the whole bulk of Jesus' teaching, in so far as its object is to explain in a purely religious and ethical way what God requires of human and wherein human requires comfort and consolation from God.' 69 The standpoint of Professor Schmiedel is not the standpoint of the Church as a whole: he fearlessly and aggressively endeavours to remove any misconception on that subject: 70 all the more remarkable that, renouncing so much, he incontrovertibly establishes so much, incontrovertibly establishes, we may not unreasonably contend, a great deal more than he admits: he cannot, we may think, stop logically where he does. 71 All this may, or may not, be legitimately argued: there can be no doubt that one whose dislike of traditional dogmas is excessive, and whose scrutiny of the Gospel records is minute and unsparing, forces us to say of Jesus, What manner of Man is this?

72 It is the same with the general tendency of modern criticism. From the day that Strauss accomplished his destructive work, the Figure of Jesus as a Historical Reality has been more and more endowed with power. 73 No age has so occupied itself with Him, none has so endeavoured to recall the features of His character, to apply His teachings to the solution of social questions, as this age of ruthless inquiry. 74 The inquirers may have abjured tradition, but almost without exception they have profoundly reverenced, if they have not actually worshipped, Jesus of Nazareth, and they have found in His Gospel moral and spiritual light and life.

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75 Some thirty years ago, M. André Lefèvre, a fervid disciple of Materialism, an uncompromising and bitter opponent of every symptom of religious manifestation, could not help discerning 'with the clairvoyance of hatred,' the influence of Christianity in modern thought. 76 'Descartes, Leibnitz, Locke, Condillac, Newton, Bonnet, Kant, Hegel, Spinoza himself, Toland and Priestley, Rousseau, all are Christians somewhere.... 77 Voltaire himself has not completely eliminated the virus: his Deism is not exempt from it.' The same thing is still occurring. In the most unexpected quarters we find the fascination of Christ remaining.

78 People not acknowledging themselves to be His followers, defiantly proclaiming that they are not His followers, that they can hardly be even interested in Him, are yet perpetually returning, in what they themselves will confess as their higher moments, to the thought of Him, 79 trying to make plain why it is that for them there is in Him no beauty that they should desire Him.

80 For example, this is how Mr. H. G. Wells, the popular author of so many imaginative works, attempts frankly to explain his attitude:

81 'I hope I shall offend no susceptibilities when I assert that this great and very definite Personality in the hearts and imaginations of humankind does not, and never has, attracted me. 82 It is a fact I record about myself without aggression or regret. I do not find myself able to associate him in any way with the emotion of salvation.' 83 But Mr. Wells goes on to say: 'I admit the splendid imaginative appeal in the idea of a divine human friend and mediator. 84 If it were possible to have access by prayer, by meditation, by urgent outcries of the soul, to such a being whose feet were in the darknesses, who stooped down from the light, who was at once great and little, limitless in power and virtue, and one's very brother; 85 if it were possible by sheer will in believing to make and make one's way to such a helper, who would refuse such help? 86 But I do not find such a being in Christ. I do not find, I cannot imagine such a

being. I wish I could. 87 To me the Christian Christ seems not so much a humanised God as an incomprehensibly sinless being, neither God nor human. 88 His sinlessness wears his incarnation like a fancy dress, all his white self unchanged. He had no petty weaknesses. Now the essential trouble of my life is its petty weaknesses. 89 If I am to have that love, that sense of understanding fellowship which is, I conceive, the peculiar magic and merit of this idea of a Personal Saviour, then I need some one quite other than this image of virtue, 90 this terrible and incomprehensible Galilean with his crown of thorns, his bloodstained hands and feet. I cannot love him any more than I can love a person upon the rack.' 91 'The Christian's Christ is too fine for me, not incarnate enough, not flesh enough, not earth enough. He was never foolish and hot-eared and inarticulate, never vain, he never forgot things, nor tangled his miracles.' 92 There is no disputing about tastes; and it is impossible to refute one who tells us that he cannot see and cannot understand, though we may lament and be astonished at his disabilities. 93 Why a person upon the rack should not be loved, or why the prime qualification for the Saviour of humankind should be the plentiful possession of petty weaknesses, 94 or why it should be necessary for Him to be sometimes foolish and to have a bad memory, or what necessary connection there is between hot-ears and the salvation of the world, need not detain us long. 95 For in spite of this apparently curious longing for a Deliverer who shall be weak and vain and forgetful and hot-eared, and foolish, and of the earth earthy, Mr. Wells shows us that the urgent outcry of his soul is for a Being limitless in power and virtue and one's very brother; 96 and though he says that he does not find such a Being in Christ, it is exactly what Christians have in all ages been finding. 97 'We have not an High Priest which cannot be touched with the feeling of our infirmities, but was in all points tempted like as we are, yet without sin. 98 Let us therefore come boldly unto the Throne of Grace that we may obtain mercy and find grace to help in times of need.'

99 (III.) The instance which we have cited is exceptional among modern doubters, among those who have deliberately set themselves without violent prejudice to study the claims of Christianity. 100 Be it in poetry or prose, in scientific criticism or in imaginative biography, with remarkable unanimity, while stubbornly refusing to accept the Creed of the Church, they so depict Him that the natural conclusion of their representation is, 'Oh, come let us adore Him.' 101 There is scarcely any of them who would not sympathise with the admission and aspiration of B. Wimmer in his confession, 'My Struggle for Light': 102 'I cannot but love this unique Child of God with all the fervour of my soul, I cannot but lift up eyes full of reverence and rapture to this Personality in whom the highest and most sacred virtues which can move the heart of human shine forth in spotless purity throughout the ages. 103 Even if many a trait in His portrait, as the Gospels sketch it for us, be more legendary than historical, yet I feel that here a person stands before me, a person who really lived and has a place in history like that of no other person: 104 indeed I feel that even the legends concerning Him possess a truth in that they spring from the Spirit which passed from Him into His Church. 105 I know what I have to thank Him for. I would in my inmost self be so closely united with Him that He may live in my spirit and bear absolute sway in my soul. 106 I will not be ashamed of His Cross and I will gladly endure the insults which humans have directed, and still often enough direct, against Him and His truth.'

107 That is the characteristic and dominant note of the more recent criticism. The almost universal conclusion is that the Perfect Ideal has been depicted in the Christ of the Gospels, and has been depicted because the Reality had been seen in Jesus of Nazareth. 108 Is it not allowable to declare that the writers, let them say what they will about their rejection of the doctrine of the Church concerning the Incarnation and the Atonement of Christ, 109 are practically His disciples, that the ardour of their faith in Him not infrequently puts

to shame the coldness of us who call Him Lord? 110 There is scarcely extravagance in the assertion that, as we recognise the part which Strauss and Renan played, and the unconscious help which they rendered, 'we may well say now "'noster'" Strauss and "'noster'" Renan. 111 They were, in their measure, and, according to their respective abilities, defenders of the Faith.' 112 While it is possible to lament that among Christian apologists there are timid surrenders and faithless forebodings, 113 it is yet more possible to reply that 'Whereas our critics were at one time infidels and our bitter enemies, they are now proud of the name of Christian and ready to be the friends, as far as that is permitted, of every form of orthodoxy in Christianity.'

114 The language in which, at any rate, they express their conception of Him is sometimes more devout, more exalted, than the language which used to be employed by professed apologists. 115 The Hindu Theist, Protab Chandra Mozoomdar, who stood outside the fold of Christianity, joyfully proclaimed, 'Christ reigns. 116 As the law of the spirit of heavenly life, He reigns in the bosom of every believer.... 117 Christ reigns as the recogniser of Divine humanity in the fallen, the low, and the despicable, as the healer of the unhappy, the unclean, and the sore distressed. 118 Reigns He not in the sweet humanity that goes forth to seek and to save its kin in every land and clime, to teach and preach, and raise and reclaim, to weep and watch and give repose? 119 He reigns as sweet patience and sober reason amid the laws and orders of the world; as the spirit of submission and loyalty He reigns in peace in the kingdoms of the world.... 120 Christ reigns in the individual who feebly watches His footprints in the tangled mazes of life. He reigns in the community that is bound together in His name. 121 As Divine Humanity, and the Son of God, He reigns gloriously around us in the New Dispensation.'

122 Or listen to the rhapsody with which Mrs. Besant, once an Atheist, now a Theosophist, depicts His influence from age to age: 123 'His the steady inpouring

of truth into every brain ready to receive it, so that hand stretched out to hand across the centuries and passed on the torch of knowledge, which thus was never extinguished. 124 His the Form which stood beside the rack and in the flames of the burning pile, cheering His confessors and His martyrs, soothing the anguish of their pains and filling their hearts with His peace. 125 His the impulse which spoke in the thunder of Savonarola, which guided the calm wisdom of Erasmus, which inspired the deep ethics of the God-intoxicated Spinoza.... 126 His the beauty that allured Fra Angelico and Raphael and Leonardo da Vinci, that inspired the genius of Michael Angelo, that shone before the eyes of Murillo, and that gave the power that raised the marvels of the world, the Duomo of Milan, the San Marco of Venice, the Cathedral of Florence. 127 His the melody that breathed in the Masses of Mozart, the sonatas of Beethoven, the oratorios of Handel, the fugues of Bach, the austere splendour of Brahms. 128 Through the long centuries He has striven and laboured, and, with all the mighty burden of the Churches to carry, He has never left uncared for and unsolaced one human heart that cried to Him for help.' 129 When we read sentences like these by themselves we say, Here is unqualified acceptance of the Christian Faith. 130 And even when we are told that we must not take the sentences in their literal and natural meaning, that they apply not to Him Whose earthly career is sketched in the Gospels, but to an Ideal Being evolved out of the writer's imagination, 131 we are surely entitled to answer, It is of Jesus that the words are spoken, whether their meaning is to be taken literally or figuratively; if they have any meaning at all, they indicate a Being without a parallel. 132 That there should be so extraordinary a conflict of opinion regarding Him, that the greatest intellects as well as the simplest souls should hail Him as Divine, 133 that the most critical should still find their explanations insufficient to account for the impression which He made upon His contemporaries and continues to wield to this day, at least

renders Him absolutely unique. 134 People may disbelieve a great deal; they cannot disbelieve that this Amazing Personality has a place in the heart of the world which no other has ever occupied. The alleged imaginary Ideal has had on earth only one approximate Embodiment. 135 Nay, we are forced to confess, without the actual Character disclosed from Nazareth to Calvary, the Ideal would never have been conceived. 136 (IV.) Robert Browning has described in his 'Christmas Eve' a certain German professor lecturing upon the myth of Christ and the sources whence it is derivable. 137 But as the listeners wait for the inference that faith in Him should henceforth be discarded, 'he bids us,' says the supposed narrator of the story, 'when we least expect it take back our faith':

138 Go home and venerate the myth
I thus have experimented with.
This Man, continue to adore Him
Rather than all who went before Him,
And all who ever followed after.

139 This is a correct though humorous summary of much prevalent scepticism. While critics destroy with the one hand, they build up with the other; 140 while they seem intent on rooting out every remnant of trust in Christ, they frequently conclude by passionately beseeching us to make Him our Model and our King, our Pattern and our Guide. 141 If there is anything which is calculated at once to arouse us who profess and call ourselves Christians and to make us ashamed, 142 it is that the diligence with which His Example is followed, the earnestness with which His words are studied, by some whom we hold to have abandoned the Catholic Faith, throw into the shade the obedience, the love, the earnestness which prevail among ourselves. 143 They who follow not with us are casting out devils in His name. It is with us, they are careful to say, and not with Him that they are waging war. 144 They may dispute the incidents of His recorded Life: they may insist on reducing Him to the level of humanity, but they also insist that in so doing they act according to His Own Mind, 145 that they

refuse, for the very love which they bear Him, to surround Him with a glory which He would have rejected. 146 Devoid of the errors which have led astray His successors, exalted far above the wisest and the best of those who have spoken in His Name, 147 it is the function of criticism to show Him in His fashion as He lived, to sweep away the falsehoods which have gathered round Him in the course of ages.

148 We do not seek to read into the emotional language of such writers a significance which they would repudiate, but we are surely entitled to point out that in spite of themselves they are bringing their tribute of homage to the King of the Jews, the King of all humankind. 149 They grant so much that, it seems to us, they must grant yet more. We, at any rate, cannot stop where they deem themselves obliged to stop. We must go further, 150 we hear other voices swell the chorus of adoration, we have the witness not only of those who, in awe and wonderment have exclaimed, 'Truly this was a Son of God,' 151 but we have the witness of those who from heartfelt conviction are able to say, 'The life which I now live in the flesh I live by the faith of the Son of God, Who loved me and gave Himself for me.' 152 And to them we humbly hope to be able to respond, 'Now we believe not because of the language of others, whether honest doubters or devout disciples, for we have heard Him ourselves, and know that this is indeed the Christ, the Saviour of the world.'

153 'Restate our doctrines as we may,' to sum up all in the words of one who began his career as a teacher in the confidence that Jesus of Nazareth was merely a man, but whom closer study and deepening experience have brought to a fuller faith, 154 'reconstruct our theologies as we will, this age, like every age, beholds in Him the Way to God, the Truth of God, the Life of God lived out among humans: 155 this age, like every age, has heard and responds to His call, "Come unto Me all ye that labour and are heavy laden and I will give you rest": this age, like every age, finds access to the Father through the Son.

SUBSTITUTE

156 These things no criticism can shake, these certainties no philosophy disprove, these facts no science dissolve away. 157 He is the Religion which He taught: and while the race of human endures, people will turn to the crucified Son of Human, not with a grudging, "Thou hast conquered, O Galilean!" but with the joyful, grateful cry, "My Lord and my God."'

158 (V.) He who was lifted up on the Cross is drawing all people to Himself, wise and unwise, friend and foe, devout and doubting, is ruling even where His authority is disavowed, is causing hearts to adore where intellects rebel. 159 The patriotic English baron, Simon de Montfort, as he saw the Royal forces under Prince Edward come against him, was filled with admiration of their discipline and bearing. 160 'By the arm of S. James,' he cried, recalling with soldierly pride that to himself they owed in great measure their skill, 'they come on well: they learned that not of themselves, but of me.' 161 The Church of Christ, when confronted with the benevolence, the integrity, the zeal of some who are arrayed against her, may naturally say, 'They live well indeed: they learned that not of themselves, but of me.' 162 'You are probably,' was the homely expostulation of Benjamin Franklin with Thomas Paine, 'you are probably indebted to Religion for the habits of virtue on which you so justly value yourself. 163 You might easily display your excellent talents of reasoning upon a less hazardous subject, and thereby obtain a rank amongst our most distinguished authors. 164 For among us,' continued Franklin satirically, 'it is not necessary, as among the Hottentots, that a youth, to be raised into the company of men, should prove his manhood by beating his mother.' 165 The blows inflicted on Christianity come from unfilial hands and hearts, from hands and hearts which have been strengthened and nurtured on Christianity itself, 166 from hands and hearts which, but for the lingering Christianity that still impels them, would soon be paralysed and dead.

167 The ideals which systems intended to supersede Christianity set before them are, to all intents

and purposes, only Christianity under another name. 168 Where the ideals go beyond ordinary Christian practice, they are only a nearer approximation to the Supreme Ideal which has never been fulfilled save in Jesus Christ Himself. 169 Wherever there is truth in them which is not generally accepted, or which comes as a surprise, investigation will show that it is an aspect of Christianity which Christians have been neglecting, that it is a manifestation of the mind of Christ, a development of His principles. 170 Look where we will, the people that are making real moral and spiritual progress are those who are in touch with Him. 171 Their beliefs about Him may not be accurate, their conception of His nature and work may be defective, but it is His Name, His Spirit, His Power, it is Himself that is the secret of their life. 172 One part of His teaching has sunk into their hearts, one element of His character has mysteriously impressed them. 173 They have touched the hem of His garment, the shadow of His Apostle passing by has glided over them, and they have been roused from weakness and death. 174 'He that was healed wist not Who it was, for Jesus had conveyed Himself away.' So it happened in the days of His flesh: so is it happening still: 175 they that are set free may not yet know to Whom their freedom is to be ascribed. 176 Now, as on the way to Emmaus, when people are communing together and reasoning, Jesus Himself may be walking with them, though their eyes are holden that they do not know Him.

177 John Stuart Mill, whose acute intellect, whose spotless rectitude, whose public spirit, whose non-religious training naturally made him the idol of those to whom Christianity was a bygone superstition, came in his later days, not indeed to accept the orthodox creed, 178 but yet to stretch out his longing hand to Christ, believing that He might have 'unique commission from God to lead humankind to truth and virtue.' 179 George Eliot, whose genius was ever labouring to fill up the void which the rejection of her early faith had made, consoled her dying

hours, as she had inspired her most ennobling pages, with the 'Imitation of Christ'. 180 Matthew Arnold, most cultured of critics, joins hands with the most fervid of evangelists in maintaining that 'there is no way to righteousness but the way of Jesus.' 181 The name of Christ-- none other name under heaven given among people will ever prove a substitute for that.

182 Renouncing faith in Christ, is there life, is there salvation for human to be found in the doctrines, the names, the influences which are so vehemently extolled? 183 Is there one of them which so satisfies the cravings of the heart, which enkindles such glorious hopes, which inspires to such holy living, which inculcates so universal a brotherhood, as Christianity? 184 Is there one of them which, at the best, is more than a keeping of despair at bay, than a resolute acceptance of utter overthrow, than a blindness to the tremendous issues which are involved? 185 Will the culture which is devoted, and cannot but be devoted, exclusively to the outward, which imparts a knowledge of Science or Art or Literature, be found sufficient to rescue people from the slavery of sin or from the torment of doubt? 186 Will the progress which is altogether occupied with the material and the physical, with providing better houses and better food and better wages, produce happiness without alloy and remove the sting and dread of death? 187 Will the reiteration of the dogma that we are but fleeting shadows, that there is nothing to hope for in the future, that we are all the victims of delusion, tend to elevate and benefit our downcast race? 188 Will the attempt to worship what has never been made known, what is simply darkness and mystery, be more successful in raising humans above themselves than the worship of the Righteousness and the Love which have been made manifest in Christ? 189 Will the attempt to supplant the worship of Jesus Christ, in Whom was no sin, by the worship of Humanity at large, of Humanity stained with guilt and crime as well as illumined here and there with deeds of heroism, 190 of Humanity sunk to the level

of the brutes as well as exalted to the level of whatever we may suppose to be the highest, seeing that there is really no higher existence with which to compare it-- 191 will this worship of itself, with all its baseness and imperfection, this turning of humankind into a Mutual Adoration Society, make Humanity divine? 192 Will even the assurance that far-distant ages will have new inventions, fairer laws, more abundant wealth be any deliverance to us from our burdens, any salvation from our individual sorrow and guilt and shame? 193 Can we to whom the likeness of Christ has been shown, can we imagine that any of these efforts to answer the yearning of humankind for deliverance from the body of this death will prove an efficient substitute for Him? 194 And if we forsake Him, it must be in one or other of these directions that we go.

195 (VI.) But the signs of the times are full of hope. In social work at home, in the progress of missions abroad, in revivals of one kind and another, in growing reverence for holy things, 196 in a renewed interest in religion as the most vital of all topics, even in strange spiritual manifestations not within the Church, we have, amid all that is discouraging and depressing, indication of the coming kingdom. 197 The cry, 'Back to Christ,' with all the truth that is in it, is only half a truth if it does not also mean 'Forward to Christ.' 198 He is before us as well as behind us, and the Hope of the World is the gathering together of all things in Him. 199 Should there be, as there has been over and over again in days gone by, a widespread unbelief, a rejection of His Divine Revelation, of this we may be sure-- 200 it will be only for a time. When the sceptical physician, in Tennyson's poem, murmured:

'The good Lord Jesus has had his day,' 201 the believing nurse made the comment: 'Had? has it come? It has only dawned: it will come by and by.'

202 A thought most sad, though most inspiring. 'Only dawned.' Why is Christianity after all these centuries only beginning to be manifested? 203 It is at least partly because of the apathy, the divisions, the evil lives of us who

profess and call ourselves Christians, 204 because we have wrangled about the secondary and the comparatively unimportant, and have neglected the weightier matters of the law, 205 because we have so left to those beyond the Church the duty of proclaiming and enforcing principles which our Lord and His Apostles put in the forefront of their teaching. 206 We have narrowed the Kingdom of Christ, we have claimed too little for Him, we have forgotten that He has to do with the secular as well as with the spiritual, that He must be King of the Nation as well as of the Church.

207 But now in the growing prominence of Social Questions, which so many fear as an evidence of the waning of religion, have we not an incentive to show that the social must be pervaded by the religious, that our duties to one another are no small part of the Kingdom of Christ? 208 For all sorts and conditions of humans, for masters and servants, for rulers and ruled, for employers and employed, there is ever accumulating proof that only as they bear themselves towards each other in the spirit of the New Testament can there be true harmony and mutual respect; 209 that only, in short, as the kingdoms of this world become the kingdom of our Lord and of His Christ will humans in reality bear one another's burdens; 210 that only as the Everlasting Gospel of the Everlasting Love prevails will all strife and contention, whether personal or political or ecclesiastical or national, come to an end; 211 that only as humans enter into the fellowship of that Son of Human Who came not to be ministered unto but to minister and to give His Life a ransom for many will the glorious vision of old be fulfilled: 212 I saw in the night vision, and behold One like the Son of Human came with the clouds of heaven and came to the Ancient of Days and they brought Him near before Him. 213 And there was given Him dominion and glory and a kingdom, that all people, nations and languages shall serve Him. 214 His dominion is an everlasting dominion which shall not pass away and His kingdom that which shall not be destroyed.

The Book of Divine Panagogue called

MIRACLES

OF MIRACLES.

Benedict of Spinoza

1 As humans are accustomed to call Divine the knowledge which transcends human understanding, so also do they style Divine, or the work of God, anything of which the cause is not generally known: 2 for the masses think that the power and providence of God are most clearly displayed by events that are extraordinary and contrary to the conception they have formed of Nature, especially if such events bring them any profit or convenience: 3 they think that the clearest possible proof of God's existence is afforded when Nature, as they suppose, breaks Her accustomed order, 4 and consequently they believe that those who explain or endeavour to understand phenomena or miracles through their natural causes are doing away with God and His providence. 5 They suppose, forsooth, that God is inactive so long as Nature works in Her accustomed order, and vice versa, that the power of Nature and natural causes are idle so long as God is acting: 6 thus they imagine two powers distinct one from the other, the power of God and the power of Nature, though the latter is in a sense determined by God, or (as most people believe now) created by Him.

7 What they mean by either, and what they understand by God and Nature they do not know, except that they imagine the power of God to be like that of some royal potentate, and Nature's power to consist in force and energy. 8 The masses then style unusual phenomena, "miracles," and partly from piety, partly for the sake of opposing the students of science, 9 prefer to remain in ignorance of natural causes, and only to hear of those things which they know least, and consequently admire most.

10 In fact, the common people can only adore God, and refer all things to His power by removing natural causes, and conceiving things happening out of their due course, 11 and only admires the power of God when the power of Nature is conceived of as in

subjection to it. 12 This idea seems to have taken its rise among the early Jews who saw the Gentiles round them worshipping visible gods such as the sun, the moon, the earth, water, air, 13 and in order to inspire the conviction that such divinities were weak and inconstant, or changeable, told how they themselves were under the sway of an invisible God, 14 and narrated their miracles, trying further to show that the God whom they worshipped arranged the whole of Nature for their sole benefit: 15 this idea was so pleasing to humanity that humans go on to this day imagining miracles, so that they may believe themselves God's favourites, and the final cause for which God created and directs all things.

16 What pretension will not people in their folly advance! They have no single sound idea concerning either God or Nature, they confound God's decrees with human decrees, they conceive Nature as so limited that they believe human to be its chief part!

17 I have spent enough space in setting forth these common ideas and prejudices concerning Nature and miracles, but in order to afford a regular demonstration I will show -

18 (I.) That Nature cannot be contravened, but that She preserves a fixed and immutable order, and at the same time I will explain what is meant by a miracle.

19 (II.) That God's nature and existence, and consequently His providence cannot be known from miracles, but that they can all be much better perceived from the fixed and immutable order of Nature.

20 (III.) That by the decrees and volitions, and consequently the providence of God, Scripture (as I will prove by Scriptural examples) means nothing but Nature's order following necessarily from Her eternal laws.

21 (IV.) Lastly, I will treat of the method of interpreting Scriptural miracles, and the chief points to be noted concerning the narratives of them. 22 Such are the principal subjects which will be discussed in this chapter, and which will serve, I think, not a little to further the object of this treatise.

23 Our first point is easily proved from what we showed about Divine law-- namely, that all that God wishes or determines involves eternal necessity and truth, 24 for we demonstrated that God's understanding is identical with His will, and that it is the same thing to say that God wills a thing, as to say, that He understands it; 25 hence, as it follows necessarily, from the Divine Nature and perfection that God understands a thing as it is, it follows no less necessarily that He wills it as it is.

26 Now, as nothing is necessarily true save only by Divine decree, it is plain that the universal laws of Nature are decrees of God following from the necessity and perfection of the Divine Nature. 27 Hence, any event happening in Nature which contravened Nature's universal laws, would necessarily also contravene the Divine decree, Nature, and understanding; 28 or if anyone asserted that God acts in contravention to the laws of Nature, you, ipso facto, would be compelled to assert that God acted against His own nature-- an evident absurdity. 29 One might easily show from the same premises that the power and efficiency of Nature are in themselves the Divine power and efficiency, and that the Divine power is the very essence of God, but this I gladly pass over for the present.

30 Nothing, then, comes to pass in Nature (N.B. I do not mean here by "Nature," merely matter and its modifications, but infinite other things besides matter.) in contravention to Her universal laws, 31 nay, everything agrees with them and follows from them, for whatsoever comes to pass, comes to pass by the will and eternal decree of God; 32 that is, as we have just pointed out, whatever comes to pass, comes to pass according to laws and rules which involve eternal necessity and truth; 33 Nature, therefore, always observes laws and rules which involve eternal necessity and truth, although they may not all be known to us, and therefore She keeps a fixed and mutable order. 34 Nor is there any sound reason for limiting the power and efficacy of Nature, and asserting that Her laws are fit for certain purposes, but not for all;

35 for as the efficacy and power of Nature, are the very efficacy and power of God, 36 and as the laws and rules of Nature are the decrees of God, it is in every way to be believed that the power of Nature is infinite, and that Her laws are broad enough to embrace everything conceived by, the Divine intellect; 37 the only alternative is to assert that God has created Nature so weak, and has ordained for Her laws so barren, that He is repeatedly compelled to come afresh to Her aid if He wishes that She should be preserved, and that things should happen as He desires: a conclusion, in my opinion, very far removed from reason.

38 Further, as nothing happens in Nature which does not follow from Her laws, and as Her laws embrace everything conceived by the Divine intellect, and lastly, as Nature preserves a fixed and immutable order; 39 it most clearly follows that miracles are only intelligible as in relation to human opinions, and merely mean events of which the natural cause cannot be explained by a reference to any ordinary occurrence, either by us, or at any rate, by the writer and narrator of the miracle.

40 We may, in fact, say that a miracle is an event of which the causes cannot be explained by the natural reason through a reference to ascertained workings of Nature; 41 but since miracles were wrought according to the understanding of the masses, who are wholly ignorant of the workings of Nature, 42 it is certain that the ancients took for a miracle whatever they could not explain by the method adopted by the unlearned in such cases, namely, an appeal to the memory, a recalling of something similar, which is ordinarily regarded without wonder; 43 for most people think they sufficiently understand a thing when they have ceased to wonder at it.

44 The ancients, then, and indeed most people up to the present day, had no other criterion for a miracle; 45 hence we cannot doubt that many things are narrated in Scripture as miracles of which the causes could easily be explained by reference to ascertained workings of Nature. 46 We have hinted as much, in speaking of the

sun standing still in the time of Joshua, and to say on the subject when we come to treat of the interpretation of miracles later on in this chapter.

47 It is now time to pass on to the second point, and show that we cannot gain an understanding of God's essence, existence, or providence by means of miracles, 48 but that these truths are much better perceived through the fixed and immutable order of Nature.

49 I thus proceed with the demonstration. As God's existence is not self-evident, it must necessarily be inferred from ideas so firmly and incontrovertibly true, that no power can be postulated or conceived sufficient to impugn them.

50 They ought certainly so to appear to us when we infer from them God's existence, if we wish to place our conclusion beyond the reach of doubt; 51 for if we could conceive that such ideas could be impugned by any power whatsoever, we should doubt of their truth, we should doubt of our conclusion, namely, of God's existence, and should never be able to be certain of anything.

52 Further, we know that nothing either agrees with or is contrary to Nature, unless it agrees with or is contrary to these primary ideas; 53 wherefore if we would conceive that anything could be done in Nature by any power whatsoever which would be contrary to the laws of Nature, it would also be contrary to our primary ideas, 54 and we should have either to reject it as absurd, or else to cast doubt (as just shown) on our primary ideas, and consequently on the existence of God, and on everything howsoever perceived.

55 Therefore miracles, in the sense of events contrary to the laws of Nature, so far from demonstrating to us the existence of God, would, on the contrary, lead us to doubt it, where, otherwise, we might have been absolutely certain of it, as knowing that Nature follows a fixed and immutable order.

56 Let us take miracle as meaning that which cannot be explained through natural causes. 57 This may be interpreted in two senses: either as that which has natural causes, but cannot be examined by the human intellect; or as that which has no cause save God and

God's will. 58 But as all things which come to pass through natural causes, come to pass also solely through the will and power of God, 59 it comes to this, that a miracle, whether it has natural causes or not, is a result which cannot be explained by its cause, that is a phenomenon which surpasses human understanding; 60 but from such a phenomenon, and certainly from a result surpassing our understanding, we can gain no knowledge.

61 For whatsoever we understand clearly and distinctly should be plain to us either in itself or by means of something else clearly and distinctly understood; 62 wherefore from a miracle or a phenomenon which we cannot understand, we can gain no knowledge of God's essence, or existence, or indeed anything about God or Nature; 63 whereas when we know that all things are ordained and ratified by God, that the operations of Nature follow from the essence of God, and that the laws of Nature are eternal decrees and volitions of God, 64 we must perforce conclude that our knowledge of God, and of God's will increases in proportion to our knowledge and clear understanding of Nature, as we see how She depends on Her primal cause, and how She works according to eternal law.

65 Wherefore so far as our understanding goes, those phenomena which we clearly and distinctly understand have much better right to be called works of God, 66 and to be referred to the will of God than those about which we are entirely ignorant, although they appeal powerfully to the imagination, and compel humans's admiration.

67 It is only phenomena that we clearly and distinctly understand, which heighten our knowledge of God, and most clearly indicate His will and decrees. 68 Plainly, they are but triflers who, when they cannot explain a thing, run back to the will of God; this is, truly, a ridiculous way of expressing ignorance.

69 Again, even supposing that some conclusion could be drawn from miracles, we could not possibly infer from them the existence of God: 70 for a miracle being an event under limitations is

the expression of a fixed and limited power; 71 therefore we could not possibly infer from an effect of this kind the existence of a cause whose power is infinite, but at the utmost only of a cause whose power is greater than that of the said effect. 72 I say at the utmost, for a phenomenon may be the result of many concurrent causes, and its power may be less than the power of the sum of such causes, but far greater than that of any one of them taken individually.

73 On the other hand, the laws of Nature, as we have shown, extend over infinity, and are conceived by us as, after a fashion, eternal, and Nature works in accordance with them in a fixed and immutable order; 74 therefore, such laws indicate to us in a certain degree the infinity, the eternity, and the immutability of God. 75 We may conclude, then, that we cannot gain knowledge of the existence and providence of God by means of miracles, but that we can far better infer them from the fixed and immutable order of Nature.

76 By miracle, I here mean an event which surpasses, or is thought to surpass, human comprehension: 77 for in so far as it is supposed to destroy or interrupt the order of Nature or Her laws, it not only can give us no knowledge of God, but, contrariwise, takes away that which we naturally have, and makes us doubt of God and everything else. 78 Neither do I recognise any difference between an event against the laws of Nature and an event beyond the laws of Nature 79 that is, according to some, an event which does not contravene Nature, though She is inadequate to produce or effect it-- 80 for a miracle is wrought in, and not beyond Nature, though it may be said in itself to be above Nature, and, therefore, must necessarily interrupt the order of Nature, which otherwise we conceive of as fixed and unchangeable, according to God's decrees. 81 If, therefore, anything should come to pass in Nature which does not follow from Her laws, it would also be in contravention to the order which God has established in Nature for ever through universal natural laws: 82 it would, therefore, be in

contravention to God's nature and laws, and, consequently, belief in it would throw doubt upon everything, and lead to Atheism.

83 I think I have now sufficiently established my second point, so that we can again conclude that a miracle, whether in contravention to, or beyond, Nature, is a mere absurdity; 84 and, therefore, that what is meant in Scripture by a miracle can only be a work of Nature, which surpasses, or is believed to surpass, human comprehension.

85 Before passing on to my third point, I will adduce Scriptural authority for my assertion that God cannot be known from miracles. 86 Scripture nowhere states the doctrine openly, but it can readily be inferred from several passages.

87 Firstly, that in which Moses commands in (Deuteronomy, Chapter-13) that a false prophet should be put to death, even though he work miracles: 88 "If there arise a prophet among you, and giveth thee a sign or wonder, and the sign or wonder come to pass, saying, Let us go after other gods . . . thou shalt not hearken unto the voice of that prophet; for the Lord your God proveth you, and that prophet shall be put to death."

89 From this it clearly follows that miracles could be wrought even by false prophets; 90 and that, unless people are honestly endowed with the true knowledge and love of God, they may be as easily led by miracles to follow false gods as to follow the true God; 91 for these words are added: "For the Lord your God tempts you, that He may know whether you love Him with all your heart and with all your mind."

92 Further, the Israelites, from all their miracles, were unable to form a sound conception of God, as their experience testified: 93 for when they had persuaded themselves that Moses had departed from among them, they petitioned Aaron to give them visible gods; and the idea of God they had formed as the result of all their miracles was - a calf!

94 Asaph, though he had heard of so many miracles, yet doubted of the providence of God, and would have turned himself from the true way, if he had not at last come to understand true blessedness. (See

Psalm, Chapter-83). 95 Solomon, too, at a time when the Jewish nation was at the height of its prosperity, suspects that all things happen by chance. (See Ecclesiastes, Chapter-3:19-21; and chap. 9:2-3).

96 Lastly, nearly all the prophets found it very hard to reconcile the order of Nature and human affairs with the conception they had formed of God's providence, 97 whereas philosophers who endeavour to understand things by clear conceptions of them, rather than by miracles, have always found the task extremely easy-- 98 at least, such of them as place true happiness solely in virtue and peace of mind, and who aim at obeying Nature, rather than being obeyed by Her. 99 Such persons rest assured that God directs Nature according to the requirements of universal laws, not according to the requirements of the particular laws of human nature, 100 and that, therefore, God's scheme comprehends, not only the human race, but the whole of Nature.

101 It is plain, then, from Scripture itself, that miracles can give no knowledge of God, nor clearly teach us the providence of God. 102 As to the frequent statements in Scripture, that God wrought miracles to make Himself plain to human-- as in Exodus, Chapter-10:2, 103 where He deceived the Egyptians, and gave signs of Himself, that the Israelites might know that He was God,-- 104 it does not, therefore, follow that miracles really taught this truth, but only that the Jews held opinions which laid them easily open to conviction by miracles.

105 We have shown that the reasons assigned by the prophets, or those which are formed from revelation, are not assigned in accordance with ideas universal and common to all, 106 but in accordance with the accepted doctrines, however absurd, and with the opinions of those to whom the revelation was given, or those whom the Holy Spirit wished to convince. 107 This we have illustrated by many Scriptural instances, and can further cite Paul, who to the Greeks was a Greek, and to the Jews a Jew. 108 But although these miracles could convince the Egyptians and Jews

from their standpoint, they could not give a true idea and knowledge of God, 109 but only cause them to admit that there was a Deity more powerful than anything known to them, and that this Deity took special care of the Jews, who had just then an unexpectedly happy issue of all their affairs. 110 They could not teach them that God cares equally for all, for this can be taught only by philosophy: 111 the Jews, and all who took their knowledge of God's providence from the dissimilarity of human conditions of life and the inequalities of fortune, persuaded themselves that God loved the Jews above all humans, though they did not surpass their fellows in true human perfection.

112 I now go on to my third point, and show from Scripture that the decrees and mandates of God, and consequently His providence, are merely the order of Nature-- 113 that is, when Scripture describes an event as accomplished by God or God's will, we must understand merely that it was in accordance with the law and order of Nature, 114 not, as most people believe, that Nature had for a season ceased to act, or that Her order was temporarily interrupted.

115 But Scripture does not directly teach matters unconnected with its doctrine, wherefore it has no care to explain things by their natural causes, nor to expound matters merely speculative. 116 Wherefore our conclusion must be gathered by inference from those Scriptural narratives which happen to be written more at length and circumstantially than usual. Of these I will cite a few.

117 In the first book of Samuel, Chapter-9:15-16, it is related that God revealed to Samuel that He would send Saul to him, yet God did not send Saul to Samuel as people are wont to send one person to another. 118 His "sending" was merely the ordinary course of Nature. 119 Saul was looking for the asses he had lost, and was meditating a return home without them, when, at the suggestion of his servant, he went to the prophet Samuel, to learn from him where he might find them. 120 From no part of the narrative does it appear that Saul had any command from God to visit Samuel beyond this natural

motive. 121 In Psalm-105:25 it is said that God changed the hearts of the Egyptians, so that they hated the Israelites. 122 This was evidently a natural change, as appears from Exodus, Chapter-1 where we find no slight reason for the Egyptians reducing the Israelites to slavery.

122 In Genesis, Chapter-9:13, God tells Noah that He will set His bow in the cloud; this action of God's is but another way of expressing the refraction and reflection which the rays of the sun are subjected to in drops of water.

123 In Psalm-147:18, the natural action and warmth of the wind, by which hoar frost and snow are melted, are styled the word of the Lord, and in verse-15 wind and cold are called the commandment and word of God.

124 In Psalm-104:4, wind and fire are called the angels and ministers of God, and various other passages of the same sort are found in Scripture, clearly showing that the decree, commandment, fiat, and word of God are merely expressions for the action and order of Nature.

125 Thus it is plain that all the events narrated in Scripture came to pass naturally, and are referred directly to God because Scripture, as we have shown, does not aim at explaining things by their natural causes, 126 but only at narrating what appeals to the popular imagination, and doing so in the manner best calculated to excite wonder, and consequently to impress the minds of the masses with devotion. 127 If, therefore, events are found in the Bible which we cannot refer to their causes, nay, which seem entirely to contradict the order of Nature, we must not come to a stand, but assuredly believe that whatever did really happen happened naturally. 128 This view is confirmed by the fact that in the case of every miracle there were many attendant circumstances, though these were not always related, especially where the narrative was of a poetic character. 129 The circumstances of the miracles clearly show, I maintain, that natural causes were needed. 130 For instance, in order to infect the Egyptians with blains, it was necessary that Moses should

scatter ashes in the air (Exodus-9: 10); 131 the locusts also came upon the land of Egypt by a command of God in accordance with Nature, namely, by an east wind blowing for a whole day and night; and they departed by a very strong west wind (Exodus 10:14 and19).

132 By a similar Divine mandate the sea opened a way for the Jews (Exodus, Chapter-14:21), namely, by an east wind which blew very strongly all night.

133 So, too, when Elisha would revive the boy who was believed to be dead, he was obliged to bend over him several times until the flesh of the child waxed warm, and at last he opened his eyes (2 Kings – 4:34 and 35).

134 Again, in John's Gospel (Chapter-9.) certain acts are mentioned as performed by Christ preparatory to healing the blind man, 135 and there are numerous other instances showing that something further than the absolute fiat of God is required for working a miracle. 136 Wherefore we may believe that, although the circumstances attending miracles are not related always or in full detail, yet a miracle was never performed without them. 137 This is confirmed by Exodus, Chapter 14:27, where it is simply stated that "Moses stretched forth his hand, and the waters of the sea returned to their strength in the morning," no mention being made of a wind; 138 but in the song of Moses (Exodus, Chapter-15:10) we read, "Thou didst blow with Thy wind (i.e. with a very strong wind), and the sea covered them." 139 Thus the attendant circumstance is omitted in the history, and the miracle is thereby enhanced.

140 But perhaps someone will insist that we find many things in Scripture which seem in nowise explicable by natural causes, 141 as for instance, that the sins of humans and their prayers can be the cause of rain and of the earth's fertility, or that faith can heal the blind, and so on. 142 But I think I have already made sufficient answer: I have shown that Scripture does not explain things by their secondary causes, but only narrates them in the order and the style which has most power to move humans, 143 and especially uneducated people, to devotion; and therefore it speaks

inaccurately of God and of events, seeing that its object is not to convince the reason, but to attract and lay hold of the imagination.

144 If the Bible were to describe the destruction of an empire in the style of political historians, the masses would remain unstirred, 145 whereas the contrary is the case when it adopts the method of poetic description, and refers all things immediately to God. 146 When, therefore, the Bible says that the earth is barren because of humans' sins, or that the blind were healed by faith, we ought to take no more notice than when it says that God is angry at humans sins, 147 that He is sad, that He repents of the good He has promised and done; 148 or that on seeing a sign he remembers something He had promised, and other similar expressions, which are either thrown out poetically or related according to the opinion and prejudices of the writer.

149 We may, then, be absolutely certain that every event which is truly described in Scripture necessarily happened, like everything else, according to natural laws; 150 and if anything is there set down which can be proved in set terms to contravene the order of Nature, or not to be deducible therefrom, we must believe it to have been foisted into the sacred writings by irreligious hands; 151 for whatsoever is contrary to Nature is also contrary to reason, and whatsoever is contrary to reason is absurd, and, ipso facto, to be rejected.

152 There remain some points concerning the interpretation of miracles to be noted, or rather to be recapitulated, for most of them have been already stated. 153 These I proceed to discuss in the fourth division of my subject, and I am led to do so lest anyone should, by wrongly interpreting a miracle, rashly suspect that you have found something in Scripture contrary to human reason.

154 It is very rare for humans to relate an event simply as it happened, without adding any element of their own judgment. 155 When they see or hear anything new, they are, unless strictly on their guard, so occupied with their own preconceived opinions that they perceive something quite different from the plain facts seen

or heard, 156 especially if such facts surpass the comprehension of the beholder or hearer, and, most of all, if you are interested in their happening in a given way. 157 Thus humans relate in chronicles and histories their own opinions rather than actual events, so that one and the same event is so differently related by two people of different opinions, that it seems like two separate occurrences; 158 and, further, it is very easy from historical chronicles to gather the personal opinions of the historian.

159 I could cite many instances in proof of this from the writings both of natural philosophers and historians, but I will content myself with one only from Scripture, and leave the reader to judge of the rest.

160 In the time of Joshua the Hebrews held the ordinary opinion that the sun moves with a daily motion, and that the earth remains at rest; 161 to this preconceived opinion they adapted the miracle which occurred during their battle with the five kings. 162 They did not simply relate that that day was longer than usual, but asserted that the sun and moon stood still, or ceased from their motion-- 163 a statement which would be of great service to them at that time in convincing and proving by experience to the Gentiles, who worshipped the sun, that the sun was under the control of another deity who could compel it to change its daily course. 164 Thus, partly through religious motives, partly through preconceived opinions, they conceived of and related the occurrence as something quite different from what really happened.

165 Thus in order to interpret the Scriptural miracles and understand from the narration of them how they really happened, it is necessary to know the opinions of those who first related them, and have recorded them for us in writing, 166 and to distinguish such opinions from the actual impression made upon their senses, otherwise we shall confound opinions and judgments with the actual miracle as it really occurred: 167 nay, further, we shall confound actual events with symbolical and imaginary ones.

168 For many things are narrated in Scripture as real, and were

believed to be real, which were in fact only symbolical and imaginary.

169 As, for instance, that God came down from heaven (Exodus 19:9, Deuteronomy-5:28), and that Mount Sinai smoked because God descended upon it surrounded with fire; 170 or, again that Elijah ascended into heaven in a chariot of fire, with horses of fire; 171 all these things were assuredly merely symbols adapted to the opinions of those who have handed them down to us as they were represented to them, namely, as real.

172 All who have any education know that God has no right hand nor left; that He is not moved nor at rest, nor in a particular place, but that He is absolutely infinite and contains in Himself all perfections. 173 These things, I repeat, are known to whoever judges of things by the perception of pure reason, and not according as your imagination is affected by your outward senses.

174 Following the example of the masses who imagine a bodily Deity, holding a royal court with a throne on the convexity of heaven, above the stars, which are believed to be not very, far off from the earth. 175 To these and similar opinions very many narrations in Scripture are adapted, and should not, therefore, be mistaken by philosophers for realities.

176 Lastly, in order to understand, in the case of miracles, what actually took place, we ought to be familiar with Jewish phrases and metaphors; 177 anyone who did not make sufficient allowance for these, would be continually seeing miracles in Scripture where nothing of the kind is intended by the writer; 178 you would thus miss the knowledge not only of what actually happened, but also of the mind of the writers of the sacred text.

179 For instance, Zechariah speaking of some future war says (Chapter-14:7): "It shall be one day which shall be known to the Lord, not day, nor night; but at even time it shall be light." 180 In these words he seems to predict a great miracle, yet he only means that the battle will be doubtful the whole day, that the issue will be known only to God, but that in the evening they will gain the victory: 181 the prophets frequently used to

predict victories and defeats of the nations in similar phrases.

182 Thus Isaiah, describing the destruction of Babylon, says (Chapter-13): "The stars of heaven, and the constellations thereof, shall not give their light; the sun shall be darkened in his going forth, and the moon shall not cause her light to shine."

183 Now I suppose no one imagines that at the destruction of Babylon these phenomena actually occurred any more than that which the prophet adds, "For I will make the heavens to tremble, and remove the earth out of her place."

184 So, too, Isaiah in foretelling to the Jews that they would return from Babylon to Jerusalem in safety, and would not suffer from thirst on their journey, says: "And they thirsted not when He led them through the deserts; 185 He caused the waters to flow out of the rocks for them; He clave the rocks, and the waters gushed out."

186 These words merely mean that the Jews, like other people, found springs in the desert, at which they quenched their thirst; 187 for when the Jews returned to Jerusalem with the consent of Cyrus, it is admitted that no similar miracles befell them.

188 In this way many occurrences in the Bible are to be regarded merely as Jewish expressions. 189 There is no need for me to go through them in detail; but I will call attention generally to the fact that the Jews employed such phrases not only rhetorically, but also, and indeed chiefly, from devotional motives. 190 Such is the reason for the substitution of "bless God" for "curse God" in 1 Kings 21:10, and Job 2:9, 191 and for all things being referred to God, whence it appears that the Bible seems to relate nothing but miracles, even when speaking of the most ordinary occurrences, as in the examples given above.

192 Hence we must believe that when the Bible says that the Lord hardened Pharaoh's heart, it only means that Pharaoh was obstinate; 193 when it says that God opened the windows of heaven, it only means that it rained very hard, and so on. 194 When we reflect on these peculiarities, and also on the fact that most things are related very shortly, with very little details and almost in abridgments, 195 we

shall see that there is hardly anything in Scripture which can be proved contrary to natural reason, while, on the other hand, many things which before seemed obscure, will after a little consideration be understood and easily explained.

196 I think I have now very clearly explained all that I proposed to explain, but before I finish this chapter I would call attention to the fact that I have adopted a different method in speaking of miracles to that which I employed in treating of prophecy. 197 Of prophecy I have asserted nothing which could not be inferred from promises revealed in Scripture, whereas in this chapter I have deduced my conclusions solely from the principles ascertained by the natural light of reason. 198 I have proceeded in this way advisedly, for prophecy, in that it surpasses human knowledge, is a purely theological question; 199 therefore, I knew that I could not make any assertions about it, nor learn wherein it consists, except through deductions from premises that have been revealed; 200 therefore I was compelled to collate the history of prophecy, and to draw therefrom certain conclusions which would teach me, in so far as such teaching is possible, the nature and properties of the gift. 201 But in the case of miracles, as our inquiry is a question purely philosophical (namely, whether anything can happen which contravenes or does not follow from the laws of Nature), 202 I was not under any such necessity: I therefore thought it wiser to unravel the difficulty through premises ascertained and thoroughly known by the natural light of reason. 203 I say I thought it wiser, for I could also easily have solved the problem merely from the doctrines and fundamental principles of Scripture: 204 in order that everyone may acknowledge this, I will briefly show how it could be done. Scripture makes the general assertion in several passages that Nature's course is fixed and unchangeable. 205 In Psalm 148:6, for instance, and Jeremiah. 31:35.

The wise man also, in Ecclesiastes. I:10, distinctly teaches that "there is nothing new under the sun," 206 and in Ecclesiastes-1:11 and 12,

illustrating the same idea, he adds that although something occasionally happens which seems new, it is not really new, but "hath been already of old time, which was before us, 207 whereof there is no remembrance, neither shall there be any remembrance of things that are to come with those that come after." 208 Again in Ecclesiastes, Chapter-3:11, he says, "God hath made everything beautiful in his time," and immediately afterwards adds, "I know that whatsoever God doeth, it shall be for ever; nothing can be put to it, nor anything taken from it."

209 Now all these texts teach most distinctly that Nature preserves a fixed and unchangeable order, and that God in all ages, known and unknown, has been the same; 210 further, that the laws of Nature are so perfect, that nothing can be added thereto nor taken therefrom; 211 and, lastly, that miracles only appear as something new because of human's ignorance. 212 Such is the express teaching of Scripture: nowhere does Scripture assert that anything happens which contradicts, or cannot follow from the laws of Nature; and, therefore, we should not attribute to it such a doctrine.

213 To these considerations we must add, that miracles require causes and attendant circumstances, and that they follow, not from some mysterious royal power which the masses attribute to God, but from the Divine rule and decree, that is (as we have shown from Scripture itself) from the laws and order of Nature; 214 lastly, that miracles can be wrought even by false prophets, as is proved from Deuteronomy, chapter-13. and Matthew. chapter-24 verse:24.

215 The conclusion, then, that is most plainly put before us is, that miracles were natural occurrences, and must therefore be so explained as to appear neither new (in the words of Solomon) nor contrary to Nature, but, as far as possible, in complete agreement with ordinary events. 216 This can easily be done by anyone, now that I have set forth the rules drawn from Scripture. 217 Nevertheless, though I maintain that Scripture teaches this doctrine, I do not assert that it teaches it as a truth necessary to

salvation, but only that the prophets were in agreement with ourselves on the point; 218 therefore everyone is free to think on the subject as you likes, according as you thinks it best for yourself, and most likely to conduce to the worship of God and to single-hearted religion.

219 This is also the opinion of Josephus, for at the conclusion of the second book of his "Antiquities," he writes: 220 Let no person think this story incredible of the sea's dividing to save these people, for we find it in ancient records that this hath been seen before, whether by God's extraordinary will or by the course of Nature it is indifferent.

221 The same thing happened one time to the Macedonians, under the command of Alexander, when for want of another passage the Pamphylian Sea divided to make them way; 222 God's Providence making use of Alexander at that time as His instrument for destroying the Persian Empire. 223 This is attested by all the historians who have pretended to write the Life of that Prince. 224 But people are at liberty to think what they please." 225 Such are the words of Josephus, and such is his opinion on faith in miracles.

The Book of Divine Panagogue called

LAW

OF THE DIVINE LAW
Benedict of Spinoza

1 The word law, taken in the abstract, means that by which an individual, or all things, or as many things as belong to a particular species, act in one and the same fixed and definite manner, which manner depends either on natural necessity or on human decree.

2 A law which depends on natural necessity is one which necessarily follows from the nature, or from the definition of the thing in question; 3 a law which depends on human decree, and which is more correctly called an ordinance, is one which humans have laid down for themselves and others in order to live more safely or conveniently, or from some similar reason. 4 For example, the law that all bodies impinging on lesser bodies, lose as much of their own motion as they communicate to the latter is a universal law of all bodies, and depends on natural necessity.

5 So, too, the law that a person in remembering one thing, straightway remembers another either like it, or which you had perceived simultaneously with it, is a law which necessarily follows from the nature of human. 6 But the law that people must yield, or be compelled to yield, somewhat of their natural right, and that they bind themselves to live in a certain way, depends on human decree.

7 Now, though I freely admit that all things are predetermined by universal natural laws to exist and operate in a given, fixed, and definite manner, 8 I still assert that the laws I have just mentioned depend on human decree. 9 Because human, in so far as you are a part of Nature, constitutes a part of the power of Nature. 10 Whatever, therefore, follows necessarily from the necessity of human nature (that is, from Nature Herself, in so far as we conceive of Her as acting through human) follows, even though it be necessarily, from human power. 11 Hence the sanction of such laws may very well be said to depend on human's decree, for it

principally depends on the power of the human mind; 12 so that the human mind in respect to its perception of things as true and false, can readily be conceived as without such laws, but not without necessary law as we have just defined it.

13 I have stated that these laws depend on human decree because it is well to define and explain things by their proximate causes. 14 The general consideration of fate and the concatenation of causes would aid us very little in forming and arranging our ideas concerning particular questions. 15 Let us add that as to the actual coordination and concatenation of things, that is how things are ordained and linked together, we are obviously ignorant; 16 therefore, it is more profitable for right living, nay, it is necessary for us to consider things as contingent. 17 So much about law in the abstract.

18 Now the word law seems to be only applied to natural phenomena by analogy, and is commonly taken to signify a command which humans can either obey or neglect, 19 inasmuch as it restrains human nature within certain originally exceeded limits, and therefore lays down no rule beyond human strength.

20 Thus it is expedient to define law more particularly as a plan of life laid down by human for yourself or others with a certain object. 21 However, as the true object of legislation is only perceived by a few, and most people are almost incapable of grasping it, though they live under its conditions, 22 legislators, with a view to exacting general obedience, have wisely put forward another object, very different from that which necessarily follows from the nature of law: 23 they promise to the observers of the law that which the masses chiefly desire, and threaten its violators with that which they chiefly fear: 24 thus endeavouring to restrain the masses, as far as may be, like a horse with a curb; whence it follows that the word law is chiefly applied to the modes of life enjoined on humans by the sway of others; 25 hence those who obey the law are said to live under it and to be under compulsion.

26 In truth, a person who renders everyone their due because you fears the gallows, acts under the sway and compulsion of others, and cannot be called just. 27 But a person who does the same from a knowledge of the true reason for laws and their necessity, acts from a firm purpose and of own accord, and is therefore properly called just. 28 This, I take it, is Paul's meaning when he says, that those who live under the law cannot be justified through the law, for justice, as commonly defined, is the constant and perpetual will to render every human own due.

29 Thus Solomon says (Proverb, Chapter-21:15), "It is a joy to the just to do judgment," but the wicked fear. 30 Law, then, being a plan of living which humans have for a certain object laid down for themselves or others, may, as it seems, be divided into human law and Divine law.

31 By human law I mean a plan of living which serves only to render life and the state secure. 32 By Divine law I mean that which only regards the highest good, in other words, the true knowledge of God and love. 33 I call this law Divine because of the nature of the highest good, which I will here shortly explain as clearly as I can. 34 Inasmuch as the intellect is the best part of our being, it is evident that we should make every effort to perfect it as far as possible if we desire to search for what is really profitable to us. 35 For in intellectual perfection the highest good should consist.

36 Now, since all our knowledge, and the certainty which removes every doubt, depend solely on the knowledge of God;- firstly, because without God nothing can exist or be conceived; 37 secondly, because so long as we have no clear and distinct idea of God we may remain in universal doubt-- it follows that our highest good and perfection also depend solely on the knowledge of God. 38 Further, since without God nothing can exist or be conceived, it is evident that all natural phenomena involve and express the conception of God as far as their essence and perfection extend, 39 so that we have greater and more perfect knowledge of God in proportion to our knowledge of natural phenomena: 40 conversely (since

the knowledge of an effect through its cause is the same thing as the knowledge of a particular property of a cause) the greater our knowledge of natural phenomena, the more perfect is our knowledge of the essence of God (which is the cause of all things). 41 So, then, our highest good not only depends on the knowledge of God, but wholly consists therein; 42 and it further follows that human is perfect or the reverse in proportion to the nature and perfection of the object of your own special desire; 43 hence the most perfect and the chief sharer in the highest blessedness is you who prizes above all else, and takes especial delight in, the intellectual knowledge of God, the most perfect Being.

44 Hither, then, our highest good and our highest blessedness aim--namely, to the knowledge and love of God; 45 therefore the means demanded by this aim of all human actions, that is, by God in so far as the idea of Him is in us, may be called the commands of God, 46 because they proceed, as it were, from God Himself, inasmuch as He exists in our minds, and the plan of life which has regard to this aim may be fitly called the law of God.

47 The nature of the means, and the plan of life which this aim demands, how the foundations of the best states follow its lines, and how humans' life is conducted, are questions pertaining to general ethics. 48 Here I only proceed to treat of the Divine law in a particular application. 49 As the love of God is human's highest happiness and blessedness, and the ultimate end and aim of all human actions, it follows that you alone lives by the Divine law who loves God not from fear of punishment, or from love of any other object, such as sensual pleasure, fame, or the like; 50 but solely because you have knowledge of God, or is convinced that the knowledge and love of God is the highest good.

51 The sum and chief precept, then, of the Divine law is to love God as the highest good, namely, as we have said, not from fear of any pains and penalties, or from the love of any other object in which we desire to take pleasure. 52 The idea of God lays down the rule that God is our highest good--

in other words, that the knowledge and love of God is the ultimate aim to which all our actions should be directed. 53 The worldling cannot understand these things, they appear foolishness to you, because you have too meager a knowledge of God, 54 and also because in this highest good you can discover nothing which you can handle or eat, or which affects the fleshly appetites wherein you chiefly delights, for it consists solely in thought and the pure reason. 55 They, on the other hand, who know that they possess no greater gift than intellect and sound reason, will doubtless accept what I have said without question.

56 We have now explained that wherein the Divine law chiefly consists, and what are human laws, namely, all those which have a different aim unless they have been ratified by revelation, 57 for in this respect also things are referred to God (as we have shown above) and in this sense the law of Moses, 58 although it was not universal, but entirely adapted to the disposition and particular preservation of a single people, may yet be called a law of God or Divine law, inasmuch as we believe that it was ratified by prophetic insight. 59 If we consider the nature of natural Divine law as we have just explained it, we shall see:

(I.) That it is universal or common to all humans, for we have deduced it from universal human nature.

60 (II.) That it does not depend on the truth of any historical narrative whatsoever, for inasmuch as this natural Divine law is comprehended solely by the consideration of human nature, 61 it is plain that we can conceive it as existing as well in Adam as in any other man, as well in a human living among own fellows, as in a human who lives by the self.

62 The truth of a historical narrative, however assured, cannot give us the knowledge nor consequently the love of God, for love of God springs from knowledge of Him, and knowledge of Him should be derived from general ideas, 63 in themselves certain and known, so that the truth of a historical narrative is very far from being a necessary

requisite for our attaining our highest good. 64 Still, though the truth of histories cannot give us the knowledge and love of God, I do not deny that reading them is very useful with a view to life in the world, 65 for the more we have observed and known of humans' customs and circumstances, which are best revealed by their actions, the more warily we shall be able to order our lives among them, and so far as reason dictates to adapt our actions to their dispositions.

66 (III.) We see that this natural Divine law does not demand the performance of ceremonies-- that is, actions in themselves indifferent, which are called good from the fact of their institution, 67 or actions symbolising something profitable for salvation, or (if one prefers this definition) actions of which the meaning surpasses human understanding.

68 The natural light of reason does not demand anything which it is itself unable to supply, but only such as it can very clearly show to be good, or a means to our blessedness. 69 Such things as are good simply because they have been commanded or instituted, or as being symbols of something good, are mere shadows which cannot be reckoned among actions that are the offsprings as it were, or fruit of a sound mind and of intellect. 70 There is no need for me to go into this now in more detail.

71 (IV.) Lastly, we see that the highest reward of the Divine law is the law itself, namely, to know God and to love Him of our free choice, and with an undivided and fruitful spirit; 72 while its penalty is the absence of these things, and being in bondage to the flesh-- that is, having an inconstant and wavering spirit. 73 These points being noted, I must now inquire: I. Whether by the natural light of reason we can conceive of God as a law-giver or potentate ordaining laws for humans? 74 II. What is the teaching of Holy Writ concerning this natural light of reason and natural law? 75 III. With what objects were ceremonies formerly instituted?

76 (V.) Lastly, what is the good gained by knowing the sacred histories and believing them? 77 Of the first two I will treat in this chapter, of the remaining two in

the following one. 78 Our conclusion about the first is easily deduced from the nature of God's will, which is only distinguished from His understanding in relation to our intellect-- 79 that is, the will and the understanding of God are in reality one and the same, and are only distinguished in relation to our thoughts which we form concerning God's understanding. 80 For instance, if we are only looking to the fact that the nature of a triangle is from eternity contained in the Divine Nature as an eternal verity, we say that God possesses the idea of a triangle, or that He understands the nature of a triangle; 81 but if afterwards we look to the fact that the nature of a triangle is thus contained in the Divine Nature, solely by the necessity of the Divine Nature, and not by the necessity of the nature and essence of a triangle-- 82 in fact, that the necessity of a triangle's essence and Nature, in so far as they are conceived of as eternal verities, depends solely on the necessity of the Divine Nature and intellect, we then style God's will or decree, that which before we styled His intellect. 83 Wherefore we make one and the same affirmation concerning God when we say that He has from eternity decreed that three angles of a triangle are equal to two right angles, as when we say that He has understood it. 84 Hence the affirmations and the negations of God always involve necessity or truth; 85 so that, for example, if God said to Adam that He did not wish him to eat of the tree of knowledge of good and evil, it would have involved a contradiction that Adam should have been able to eat of it, 86 and would therefore have been impossible that he should have so eaten, for the Divine command would have involved an eternal necessity and truth. 87 But since Scripture nevertheless narrates that God did give this command to Adam, and yet that none the less Adam ate of the tree, 88 we must perforce say that God revealed to Adam the evil which would surely follow if he should eat of the tree, but did not disclose that such evil would of necessity come to pass. 89 Thus it was that Adam took the revelation to be not an eternal and necessary truth, but a law-- 90 that

is, an ordinance followed by gain or loss, not depending necessarily on the nature of the act performed, but solely on the will and absolute power of some potentate, 91 so that the revelation in question was solely in relation to Adam, and solely through his lack of knowledge a law, and God was, as it were, a lawgiver and potentate. 92 From the same cause, namely, from lack of knowledge, the Decalogue in relation to the Hebrews was a law, for since they knew not the existence of God as an eternal truth, they must have taken as a law that which was revealed to them in the Decalogue, 93 namely, that God exists, and that God only should be worshipped. 94 But if God had spoken to them without the intervention of any bodily means, immediately they would have perceived it not as a law, but as an eternal truth.

95 What we have said about the Israelites and Adam, applies also to all the prophets who wrote laws in God's name-- they did not adequately conceive God's decrees as eternal truths. 96 For instance, we must say of Moses that from revelation, from the basis of what was revealed to him, he perceived the method by which the Israelitish nation could best be united in a particular territory, and could form a body politic or state, 97 and further that he perceived the method by which that nation could best be constrained to obedience; 98 but he did not perceive, nor was it revealed to him, that this method was absolutely the best, nor that the obedience of the people in a certain strip of territory would necessarily imply the end he had in view. 99 Wherefore he perceived these things not as eternal truths, but as precepts and ordinances, and he ordained them as laws of God, 100 and thus it came to be that he conceived God as a ruler, a legislator, a king, as merciful, just, whereas such qualities are simply attributes of human nature, and utterly alien from the nature of the Deity.

101 Thus much we may affirm of the prophets who wrote laws in the name of God; but we must not affirm it of Christ, 102 for Christ, although He too seems to have written laws in the name of God, must be taken to have had a clear

and adequate perception, for Christ was not so much a prophet as the mouthpiece of God. 103 For God made revelations to humankind through Christ as He had before done through angels-- that is, a created voice, visions. 104 It would be as unreasonable to say that God had accommodated His revelations to the opinions of Christ as that He had before accommodated them to the opinions of angels (that is, of a created voice or visions) as matters to be revealed to the prophets, a wholly absurd hypothesis.

105 Moreover, Christ was sent to teach not only the Jews but the whole human race, and therefore it was not enough that His mind should be accommodated to the opinions the Jews alone, 106 but also to the opinion and fundamental teaching common to the whole human race-- in other words, to ideas universal and true. 107 Inasmuch as God revealed Himself to Christ, or to Christ's mind immediately, and not as to the prophets through words and symbols, we must needs suppose that Christ perceived truly what was revealed, 108 in other words, He understood it, for a matter is understood when it is perceived simply by the mind without words or symbols. 109 Christ, then, perceived (truly and adequately) what was revealed, and if He ever proclaimed such revelations as laws, He did so because of the ignorance and obstinacy of the people, acting in this respect the part of God; 110 inasmuch as He accommodated Himself to the comprehension of the people, and though He spoke somewhat more clearly than the other prophets, 111 yet He taught what was revealed obscurely, and generally through parables, especially when He was speaking to those to whom it was not yet given to understand the kingdom of heaven. (See Matthew, Chapter-13:10, 112 To those to whom it was given to understand the mysteries of heaven, He doubtless taught His doctrines as eternal truths, and did not lay them down as laws, thus freeing the minds of His hearers from the bondage of that law which He further confirmed and established. 113 Paul apparently points to this more than once (e.g. Romans, Chapter-7:6, and 3:28), though he never himself seems to

wish to speak openly, but, to quote his own words (Romans 3:6, and 6:19), "merely humanly." 114 This he expressly states when he calls God just, and it was doubtless in concession to human weakness that he attributes mercy, grace, anger, and similar qualities to God, 115 adapting his language to the popular mind, or, as he puts it (1 Corinthians.3:1, 2), to carnal people. In Rom. 9:18, he teaches undisguisedly that God's auger and mercy depend not on the actions of people, but on God's own nature or will; 116 further, that no one is justified by the works of the law, but only by faith, which he seems to identify with the full assent of the soul; 117 lastly, that no one is blessed unless you have in you the mind of Christ (Romans, Chapter-8:9), whereby he perceives the laws of God as eternal truths. 118 We conclude, therefore, that God is described as a lawgiver or prince, and styled just, merciful, merely in concession to popular understanding, and the imperfection of popular knowledge; 119 that in reality God acts and directs all things simply by the necessity of His nature and perfection, and that His decrees and volitions are eternal truths, and always involve necessity.

120 So much for the first point which I wished to explain and demonstrate. Passing on to the second point, let us search the sacred pages for their teaching concerning the light of Nature and this Divine law. 121 The first doctrine we find in the history of the first human, where it is narrated that God commanded Adam not to eat of the fruit of the tree of the knowledge of good and evil; 122 this seems to mean that God commanded Adam to do and to seek after righteousness because it was good, not because the contrary was evil: that is, to seek the good for its own sake, not from fear of evil. 123 We have seen that you who acts rightly from the true knowledge and love of right, acts with freedom and constancy, whereas you who acts from fear of evil, is under the constraint of evil, and acts in bondage under external control. 124 So that this commandment of God to Adam comprehends the whole Divine natural law, and absolutely agrees with the dictates of the light of

Nature; 125 nay, it would be easy to explain on this basis the whole history or allegory of the first human.

126 But I prefer to pass over the subject in silence, because, in the first place, I cannot be absolutely certain that my explanation would be in accordance with the intention of the sacred writer; 127 and, secondly, because many do not admit that this history is an allegory, maintaining it to be a simple narrative of facts. 128 It will be better, therefore, to adduce other passages of Scripture, especially such as were written by him, who speaks with all the strength of his natural understanding, 129 in which he surpassed all his contemporaries, and whose sayings are accepted by the people as of equal weight with those of the prophets. 130 I mean Solomon, whose prudence and wisdom are commended in Scripture rather than his piety and gift of prophecy. 131 Life being taken to mean the true life (as is evident from Deuteronomy, Chapter 30:19), the fruit of the understanding consists only in the true life, and its absence constitutes punishment. 132 All this absolutely agrees with what was set out in our fourth point concerning natural law. 133 Moreover our position that it is the well-spring of life, and that the intellect alone lays down laws for the wise, is plainly taught by, the sage, 134 for he says (Proverb, Chapter-13:14): "The law of the wise is a fountain of life" - that is, as we gather from the preceding text, the understanding. 135 In Proverb, Chapter-3:13, he expressly teaches that the understanding renders human blessed and happy, and gives you true peace of mind. 136 "Happy is the person that findeth wisdom, and the person that getteth understanding," for "Wisdom gives length of days, and riches and honour; her ways are ways of pleasantness, and all her paths peace" (14:6 and 17). 137 According to Solomon, therefore, it is only the wise who live in peace and equanimity, not like the wicked whose minds drift hither and thither, 138 and (as Isaiah says, Chapter-57:20) "are like the troubled sea, for them there is no peace."

139 Lastly, we should especially note the passage in chapter-2. of Solomon's proverbs which most clearly confirms our contention: 140 "If thou criest after knowledge, and liftest up thy voice for understanding . . . then shalt thou understand the fear of the Lord, and find the knowledge of God; for the Lord giveth wisdom; out of His mouth cometh knowledge and understanding." 141 These words clearly enunciate (1), that wisdom or intellect alone teaches us to fear God wisely-- that is, to worship Him truly; 142 (2), that wisdom and knowledge flow from God's mouth, and that God bestows on us this gift; 143 this we have already shown in proving that our understanding and our knowledge depend on, spring from, and are perfected by the idea or knowledge of God, and nothing else. 144 Solomon goes on to say in so many words that this knowledge contains and involves the true principles of ethics and politics: 145 "When wisdom entereth into thy heart, and knowledge is pleasant to thy soul, discretion shall preserve thee, understanding shall keep thee, then shalt thou understand righteousness, and judgment, and equity, yea every good path." 146 All of which is in obvious agreement with natural knowledge: for after we have come to the understanding of things, and have tasted the excellence of knowledge, she teaches us ethics and true virtue.

147 Thus the happiness and the peace of you who cultivates your natural understanding lies, according to Solomon also, not so much under the dominion of fortune (or God's external aid) as in inward personal virtue (or God's internal aid), for the latter can to a great extent be preserved by vigilance, right action, and thought. 148 Lastly, we must by no means pass over the passage in Paul's Epistle to the Romans, Chapter-1:20, in which he says: 149 "For the invisible things of God from the creation of the world are clearly seen, being understood by the things that are made, even His eternal power and Godhead; so that they are without excuse, because, when they knew God, they glorified Him not as God, neither were they thankful." 150 These words clearly show that

everyone can by the light of Nature clearly understand the goodness and the eternal divinity of God, and can thence know and deduce what they should seek for and what avoid; 151 wherefore the Apostle says that they are without excuse and cannot plead ignorance, as they certainly might if it were a question of supernatural light and the incarnation, passion, and resurrection of Christ. 152 "Wherefore," he goes on to say (Romans, Chapter-1:24), "God gave them up to uncleanness through the lusts of their own hearts;" and so on, through the rest of the chapter, he describes the vices of ignorance, and sets them forth as the punishment of ignorance. 153 This obviously agrees with the verse of Solomon, already quoted, "The instruction of fools is folly," so that it is easy to understand why Paul says that the wicked are without excuse. 154 As every human sows so shall you reap: out of evil, evils necessarily spring, unless they be wisely counteracted.

155 Thus we see that Scripture literally approves of the light of natural reason and the natural Divine law, and I have fulfilled the promises made at the beginning of this chapter.

OF THE CEREMONIAL LAW.

Benedict of Spinoza

2 In the foregoing chapter we have shown that the Divine law, which renders humans truly blessed, and teaches them the true life, is universal to all humans; 2 nay, we have so intimately deduced it from human nature that it must be esteemed innate, and, as it were, ingrained in the human mind. 3 But with regard to the ceremonial observances which were ordained in the Old Testament for the Hebrews only, and were so adapted to their state that they could for the most part only be observed by the society as a whole and not by each individual, 4 it is evident that they formed no part of the Divine law, and had nothing to do with blessedness and virtue, but had reference only to the election of the Hebrews, 5 that is, to their temporal bodily happiness and the

tranquillity of their kingdom, and that therefore they were only valid while that kingdom lasted. 6 If in the Old Testament they are spoken of as the law of God, it is only because they were founded on revelation, or a basis of revelation. 7 Still as reason, however sound, has little weight with ordinary theologians, I will adduce the authority of Scripture for what I here assert, 8 and will further show, for the sake of greater clearness, why and how these ceremonials served to establish and preserve the Jewish kingdom. 9 Isaiah teaches most plainly that the Divine law in its strict sense signifies that universal law which consists in a true manner of life, and does not signify ceremonial observances. 10 In Isaiah, Chapter-1:10, the prophet calls on his countrymen to hearken to the Divine law as he delivers it, and first excluding all kinds of sacrifices and all feasts, 11 he at length sums up the law in these few words, "Cease to do evil, learn to do well: seek judgment, relieve the oppressed." 12 Not less striking testimony is given in Psalm 40:7-9, where the Psalmist addresses God: 13 "Sacrifice and offering Thou didst not desire; mine ears hast Thou opened; burnt offering and sin-offering hast Thou not required; I delight to do Thy will, O my God; yea, Thy law is within my heart." 14 Here the Psalmist reckons as the law of God only that which is inscribed in your heart, and excludes ceremonies therefrom, for the latter are good and inscribed on the heart only from the fact of their institution, and not because of their intrinsic value. 15 Other passages of Scripture testify to the same truth, but these two will suffice.

16 We may also learn from the Bible that ceremonies are no aid to blessedness, but only have reference to the temporal prosperity of the kingdom; 17 for the rewards promised for their observance are merely temporal advantages and delights, blessedness being reserved for the universal Divine law. 18 In all the five books commonly attributed to Moses nothing is promised, as I have said, beyond temporal benefits, such as honours, fame, victories, riches, enjoyments, and health. 19 Though many moral

precepts besides ceremonies are contained in these five books, they appear not as moral doctrines universal to all humans, 20 but as commands especially adapted to the understanding and character of the Hebrew people, and as having reference only to the welfare of the kingdom. 21 For instance, Moses does not teach the Jews as a prophet not to kill or to steal, but gives these commandments solely as a lawgiver and judge; 22 he does not reason out the doctrine, but affixes for its non-observance a penalty which may and very properly does vary in different nations. 23 So, too, the command not to commit adultery is given merely with reference to the welfare of the state; 24 for if the moral doctrine had been intended, with reference not only to the welfare of the state, but also to the tranquillity and blessedness of the individual, Moses would have condemned not merely the outward act, but also the mental acquiescence, 25 as is done by Christ, Who taught only universal moral precepts, and for this cause promises a spiritual instead of a temporal reward.

26 Christ, as I have said, was sent into the world, not to preserve the state nor to lay down laws, but solely to teach the universal moral law, 27 so we can easily understand that He wished in nowise to do away with the law of Moses, inasmuch as He introduced no new laws of His own-- 28 His sole care was to teach moral doctrines, and distinguish them from the laws of the state; 29 for the Pharisees, in their ignorance, thought that the observance of the state law and the Mosaic law was the sum total of morality; 30 whereas such laws merely had reference to the public welfare, and aimed not so much at instructing the Jews as at keeping them under constraint. 31 But let us return to our subject, and cite other passages of Scripture which set forth temporal benefits as rewards for observing the ceremonial law, and blessedness as reward for the universal law.

32 None of the prophets puts the point more clearly than Isaiah. After condemning hypocrisy he commends liberty and charity towards one's self and one's neighbours, and promises as a

reward: 33 "Then shall thy light break forth as the morning, and thy health shall spring forth speedily, thy righteousness shall go before thee, and the glory of the Lord shall be thy reward" (Isaiah, Chapter-58:8). 34 Shortly afterwards he commends the Sabbath, and for a due observance of it, promises: "Then shalt thou delight thyself in the Lord, and I will cause thee to ride upon the high places of the earth, and feed thee with the heritage of Jacob thy father: for the mouth of the Lord has spoken it." 35 Thus the prophet for liberty bestowed, and charitable works, promises a healthy mind in a healthy body, and the glory of the Lord even after death; whereas, for ceremonial exactitude, he only promises security of rule, prosperity, and temporal happiness. 36 In Psalms, Chapter-15. and 24. no mention is made of ceremonies, but only of moral doctrines, inasmuch as there is no question of anything but blessedness, and blessedness is symbolically promised: 37 it is quite certain that the expressions, "the hill of God," and "His tents and the dwellers therein," refer to blessedness and security of soul, not to the actual mount of Jerusalem and the tabernacle of Moses, for these latter were not dwelt in by anyone, and only the sons of Levi ministered there.

38 Further, all those sentences of Solomon to which I referred in the last chapter, for the cultivation of the intellect and wisdom, promise true blessedness, 39 for by wisdom is the fear of God at length understood, and the knowledge of God found.

40 That the Jews themselves were not bound to practise their ceremonial observances after the destruction of their kingdom is evident from Jeremiah. 41 For when the prophet saw and foretold that the desolation of the city was at hand, he said that God only delights in those who know and understand that He exercises loving-kindness, judgment, and righteousness in the earth, and that such persons only are worthy of praise. (Jeremiah 60:23.). 42 As though God had said that, after the desolation of the city, He would require nothing special from the

Jews beyond the natural law by which all humans are bound.

43 The New Testament also confirms this view, for only moral doctrines are therein taught, and the kingdom of heaven is promised as a reward, whereas ceremonial observances are not touched on by the Apostles, after they began to preach the Gospel to the Gentiles.

44 The Pharisees certainly continued to practise these rites after the destruction of the kingdom, but more with a view of opposing the Christians than of pleasing God: 45 for after the first destruction of the city, when they were led captive to Babylon, not being then, so far as I am aware, split up into sects, 46 they straightway neglected their rites, bid farewell to the Mosaic law, buried their national customs in oblivion as being plainly superfluous, and began to mingle with other nations, as we may abundantly learn from Ezra and Nehemiah. 47 We cannot, therefore, doubt that they were no more bound by the law of Moses, after the destruction of their kingdom, than they had been before it had been begun, 48 while they were still living among other peoples before the exodus from Egypt, and were subject to no special law beyond the natural law, 49 and also, doubtless, the law of the state in which they were living, in so far as it was consonant with the Divine natural law.

50 As to the fact that the patriarchs offered sacrifices, I think they did so for the purpose of stimulating their piety, for their minds had been accustomed from childhood to the idea of sacrifice, which we know had been universal from the time of Enoch; 51 and thus they found in sacrifice their most powerful incentive. 52 The patriarchs, then, did not sacrifice to God at the bidding of a Divine right, or as taught by the basis of the Divine law, but simply in accordance with the custom of the time; 53 and, if in so doing they followed any ordinance, it was simply the ordinance of the country they were living in, by which (as we have seen before in the case of Melchisedek) they were bound.

54 I think that I have now given Scriptural authority for my view: it

remains to show why and how the ceremonial observances tended to preserve and confirm the Hebrew kingdom; and this I can very briefly do on grounds universally accepted.

55 The formation of society serves not only for defensive purposes, but is also very useful, and, indeed, absolutely necessary, as rendering possible the division of labour. 56 If humans did not render mutual assistance to each other, no one would have either the skill or the time to provide for own sustenance and preservation: 57 for all humans are not equally apt for all work, and no one would be capable of preparing all that you individually stood in need of. 58 Strength and time, I repeat, would fail, if every one had in person to plough, to sow, to reap, to grind corn, to cook, to weave, to stitch, and perform the other numerous functions required to keep life going; 59 to say nothing of the arts and sciences which are also entirely necessary to the perfection and blessedness of human nature. 60 We see that peoples living, in uncivilised barbarism lead a wretched and almost animal life, and even they would not be able to acquire their few rude necessaries without assisting one another to a certain extent. 61 Now if humans were so constituted by nature that they desired nothing but what is designated by true reason, society would obviously have no need of laws: 62 it would be sufficient to inculcate true moral doctrines; and people would freely, without hesitation, act in accordance with their true interests. 63 But human nature is framed in a different fashion: every one, indeed, seeks own interest, but does not do so in accordance with the dictates of sound reason, 64 for most people's ideas of desirability and usefulness are guided by their fleshly instincts and emotions, which take no thought beyond the present and the immediate object. 65 Therefore, no society can exist without government, and force, and laws to restrain and repress humans' desires and immoderate impulses. 66 Still human nature will not submit to absolute repression. 67 Violent governments, as Seneca says, never last long; the moderate governments endure. 68 So long as humans act simply from fear they

act contrary to their inclinations, taking no thought for the advantages or necessity of their actions, but simply endeavouring to escape punishment or loss of life. 69 They must needs rejoice in any evil which befalls their ruler, even if it should involve themselves; and must long for and bring about such evil by every means in their power. 70 Again, humans are especially intolerant of serving and being ruled by their equals. 71 Lastly, it is exceedingly difficult to revoke liberties once granted.

72 From these considerations it follows, firstly, that authority should either be vested in the hands of the whole state in common, so that everyone should be bound to serve, and yet not be in subjection to your equals; 73 or else, if power be in the hands of a few, or one person, that one person should be something above average humanity, or should strive to get own self accepted as such. 74 Secondly, laws should in every government be so arranged that people should be kept in bounds by the hope of some greatly desired good, rather than by fear, for then everyone will do own duty willingly. 75 Lastly, as obedience consists in acting at the bidding of external authority, it would have no place in a state where the government is vested in the whole people, and where laws are made by common consent. 76 In such a society the people would remain free, whether the laws were added to or diminished, inasmuch as it would not be done on external authority, but their own free consent. 77 The reverse happens when the sovereign power is vested in one person, for all act at own bidding; 78 and, therefore, unless they had been trained from the first to depend on the words of their ruler, the latter would find it difficult, in case of need, to abrogate liberties once conceded, and impose new laws.

79 From these universal considerations, let us pass on to the kingdom of the Jews. 80 The Jews when they first came out of Egypt were not bound by any national laws, and were therefore free to ratify any laws they liked, or to make new ones, and were at liberty to set up a government and occupy a territory wherever they

chose. 81 However, they, were entirely unfit to frame a wise code of laws and to keep the sovereign power vested in the community; 82 they were all uncultivated and sunk in a wretched slavery, therefore the sovereignty was bound to remain vested in the hands of one person who would rule the rest and keep them under constraint, make laws and interpret them. 83 This sovereignty was easily retained by Moses, because he surpassed the rest in virtue and persuaded the people of the fact, proving it by many testimonies (see Exodus, Chapter-14, last verse, and Chapter-19:9). 84 He then, by the Divine virtue he possessed, made laws and ordained them for the people, taking the greatest care that they should be obeyed willingly and not through fear, 85 being specially induced to adopt this course by the obstinate nature of the Jews, who would not have submitted to be ruled solely by constraint; 86 and also by the imminence of war, for it is always better to inspire soldiers with a thirst for glory than to terrify them with threats; 87 each person will then strive to distinguish own self by valour and courage, instead of merely trying to escape punishment.

88 Moses, therefore, by his virtue and the Divine command, introduced a religion, so that the people might do their duty from devotion rather than fear. 89 Further, he bound them over by benefits, and prophesied many advantages in the future; 90 nor were his laws very severe, as anyone may see for own self, especially if he remarks the number of circumstances necessary in order to procure the conviction of an accused person.

91 Lastly, in order that the people which could not govern itself should be entirely dependent on its ruler, you left nothing to the free choice of individuals (who had hitherto been slaves); 92 the people could do nothing but remember the law, and follow the ordinances laid down at the good pleasure of their ruler; 93 they were not allowed to plough, to sow, to reap, nor even to eat; to clothe themselves, to shave, to rejoice, or in fact to do anything whatever as they liked, 94 but were bound to follow the directions given in the law; and

not only this, but they were obliged to have marks on their door-posts, on their hands, and between their eyes to admonish them to perpetual obedience.

95 This, then, was the object of the ceremonial law, that humans should do nothing of their own free-will, 96 but should always act under external authority, and should continually confess by their actions and thoughts that they were not their own masters, but were entirely under the control of others.

97 From all these considerations it is clearer than day that ceremonies have nothing to do with a state of blessedness, 98 and that those mentioned in the Old Testament, i.e. the whole Mosaic Law, had reference merely to the government of the Jews, and merely temporal advantages.

99 As for the Christian rites, such as baptism, the Lord's Supper, festivals, public prayers, and any other observances which are, and always have been, common to all Christendom, 100 if they were instituted by Christ or His Apostles (which is open to doubt), they were instituted as external signs of the universal church, and not as having anything to do with blessedness, or possessing any sanctity in themselves. 101 Therefore, though such ceremonies were not ordained for the sake of upholding a government, they were ordained for the preservation of a society, 102 and accordingly you who lives alone is not bound by them: nay, those who live in a country where the Christian religion is forbidden, are bound to abstain from such rites, and can none the less live in a state of blessedness. 103 We have an example of this in Japan, where the Christian religion was forbidden, and the Dutch who lived there are enjoined by their East India Company not to practise any outward rites of religion. 104 I need not cite other examples, though it would be easy to prove my point from the fundamental principles of the New Testament, and to adduce many confirmatory instances; but I pass on the more willingly, as I am anxious to proceed to my next proposition. 105 I will now, therefore, pass on to what I proposed to treat of in the second part of this chapter,

namely, what persons are bound to believe in the narratives contained in Scripture, and how far they are so bound. 106 Examining this question by the aid of natural reason, I will proceed as follows.

If anyone wishes to persuade own fellows for or against anything which is not self-evident, you must deduce your contention from their admissions, and convince them either by experience or by ratiocination; 107 either by appealing to facts of natural experience, or to self-evident intellectual axioms. 108 Now unless the experience be of such a kind as to be clearly and distinctly understood, though it may convince a person, it will not have the same effect on your mind and disperse the clouds of your doubt so completely as when the doctrine taught is deduced entirely from intellectual axioms-- 109 that is, by the mere power of the understanding and logical order, and this is especially the case in spiritual matters which have nothing to do with the senses.

110 But the deduction of conclusions from general truths a priori, usually requires a long chain of arguments, and, moreover, very great caution, acuteness, and self-restraint-- 111 qualities which are not often met with; therefore people prefer to be taught by experience rather than deduce their conclusion from a few axioms, and set them out in logical order. 112 Whence it follows, that if anyone wishes to teach a doctrine to a whole nation (not to speak of the whole human race), and to be understood by all people in every particular, you will seek to support your teaching with experience, 113 and will endeavour to suit your reasonings and the definitions of your doctrines as far as possible to the understanding of the common people, who form the majority of humankind, 114 and you will not set them forth in logical sequence nor adduce the definitions which serve to establish them. 115 Otherwise you writes only for the learned-- that is, you will be understood by only a small proportion of the human race.

116 All Scripture was written primarily for an entire people, and secondarily for the whole human race; 117 therefore its contents

must necessarily be adapted as far as possible to the understanding of the masses, and proved only by examples drawn from experience. 118 We will explain ourselves more clearly. The chief speculative doctrines taught in Scripture are the existence of God, or a Being Who made all things, and Who directs and sustains the world with consummate wisdom; 119 furthermore, that God takes the greatest thought for humans, or such of them as live piously and honourably, while He punishes, with various penalties, those who do evil, separating them from the good. 120 All this is proved in Scripture entirely through experience-- that is, through the narratives there related. 121 No definitions of doctrine are given, but all the sayings and reasonings are adapted to the understanding of the masses. 122 Although experience can give no clear knowledge of these things, nor explain the nature of God, nor how He directs and sustains all things, it can nevertheless teach and enlighten humans sufficiently to impress obedience and devotion on their minds.

123 It is now, I think, sufficiently clear what persons are bound to believe in the Scripture narratives, and in what degree they are so bound, 124 for it evidently follows from what has been said that the knowledge of and belief in them is particularly necessary to the masses whose intellect is not capable of perceiving things clearly and distinctly. 125 Further, you who denies them because you does not believe that God exists or takes thought for humans and the world, may be accounted impious; 126 but a person who is ignorant of them, and nevertheless knows by natural reason that God exists, as we have said, and has a true plan of life, is altogether blessed-- 127 yes, more blessed than the common herd of believers, because besides true opinions you possesses also a true and distinct conception. 128 Lastly, you who is ignorant of the Scriptures and knows nothing by the light of reason, though you may not be impious or rebellious, is yet less than human and almost brutal, having none of God's gifts. 129 We must here remark that when we say that the knowledge of the

sacred narrative is particularly necessary to the masses, we do not mean the knowledge of absolutely all the narratives in the Bible, but only of the principal ones, 130 those which, taken by themselves, plainly display the doctrine we have just stated, and have most effect over humans' minds.

131 If all the narratives in Scripture were necessary for the proof of this doctrine, and if no conclusion could be drawn without the general consideration of every one of the histories contained in the sacred writings, 132 truly the conclusion and demonstration of such doctrine would overtask the understanding and strength not only of the masses, but of humanity; 133 who is there who could give attention to all the narratives at once, and to all the circumstances, and all the scraps of doctrine to be elicited from such a host of diverse histories? 134 I cannot believe that the people who have left us the Bible as we have it were so abounding in talent that they attempted setting about such a method of demonstration, 135 still less can I suppose that we cannot understand Scriptural doctrine till we have given heed to the quarrels of Isaac, the advice of Achitophel to Absalom, the civil war between Jews and Israelites, and other similar chronicles; 136 nor can I think that it was more difficult to teach such doctrine by means of history to the Jews of early times, the contemporaries of Moses, than it was to the contemporaries of Esdras. 137 But more will be said on this point hereafter, we may now only note that the masses are only bound to know those histories which can most powerfully dispose their mind to obedience and devotion. 138 However, the masses are not sufficiently skilled to draw conclusions from what they read, they take more delight in the actual stories, and in the strange and unlooked-for issues of events than in the doctrines implied; 139 therefore, besides reading these narratives, they are always in need of pastors or church ministers to explain them to their feeble intelligence.

140 But not to wander from our point, let us conclude with what has been our principal object--namely, that the truth of narratives, be they what they may, has

nothing to do with the Divine law, 141 and serves for nothing except in respect of doctrine, the sole element which makes one history better than another. 142 The narratives in the Old and New Testaments surpass profane history, and differ among themselves in merit simply by reason of the salutary doctrines which they inculcate. 143 Therefore, if a person were to read the Scripture narratives believing the whole of them, but were to give no heed to the doctrines they contain, and make no amendment in your life, 144 you might employ yourself just as profitably in reading the Koran or the poetic drama, or ordinary chronicles, with the attention usually given to such writings; 145 on the other hand, if a person is absolutely ignorant of the Scriptures, and none the less has right opinions and a true plan of life, you are absolutely blessed and truly possesses in yourself the spirit of Christ.

146 The Jews are of a directly contrary way of thinking, for they hold that true opinions and a true plan of life are of no service in attaining blessedness, 147 if their possessors have arrived at them by the light of reason only, and not like the documents prophetically revealed to Moses. 148 Maimonides ventures openly to make this assertion: "Every person who takes to heart the seven precepts and diligently follows them, is counted with the pious among the nation, and an heir of the world to come; 149 that is to say, if you takes to heart and follows them because God ordained them in the law, and revealed them to us by Moses, because they were of aforetime precepts to the sons of Noah: 150 but you who follows them as led thereto by reason, is not counted as a dweller among the pious or among the wise of the nations." 151 Such are the words Of Maimonides, to which R. Joseph, the son of Shem Job, adds in his book which he calls "Kebod Elohim, or God's Glory," 152 that although Aristotle (whom he considers to have written the best ethics and to be above everyone else) has not omitted anything that concerns true ethics, and which he has adopted in his own book,

153 carefully following the lines laid down, yet this was not able to suffice for his salvation, inasmuch as he embraced his doctrines in accordance with the dictates of reason and not as Divine documents prophetically revealed. 154 However, that these are mere figments, and are not supported by Scriptural authority will, I think, be sufficiently evident to the attentive reader, so that an examination of the theory will be sufficient for its refutation. 155 It is not my purpose here to refute the assertions of those who assert that the natural light of reason can teach nothing, of any value concerning the true way of salvation. 156 People who lay no claims to reason for themselves, are not able to prove by reason this their assertion; 157 and if they hawk about something superior to reason, it is a mere figment, and far below reason, as their general method of life sufficiently shows. 158 But there is no need to dwell upon such persons. I will merely add that we can only judge of a person by own works. 159 If a person abounds in the fruits of the Spirit, charity, joy, peace, long-suffering, kindness, goodness, faith, gentleness, chastity, against which, as Paul says (Galatians, Chapter-5:22), 160 there is no law, such an one, whether he be taught by reason only or by the Scripture only, has been in very truth taught by God, and is altogether blessed. 161 Thus have I said all that I undertook to say concerning Divine law.

OF THE TRUE ORIGINAL OF THE DIVINE LAW, AND WHEREFORE SCRIPTURE IS CALLED SACRED, AND THE WORD OF GOD

Benedict of Spinoza

HOW THAT, IN SO FAR AS IT CONTAINS THE WORD OF GOD, IT HAS COME DOWN TO US UNCORRUPTED

3 Those who look upon the Bible as a message sent down by God from Heaven to humans, will doubtless cry out that I have committed the sin against the Holy Ghost because I have asserted that the Word of God is faulty, mutilated, tampered with, and inconsistent; 2 that we possess it only in fragments, and that the

original of the covenant which God made with the Jews has been lost. 3 However, I have no doubt that a little reflection will cause them to desist from their uproar: 4 for not only reason but the expressed opinions of prophets and apostles openly proclaim that God's eternal Word and covenant, no less than true religion, is Divinely inscribed in human hearts, 5 that is, in the human mind, and that this is the true original of God's covenant, stamped with His own seal, namely, the idea of Himself, as it were, with the image of His Godhood.

6 Religion was imparted to the early Hebrews as a law written down, because they were at that time in the condition of children, 7 but afterwards Moses (Deuteronomy,Chapter-30:6) and Jeremiah (31:33) predicted a time coming when the Lord should write His law in their hearts. 8 Thus only the Jews, and amongst them chiefly the Sadducees, struggled for the law written on tablets; least of all need those who bear it inscribed on their hearts join in the contest. 9 Those, therefore, who reflect, will find nothing in what I have written repugnant either to the Word of God or to true religion and faith, or calculated to weaken either one or the other: 10 contrariwise, they will see that I have strengthened religion; indeed, had it not been so, I should certainly have decided to hold my peace, 11 nay, I would even have asserted as a way out of all difficulties that the Bible contains the most profound hidden mysteries; 12 however, as this doctrine has given rise to gross superstition and other pernicious results, I have thought such a course unnecessary, especially as religion stands in no need of superstitious adornments, but is, on the contrary, deprived by such trappings of some of her splendour.

13 Still, it will be said, though the law of God is written in the heart, the Bible is none the less the Word of God, and it is no more lawful to say of Scripture than of God's Word that it is mutilated and corrupted. 14 I fear that such objectors are too anxious to be pious, and that they are in danger of turning religion into

superstition, and worshipping paper and ink in place of God's Word. 15 I am certified of thus much: I have said nothing unworthy of Scripture or God's Word, and I have made no assertions which I could not prove by most plain argument to be true. 16 I can, therefore, rest assured that I have advanced nothing which is impious or even savours of impiety. 17 I confess that some profane people, to whom religion is a burden, may, from what I have said, assume a licence to sin, 18 and without any reason, at the simple dictates of their lusts conclude that Scripture is everywhere faulty and falsified, and that therefore its authority is null; 19 but such people are beyond the reach of help, for nothing, as the proverb has it, can be said so rightly that it cannot be twisted into wrong. 20 Those who wish to give rein to their lusts are at no loss for an excuse, nor were those people of old who possessed the original Scriptures, the ark of the covenant, nay, the prophets and apostles in person among them, any better than the people of to-day. 21 Human nature, Jew as well as Gentile, has always been the same, and in every age virtue has been exceedingly rare.

22 Nevertheless, to remove every scruple, I will here show in what sense the Bible or any inanimate thing should be called sacred and Divine; 23 also wherein the law of God consists, and how it cannot be contained in a certain number of books; 24 and, lastly, I will show that Scripture, in so far as it teaches what is necessary for obedience and salvation, cannot have been corrupted. 25 From these considerations everyone will be able to judge that I have neither said anything against the Word of God nor given any foothold to impiety.

26 A thing is called sacred and Divine when it is designed for promoting piety, and continues sacred so long as it is religiously used: 27 if the users cease to be pious, the thing ceases to be sacred: if it be turned to base uses, that which was formerly sacred becomes unclean and profane. 28 For instance, a certain spot was named by the patriarch Jacob the house of God, because he worshipped God there revealed to

him: 29 by the prophets the same spot was called the house of iniquity (see Amos, Chapter-5:5, and Hosea, Chapter-10:5), because the Israelites were wont, at the instigation of Jeroboam, to sacrifice there to idols. 30 Another example puts the matter in the plainest light. Words gain their meaning solely from their usage, and if they are arranged according to their accepted signification so as to move those who read them to devotion, they will become sacred, and the book so written will be sacred also. 31 But if their usage afterwards dies out so that the words have no meaning, or the book becomes utterly neglected, whether from unworthy motives, or because it is no longer needed, then the words and the book will lose both their use and their sanctity: 32 lastly, if these same words be otherwise arranged, or if their customary meaning becomes perverted into its opposite, then both the words and the book containing them become, instead of sacred, impure and profane.

33 From this it follows that nothing is in itself absolutely sacred, or profane, and unclean, apart from the mind, but only relatively thereto. 34 Thus much is clear from many passages in the Bible. Jeremiah (to select one case out of many) says (Chapter-7:4), that the Jews of his time were wrong in calling Solomon's Temple, the Temple of God, 35 for, as he goes on to say in the same chapter, God's name would only be given to the Temple so long as it was frequented by people who worshipped Him, and defended justice, 36 but that, if it became the resort of murderers, thieves, idolaters, and other wicked persons, it would be turned into a den of malefactors.

37 Scripture, curiously enough, nowhere tells us what became of the Ark of the Covenant, though there is no doubt that it was destroyed, or burnt together with the Temple; 38 yet there was nothing which the Hebrews considered more sacred, or held in greater reverence.

39 Thus Scripture is sacred, and its words Divine so long as it stirs humankind to devotion towards God: 40 but if it be utterly neglected, as it formerly was by the Jews, it becomes nothing but

paper and ink, and is left to be desecrated or corrupted: 41 still, though Scripture be thus corrupted or destroyed, we must not say that the Word of God has suffered in like manner, else we shall be like the Jews, who said that the Temple which would then be the Temple of God had perished in the flames. 42 Jeremiah tells us this in respect to the law, for he thus chides the ungodly of his time, "Wherefore, say you we are masters, and the law of the Lord is with us? 43 Surely it has been given in vain, it is in vain that the pen of the scribes" (has been made)-- that is, you say falsely that the Scripture is in your power, and that you possess the law of God; for ye have made it of none effect.

44 So also, when Moses broke the first tables of the law, he did not by any means cast the Word of God from his hands in anger and shatter it-- such an action would be inconceivable, either of Moses or of God's Word-- 45 he only broke the tables of stone, which, though they had before been holy from containing the covenant wherewith the Jews had bound themselves in obedience to God, 46 had entirely lost their sanctity when the covenant had been violated by the worship of the calf, and were, therefore, as liable to perish as the ark of the covenant. 47 It is thus scarcely to be wondered at, that the original documents of Moses are no longer extant, nor that the books we possess met with the fate we have described, when we consider that the true original of the Divine covenant, the most sacred object of all, has totally perished.

48 Let them cease, therefore, who accuse us of impiety, inasmuch as we have said nothing against the Word of God, neither have we corrupted it, 49 but let them keep their anger, if they would wreak it justly, for the ancients whose malice desecrated the Ark, the Temple, and the Law of God, and all that was held sacred, subjecting them to corruption. 50 Furthermore, if, according to the saying of the Apostle in 2 Corinthians, Chapter-3:3, they possessed "the Epistle of Christ, written not with ink, but with the Spirit of the living God, not in tables of stone, but in the fleshy tables of the heart," let them cease

to worship the letter, and be so anxious concerning it.

51 I think I have now sufficiently shown in what respect Scripture should be accounted sacred and Divine; we may now see what should rightly be understood by the expression, the Word of the Lord; debar (the Hebrew original) signifies word, speech, command, and thing. 52 The causes for which a thing is in Hebrew said to be of God, or is referred to Him, have been already detailed in Chapter-1, 53 and we can therefrom easily gather what meaning Scripture attaches to the phrases, the word, the speech, the command, or the thing of God. 54 I need not, therefore, repeat what I there said, nor what was shown under the third head in the chapter on miracles. It is enough to mention the repetition for the better understanding of what I am about to say-- viz., 55 that the Word of the Lord when it has reference to anyone but God Himself, signifies that Divine law treated of; in other words, religion, universal and catholic to the whole human race, as Isaiah describes it (Chapter.-1:10), 56 teaching that the true way of life consists, not in ceremonies, but in charity, and a true heart, and calling it indifferently God's Law and God's Word. 57 The expression is also used metaphorically for the order of Nature and destiny (which, indeed, actually depend and follow from the eternal mandate of the Divine Nature), 58 and especially for such parts of such order as were foreseen by the prophets, for the prophets did not perceive future events as the result of natural causes, but as the fiats and decrees of God. 59 Lastly, it is employed for the command of any prophet, in so far as you had perceived it by your peculiar faculty or prophetic gift, and not by the natural light of reason; this use springs chiefly from the usual prophetic conception of God as a legislator.

60 There are, then, three causes for the Bible's being called the Word of God: because it teaches true religion, of which God is the eternal Founder; 61 because it narrates predictions of future events as though they were decrees of God; 62 because its actual authors generally perceived things not by their ordinary natural

faculties, but by a power peculiar to themselves, and introduced these things perceived, as told them by God.

63 Although Scripture contains much that is merely historical and can be perceived by natural reason, yet its name is acquired from its chief subject matter. 64 We can thus easily see how God can be said to be the Author of the Bible: it is because of the true religion therein contained, and not because He wished to communicate to people a certain number of books. 65 We can also learn from hence the reason for the division into Old and New Testament. It was made because the prophets who preached religion before Christ, preached it as a national law in virtue of the covenant entered into under Moses; 66 while the Apostles who came after Christ, preached it to all humans as a universal religion solely in virtue of Christ's Passion: 67 the cause for the division is not that the two parts are different in doctrine, nor that they were written as originals of the covenant, 68 nor, lastly, that the catholic religion (which is in entire harmony with our nature) was new except in relation to those who had not known it: "it was in the world," as John the Evangelist says, "and the world knew it not."

69 Thus, even if we had fewer books of the Old and New Testament than we have, we should still not be deprived of the Word of God (which, as we have said, is identical with true religion), even as we do not now hold ourselves to be deprived of it, 70 though we lack many cardinal writings such as the Book of the Law, which was religiously guarded in the Temple as the original of the Covenant, 71 also the Book of Wars, the Book of Chronicles, and many others, from whence the extant Old Testament was taken and compiled. 72 The above conclusion may be supported by many reasons.

(I.) Because the books of both Testaments were not written by express command at one place for all ages, but are a fortuitous collection of the works of humans, writing each as own period and disposition dictated. 73 So much is clearly shown by the call of the prophets who were bade to

admonish the ungodly of their time, and also by the Apostolic Epistles.

74 (II.) Because it is one thing to understand the meaning of Scripture and the prophets, and quite another thing to understand the meaning of God, or the actual truth. 75 We showed that it applied to historic narratives, and to miracles: but it by no means applies to questions concerning true religion and virtue.

76 (III.) Because the books of the Old Testament were selected from many, and were collected and sanctioned by a council of the Pharisees. 77 The books of the New Testament were also chosen from many by councils which rejected as spurious other books held sacred by many. 78 But these councils, both Pharisee and Christian, were not composed of prophets, but only of learned people and teachers. 79 Still, we must grant that they were guided in their choice by a regard for the Word of God; and they must, therefore, have known what the law of God was.

80 (IV.) Because the Apostles wrote not as prophets, but as teachers, and chose whatever method they thought best adapted for those whom they addressed: 81 and consequently, there are many things in the Epistles (as we showed at the end of the last Chapter) which are not necessary to salvation.

82 (V.) Lastly, because there are four Evangelists in the New Testament, and it is scarcely credible that God can have designed to narrate the life of Christ four times over, and to communicate it thus to humankind. 83 For though there are some details related in one Gospel which are not in another, and one often helps us to understand another, we cannot thence conclude that all that is set down is of vital importance to us, 84 and that God chose the four Evangelists in order that the life of Christ might be better understood; for each one preached his Gospel in a separate locality, each wrote it down as he preached it, in simple language, in order that the history of Christ might be clearly told, not with any view of explaining own fellow-Evangelists. 85 If there are some passages which can be

better, and more easily understood by comparing the various versions, they are the result of chance, and are not numerous: 86 their continuance in obscurity would have impaired neither the clearness of the narrative nor the blessedness of humankind.

87 We have now shown that Scripture can only be called the Word of God in so far as it affects religion, or the Divine law; 88 we must now point out that, in respect to these questions, it is neither faulty, tampered with, nor corrupt. 89 By faulty, tampered with, and corrupt, I here mean written so incorrectly, that the meaning cannot be arrived at by a study of the language, nor from the authority of Scripture. 90 I will not go to such lengths as to say that the Bible, in so far as it contains the Divine law, has always preserved the same vowel-points, the same letters, or the same words (I leave this to be proved by the Massoretes and other worshippers of the letter), 91 I only, maintain that the meaning by which alone an utterance is entitled to be called Divine, has come down to us uncorrupted, even though the original wording may have been more often changed than we suppose. 92 Such alterations, as I have said above, detract nothing from the Divinity of the Bible, for the Bible would have been no less Divine had it been written in different words or a different language. 93 That the Divine law has in this sense come down to us uncorrupted, is an assertion which admits of no dispute. 94 For from the Bible itself we learn, without the smallest difficulty or ambiguity, that its cardinal precept is: To love God above all things, and one's neighbour as one's self. 95 This cannot be a spurious passage, nor due to a hasty and mistaken scribe, for if the Bible had ever put forth a different doctrine it would have had to change the whole of its teaching, 96 for this is the corner-stone of religion, without which the whole fabric would fall headlong to the ground. The Bible would not be the work we have been examining, but something quite different.

97 We remain, then, unshaken in our belief that this has always been the doctrine of Scripture, and, consequently, that no error

sufficient to vitiate it can have crept in without being instantly, observed by all; 98 nor can anyone have succeeded in tampering with it and escaped the discovery of own malice. 99 As this corner-stone is intact, we must perforce admit the same of whatever other passages are indisputably dependent on it, and are also fundamental, 100 as, for instance, that a God exists, that He foresees all things, that He is Almighty, that by His decree the good prosper and the wicked come to naught, and, finally, that our salvation depends solely on His grace. 101 These are doctrines which Scripture plainly teaches throughout, and which it is bound to teach, else all the rest would be empty and baseless; 102 nor can we be less positive about other moral doctrines, which plainly are built upon this universal foundation-- for instance, to uphold justice, to aid the weak, to do no murder, to covet no human's goods, etc. 103 Precepts, I repeat, such as these, human malice and the lapse of ages are alike powerless to destroy, for if any part of them perished, its loss would immediately be supplied from the fundamental principle, 104 especially the doctrine of charity, which is everywhere in both Testaments extolled above all others. 105 Moreover, though it be true that there is no conceivable crime so heinous that it has never been committed, still there is no one who would attempt in excuse for own crimes to destroy the law, or introduce an impious doctrine in the place of what is eternal and salutary; 106 humans' nature is so constituted that everyone (be you king, queen or subject) who has committed a base action, tries to deck out own conduct with spurious excuses, till you seems to have done nothing but what is just and right.

107 We may conclude, therefore, that the whole Divine law, as taught by Scripture, has come down to us uncorrupted. 108 Besides this there are certain facts which we may be sure have been transmitted in good faith. For instance, the main facts of Hebrew history, which were perfectly well known to everyone. 109 The Jewish people were accustomed in former times to chant the ancient

history of their nation in psalms. 110 The main facts, also, of Christ's life and passion were immediately spread abroad through the whole Roman empire. 111 It is therefore scarcely credible, unless nearly everybody consented thereto, which we cannot suppose, that successive generations have handed down the broad outline of the Gospel narrative otherwise than as they received it.

112 Whatsoever, therefore, is spurious or faulty can only have reference to details-- 113 some circumstances in one or the other history or prophecy designed to stir the people to greater devotion; or in some miracle, with a view of confounding philosophers; 114 or, lastly, in speculative matters after they had become mixed up with religion, so that some individual might prop up own inventions with a pretext of Divine authority. 115 But such matters have little to do with salvation, whether they be corrupted little or much, as I will show in detail in the next chapter,

IT IS SHOWN THAT SCRIPTURE TEACHES ONLY VERY SIMPLE DOCTRINES, SUCH AS SUFFICE FOR RIGHT CONDUCT.

Benedict of Spinoza

4 In the second chapter of this treatise we pointed out that the prophets were gifted with extraordinary powers of imagination, but not of understanding; 2 also that God only revealed to them such things as are very simple-- not philosophic mysteries,-- and that He adapted His communications to their previous opinions. 3 We further showed that Scripture only transmits and teaches truths which can readily be comprehended by all; 4 not deducing and concatenating its conclusions from definitions and axioms, but narrating quite simply, and confirming its statements, with a view to inspiring belief, 5 by an appeal to experience as exemplified in miracles and history, and setting forth its truths in the style and phraseology which would most appeal to the popular mind. 6 Lastly, we demonstrated in that the difficulty of understanding Scripture lies in the language only,

and not in the abstruseness of the argument.

7 To these considerations we may add that the Prophets did not preach only to the learned, but to all Jews, without exception, while the Apostles were wont to teach the gospel doctrine in churches where there were public meetings; 8 whence it follows that Scriptural doctrine contains no lofty speculations nor philosophic reasoning, but only very simple matters, such as could be understood by the slowest intelligence.

9 I am consequently lost in wonder at the ingenuity of those whom I have already mentioned, who detect in the Bible mysteries so profound that they cannot be explained in human language, 10 and who have introduced so many philosophic speculations into religion that the Church seems like an academy, and religion like a science, or rather a dispute. 11 It is not to be wondered at that people, who boast of possessing supernatural intelligence, should be unwilling to yield the palm of knowledge to philosophers who have only their ordinary faculties; 12 still I should be surprised if I found them teaching any new speculative doctrine, which was not a commonplace to those Gentile philosophers whom, in spite of all, they stigmatise as blind; 13 for, if one inquires what these mysteries lurking in Scripture may be, one is confronted with nothing but the reflections of Plato or Aristotle, or the like, which it would often be easier for an ignorant person to dream than for the most accomplished scholar to wrest out of the Bible.

14 However, I do not wish to affirm absolutely that Scripture contains no doctrines in the sphere of philosophy, for in the last chapter I pointed out some of the kind, as fundamental principles; 15 but I go so far as to say that such doctrines are very few and very simple. Their precise nature and definition I will now set forth. 16 The task will be easy, for we know that Scripture does not aim at imparting scientific knowledge, and, therefore, it demands from humans nothing but obedience, and censures obstinacy, but not ignorance.

17 Furthermore, as obedience to God consists solely in love to our neighbour-- for whosoever loveth own neighbour, as a means of obeying God, hath, as St. Paul says (Romans, Chapter-13:8), fulfilled the law,-- 18 it follows that no knowledge is commended in the Bible save that which is necessary for enabling all humans to obey God in the manner stated, and without which they would become rebellious, or without the discipline of obedience. 19 Other speculative questions, which have no direct bearing on this object, or are concerned with the knowledge of natural events, do not affect Scripture, and should be entirely separated from religion.

20 Now, though everyone, as we have said, is now quite able to see this truth for yourself, I should nevertheless wish, considering that the whole of Religion depends thereon, to explain the entire question more accurately and clearly. 21 To this end I must first prove that the intellectual or accurate knowledge of God is not a gift, bestowed upon all good people like obedience; 22 and, further, that the knowledge of God, required by Him through His prophets from everyone without exception, as needful to be known, is simply a knowledge of His Divine justice and charity. 23 Both these points are easily proved from Scripture. The first plainly follows from Exodus, Chapter-6:2, where God, in order to show the singular grace bestowed upon Moses, 24 says to him: "And I appeared unto Abraham, unto Isaac, and unto Jacob by the name of El Sadai (God Almighty); but by my name Jehovah was I not known to them"-- 25 for the better understanding of which passage I may remark that El Sadai, in Hebrew, signifies the God who suffices, in that He gives to every human that which suffices for you; 26 and, although Sadai is often used by itself, to signify God, we cannot doubt that the word El (God, {power, might}) is everywhere understood.

27 Furthermore, we must note that Jehovah is the only word found in Scripture with the meaning of the absolute essence of God, without reference to created things. 28 The Jews maintain, for this reason, that this is, strictly speaking, the only

name of God; that the rest of the words used are merely titles; 29 and, in truth, the other names of God, whether they be substantives or adjectives, are merely attributive, and belong to Him, in so far as He is conceived of in relation to created things, or manifested through them. 30 Thus El, or Eloah, signifies powerful, as is well known, and only applies to God in respect to His supremacy, as when we call Paul an apostle; 31 the faculties of His power are set forth in an accompanying adjective, as El, great, awful, just, merciful, 32 or else all are understood at once by the use of El in the plural number, with a singular signification, an expression frequently adopted in Scripture.

33 Now, as God tells Moses that He was not known to the patriarchs by the name of Jehovah, it follows that they were not cognisant of any attribute of God which expresses His absolute essence, but only of His deeds and promises that is, of His power, as manifested in visible things. 34 God does not thus speak to Moses in order to accuse the patriarchs of infidelity, but, on the contrary, as a means of extolling their belief and faith, 35 inasmuch as, though they possessed no extraordinary knowledge of God (such as Moses had), they yet accepted His promises as fixed and certain; 36 whereas Moses, though his thoughts about God were more exalted, nevertheless doubted about the Divine promises, and complained to God that, instead of the promised deliverance, the prospects of the Israelites had darkened.

37 As the patriarchs did not know the distinctive name of God, and as God mentions the fact to Moses, in praise of their faith and single-heartedness, and in contrast to the extraordinary grace granted to Moses, 38 it follows, as we stated at first, that people are not bound by, decree to have knowledge of the attributes of God, such knowledge being only granted to a few of the faithful: 39 it is hardly worthwhile to quote further examples from Scripture, for everyone must recognise that knowledge of God is not equal among all good humans. 40 Moreover, a person cannot be

ordered to be wise any more than you can be ordered to live and exist. 41 Men, women, and children are all alike able to obey by commandment, but not to be wise. 42 If any tell us that it is not necessary to understand the Divine attributes, but that we must believe them simply, without proof, you are plainly trifling. 43 For what is invisible and can only be perceived by the mind, cannot be apprehended by any other means than proofs; 44 if these are absent the object remains ungrasped; the repetition of what has been heard on such subjects no more indicates or attains to their meaning than the words of a parrot or a puppet speaking without sense or signification.

45 Before I proceed I ought to explain how it comes that we are often told in Genesis that the patriarchs preached in the name of Jehovah, this being in plain contradiction to the text above quoted. 46 A reference to what was said in Chapter-8 will readily explain the difficulty. It was there shown that the writer of the Pentateuch did not always speak of things and places by the names they bore in the times of which he was writing, but by the names best known to his contemporaries. 47 God is thus said in the Pentateuch to have been preached by the patriarchs under the name of Jehovah, not because such was the name by which the patriarchs knew Him, but because this name was the one most reverenced by the Jews. 48 This point, I say, must necessarily be noticed, for in Exodus it is expressly stated that God was not known to the patriarchs by this name; and in Chapter 3:13, it is said that Moses desired to know the name of God. 49 Now, if this name had been already known it would have been known to Moses. We must therefore draw the conclusion indicated, namely, that the faithful patriarchs did not know this name of God, and that the knowledge of God is bestowed and not commanded by the Deity.

50 It is now time to pass on to our second point, and show that God through His prophets required from humans no other knowledge of Himself than is contained in a knowledge of His justice and charity-- 51 that is, of attributes

which a certain manner of life will enable people to imitate. 52 Jeremiah states this in so many words (Chapter-22:15, 16): "Did not thy father eat, and drink, and do judgment and justice? And then it was well with him. 53 He judged the cause of the poor and needy; then it was well with him: was not this to know Me? saith the Lord." 54 The words in Chapter-9:24 of the same book are equally, clear. "But let you that glorieth glory in this, that you understandeth and knoweth Me, that I am the Lord which exercise loving-kindness, judgment, and righteousness in the earth; for in these things I delight, saith the Lord."

55 The same doctrine maybe gathered from Exodus, Chapter-34:6, where God revealed to Moses only those of His attributes which display the Divine justice and charity. 56 Lastly, we may call attention to a passage in John which we shall discuss at more length hereafter; the Apostle explains the nature of God (inasmuch as no one has beheld Him) through charity only, and concludes that you who possesses charity possesses, and in very truth knows God. 57 We have thus seen that Moses, Jeremiah, and John sum up in a very short compass the knowledge of God needful for all, 58 and that they state it to consist in exactly what we said, namely, that God is supremely just, and supremely merciful-- in other words, the one perfect pattern of the true life. 59 We may add that Scripture nowhere gives an express definition of God, and does not point out any other of His attributes which should be apprehended save these, nor does it in set terms praise any others.

60 Wherefore we may draw the general conclusion that an intellectual knowledge of God, which takes cognisance of His nature in so far as it actually is, 61 and which cannot by any manner of living be imitated by humankind or followed as an example, has no bearing whatever on true rules of conduct, on faith, or on revealed religion; 62 consequently that people may be in complete error on the subject without incurring the charge of sinfulness.

63 We need now no longer wonder that God adapted Himself to the

existing opinions and imaginations of the prophets, or that the faithful held different ideas of God; 64 or, again, that the sacred books speak very inaccurately of God, attributing to Him hands, feet, eyes, ears, a mind, and motion from one place to another; or that they ascribe to Him emotions, such as jealousy, mercy, 65 or, lastly, that they describe Him as a Judge in heaven sitting on a royal throne with Christ on His right hand. 66 Such expressions are adapted to the understanding of the multitude, it being the object of the Bible to make humans not learned but obedient.

67 In spite of this the general run of theologians, when they come upon any of these phrases which they cannot rationally harmonise with the Divine nature, maintain that they should be interpreted metaphorically, passages they cannot understand they say should be interpreted literally. 68 But if every expression of this kind in the Bible is necessarily to be interpreted and understood metaphorically, Scripture must have been written, not for the people and the unlearned masses, but chiefly for accomplished experts and philosophers.

69 If it were indeed a sin to hold piously and simply the ideas about God we have just quoted, the prophets ought to have been strictly on their guard against the use of such expressions, 70 seeing the weak-mindedness of the people, and ought, on the other hand, to have set forth first of all, duly and clearly, those attributes of God which are needful to be understood. 71 This they have nowhere done; we cannot, therefore, think that opinions taken in themselves without respect to actions are either pious or impious, 72 but must maintain that a person is pious or impious in own beliefs only in so far as you are thereby incited to obedience, or derives from them license to sin and rebel. 73 If a person, by believing what is true, becomes rebellious, your creed is impious; if by believing what is false you becomes obedient, your creed is pious; 74 for the true knowledge of God comes not by commandment, but by Divine gift. 75 God has required nothing from human but a knowledge of His Divine justice

and charity, and that not as necessary to scientific accuracy, but to obedience.

The Book of Divine Panagogue called

POESY

POETRY AND PHILOSOPHY

Ralph Barton Perry

WHO IS THE PHILOSOPHER-POET?

1 As the ultimate criticism of all human interests, philosophy may be approached by avenues as various as these interests. 2 Only when philosophy is discovered as the implication of well-recognised special interests, is the significance of its function fully appreciated. 3 For the sake of such a further understanding of philosophy, those who find either inspiration or entertainment in poetry are invited in the present chapter to consider certain of the relations between poetry and philosophy. 4 We must at the very outset decline to accept unqualifiedly the poet's opinion in the matter, for they would not think it presumptuous to incorporate philosophy in poetry. 5 "No human," said Coleridge, "was ever yet a great poet without being at the same time a great philosopher." 6 This would seem to mean that a great poet is a great philosopher, and more too. 7 We shall do better to begin with the prosaic and matter of fact minimum of truth: some poetry is philosophical. 8 This will enable us to search for the portion of philosophy that is in some poetry, without finally defining their respective boundaries. 9 It may be that all true poetry is philosophical, as it may be that all true philosophy is poetical; 10 but it is much more certain that much actual poetry is far from philosophical, and that most actual philosophy was not conceived or written by a poet. 11 The mere poet and the mere philosopher must be tolerated, if it be only for the purpose of shedding light upon the philosopher-poet and the poet-philosopher. 12 And it is to the philosopher-poet that we turn, in the hope that under the genial spell of poetry we may be brought with understanding to the more forbidding land of philosophy.

POETRY AS APPRECIATION

13 Poetry is well characterised, though not defined, as an interpretation of life. 14 The term "life" here signifies the human purposive consciousness, and active pursuit of ends. 15 An interpretation of life is, then, a selection and account of such values in human experience as are actually sought or are worth the seeking. 16 For the poet all things are good or bad, and never only matters of fact. You are neither an annalist nor a statistician, and is even an observer only for the sake of a higher design. 17 You are one who appreciates, and expresses your appreciation so fittingly that it becomes a kind of truth, and a permanently communicable object. 18 That "unbodied joy," the skylark's song and flight, is through the genius of Shelley so faithfully embodied, that it may enter as a definite joy into the lives of countless human beings. 19 The sensuous or suggestive values of Nature are caught by the poet's quick feeling for beauty, and fixed by own creative activity. 20 Or with your ready sympathy you may perceive the value of some human ideal or mastering passion, and make it a reality for our common feeling. 21 Where the poet has to do with the base and hateful, your attitude is still appreciative. The evil is apprehended as part of a dramatic whole having positive moral or æsthetic value.

22 Moral ideas may appear in both poetry and life as the inspiration and justification of struggle. 23 Where there is no conception of its moral significance, the repulsive possesses for the poet's consciousness the æsthetic value of diversity and contrast. 24 Even where the evil and ugly is isolated, as in certain of Browning's dramatic monologues, it forms, both for the poet and the reader, but a part of some larger perception of life or character, which is sublime or beautiful or good.

25 Poetry involves, then, the discovery and presentation of human experiences that are satisfying and appealing. 26 It is a language for human pleasures and ideals. Poetry is without doubt a great deal more than this, and only

after a careful analysis of its peculiar language could one distinguish it from kindred arts; 27 but it will suffice for our purposes to characterise and not differentiate. Starting from this most general truth respecting poetry, we may now look for that aspect of it whereby it may be a witness of philosophical truth.

SINCERITY IN POETRY- Whitman

28 For the answer to our question, we must turn to an examination of the intellectual elements of poetry. 29 In the first place, the common demand that the poet shall be accurate in own representations is suggestive of an indispensable intellectual factor in own genius. 30 As we have seen, you are not to reproduce Nature, but the human appreciative experience of Nature. 31 Nevertheless, you must even here be true to your object. Your art involves your ability to express genuinely and sincerely what you yourself experiences in the presence of Nature, or what you can catch of the inner lives of others by virtue of your intelligent sympathy. 32 No amount of emotion or even of imagination will profit a poet, unless you can render a true account of them. 33 To be sure, you need not define, or even explain; for it is your function to transfer the immediate qualities of experience: but you must be able to speak the truth, and, in order to speak it, you must have known it.

34 In all this, however, we have made no demand that the poet should see more than one thing at a time. 35 Sincerity of expression does not require what is distinctly another mode of intelligence, 'comprehensiveness of view'. 36 It is easier, and accordingly more usual, to render an account of the moments and casual units of experience, than of its totality. 37 There are poets, little and great, who possess the intellectual virtue of sincerity, without the intellectual power of synthesis and reconciliation. 38 This distinction will enable us to separate the intelligence exhibited in all poetry, from that distinct form of intelligence exhibited in such poetry as is properly to be called philosophical.

39 The "barbarian" in poetry has recently been defined as "the person who regards own passions as their own excuse for being; who does not domesticate them either by understanding their cause or by conceiving their ideal goal." 40 One will readily appreciate the application of this definition to Walt Whitman. What little unity there is in this poet's world, is the composition of a purely sensuous experience,

41 "The earth expending right hand and left hand,
The picture alive, every part in its best light,
The music falling in where it is wanted, and stopping where it is not wanted."

42 In many passages Whitman manifests a marvellous ability to discover and communicate a fresh gladness about the commonest experiences. 43 We cannot but rejoice with him in all sights and sounds. But though we cannot deny him truth, his truth is honesty and not understanding. 44 The experiences in which he discovers so much worth, are random and capricious, and do not constitute a universe. 45 To the solution of ultimate questions he contributes a sense of mystery, and the conviction

"That you are here-- that life exists and identity,
That the powerful play goes on, and you may contribute a verse."

46 His world is justly described by the writer just quoted as "a phantasmagoria of continuous visions, vivid, impressive, but monotonous and hard to distinguish in memory, 47 like the waves of the sea or the decorations of some barbarous temple, sublime only by the infinite aggregation of parts."

48 As is Walt Whitman, so are many poets greater and less. Some who have seen the world-view, exhibit the same particularism in their lyric moods; 49 although, generally speaking, a poet who once has comprehended the world, will see the parts of it in the light of that wisdom. 50 But Walt Whitman is peculiarly representative of the poetry that can be true, without being wise in the manner that we shall come shortly to understand as the

manner of philosophy. 51 He is as desultory in his poet raptures as is the common person when he lives in his immediate experiences. 52 The truth won by each is the clear vision of one thing, or of a limited collection of things, and not the broad inclusive vision of all things.

53 The transition from Whitman to Shakespeare may seem somewhat abrupt, but the very differences between these poets serve to mark out an interesting affinity. 54 Neither has put any unitary construction upon human life and its environment. Neither, as poet, is the witness of any world-view; which will mean for us that neither is a philosopher-poet.

55 As respects Shakespeare, this is a hard saying. We are accustomed to then critical judgment that finds in the Shakespearian dramas an apprehension of the universal in human life. 56 But though this judgment is true, it is by no means conclusive as respects Shakespeare's relation to the philosophical type of thought. For there can be universality without philosophy. 57 Thus, to know the groups and the marks of the vertebrates is to know a truth which possesses generality, in contradistinction to the particularism of Whitman's poetic consciousness. 58 Even so to know well the groups and marks of human character, vertebrate and invertebrate, is to know that of which the average human, in your hand to hand struggle with life, is ignorant. 59 Such a wisdom Shakespeare possessed to a unique degree, and it enabled him to reconstruct human life. 60 He did not merely perceive human states and motives, but he understood human nature so well that he could create consistent men and women.

61 Moreover, Shakespeare's knowledge was not only thus universal in being a knowledge of general groups and laws, but also in respect of its extensity. 62 His understanding was as rich as it was acute. It is true, then, that Shakespeare read human life as an open book, knowing certainly the manner of human thinking and feeling, and the power and interplay of human motives. 63 But it is equally true, on the other hand, that he possessed no unitary conception of the meaning and

larger relations of human life. 64 Such a conception might have been expressed either by means of the outlook of some dominating and persistent type of personality, or by a pervading suggestion of some constant world-setting for the variable enterprise of humankind. 65 It could appear only provided the poet's appreciation of life in detail were determined by an interpretation of the meaning of life as a whole. 66 Shakespeare apparently possessed no such interpretation. Even when Hamlet is groping after some larger truth that may bear upon the definite problems of life, he represents but one, and that a strange and unusual, type of human nature.

67 And Hamlet's reflections, it should be noted, have no outcome. There is no Shakespearian answer to the riddles that Hamlet propounds. 68 The poet's genius is not less amazing for this fact; indeed, his peculiar distinction can only be comprehended upon this basis. 69 Shakespeare put no construction upon life, and by virtue of this very reserve accomplished an art of surpassing fidelity and vividness. 70 The absence of philosophy in Shakespeare, and the presence of the most characteristic quality of his genius, may both be imputed by the one affirmation, that 'there is no Shakespearian point of view'. 71 This truth signifies both gain and loss. The philosophical criticism of life may vary from the ideal objectivity of absolute truth, to the subjectivity of a personal religion. 72 Philosophy aims to correct the partiality of particular points of view by means of a point of view that shall comprehend their relations, and effect such reconciliations or transformations as shall enable them to constitute a universe.

73 Philosophy always assumes the hypothetical view of omniscience. 74 The necessity of such a final criticism is implicit in every scientific item of knowledge, and in every judgment that is passed upon life. 75 Philosophy makes a distinct and peculiar contribution to human knowledge by its heroic effort to measure all knowledges and all ideals by the standard of totality. 76 Nevertheless it is significant that no human

individual can possibly possess the range of omniscience. The most adequate knowledge of which any generation of humans is capable, 77 will always be that which is conceived by the most synthetic and vigorously metaphysical minds; but every individual philosophy will nevertheless be a premature synthesis.

78 The effort to complete knowledge is the indispensable test of the adequacy of prevailing conceptions, but the completed knowledge of any individual mind will shortly become an historical monument. 79 It will belong primarily to the personal life of its creator, as the articulation of his personal covenant with the universe. 80 There is a sound justification for such a conclusion of things in the case of the individual, for the conditions of human life make it inevitable; 81 but it will always possess a felt unity, and many distinct features, that are private and subjective. 82 Now such a projection of personality, with its colouring and its selection, Shakespeare has avoided; and very largely as a consequence, his dramas are a storehouse of genuine human nature. 83 Ambition, mercy, hate, madness, guilelessness, conventionality, mirth, bravery, deceit, purity-- these, and all human states and attributes save piety, are upon his pages as real, and as mysterious withal, as they are in the great historical society. 84 For an ordinary reader, these states and attributes are more real in Hamlet or Lear than in his own direct experience, because in Hamlet and Lear he can see them with the eye and intelligence of genius. 85 But Shakespeare is the world all over again, and there is loss as well as gain in such realism. 86 Here is human life, no doubt, and a brilliant pageantry it is; but human life as varied and as problematic as it is in the living. 87 Shakespeare's fundamental intellectual resource is the historical and psychological knowledge of such principles as govern the construction of human natures.

88 The goods for which humans undertake, and live or die, are any goods, justified only by the actual human striving for them. 89 The virtues are the old winning virtues

of the secular life, and the heroisms of the common conscience. 90 Beyond its empirical generality, his knowledge is universal only in the sense that space and time are universal. 91 His consciousness 'contains' its representative creations, and expresses them unspoiled by any transforming thought. 92 His poetic consciousness is like the very stage to which he likens all the world: men and women meet there, and things happen there. 93 The stage itself creates no unity save the occasion and the place. 94 Shakespeare's consciousness is universal because it is a fair field with no favours. But even so it is particular, because, though each may enter and depart in peace, when all enter together there is anarchy and a babel of voices. 95 All Shakespeare is like all the world seen through the eyes of each of its inhabitants. 96 Human experience in Shakespeare is human experience as everyone feels it, as comprehensive as the aggregate of innumerable lives. 97 But human experience in philosophy is the experience of all as thought by a synthetic mind. 98 Hence the wealth of life depicted by Shakespeare serves only to point out the philosopher's problem, and to challenge his powers. 99 Here he will find material, and not results; much to philosophise about, but no philosophy.

100 The discussion up to this point has attributed to poetry very definite intellectual factors that nevertheless do not constitute philosophy. 101 Walt Whitman speaks his feeling with truth, but in general manifests no comprehensive insight. Shakespeare has not only sincerity of expression but an understanding mind. 102 He has a knowledge not only of particular experiences, but of human nature; and a consciousness full and varied like society itself. 103 But there is a kind of knowledge possessed by neither, the knowledge sought by coördinating all aspects of human experience, both particular and general. 104 Not even Shakespeare is wise as one who, having seen the whole, can fundamentally interpret a part.

POESY

105 But though the philosopher-poet may not yet be found, we cannot longer be ignorant of your nature. 106 You will be, like all poets, one who appreciates experiences or finds things good, and you will faithfully reproduce the values which you discovers. 107 But you must 'justify yourself in view of the fundamental nature of the universe'. 108 The values which you apprehends must be harmonious, and so far above the plurality of goods as to transcend and unify them. 109 The philosopher-poet will find reality as a whole to be something that accredits the order of values in your inner life. 110 You will not only find certain things to be most worthy objects of action or contemplation, but you will see why they are worthy, because you will have construed the judgment of the universe in their favour.

111 In this general sense, Omar Khayyam is a philosopher-poet. 112 To be sure his universe is quite the opposite of that which most poets conceive, and is perhaps profoundly antagonistic to the very spirit of poetry; 113 but it is none the less true that the joys to which Omar invites us are such as his universe prescribes for human life.

114 "Some for the Glories of This World; and some
Sigh for the Prophet's Paradise to come;
Ah, take the Cash, and let the Credit go,
Nor heed the rumble of a distant Drum."

115 Herein is both poetry and philosophy, albeit but a poor brand of each. 116 We are invited to occupy ourselves only with spiritual cash, because the universe is spiritually insolvent. 117 The immediately gratifying feelings are the only feelings that the world can guarantee. 118 Omar Khayyam is a philosopher-poet, because his immediate delight in "youth's sweet-scented manuscript" is part of a consciousness that vaguely sees, though it cannot grasp, "this sorry scheme of things entire."

119 "Drink for you know not whence you come, nor why;
Drink for you know not why you go, nor where."

120 But the poet in own world-view ordinarily sees other than darkness. The same innate spiritual

enterprise that sustains religious faith leads the poet more often to find the universe positively congenial to own ideals, and to ideals in general. 121 You interprets human experience in the light of the spirituality of all the world.

122 It is to Wordsworth that we of the present age are chiefly indebted for such imagery, and it will profit us to consider somewhat carefully the philosophical quality of his poetry.

123 Walter Pater, in introducing his appreciation of Wordsworth, writes that "an intimate consciousness of the expression of natural things, which weighs, listens, penetrates, where the earlier mind passed roughly by, is a large element in the complexion of modern poetry." 124 We recognise at once the truth of this characterisation as applied to Wordsworth. But there is something more distinguished about this poet's sensibility even than its extreme fineness and delicacy; 125 a quality that is suggested, though not made explicit, by Shelley's allusion to Wordsworth's experience as "a sort of thought in sense." 126 Nature possessed for him not merely enjoyable and describable characters of great variety and minuteness, but an immediately apprehended unity and meaning. 127 It would be a great mistake to construe this meaning in sense as analogous to the crude symbolism of the educator Froebel, to whom, as he said, "the world of crystals proclaimed, in distinct and univocal terms, the laws of human life."

128 Wordsworth did not attach ideas to sense, but regarded sense itself as a communication of truth. 129 We readily call to mind his unique capacity for apprehending the characteristic flavour of a certain place in a certain moment of time, the individuality of a situation. 130 Now in such moments he felt that he was receiving intelligences, none the less direct and significant for their inarticulate form. Like the boy on Windermere, whom he himself describes,

131 "while he hung
Loitering, a gentle shock of mild surprise
Has carried far into his heart the voice
Of mountain torrents; or the visible scene
Would enter unawares into his mind,
With all its solemn imagery, its rocks,
Its woods, and that uncertain heaven received
Into the bosom of the steady lake."

132 For our purpose it is essential that we should recognise in this appreciation of Nature, expressed in almost every poem that Wordsworth wrote, a consciousness respecting the fundamental nature of the world.

133 Conversation, as we know, denotes an interchange of commensurable meanings. 134 Whatever the code may be, whether words or the most subtle form of suggestion, communication is impossible without community of Nature.

135 Hence, in believing himself to be holding converse with the so-called physical world, Wordsworth conceives that world as fundamentally like himself. 136 He finds the most profound thing in all the world to be the universal spiritual life. 137 In Nature this life manifests itself most directly, clothed in its own proper dignity and peace. 138 But it may be discovered in the humanity that is most close to Nature, in the avocations of plain and simple people, and the unsophisticated delights of children; and, with the perspective of contemplation, even "among the multitudes of that huge city."

139 So Wordsworth is rendering a true account of his own experience of reality when, as in "The Prelude," he says unequivocally:

140 "A gracious spirit o'er this earth presides,
And in the heart of human; invisibly
It comes to works of unreproved delight,
And tendency benign; directing those
Who care not, know not, think not, what they do."

141 Wordsworth is not a philosopher-poet because by searching his pages we can find an explicit philosophical creed such as this, 142 but because all the joys

of which his poet-soul compels him to sing have their peculiar note, and compose their peculiar harmony, by virtue of such an indwelling consciousness. 143 Here is one who is a philosopher in and through his poetry. He is a philosopher in so far as the detail of his appreciation finds fundamental justification in a world-view.

144 From the immanence of "the universal heart" there follows, not through any mediate reasoning, but by the immediate experience of its propriety, a conception of that which is of supreme worth in life. 145 The highest and best of which life is capable is contemplation, or the consciousness of the universal indwelling of God. 146 Of those who fail to live thus fittingly in the midst of the divine life, Walter Pater speaks for Wordsworth as follows:

147 "To higher or lower ends they
move too often with something of
a sad countenance, with hurried and
ignoble gait, becoming,
unconsciously, something like
thorns, in their anxiety to bear
grapes; it being possible for people,
in the pursuit of even
great ends, to become themselves
thin and impoverished in
spirit and temper, thus diminishing
the sum of perfection in
the world at its very sources."

148 The quiet and worshipful spirit, won by the cultivation of the emotions appropriate to the presence of Nature and society, is the mark of the completest life and the most acceptable service. 149 Thus for Wordsworth the meaning of life is inseparable from the meaning of the universe. 150 In apprehending that which is good and beautiful in human experience, he was attended by a vision of the totality of things. 151 Herein he has had to do, if not with the form, at any rate with the very substance of philosophy.

152 Unquestionably the supreme philosopher-poet is Dante. 153 He is not only philosophical in the temper of his mind, but his greatest poem is the incarnation of a definite system of philosophy, the most definite that the world has seen. 154 That conception of the world which in the thirteenth

century found argumentative and orderly expression in the "Summa Theologiæ" of Thomas of Aquino, and constituted the faith of the church, is visualized by Dante, and made the basis of an interpretation of life.

155 The "Divina Commedia" deals with all the heavens to the Empyrean itself, and with all spiritual life to the very presence of God. 156 It derives its imagery from the cosmology of the day, its dramatic motive from the Christian and Greek conceptions of God and his dealings with the world. 157 Sin is punished because of the justice of God; knowledge, virtue, and faith lead, through God's grace and mercy manifested in Christ, to a perpetual union with Him. 158 Hell, purgatory, and paradise give place and setting to the events of the drama. But the deeper meaning of the poem is allegorical. 159 In a letter quoted by Lowell, Dante writes: "The literal subject of the whole work is the state of the soul after death, simply considered. But if the work be taken allegorically the subject is human, as by merit or demerit, through freedom of the will, human renders the self liable to the reward or punishment of justice."

160 In other words, the inner and essential meaning of the poem has to do not with external retribution, but with character, and the laws which determine its own proper ruin or perfection.

161 The punishments described in the "Inferno" are accounts of the state of guilt itself, implications of the will that has chosen the part of brutishness. 162 Sin itself is damnable and deadening, but the knowledge that the soul that sinneth shall die is the first way of emancipation from sin. 163 The guidance of Virgil through hell and purgatory signifies the knowledge of good and evil, or moral insight, as the guide of human through this life of struggle and progress.

164 The earthly paradise, at the close of the "Purgatorio," represents the highest state to which human character can attain when choice is determined by ordinary experience, intelligence, and understanding. 165 Here human stands alone, endowed with an enlightened conscience. 166 Here are uttered the last words of

Virgil to Dante, the explorer of the spiritual country:

"Expect no more or word or sign from me.
Free, upright, and sane is thine own free will, and it would be wrong not to act according to its pleasure; wherefore thee over thyself I crown and mitre."

167 But moral self-reliance is not the last word. As Beatrice, the image of tenderness and holiness, comes to Dante in the earthly paradise, and leads him from the summit of purgatory into the heaven of heavens, and even to the eternal light; 168 so there is added to the mere human, intellectual, and moral resources of the soul, the sustaining power of the divine grace, the illuminating power of divine truth, and the transforming power of divine love. 169 Through the aid of this higher wisdom, the journey of life becomes the way to God.

170 Thus the allegorical truth of the "Divina Commedia" is not merely an analysis of the moral nature of human, but the revelation of a universal spiritual order, 171 manifesting itself in the moral evolution of the individual, and above all in your ultimate community with the eternal goodness.

172 "Thou shouldst not, if I deem aright, wonder more at thy ascent, than at a stream if from a high mountain it descends to the base.
A marvel it would be in thee, if, deprived of hindrance, thou hadst sat below, even as quiet by living fire in earth would be."

173 Such, in brief, is Dante's world-view, so suggestive of the freer idealistic conceptions of later thought as to justify a recent characterisation of him as one who, 174 "accepting without a shadow of a doubt or hesitation all the constitutive ideas of mediæval thought and life, grasped them so firmly and gave them such luminous expression that the spirit in them broke away from the form."

175 But it must be added, as in the case of Wordsworth, that Dante is a philosopher-poet not because St. Thomas Aquinas appears and speaks with authority in the Thirteenth Canto of the "Paradiso," 176 nor even because a

philosophical doctrine can be consistently formulated from his writings, but because his consciousness of life is informed with a sense of its universal bearings. 177 There is a famous passage in the Twenty-second Canto of the "Paradiso," in which Dante describes himself as looking down upon the earth from the starry heaven.

178 "'Thou art so near the ultimate salvation,' began Beatrice,
'that thou oughtest to have thine eyes clear and sharp.
And therefore ere thou further enterest it, look back downward, and see how great a world I have already set beneath thy feet,
in order that thy heart, so far as it is able, may present
itself joyous to the triumphant crowd which comes glad through this round ether.'
With my sight I returned through each and all the seven spheres, and saw this globe such that I smiled at its mean semblance; and that counsel I approve as the best which holds it of least account; and he who thinks of other things maybe called truly worthy."

179 Dante's scale of values is that which appears from the starry heaven. 180 His austere piety, his invincible courage, and his uncompromising hatred of wrong, are neither accidents of temperament nor blind reactions, 181 but compose the proper character of one who has both seen the world from God, and returned to see God from the world. 182 He was, as Lowell has said, "a man of genius who could hold heartbreak at bay for twenty years, and would not let himself die till he had done his task"; 183 and his power was not obstinacy, but a vision of the ways of God. He knew a truth that justified him in his sacrifices, and made a great glory of his defeat and exile. 184 Even so his poetry or appreciation of life is the expression of an inward contemplation of the world in its unity or essence. 185 It is but an elaboration of the piety which he attributes to the lesser saints of paradise, when he has them say: "Nay, it is essential to this blessed existence to hold ourselves within the divine will, whereby our very wills are made one. 186 So that as we are from stage to stage

throughout this realm, to all the realm is pleasing, as to the King who in wills us with His will. 187 And His will is our peace; it is that sea whereunto is moving all that which It creates and which Nature makes."

188 There now remains the brief task of distinguishing the philosopher-poet from the philosopher himself. 189 The philosopher-poet is one who, having made the philosophical point of view your own, expresses yourself in the form of poetry. 190 The philosophical point of view is that from which the universe is comprehended in its totality. 191 The wisdom of the philosopher is the knowledge of each through the knowledge of all.

192 Wherein, then, does the poet, when possessed of such wisdom, differ from the philosopher proper? 193 To this question one can give readily enough the general answer, that the difference lies in the mode of utterance. 194 Furthermore, we have already given some account of the peculiar manner of the poet. You invites us to experience with you the beautiful and moving in Nature and life. 195 That which the poet has to express, and that which you aims to arouse in others, is an appreciative experience. 196 You requires what Wordsworth calls "an atmosphere of sensation in which to move your wings." 197 Therefore if you are to be philosophical in intelligence, and yet essentially a poet, you must find your universal truth in immediate experience. 198 You must be one who, in seeing the many, sees the one. 199 The philosopher-poet is you who visualises a fundamental interpretation of the world. "A poem," says one poet, "is the very image of life expressed in its eternal truth."

200 The philosopher proper, on the other hand, has the sterner and less inviting task of rendering such an interpretation articulate to thought. 201 That which the poet sees, the philosopher must define. That which the poet divines, the philosopher must calculate. The philosopher must dig for that which the poet sees shining through. 202 As the poet transcends thought for the sake of experience, the philosopher must

transcend experience for the sake of thought. 203 As the poet sees all, and all in each, so the philosopher, knowing each, must think all consistently together, and then know each again. 204 It is the part of philosophy to collect and criticise evidence, to formulate and coördinate conceptions, and finally to define in exact terms. 205 The reanimation of the structure of thought is accomplished primarily in religion, which is a general conception of the world made the basis of daily living.

206 For religion there is no subjective correlative less than life itself. 207 Poetry is another and more circumscribed means of restoring thought to life. 208 By the poet's imagination, and through the art of your expression, thought may be sensuously perceived. 209 "If the time should ever come," says Wordsworth, "when what is now called Science, thus familiarised to humans, shall be ready to put on, as it were, a form of flesh, and blood, 210 the Poet will lend own divine spirit to aid the transfiguration, and will welcome the Being thus produced, as a dear and genuine inmate of the household of human."

211 As respects truth, philosophy has an indubitable priority. The very sternness of the philosopher's task is due to own supreme dedication to truth. 212 But if validity be the merit of philosophy, it can well be supplemented by immediacy, which is the merit of poetry. 213 Presuppose in the poet conviction of a sound philosophy, and we may say with Shelley, of his handiwork, that "it is the perfect and consummate surface and bloom of all things; 214 it is as the odour and the colour of the rose to the texture of the elements which compose it, as the form and splendour of unfaded beauty to the secrets of anatomy and corruption." 215 "Indeed," as he adds, "what were our consolations on this side of the grave-- and our aspirations beyond it-- if poetry did not ascend to bring light and fire from those eternal regions where the owl-winged faculty of calculation dare not ever soar?"

216 The unity in outlook, attended by differences of method and form, which may exist between

poet and philosopher, is signally illustrated by the relation between Goethe and Spinoza. What Goethe saw and felt, Spinoza proved and defined. 217 The universal and eternal substance was to Spinoza, as philosopher, a theorem, and to Goethe, as poet, a perception and an emotion. 218 Goethe writes to Jacobi that when philosophy "lays itself out for division," he cannot get on with it, but when it "confirms our original feeling as though we were one with Nature," it is welcome to him. 219 In the same letter Goethe expresses his appreciation of Spinoza as the complement of his own nature:

220 "His all-reconciling peace contrasted with my all-agitating endeavour; his intellectual method was the opposite counterpart of my poetic way of feeling and expressing myself; 221 and even the inflexible regularity of his logical procedure, which might be considered ill-adapted to moral subjects, made me his most passionate scholar and his devoted adherent. 222 Mind and heart, understanding and sense, were drawn together with an inevitable elective affinity, and this at the same time produced an intimate union between individuals of the most different types."

223 It appears, then, that some poets share with all philosophers that point of view from which the horizon line is the boundary of all the world. 224 Poetry is not always or essentially philosophical, but may be so; and when the poetic imagination restores philosophy to immediacy, human experience reaches its most exalted state, excepting only religion itself, wherein God is both seen and also served. 225 Nor is the part of philosophy in poetry and religion either ignoble or presumptuous, for, humanly speaking, "the owl-winged faculty of calculation" is the only safe and sure means of access to that place on high,

226 "Where the nightingale doth sing
Not a senseless, trancèd thing,
But a divine melodious truth;
Philosophic numbers smooth;
Tales and golden histories
Of heaven and its mysteries."

POESY

POEMS OF CHEER
Ella Wheeler Wilcox

2 I step across the mystic border-land,
And look upon the wonder-world of Art.
How beautiful', 'how beautiful its hills!
And all its valleys', 'how surpassing fair!

2 The winding paths that lead up to the heights
Are polished by the footsteps of the great.
The mountain-peaks stand very near to God:
The chosen few whose feet have trod thereon
Have talked with Him', 'and with the angels walked.

3 Here are no sounds of discord--no profane
Or senseless gossip of unworthy things
'Only the songs of chisels and of pens',
'Of busy brushes', 'and ecstatic strains'

'Of souls surcharged with music most divine'.
'Here is no idle sorrow', 'no poor grief'

4 'For any day or object left behind'
'For time is counted precious', 'and herein'
'Is such complete abandonment of Self'

5 'That tears turn into rainbows', 'and enhance'
'The beauty of the land where all is fair'.
'Awed and afraid', 'I cross the border-land'.
'Oh', 'who am I', 'that I dare enter here'
'Where the great artists of the world have trod--'
'The genius-crowned aristocrats of Earth'?
'Only the singer of a little song';
'Yet loving Art with such a mighty love'

6 'I hold it greater to have won a place'
'Just on the fair land’s edge', 'to make my grave',
'Than in the outer world of greed and gain'
'To sit upon a royal throne and reign'.

POESY

WORTH WHILE

3 It is easy enough to be pleasant
When life flows by like a song,
But the human worth while is the
one who will smile

2 When everything goes dead
wrong.
For the test of the heart is trouble,
And it always comes with the years,
And the smile that is worth the
praises of earth
Is the smile that shines through
tears.

3 It is easy enough to be prudent
When nothing tempts you to stray,
When without or within no voice of
sin
Is luring your soul away;
But it's only a negative virtue
Until it is tried by fire,
And the life that is worth the honour
on earth
Is the one that resists desire.

4 By the cynic, the sad, the fallen,
Who had no strength for the strife,
The world's highway is cumbered
to-day--
They make up the sum of life;
But the virtue that conquers passion,
And the sorrow that hides in a
smile--
It is these that are worth the homage
on earth,
For we find them but once in a
while.

THE HOUSE OF LIFE

4 All wondering, and eager-eyed,
within her portico
I made my plea to Hostess Life, one
morning long ago.

2 "Pray show me this great house of
thine, nor close a single door;
But let me wander where I will, and
climb from floor to floor!
For many rooms, and curious things,
and treasures great and small
Within your spacious mansion lie,
and I would see them all."

3 Then Hostess Life turned silently,
her searching gaze on me,
And with no word, she reached her
hand, and offered up the key.
It opened first the door of Hope, and
long I lingered there,
Until I spied the room of Dreams,
just higher by a stair.

4 And then a door whereon the one
word "Happiness" was writ;
But when I tried the little key I
could not make it fit.

POESY

It turned the lock of Pleasure's
room, where first all seemed so
bright--
But after I had stayed awhile it
somehow lost its light.

5 And wandering down a lonely hall,
I came upon a room
Marked "Duty," and I entered it-- to
lose myself in gloom.
Along the shadowy halls I groped
my weary way about,
And found that from dull Duty's
room, a door of Toil led out.
It led out to another door, whereon a
crimson stain
Made sullenly against the dark these
words: "The Room of Pain."

6 But oh the light, the light, the light,
that spilled down from above
And upward wound, the stairs of
Faith, right to the Tower of Love!
And when I came forth from that
place, I tried the little key--
And lo! the door of Happiness
swung open, wide and free.

A SONG OF LIFE

5 In the rapture of life and of
living,
I lift up my heart and rejoice,
And I thank the great Giver for
giving

2 The soul of my gladness a voice.
In the glow of the glorious weather,
In the sweet-scented, sensuous air,
My burdens seem light as a feather
They are nothing to bear.

3 In the strength and the glory of
power,
In the pride and the pleasure of
wealth
(For who dares dispute me my
dower
Of talents and youth-time and
health?),

4 I can laugh at the world and its
sages--
I am greater than seers who are sad,
For you are most wise in all ages
Who knows how to be glad.

5 I lift up my eyes to Apollo,
The god of the beautiful days,
And my spirit soars off like a
swallow,
And is lost in the light of its rays.
Are you troubled and sad? I
beseech you
Come out of the shadows of strife
Come out in the sun while I teach
you
The secret of life.

POESY

6 Come out of the world-- come above it--
Up over its crosses and graves,
Though the green earth is fair and I love it,
We must love it as masters, not slaves.

7 Come up where the dust never rises--
But only the perfume of flowers--
And your life shall be glad with surprises
Of beautiful hours.

8 Come up where the rare golden wine is
Apollo distills in my sight,
And your life shall be happy as mine is,
And as full of delight.

.PRAYER

6 I do not undertake to say
That literal answers come from Heaven,
But I know this-- that when I pray
A comfort, a support is given
That helps me rise o'er earthly things
As larks soar up on airy wings.

2 In vain the wise philosopher
Points out to me my fabric's flaws,
In vain the scientists aver
That "all things are controlled by laws."
My life has taught me day by day
That it availeth much to pray.

3 I do not stop to reason out
The why and how. I do not care,
Since I know this, that when I doubt,
Life seems a blackness of despair,
The world a tomb; and when I trust,
Sweet blossoms spring up in the dust.

4 Since I know in the darkest hour,
If I lift up my soul in prayer,
Some sympathetic, loving Power
Sends hope and comfort to me there.
Since balm is sent to ease my pain,
What need to argue or explain?

5 Prayer has a sweet, refining grace,
It educates the soul and heart.
It lends a lustre to the face,
And by its elevating art
It gives the mind an inner sight
That brings it near the Infinite.

6 From our gross selves it helps us rise
To something which we yet may be.
And so I ask not to be wise,
If thus my faith is lost to me.
Faith, that with angel's voice and touch

Says, “Pray, for prayer availeth much.”

IN THE LONG RUN

7 In the long run fame finds the deserving person.
The lucky wight may prosper for a day,
But in good time true merit leads the van
And vain pretence, unnoticed, goes its way.
There is no Chance, no Destiny, no Fate,
But Fortune smiles on those who work and wait,
In the long run.

2 In the long run all godly sorrow pays,
There is no better thing than righteous pain,
The sleepless nights, the awful thorn-crowned days,
Bring sure reward to tortured soul and brain.
Unmeaning joys enervate in the end,
But sorrow yields a glorious dividend
In the long run.

3 In the long run all hidden things are known,
The eye of truth will penetrate the night,
And good or ill, thy secret shall be known,
However well ’tis guarded from the light.
All the unspoken motives of the breast
Are fathomed by the years and stand confess’d
In the long run.

4 In the long run all love is paid by love,
Though undervalued by the hosts of earth;
The great eternal Government above
Keeps strict account and will redeem its worth.
Give thy love freely; do not count the cost;
So beautiful a thing was never lost
In the long run.

AS YOU GO THROUGH LIFE

8 Don’t look for the flaws as you go through life;
And even when you find them,
It is wise and kind to be somewhat blind,
And look for the virtue behind them;
For the cloudiest night has a hint of light

POESY

Somewhere in its shadows hiding;
It's better by far to hunt for a star,
Than the spots on the sun abiding.

2 The current of life runs ever away
To the bosom of God's great ocean.
Don't set your force 'gainst the river's course,
And think to alter its motion.
Don't waste a curse on the universe,
Remember, it lived before you;
Don't butt at the storm with your puny form,
But bend and let it go o'er you.

3 The world will never adjust itself
To suit your whims to the letter,
Some things must go wrong your whole life long,
And the sooner you know it the better.
It is folly to fight with the Infinite,
And go under at last in the wrestle.
The wiser person shapes into God's plan,
As water shapes into a vessel.

TWO SUNSETS

9 In the fair morning of your life,
When your pure heart lay in your breast,
Panting, with all that wild unrest
To plunge into the great world's strife

2 That fills young hearts with mad desire,
You saw a sunset. Red and gold
The burning billows surged and rolled,
And upward tossed their caps of fire.

3 You looked. And as you looked, the sight
Sent from your soul through breast and brain
Such intense joy, it hurt like pain.
Your heart seemed bursting with delight.

4 So near the Unknown seemed, so close
You might have grasped it with your hands
You felt your inmost soul expand,
As sunlight will expand a rose

5 One day you heard a singing strain
A human voice, in bird-like trills.
You paused, and little rapture-rills
Went trickling downward through each vein.

6 And in your heart the whole day long,
As in a temple veiled and dim,

POESY

You kept and bore about with you
The beauty of that singer's song.

7 And then? But why relate what then?
Your smouldering heart flamed into fire--
You had your one supreme desire,
And plunged into the world of humans.

8 For years queen Folly held her sway.
With pleasures of the grosser kind
She fed his flesh and drugged his mind,
Till, shamed, he sated, turned away.

9 He sought his boyhood's home.
That hour Triumphant should have been, in sooth,
Since he went forth, an unknown youth,
And came back crowned with wealth and power.

10 The clouds made day a gorgeous bed;
You saw the splendour of the sky
With unmoved heart and stolid eye;
You only knew the West was red.

11 Then suddenly a fresh young voice
Rose, bird-like, from some hidden place,
You did not even turn your face—
It struck you simply as a noise.

12 You trod the old paths up and down.
Their rich-hued leaves by Fall winds whirled
How dull they were-- how dull the world
Dull even in the pulsing town.

13 O! worst of punishments, that brings
A blunting of all finer sense,
A loss of feelings keen, intense,
And dulls us to the higher things.

14 O! penalty most dire, most sure,
Swift following after gross delights,
That we no more see beauteous sights,
Or hear as hear the good and pure.

15 O! shape more hideous and more dread
Than Vengeance takes in creed-taught minds,
This certain doom that blunts and blinds,
And strikes the holiest feelings dead.

POESY

UNREST

10 In the youth of the year, when the birds were building,
When the green was showing on tree and hedge,
And the tenderest light of all lights was gilding
The world from zenith to outermost edge,
My soul grew sad and longingly lonely!
I sighed for the season of sun and rose,
And I said, “In the Summer and that time only
Lies sweet contentment and blest repose.”

2 With bee and bird for her maids of honour
Came Princess Summer in robes of green.
And the King of day smiled down upon her
And wooed her, and won her, and made her queen.
Fruit of their union and true love’s pledges,
Beautiful roses bloomed day by day,
And rambled in gardens and hid in hedges
Like royal children in sportive play.

3 My restless soul for a little season
Revelled in rapture of glow and bloom,
And then, like a subject who harbours treason,
Grew full of rebellion and grey with gloom.
And I said, “I am sick of the summer’s blisses,
Of warmth and beauty, and nothing more.
The full fruition my sad soul misses
That beauteous Fall-time holds in store!”

4 But now when the colours are almost blinding,
Burning and blending on bush and tree,
And the rarest fruits are mine for the finding,
And the year is ripe as a year can be,
My soul complains in the same old fashion;
Crying aloud in my troubled breast
Is the same old longing, the same old passion.
O where is the treasure which humans call rest?

“ARTIST’S LIFE”

11 Of all the waltzes the great Strauss wrote,
Mad with melody, rhythm-- rife

POESY

From the very first to the final note.
Give me your “Artist’s Life!”

2 It stirs my blood to my finger-ends,
Thrills me and fills me with vague unrest,
And all that is sweetest and saddest blends
Together within my breast.

3 It brings back that night in the dim arcade,
In love’s sweet morning and life’s best prime,
When the great brass orchestra played and played,
And set our thoughts to rhyme.

4 It brings back that Winter of mad delights,
Of leaping pulses and tripping feet,
And those languid moon-washed Summer nights
When we heard the band in the street.

5 It brings back rapture and glee and glow,
It brings back passion and pain and strife,
And so of all the waltzes I know,
Give me the “Artist’s Life.”

6 For it is so full of the dear old time
So full of the dear old friends I knew.
And under its rhythm, and lilt, and rhyme,
I am always finding-- 'you'.

NOTHING BUT STONES

12 I think I never passed so sad an hour,
Dear friend, as that one at the church to-night.
The edifice from basement to the tower
Was one resplendent blaze of coloured light.
Up through broad aisles the stylish crowd was thronging,
Each richly robed like some king’s bidden guest.
“Here will I bring my sorrow and my longing,”
I said, “and here find rest.”

2 I heard the heavenly organ’s voice of thunder,
It seemed to give me infinite relief.
I wept. Strange eyes looked on in well-bred wonder.
I dried my tears: their gaze profaned my grief.
Wrapt in the costly furs, and silks, and laces,

POESY

Beat alien hearts, that had no part with me.
I could not read, in all those proud cold faces,
One thought of sympathy.
I watched them bowing and devoutly kneeling,
3 Heard their responses like sweet waters roll
But only the glorious organ's sacred pealing
Seemed gushing from a full and fervent soul.
I listened to the human of holy calling,
You spoke of creeds, and hailed your own as best;
Of human's corruption and of Adam's-falling,
But naught that gave me rest:

4 Nothing that helped me bear the daily grinding
Of soul with body, heart with heated brain;
Nothing to show the purpose of this blinding
And sometimes overwhelming sense of pain.
And then, dear friend, I thought of thee, so lowly,
So unassuming, and so gently kind,
And lo! a peace, a calm serene and holy,
Settled upon my mind.

5 Ah, friend, my friend! one true heart, fond and tender,
That understands our troubles and our needs,
Brings us more near to God than all the splendour
And pomp of seeming worship and vain creeds.
One glance of thy dear eyes so full of feeling,
Doth bring me closer to the Infinite
Than all that throng of worldly people kneeling
In blaze of gorgeous light.

INEVITABLE

13 To-day I was so weary and I lay
In that delicious state of semi-waking,
When baby, sitting with own nurse at play,
Cried loud for "mamma," all own toys forsaking.

2 I was so weary and I needed rest,
And signed to nurse to bear child from the room.
Then, sudden, rose and caught child to my breast,
And kissed the grieving mouth and cheeks of bloom.

POESY

3 For swift as lightning came the thought to me,
With pulsing heart-throes and a mist of tears,
Of days inevitable, that are to be,
If my fair darling grows to humanhood's years;

4 Days when child will not call for "mamma," when
The world, with many a pleasure and bright joy,
Shall tempt child forth into the haunts of humans
And I shall lose the first place with my child;

5 When other homes and loves shall give delight,
When younger smiles and voices will seem best.
And so I held child to my heart to-night,
Forgetting all my need of peace and rest.

THE OCEAN OF SONG

14 In a land beyond sight or conceiving,
In a land where no blight is, no wrong,
No darkness, no graves, and no grieving,
There lies the great ocean of song.
And its waves, oh, its waves unbeholden
By any save gods, and their kind,
Are not blue, are not green, but are golden,
Like moonlight and sunlight combined.

2 It was whispered to me that their waters
Were made from the gathered-up tears
That were wept by the sons and the daughters
Of long-vanished eras and spheres.
Like white sands of heaven the spray is
That falls all the happy day long,
And whoever it touches straightway is
Made glad with the spirit of song.

3 Up, up to the clouds where their hoary
Crowned heads melt away in the skies,
The beautiful mountains of glory
Each side of the song-ocean rise.
Here day is one splendour of sky-light--
Of God's light with beauty replete.
Here night is not night, but is twilight,
Pervading, enfolding, and sweet.

POESY

4 Bright birds from all climes and all regions,
That sing the whole glad summer long,
Are dumb, till they flock here in legions
And lave in the ocean of song.
It is here that the four winds of heaven,
The winds that do sing and rejoice,
It is here they first came and were given
The secret of sound and a voice.

5 Far down along beautiful beeches,
By night and by glorious day,
The throng of the gifted ones reaches,
Their foreheads made white with the spray,
And a few of the sons and the daughters
Of this kingdom, cloud-hidden from sight,
Go down in the wonderful waters,
And bathe in those billows of light.

6 And their souls evermore are like fountains,
And liquid and lucent and strong,
High over the tops of the mountains
Gush up the sweet billows of song.
No drouth-time of waters can dry them.
Whoever has bathed in that sea,
All dangers, all deaths, they defy them,
And are gladder than gods are, with glee.

"IT MIGHT HAVE BEEN"

15 We will be what we could be.
Do not say,
"It might have been, had not or that, or this."
No fate can keep us from the chosen way;
He only might, who 'is'.

2 We will do what we could do.
Do not dream
Chance leaves a hero, all uncrowned to grieve.
I hold, all humans are greatly what they seem;
You does, who could achieve.

3 We will climb where we could climb. Tell me not
Of adverse storms that kept thee from the height.
What eagle ever missed the peak you sought?
You always climbs who might.

4 I do not like the phrase, "It might have been!"

It lacks all force, and life's best
truths perverts
For I believe we have, and reach,
and win,
Whatever our deserts.

MOMUS, GOD OF LAUGHTER

16 Though with gods the world is
cumbered,
Gods unnamed, and gods
unnumbered,
Never god was known to be
Who had not his devotee.
So I dedicate to mine,
Here in verse, my temple-shrine.

2 'Tis not Ares,-- mighty Mars,
Who can give success in wars.
'Tis not Morpheus, who doth keep
Guard above us while we sleep,
'Tis not Venus, she whose duty
'Tis to give us love and beauty;
Hail to these, and others, after
Momus, gleesome god of laughter.

3 Quirinus would guard my health,
Plutus would insure me wealth;
Mercury looks after trade,
Hera smiles on youth and maid.
All are kind, I own their worth,
After Momus, god of mirth.

4 Though Apollo, out of spite,
Hides away his face of light,
Though Minerva looks askance,
Deigning me no smiling glance,
Kings and queens may envy me
While I claim the god of glee.

5 Wisdom wearies, Love has wings
Wealth makes burdens, Pleasure
stings,
Glory proves a thorny crown
So all gifts the gods throw down
Bring their pains and troubles after;
All save Momus, god of laughter.
He alone gives constant joy.
Hail to Momus, happy boy.

I DREAM

17 Oh, I have dreams. I
sometimes dream of Life
In the full meaning of that splendid
word.
Its subtle music which few people
have heard,
Though all may hear it, sounding
through earth's strife.
Its mountain heights by mystic
breezes kissed
Lifting their lovely peaks above the
dust;
Its treasures which no touch of time
can rust,
Its emerald seas, its dawns of
amethyst,

POESY

Its certain purpose, its serene repose,
Its usefulness, that finds no hour for woes,
This is my dream of Life.

2 Yes, I have dreams. I ofttimes dream of Love
As radiant and brilliant as a star.
As changeless, too, as that fixed light afar
Which glorifies vast worlds of space above.
Strong as the tempest when it holds its breath,
Before it bursts in fury; and as deep
As the unfathomed seas, where lost worlds sleep,
And sad as birth, and beautiful as death.
As fervent as the fondest soul could crave,
Yet holy as the moonlight on a grave.
This is my dream of Love.

3 Yes, yes, I dream. One oft-recurring dream
Is beautiful and comforting and blest,
Complete with certain promises of rest,
Divine content, and ecstasy supreme.
When that strange essence, author of all faith,
That subtle something, which cries for the light,
Like a lost child who wanders in the night,
Shall solve the mighty mystery of Death,
Shall find eternal progress, or sublime
And satisfying slumber for all time.
This is my dream of Death.

THE SONNET

18 Alone it stands in Poesy's fair land,
A temple by the muses set apart;
A perfect structure of consummate art,
By artists builded and by genius planned,
Beyond the reach of the apprentice hand,
Beyond the ken of the untutored heart,
Like a fine carving in a common mart,
Only the favoured few will understand.
A 'chef-d'œvre' toiled over with great care,
Yet which the unseeing careless crowd goes by,
A plainly set, but well-cut solitaire,
An ancient bit of pottery, too rare

POESY

To please or hold aught save the special eye,
These only with the sonnet can compare.

THE PAST

19 Fling my past behind me, like a robe
Worn threadbare in the seams, and out of date.
I have outgrown it. Wherefore should I weep
And dwell up on its beauty, and its dyes
Of Oriental splendour, or complain
That I must needs discard it? I can weave
Upon the shuttles of the future years
A fabric far more durable. Subdued,
It may be, in the blending of its hues,
Where sombre shades commingle, yet the gleam
Of golden warp shall shoot it through and through,
While over all a fadeless lustre lies,
And starred with gems made out of crystalled tears,
My new robe shall be richer than the old.

A DREAM

20 That was a curious dream; I thought the three
Great planets that are drawing near the sun
With such unerring certainty begun
To talk together in a mighty glee.
They spoke of vast convulsions which would be
Throughout the solar system-- the rare fun
Of watching haughty stars drop, one by one,
And vanish in a seething vapour sea.

2 I thought I heard them comment on the earth--
That small dark object-- doomed beyond a doubt.
They wondered if live creatures moved about
Its tiny surface, deeming it of worth.
And then they laughed-- 'twas such a singing shout
That I awoke and joined too in their mirth.

USELESSNESS

21 Let mine not be that saddest fate of all
To live beyond my greater self; to see
My faculties decaying, as the tree

POESY

Stands stark and helpless while its green leaves fall.
Let me hear rather the imperious call,
Which all men dread, in my glad morning time,
And follow death ere I have reached my prime,
Or drunk the strengthening cordial of life's gall.
The lightning's stroke or the fierce tempest blast
Which fells the green tree to the earth to-day
Is kinder than the calm that lets it last,
Unhappy witness of its own decay.
May no human ever look on me and say,
"She lives, but all her usefulness is past."

WILL

22 There is no chance, no destiny, no fate,
Can circumvent or hinder or control
The firm resolve of a determined soul.
Gifts count for nothing; will alone is great;
All things give way before it, soon or late.
What obstacle can stay the mighty force
Of the sea-seeking river in its course,
Or cause the ascending orb of day to wait?

2 Each well-born soul must win what it deserves.
Let the fool prate of luck. The fortunate
Is you whose earnest purpose never swerves,
Whose slightest action or inaction serve.
The one great aim.
Why, even Death stands still,
And waits an hour sometimes for such a will.

WINTER RAIN

23 Falling upon the frozen world last
I heard the slow beat of the Winter rain--
Poor foolish drops, down-dripping all in vain;
The ice-bound Earth but mocked their puny might,
Far better had the fixedness of white
And uncomplaining snows-- which make no sign,

But coldly smile, when pitying moonbeams shine--
Concealed its sorrow from all human sight.
Long, long ago, in blurred and burdened years,
I learned the uselessness of uttered woe.
Though sinewy Fate deals her most skilful blow,
I do not waste the gall now of my tears,
But feed my pride upon its bitter, while
I look straight in the world's bold eyes, and smile.

LIFE

24 Life, like a romping schoolboy, full of glee,
Doth bear us on his shoulder for a time.
There is no path too steep for him to climb.
With strong, lithe limbs, as agile and as free,
As some young roe, he speeds by vale and sea,
By flowery mead, by mountain peak sublime,
And all the world seems motion set to rhyme,
Till, tired out, he cries, "Now carry me!"
In vain we murmur; "Come," Life says, "Fair play!"
And seizes on us. God! he goads us so!
He does not let us sit down all the day.
At each new step we feel the burden grow,
Till our bent backs seem breaking as we go,
Watching for Death to meet us on the way.

BURDENED

25 "Genius, a man's weapon, a woman's burden."-- Lamartine.

2 Dear God! there is no sadder fate in life
Than to be burdened so that you can not
Sit down contented with the common lot
Of happy mother and devoted wife.

3 To feel your brain wild and your bosom rife
With all the sea's commotion; to be fraught
With fires and frenzies which you have not sought,

And weighed down with the wild
world's weary strife;

4 To feel a fever always in your
breast;
To lean and hear, half in affright,
half shame,
A loud-voiced public boldly mouth
your name;
To reap your hard-sown harvest in
unrest,
And know, however great your
meed of fame,
You are but a weak woman at the
best.

LET THEM GO

26 Let the dream go. Are there
not other dreams
In vastness of clouds hid from thy
sight
That yet shall gild with beautiful
gold gleams,
And shoot the shadows through and
through with light?
What matters one lost vision of the
night?
Let the dream go!!

2 Let the hope set. Are there not
other hopes
That yet shall rise like new stars in
thy sky?
Not long a soul in sullen darkness
gropes
Before some light is lent it from on
high;
What folly to think happiness gone
by!
Let the hope set!

3 Let the joy fade. Are there not
other joys,
Like frost-bound bulbs, that yet
shall start and bloom?
Severe must be the winter that
destroys
The hardy roots locked in their
silent tomb.
What cares the earth for her brief
time of gloom
Let the joy fade!

4 Let the love die. Are there not
other loves
As beautiful and full of sweet
unrest,
Flying through space like snowy-
pinioned doves?
They yet shall come and nestle in
thy breast,
And thou shalt say of each, "Lo, this
is best!"
Let the love die!

POESY

FIVE KISSES

THE MOTHER'S KISS

I

27 Love breathed a secret to her listening heart,
And said "Be silent." Though she guarded it,
And dwelt as one within a world apart,
Yet sun and star seemed by that secret lit.
And where she passed, each whispering wind ablow,
And every little blossom in the sod,
Called joyously to her, "We know, we know,
For are we not the intimates of God?"
Life grew so radiant, and so opulent,
That when her fragile body and her brain
By mortal throes of agony were rent,
She felt a curious rapture in her pain.
Then, after anguish, came the supreme bliss--
They brought the little baby, for her kiss!

THE BETROTHAL

II

28 There was a little pause between the dances;
Without, somewhere, a tinkling fountain played.
The dusky path was lit by ardent glances
As forth they fared, a lover and a maid.
He chose a nook, from curious eyes well hidden--
All redolent with sweet midsummer charm,
And by the great primeval instinct bidden,
He drew her in the shelter of his arm.
The words that long deep in his heart had trembled
Found sudden utterance; she at first dissembled,
Refused her lips, and half withdrew her hand,
Then murmured "Yes," and yielded, woman fashion,
Her virgin mouth to young love's kiss of passion.

THE BRIDAL KISS

III

29 As fleecy clouds trail back across the skies,
Showing the sweet young moon in azure space,
The lifted veil revealed her shining face--

POESY

A sudden wonder to his eager eyes.
In that familiar beauty lurked surprise:
For now the wife stood in the maiden's place--
With conscious dignity, and woman's grace,
And love's large pride grown trebly fair and wise.

2 The world receded, leaving them alone.
The universe was theirs, from sphere to sphere,
And life assumed new meaning, and new worth.
Love held no privilege they did not own,
And when they kissed each other without fear,
They understood why God had made the earth.

DOMESTIC BLISS
IV

30 Sequestered in their calm domestic bower,
They sat together. He in manhood's prime
And she a matron in her fullest flower.
The mantel clock gave forth a warning chime.
She put her work aside; his bright cigar
Grew pale, and crumbled in an ashen heap.
The lights went out, save one remaining star
That watched beside the children in their sleep.
She hummed a little song and nestled near,
As side by side they went to their repose.
His arm about her waist, he whispered "Dear,"
And pressed his lips upon her mouth's full rose--
The sacred sweetness of their wedded life
Breathed in that kiss of husband and of wife.

OLD AGE
V

31 The young see heaven-- but to the old who wait
The final call, the hills of youth arise
More beautiful than shores of Paradise.
Beside a glowing and voracious grate
A dozing couple dream of yesterday;

POESY

The islands of a vanished past
appear,
Bringing forgotten names and faces
near;
While lost in mist, the present fades
away.
The fragrant winds of tender
memories blow
Across the gardens of the “Used-to-
be!”
They smile into each other’s eyes,
and see
The bride and bridegroom of the
long ago.
And tremulous lips, pressed close to
faded cheek
Love’s silent tale of deathless
passion speak.

RETROSPECTION

32 I look down the lengthening
distance
Far back to youth’s valley of hope.
How strange seemed the ways of
existence,
How infinite life and its scope!

2 What dreams, what ambitions
came thronging
To people a world of my own!
How the heart in my bosom was
longing,
For pleasures and places unknown.

3 But the hill-tops of pleasure and
beauty
Were covered with mist at the dawn;
And only the rugged road Duty
Shone clear, as my feet wandered
on.

4 I loved not the path and its leading,
I hated the rocks and the dust;
But a Voice from the Silence was
pleading,
It spoke but one syllable-- “Trust.”

5 I saw, as the morning grew older,
The fair flowered hills of delight;
And the feet of my comrades grew
bolder,
They hurried away from my sight.

6 And when on the pathway I
faltered,
And when I rebelled at my fate,
The Voice with assurance unaltered,
Again spoke one syllable—“Wait.”

7 Along the hard highway I travelled
And saw, with dim vision, how soon
The morning’s gold locks were
unravelled,
By fingers of amorous noon.

8 A turn in the pathway of duty
I stood in the perfect day’s prime,
Close, close to the hillside of beauty

POESY

The Voice from the Silence said
"Climb"

9 The road to the beautiful Regions
Lies ever through Duty's hard way.
Oh ye who go searching in legions,
Know this and be patient to-day.

HELENA

33 Last night I saw Helena. She whose praise
Of late all men have sounded. She for whom
Young Angus rashly sought a silent tomb
Rather than live without her all his days.

2 Wise men go mad who look upon her long,
She is so ripe with dangers. Yet meanwhile
I find no fascination in her smile,
Although I make her theme of this poor song.

3 "Her golden tresses?" yes, they may be fair,
And yet to me each shining silken tress
Seems robbed of beauty and all lustreless--
Too many hands have stroked
Helena's hair.

4 (I know a little maiden so demure
She will not let her one true lover's hands
In playful fondness touch her soft brown bands
So dainty-minded is she, and so pure.)

5 "Her great dark eyes that flash like gems at night?
Large, long-lashed eyes and lustrous?" that may be,
And yet they are not beautiful to me.
Too many hearts have sunned in their delight.

6 (I mind me of two tender blue eyes, hid
So underneath white curtains, and so veiled
That I have sometimes plead for hours, and failed
To see more than the shyly lifted lid.)

7 "Her perfect mouth so liked a carved kiss?"
"Her honeyed-mouth, where hearts do, fly-like, drown?"
I would not taste its sweetness for a crown;

POESY

Too many lips have drank its
nectared bliss.

8 (I know a mouth whose virgin
dew, undried,
Lies like a young grape's bloom,
untouched and sweet,
And though I plead in passion at her
feet,
She would not let me brush it if I
died.)

9 In vain, Helena! though wise men
may vie
For thy rare smile, or die from loss
of it,
Armoured by my sweet lady's trust,
I sit,
And know thou are not worth her
faintest sigh.

NOTHING REMAINS

34 Nothing remains of unrecorded
ages
That lie in the silent cemetery time;
Their wisdom may have shamed our
wisest sages,
Their glory may have been indeed
sublime.
How weak do seem our strivings
after power,
How poor the grandest efforts of our
brains,
If out of all we are, in one short hour
Nothing remains.

2 Nothing remains but the Eternal
Spaces,
Time and decay uproot the forest
trees.
Even the mighty mountains leave
their places,
And sink their haughty heads
beneath strange seas
The great earth writhes in some
convulsive spasms
And turns the proudest cities into
plains.
The level sea becomes a yawning
chasm--
Nothing remains.

3 Nothing remains but the Eternal
Forces,
The sad seas cease complaining and
grow dry,
Rivers are drained and altered in
their courses,
Great stars pass out and vanish from
the sky.
Ideas die and old religions perish,
Our rarest pleasures and our keenest
pains
Are swept away with all we hate or
cherish--
Nothing remains.

POESY

4 Nothing remains but the Eternal Nameless
And all-creative spirit of the Law,
Uncomprehended, comprehensive, blameless,
Invincible, resistless, with no flaw;
So full of love it must create for ever,
Destroying that it may create again,
Persistent and perfecting in endeavour,
It yet must bring forth angels, after humans--
This, this remains!

COMRADES

35 I and my Soul are alone to-day,
All in the shining weather;
We were sick of the world, and put it away,
So we could rejoice together.

2 Our host, the Sun, in the blue, blue sky
Is mixing a rare, sweet wine,
In the burnished gold of this cup on high,
For me, and this Soul of mine.

3 We find it a safe and royal drink,
And a cure for every pain;
It helps us to love, and helps us to think,
And strengthens body and brain.

4 And sitting here, with my Soul alone,
Where the yellow sun-rays fall,
Of all the friends I have ever known
I find it the 'best' of all.

5 We rarely meet when the world is near,
For the World hath a pleasing art
And brings me so much that is bright and dear
That my Soul it keepeth apart.

6 But when I grow weary of mirth and glee,
Of glitter, glow, and splendour,
Like a tried old friend it comes to me,
With a smile that is sad and tender.

7 And we walk together as two friends may,
And laugh and drink God’s wine.
Oh, a royal comrade any day
I find this Soul of mine.

WHAT GAIN?

36 Now, while thy rounded cheek is fresh and fair,
While beauty lingers, laughing, in thine eyes,

POESY

Ere thy young heart shall meet the stranger, “Care,”
Or thy blithe soul become the home of sighs,
Were it not kindness should I give thee rest
By plunging this sharp dagger in thy breast?
Dying so young, with all thy wealth of youth,
What part of life wouldst thou not claim, in sooth?
Only the woe,
Sweetheart, that sad souls know.

2 Now, in this sacred hour of supreme trust,
Of pure delight and palpitating joy,
Ere change can come, as come it surely must,
With jarring doubts and discords, to destroy
Our far too perfect peace, I pray thee, Sweet,
Were it not best for both of us, and meet,
If I should bring swift death to seal our bliss?
Dying so full of joy, what could we miss?
Nothing but tears,
Sweetheart, and weary years.

3 How slight the action! Just one well-aimed blow
Here, where I feel thy warm heart’s pulsing beat,
And then another through my own, and so
Our perfect union would be made complete:
So, past all parting, I should claim thee mine.
Dead with our youth, and faith, and love divine,
Should we not keep the best of life that way?
What shall we gain by living day on day?
What shall we gain,
Sweetheart, but bitter pain?

TO THE WEST

37 In an interview with Lawrence Barrett, he said: “The literature of the New World must look to the West for its poetry.”

2 Not to the crowded East,
Where, in a well-worn groove,
Like the harnessed wheel of a great machine,
The trammelled mind must move--
Where Thought must follow the fashion of Thought,
Or be counted vulgar and set at naught.

POESY

3 Not to the languid South,
Where the mariners of the brain
Are lured by the Sirens of the Sense,
And wrecked upon its main
Where Thought is rocked, on the sweet wind's breath
To a torpid sleep that ends in death.

4 But to the mighty West,
That chosen realm of God,
Where Nature reaches Her hands to humans,
And Freedom walks abroad--
Where mind is King, and fashion is naught,
There shall the New World look for thought

5 To the West, the beautiful West,
She shall look, and not in vain--
For out of its broad and boundless store
Come muscle, and nerve, and brain.
Let the bards of the East and the South be dumb--
For out of the West shall the Poets come.

6 They shall come with souls as great
As the cradle where they were rocked;
They shall come with brows that are touched with fire
Like the gods with whom they have walked;
They shall come from the West in royal state,
The Singers and Thinkers for whom we wait.

THE LAND OF CONTENT

38 I set out for the Land of Content,
By the gay crowded pleasure-highway,
With laughter, and jesting, I went
With the mirth-loving throng for a day;
Then I knew I had wandered astray,
For I met returned pilgrims, belated,
Who said, "We are weary and sated,
But we found not the Land of Content."

2 I turned to the steep path of fame,
I said, "It is over yon height--
This land with the beautiful name
Ambition will lend me its light."
But I paused in my journey ere night,
For the way grew so lonely and troubled;
I said-- my anxiety doubled
"This is not the road to Content."

3 Then I joined the great rabble and throng
That frequents the moneyed world's mart;
But the greed, and the grasping and wrong,
Left me only one wish-- to depart.
And sickened, and saddened at heart,
I hurried away from the gateway,
For my soul and my spirit said straightway.
"This is not the road to Content."

4 Then weary in body and brain,
An overgrown path I detected,
And I said "I will hide with my pain
In this byway, unused and neglected."
Lo! it led to the realm God selected
To crown with His best gifts of beauty,
And through the dark pathway of duty
I came to the land of Content.

WARNING

39 High in the heavens I saw the moon this morning,
Albeit the sun shone bright;
Unto my soul it spoke, in voice of warning,
"Remember Night!"

AFTER THE BATTLES ARE OVER

[Read at Reunion of the G. A. T., Madison, Wis., July 4, 1872.]

40 After the battles are over,
And the war drums cease to beat,
And no more is heard on the hillside
The sound of hurrying feet,
Full many a noble action,
That was done in the days of strife
By the soldier is half forgotten,
In the peaceful walks of life.

2 Just as the tangled grasses,
In Summer's warmth and light,
Grow over the graves of the fallen
And hide them away from sight,
So many an act of valour,
And many a deed sublime,
Fade from the mind of the soldier
O'ergrown by the grass of time

3 Not so should they be rewarded,
Those noble deeds of old!
They should live for ever and ever,
When the heroes' hearts are cold.
Then rally, ye brave old comrades,
Old veterans, reunite!
Uproot Time's tangled grasses--
Live over the march, and the fight.

4 Let Grant come up from the White House,
And clasp each brother's hand,
First chieftain of the army,

POESY

Last chieftain of the land.
Let him rest from a nation's burdens,
And go, in thought, with his men,
Through the fire and smoke of Shiloh,
And save the day again.

5 This silent hero of battles
Knew no such word as defeat.
It was left for the rebels' learning,
Along with the word-- retreat.
You was not given to talking,
But they found that guns would preach
In a way that was more convincing
Than fine and flowery speech

6 Three cheers for the grave commander
Of the grand old Tennessee!
Who won the first great battle--
Gained the first great victory.
His motto was always "Conquer,"
"Success" was his countersign,
And "though it took all Summer,"
He kept fighting upon "that line."

7 Let Sherman, the stern old General,
Come rallying with his men;
Let them march once more through Georgia
And down to the sea again.
Oh! that grand old tramp to Savannah,
Three hundred miles to the coast,
It will live in the heart of the nation,
For ever its pride and boast.

8 As Sheridan went to the battle,
When a score of miles away,
He has come to the feast and banquet,
By the iron horse to-day.
Its pace is not much swifter
Than the pace of that famous steed
Which bore him down to the contest
And saved the day by his speed.

9 Then go over the ground to-day, boys
Tread each remembered spot.
It will be a gleesome journey,
On the swift-shod feet of thought;
You can fight a bloodless battle,
You can skirmish along the route,
But it's not worth while to forage,
There are rations enough without.

10 Don't start if you hear the cannon,
It is not the sound of doom,
It does not call to the contest--
To the battle's smoke and gloom.
"Let us have peace," was spoken,
And lo! peace ruled again;
And now the nation is shouting,

POESY

Through the cannon's voice,
"Amen."

11 O boys who besieged old
Vicksburgh,
Can time e'er wash away
The triumph of her surrender,
Nine years ago to-day?
Can you ever forget the moment,
When you saw the flag of white,
That told how the grim old city
Had fallen in her might?

12 Ah, 'twas a bold, brave army,
When the boys, with a right good
will,
Went gaily marching and singing
To the fight at Champion Hill.
They met with a warm reception,
But the soul of "Old John Brown"
Was abroad on that field of battle,
And our flag did NOT go down.

13 Come, heroes of Look Out
Mountain,
Of Corinth and Donelson,
Of Kenesaw and Atlanta,
And tell how the day was won!
Hush! bow the head for a moment
There are those who cannot come.
No bugle-call can arouse them--
No sound of fife or drum.

14 Oh, people who died for the
country,
Oh, dear and sainted dead!
What can we say about you
That has not once been said?
Whether you fell in the contest,
Struck down by shot and shell,
Or pined 'neath the hand of sickness
Or starved in the prison cell,

15 We know that you died for
Freedom,
To save our land from shame,
To rescue a perilled Nation,
And we give you deathless fame.
'Twas the cause of Truth and Justice
That you fought and perished for,
And we say it, oh, so gently,
"Our people who died in the war."

16 Saviours of our Republic,
Heroes who wore the blue,
We owe the peace that surrounds
us--
And our Nation's strength to you.
We owe it to you that our banner,
The fairest flag in the world,
Is to-day unstained, unsullied,
On the Summer air unfurled.

17 We look on its stripes and
spangles,
And our hearts are filled the while
With love for the brave
commanders,
And the boys of the rank and file.
The grandest deeds of valour

POESY

Were never written out,
The noblest acts of virtue
The world knows nothing about.

18 And many a private soldier,
Who walks his humble way,
With no sounding name or title,
Unknown to the world to-day,
In the eyes of God is a hero
As worthy of the bays
As any mighty General
To whom the world gives praise.

19 Brave men of a mighty army,
We extend you friendship's hand
I speak for the "Loyal Women,"
Those pillars of our land.
We wish you a hearty welcome,
We are proud that you gather here
To talk of old times together
On this brightest day in the year.

20 And if Peace, whose snow-white pinions
Brood over our land to-day,
Should ever again go from us,
(God grant she may ever stay!)
Should our Nation call in her peril
For "Six hundred thousand more,"
The loyal women would hear her,
And send you out as before.

21 We would bring out the treasured knapsack,
We would take the sword from the wall,
And hushing our own hearts' pleadings,
Hear only the country's call.
For next to our God is our Nation;
And we cherish the honoured name
Of the bravest of all brave armies
Who fought for that Nation's fame.

AND THEY ARE DUMB

41 I have been across the bridges of the years.
Wet with tears
Were the ties on which I trod, going back
Down the track
To the valley where I left, 'neath skies of Truth,
My lost youth.

2 As I went, I dropped my burdens, one and all--
Let them fall;
All my sorrows, all my wrinkles, all my care,
My white hair,
I laid down, like some lone pilgrim's heavy pack,
By the track.

3 As I neared the happy valley with light feet,

POESY

My heart beat
To the rhythm of a song I used to know
Long ago,
And my spirits gushed and bubbled like a fountain
Down a mountain.
4 On the border of that valley I found you,
Tried and true;
And we wandered through the golden Summer-Land
Hand in hand.
And my pulses beat with rapture in the blisses
Of your kisses.

5 And we met there, in those green and verdant places,
Smiling faces,
And sweet laughter echoed upward from the dells
Like gold bells.
And the world was spilling over with the glory
Of Youth's story.

6 It was but a dreamer's journey of the brain;
And again
I have left the happy valley far behind;
And I find
Time stands waiting with own burdens in a pack
For my back.

7 As it speeds me, like a rough, well-meaning friend,
To the end,
Will I find again the lost ones loved so well?
Who can tell!
But the dead know what the life will be to come--
And they are dumb!

NIGHT

42 As some dusk mother shields from all alarms
The tired child she gathers to her breast,
The brunette Night doth fold me in her arms,
And hushes me to perfect peace and rest.
Her eyes of stars shine on me, and I hear
Her voice of winds low crooning on my ear.
O Night, O Night, how beautiful thou art!
Come, fold me closer to thy pulsing heart.

2 The day is full of gladness, and the light

POESY

So beautifies the common outer things,
I only see with my external sight,
And only hear the great world's voice which rings.
But silently from daylight and from din
The sweet Night draws me--whispers, "Look within!"
And looking, as one wakened from a dream,
I see what 'is'-- no longer what doth seem.

3 The Night says, "Listen!" and upon my ear
Revealed, as are the visions to my sight,
The voices known as "Beautiful" come near
And whisper of the vastly Infinite.
Great, blue-eyed Truth, her sister Purity,
Their brother Honour, all converse with me,
And kiss my brow, and say, "Be brave of heart!"
O holy three! how beautiful thou art!

4 The Night says, "Child, sleep that thou may'st arise
Strong for to-morrow's struggle."
And I feel
Her shadowy fingers pressing on my eyes:
Like thistledown I float to the Ideal
The Slumberland, made beautiful and bright
As death, by dreams of loved ones gone from sight,
O food for souls, sweet dreams of pure delight,
How beautiful the holy hours of Night!

ALL FOR ME

43 The world grows green on a thousand hills--
By a thousand willows the bees are humming,
And a million birds by a million rills,
Sing of the golden season coming.
But, gazing out on the sun-kist lea,
And hearing a thrush and a blue-bird singing,
I feel that the summer is all for me,
And all for me are the joys it is bringing.

2 All for me the bumble-bee
Drones his song in the perfect weather;
And, just on purpose to sing to me,
Thrush and blue-bird came North together.

POESY

Just for me, in red and white,
Bloom and blossom the fields of clover;
And all for me and my delight
The wild Wind follows and plays the lover.

3 The mighty sun, with a scorching kiss
(I have read, and heard, and do not doubt it)
Has burned up a thousand worlds like this,
And never stopped to think about it.
And yet I believe he hurries up
Just on purpose to kiss my flowers
To drink the dew from the lily-cup,
And help it to grow through golden hours.

4 I know I am only a speck of dust,
An individual mite of masses,
Clinging upon the outer crust
Of a little ball of cooling gases.
And yet, and yet, say what you will,
And laugh, if you please, at my lack of reason,
For me wholly, and for me still,
Blooms and blossoms the Summer season.

5 Nobody else has ever heard
The story the Wind to me discloses;
And none but I and the humming-bird
Can read the hearts of the crimson roses.
Ah, my Summer-- my love--
my own!
The world grows glad in your smiling weather;
Yet all for me, and me alone,
You and your Court came North together.

INTO SPACE

44 If the sad old world should jump a cog
Sometime, in its dizzy spinning,
And go off the track with a sudden jog,
What an end would come to the sinning,
What a rest from strife and the burdens of life
For the millions of people in it,
What a way out of care, and worry and wear,
All in a beautiful minute.

2 As 'round the sun with a curving sweep
It hurries and runs and races,
Should it lose its balance, and go with a leap
Into the vast sea-spaces,
What a blest relief it would bring to the grief,

And the trouble and toil about us,
To be suddenly hurled from the solar world
And let it go on without us.

3 With not a sigh or a sad good-bye
For loved ones left behind us,
We would go with a lunge and a mighty plunge
Where never a grave should find us.
What a wild mad thrill our veins would fill
As the great earth, like a feather,
Should float through the air to God knows where,
And carry us all together.

4 No dark, damp tomb and no mourner's gloom,
No tolling bell in the steeple,
But in one swift breath a painless death
For a million billion people.
What greater bliss could we ask than this,
To sweep with a bird's free motion
Through leagues of space to a resting place,
In a vast and vapoury ocean--
To pass away from this life for aye
With never a dear tie sundered,
And a world on fire for a funeral pyre,
While the stars looked on and wondered?

THROUGH DIM EYES

45 Is it the world, or my eyes, that are sadder?
I see not the grace that I used to see
In the meadow-brook whose song was so glad, or
In the boughs of the willow tree.
The brook runs slower-- its song seems lower
And not the song that it sang of old;
And the tree I admired looks weary and tired
Of the changeless story of heat and cold.

2 When the sun goes up, and the stars go under,
In that supreme hour of the breaking day,
Is it my eyes, or the dawn, I wonder,
That finds less of the gold, and more of the gray
I see not the splendour, the tints so tender,
The rose-hued glory I used to see;
And I often borrow a vague half-sorrow
That another morning has dawned for me.

3 When the royal smile of that welcome comer
Beams on the meadow and burns in the sky,

POESY

Is it my eyes, or does the Summer
Bring less of bloom than in days gone by?
The beauty that thrilled me, the rapture that filled me,
To an overflowing of happy tears,
I pass unseeing, my sad eyes being
Dimmed by the shadow of vanished years.

4 When the heart grows weary, all things seem dreary;
When the burden grows heavy, the way seems long.
Thank God for sending kind death as an ending,
Like a grand Amen to a minor song.

THE PUNISHED

46 Not they who know the awful gibbet's anguish,
Not they who, while sad years go by them, in
The sunless cells of lonely prisons languish,
Do suffer fullest penalty for sin.

2 'Tis they who walk the highways unsuspected,
Yet with grim fear for ever at their side,
Who hug the corpse of some sin undetected,
A corpse no grave or coffin-lid can hide

3 'Tis they who are in their own chambers haunted
By thoughts that like unbidden guests intrude,
And sit down, uninvited and unwanted,
And make a nightmare of the solitude.

HALF FLEDGED

47 I feel the stirrings in me of great things.
New half-fledged thoughts rise up and beat their wings,
And tremble on the margin of their nest,
Then flutter back, and hide within my breast.

Beholding space, they doubt their untried strength.
Beholding humans, they fear them.
But at length,
Grown all too great and active for the heart
That broods them with such tender mother art,
Forgetting fear, and humans, and all, that hour,

POESY

Save the impelling consciousness of power
That stirs within them-- they shall soar away
Up to the very portals of the Day.

2 Oh, what exultant rapture thrills me through
When I contemplate all those thoughts may do;
Like snow-white eagles penetrating space,
They may explore full many an unknown place,
And build their nests on mountain heights unseen,
Whereon doth lie that dreamed-of rest serene.
Stay thou a little longer in my breast,
Till my fond heart shall push thee from the nest
Anxious to see thee soar to heights divine--
Oh, beautiful but half-fledged thoughts of mine.

THE YEAR

48 What can be said in New Year rhymes,
That's not been said a thousand times?

2 The new years come, the old years go,
We know we dream, we dream we know.

3 We rise up laughing with the light,
We lie down weeping with the night.

4 We hug the world until it stings,
We curse it then and sigh for wings.

5 We live, we love, we woo, we wed,
We wreathe our brides, we sheet our dead.

6 We laugh, we weep, we hope, we fear,
And that's the burden of the year.

THE UNATTAINED

49 A vision beauteous as the morn,
With heavenly eyes and tresses streaming,
Slow glided o'er a field late shorn
Where walked a poet idly dreaming.
He saw her, and joy lit his face,
"Oh, vanish not at human speaking,"
He cried, "thou form of magic grace,
Thou art the poem I am seeking.

POESY

2 “I’ve sought thee long! I claim thee now--
My thought embodied, living, real.”
She shook the tresses from her brow.
“Nay, nay!” she said, “I am ideal.
I am the phantom of desire--
The spirit of all great endeavour,
I am the voice that says,
‘Come higher,’
That calls people up and up for ever.

3 “’Tis not alone thy thought supreme
That here upon thy path has risen;
I am the artist’s highest dream,
The ray of light you cannot prison.
I am the sweet ecstatic note
Than all glad music gladder, clearer,
That trembles in the singer’s throat,
And dies without a human hearer.

4 “I am the greater, better yield,
That leads and cheers thy farmer neighbour,
For me you bravely tills the field
And whistles gaily at your labour.
Not thou alone, O poet soul,
Dost seek me through an endless morrow,
But to the toiling, hoping whole
I am at once the hope and sorrow.

5 “The spirit of the unattained,
I am to those who seek to name me,
A good desired but never gained:
All shall pursue, but none shall claim me.”

IN THE CROWD

50 How happy they are, in all seeming,
How gay, or how smilingly proud,
How brightly their faces are beaming,
These people who make up the crowd!
How they bow, how they bend, how they flutter,
How they look at each other and smile,
How they glow, and what 'bon mots' they utter!
But a strange thought has found me the while!

2 It is odd, but I stand here and fancy
These people who now play a part,
All forced by some strange necromancy
To speak, and to act, from the heart.
What a hush would come over the laughter!
What a silence would fall on the mirth!
And then what a wail would sweep after,

POESY

As the night-wind sweeps over the earth!

3 If the secrets held under and hidden
In the intricate hearts of the crowd
Were suddenly called to, and bidden
To rise up and cry out aloud,
How strange one would look to another!
Old friends of long standing and years--
Own brothers would not know each other,
Robed new in their sorrows and fears.
4 From broadcloth, and velvet, and laces,
Would echo the groans of despair,
And there would be blanching of faces
And wringing of hands and of hair.
That man with his record of honour,
That lady down there with the rose,
That girl with Spring's freshness upon her,
Who knoweth the secrets of those?

5 Smile on, O ye maskers, smile sweetly!
Step lightly, bow low and laugh loud!
Though the world is deceived and completely,
I know ye, O sad-hearted crowd!
I watch you with infinite pity:
But play on, play ever your part,
Be gleeful, be joyful, be witty!
'Tis better than showing the heart.

LIFE AND I

51 Life and I are lovers, straying
Arm in arm along:
Often like two children Maying,
Full of mirth and song,

2 Life plucks all the blooming hours
Growing by the way;
Binds them on my brow like flowers,
Calls me Queen of May.

3 Then again, in rainy weather,
We sit vis-à-vis,
Planning work we'll do together
In the years to be.

4 Sometimes Life denies me blisses,
And I frown or pout;
But we make it up with kisses
Ere the day is out.

5 Woman-like, I sometimes grieve him,
Try his trust and faith,
Saying I shall one day leave him
For his rival, Death.

POESY

6 Then he always grows more zealous,
Tender, and more true;
Loves the more for being jealous,
As all lovers do.

7 Though I swear by stars above him,
And by worlds beyond,
That I love him-- love him-- love him;
Though my heart is fond;

8 Though he gives me, doth my lover,
Kisses with each breath--
I shall one day throw him over,
And plight troth with Death.

GUERDON

52 Upon the white cheek of the Cherub Year
I saw a tear.
Alas! I murmured, that the Year should borrow
So soon a sorrow.
Just then the sunlight fell with sudden flame:
The tear became
A wondrous diamond sparkling in the light--
A beauteous sight.

2 Upon my soul there fell such woeful loss,
I said, “The Cross
Is grievous for a life as young as mine.”
Just then, like wine,
God’s sunlight shone from His high Heavens down;
And lo! a crown
Gleamed in the place of what I thought a burden--
My sorrow’s guerdon.

SNOWED UNDER

53 Of a thousand things that the Year snowed under--
The busy Old Year who has gone away--
How many will rise in the Spring, I wonder,
Brought to life by the sun of May?
Will the rose-tree branches, so wholly hidden
That never a rose-tree seems to be,
At the sweet Spring’s call come forth unbidden,
And bud in beauty, and bloom for me?

2 Will the fair green Earth, whose throbbing bosom
Is hid like a maid’s in her gown at night,

POESY

Wake out of her sleep, and with blade and blossom
Gem her garments to please my sight?
Over the knoll in the valley yonder
The loveliest buttercups bloomed and grew;
When the snow has gone that drifted them under,
Will they shoot up sunward, and bloom anew?

3 When wild winds blew, and a sleet-storm pelted,
I lost a jewel of priceless worth;
If I walk that way when snows have melted,
Will the gem gleam up from the bare brown Earth?
I laid a love that was dead or dying,
For the year to bury and hide from sight;
But out of a trance will it waken, crying,
And push to my heart, like a leaf to the light?

4 Under the snow lie things so cherished--
Hopes, ambitions, and dreams of humans--
Faces that vanished, and trusts that perished,
Never to sparkle and glow again.
The Old Year greedily grasped his plunder,
And covered it over and hurried away:
Of the thousand things that he did, I wonder
How many will rise at the call of May?
O wise Young Year, with your hands held under
Your mantle of ermine, tell me, pray!

"LEUDEMANNS-ON-THE-RIVER."

54 Toward even, when the day leans down
To kiss the upturned face of night,
Out just beyond the loud-voiced town
I know a spot of calm delight.
Like crimson arrows from a quiver
The red rays pierce the waters flowing,
While we go dreaming, singing, rowing
To Leudemanns-on-the-River.

2 The hills, like some glad mocking-bird,
Send back our laughter and our singing,
While faint-- and yet more faint is heard

POESY

The steeple bells all sweetly ringing.
Some message did the winds deliver
To each glad heart that August night,
All heard, but all heard not aright,
By Leudemanns-on-the-River.

3 Night falls as in some foreign clime,
Between the hills that slope and rise.
So dusk the shades at landing-time,
We could not see each other's eyes.
We only saw the moonbeams quiver
Far down upon the stream! that night
The new moon gave but little light
By Leudemanns-on-the-River.

4 How dusky were those paths that led
Up from the river to the hall.
The tall trees branching overhead
Invite the early shades that fall.
In all the glad blithe world, oh, never
Were hearts more free from care than when
We wandered through those walks, we ten,
By Leudemanns-on-the-River.

5 So soon, so soon, the changes came.
This August day we two alone,
On that same river, not the same,
Dream of a night for ever flown.
Strange distances have come to sever
The hearts that gaily beat in pleasure,
Long miles we cannot cross or measure--
From Leudemanns-on-the-River.

6 We'll pluck two leaves, dear friend, to-day.
The green, the russet! seems it strange
So soon, so soon, the leaves can change!
Ah me! so runs all life away.
This night-wind chills me, and I shiver;
The Summer-time is almost past.
One more good-bye-- perhaps the last
To Leudemanns-on-the-River.

LITTLE BLUE HOOD

55 Every morning and every night
There passes our window near the street,
A little girl with an eye so bright,
And a cheek so round and a lip so sweet!
The daintiest, jauntiest little miss
That ever any one longed to kiss,

POESY

2 She is neat as wax, and fresh to view,
And her look is wholesome, and clean, and good.
Whatever her gown, her hood is blue,
And so we call her our “Little Blue Hood,”
For we know not the name of the dear little lass,
But we call to each other to see her pass,

3 “Little Blue Hood is coming now!”
And we watch from the window while she goes by,
She has such a bonny, smooth, white brow,
And a fearless look in her long-lashed eye!
And a certain dignity wedded to grace
Seems to envelop her form and face.

4 Every morning, in sun or rain,
She walks by the window with sweet, grave air,
And never guesses behind the pane
We two are watching and thinking her fair;
Lovingly watching her down the street,
Dear little Blue Hood, bright and sweet.

5 Somebody ties that hood of blue
Under the face so fair to see,
Somebody loves her, beside we two,
Somebody kisses her-- why can’t we?
Dear Little Blue Hood fresh and fair,
Are you glad we love you, or don’t you care?

NO SPRING

56 Up from the South come the birds that were banished,
Frightened away by the presence of frost.
Back to the vale comes the verdure that vanished,
Back to the forest the leaves that were lost.
Over the hillside the carpet of splendour,
Folded through Winter, Spring spreads down again;
Along the horizon, the tints that were tender,
Lost hues of Summer-time, burn bright as then.

2 Only the mountains’ high summits are hoary,
To the ice-fettered river the sun gives a key.

POESY

Once more the gleaming shore lists to the story
Told by an amorous Summer-kissed sea.
All things revive that in Winter time perished,
The rose buds again in the light o' the sun,
All that was beautiful, all that was cherished,
Sweet things and dear things and all things-- save one.

3 Late, when the year and the roses were lying
Low with the ruins of Summer and bloom,
Down in the dust fell a love that was dying,
And the snow piled over it, and made it a tomb.
Lo! now the roses are budded for blossom--
Lo! now the Summer is risen again.
Why dost thou bud not, O Love of my bosom?
Why dost thou rise not, and thrill me as then?

4 Life without love is a year without Summer,
Heart without love is a wood without song.
Rise then, revive then, thou indolent comer:
Why dost thou lie in the dark earth so long?
Rise! ah, thou can'st not! the rose-tree that sheddest
Its beautiful leaves, in the Springtime may bloom,
But of cold things the coldest, of dead things the deadest,
Love buried once, rises not from the tomb.
Green things may grow on the hillside and heather,
Birds seek the forest and build there and sing.
All things revive in the beautiful weather,
But unto a dead love there cometh no Spring.

MIDSUMMER

57 After the May time, and after the June time,
Rare with blossoms and perfumes sweet,
Cometh the round world's royal noon time,
The red midsummer of blazing heat.
When the sun, like an eye that never closes,
Bends on the earth its fervid gaze,
And the winds are still, and the crimson roses
Droop and wither and die in its rays.

POESY

2 Unto my heart has come that season,
O my lady, my worshipped one,
When over the stars of Pride and Reason
Sails Love's cloudless, noonday sun.
Like a great red ball in my bosom burning
With fires that nothing can quench or tame.
It glows till my heart itself seems turning
Into a liquid lake of flame.

3 The hopes half shy, and the sighs all tender,
The dreams and fears of an earlier day,
Under the noontide's royal splendour,
Droop like roses and wither away.
From the hills of doubt no winds are blowing,
From the isle of pain no breeze is sent.
Only the sun in a white heat glowing
Over an ocean of great content.

4 Sink, O my soul, in this golden glory,
Die, O my heart, in thy rapture-swoon,
For the Autumn must come with its mournful story,
And Love's midsummer will fade too soon.

A REMINISCENCE

58 I saw the wild honey-bee kissing a rose
A wee one, that grows
Down low on the bush, where her sisters above
Cannot see all that's done
As the moments roll on.
Nor hear all the whispers and murmurs of love.

2 They flaunt out their beautiful leaves in the sun,
And they flirt, every one,
With the wild bees who pass, and the gay butterflies.
And that wee thing in pink--
Why, they never once think
That she's won a lover right under their eyes.

3 It reminded me, Kate, of a time--
you know when!
You were so petite then,
Your dresses were short, and your feet were so small.
Your sisters, Maud-Belle
And Madeline-- well,
They 'both' set their caps for me, after that ball.

POESY

4 How the blue eyes and black eyes
smiled up in my face!
'Twas a neck-and-neck race,
Till that day when you opened the
door in the hall,
And looked up and looked down,
With your sweet eyes of brown,
And 'you' seemed so tiny, and 'I' felt
so tall.

5 Your sisters had sent you to keep
me, my dear,
Till they should appear.
Then you were dismissed like a
child in disgrace.
How meekly you went!
But your brown eyes, they sent
A thrill to my heart, and a flush to
my face.

6 We always were meeting some
way after that.
You hung up my hat,
And got it again, when I finished my
call.
Sixteen, and 'so' sweet!
Oh, those cute little feet!
Shall I ever forget how they tripped
down the hall?

7 Shall I ever forget the first kiss by
the door,
Or the vows murmured o'er,
Or the rage and surprise of Maud-
Belle? Well-a-day,
How swiftly time flows,
And who would suppose
That a 'bee' could have carried me
so far away.

A GIRL'S FAITH

59 Across the miles that stretch
between,
Through days of gloom or glad
sunlight,
There shines a face I have not seen
Which yet doth make my world
more bright.

2 He may be near, he may be far,
Or near or far I cannot see,
But faithful as the morning star
He yet shall rise and come to me.

3 What though fate leads us separate
ways,
The world is round, and time is
fleet.
A journey of a few brief days,
And face to face we two shall meet.

4 Shall meet beneath God's arching
skies,
While suns shall blaze, or stars shall
gleam,
And looking in each other's eyes
Shall hold the past but as a dream.

5 But round and perfect and complete,
Life like a star shall climb the height,
As we two press with willing feet
Together toward the Infinite.

6 And still behind the space between,
As back of dawns the sunbeams play,
There shines the face I have not seen,
Whose smile shall wake my world to-day.

TWO

60 One leaned on velvet cushions like a queen--
To see him pass, the hero of an hour,
Whom men called great. She bowed with languid mien,
And smiled, and blushed, and knew her beauty's power.

2 One trailed her tinselled garments through the street,
And thrust aside the crowd, and found a place
So near, the blooded courser's prancing feet
Cast sparks of fire upon her painted face.

3 One took the hot-house blossoms from her breast,
And tossed them down, as he went riding by,
And blushed rose-red to see them fondly pressed
To bearded lips, while eye spoke unto eye.

4 One, bold and hardened with her sinful life,
Yet shrank and shivered painfully, because
His cruel glance cut keener than a knife,
The glance of him who made her what she was.

5 One was observed, and lifted up to fame,
Because the hero smiled upon her! while
One who was shunned and hated, found her shame
In basking in the death-light of his smile.

SLIPPING AWAY

61 Slipping away-- slipping away!
Out of our brief year slips the May;

POESY

And Winter lingers, and Summer flies;
And Sorrow abideth, and Pleasure dies;
And the days are short, and the nights are long;
And little is right, and much is wrong.

2 Slipping away is the Summer time;
It has lost its rhythm and lilting rhyme--
For the grace goes out of the day so soon,
And the tired head aches in the glare of noon,
And the way seems long to the hills that lie
Under the calm of the western sky.

3 Slipping away are the friends whose worth
Lent a glow to the sad old earth:
One by one they slip from our sight;
One by one their graves gleam white;
Or we count them lost by the crueller death
Of a trust betrayed, or a murdered faith.

4 Slipping away are the hopes that made
Bliss out of sorrow, and sun out of shade,
Slipping away is our hold on life;
And out of the struggle and wearing strife,
From joys that diminish, and woes that increase,
We are slipping away to the shores of Peace.

IS IT DONE?

62 It is done! in the fire's fitful flashes,
The last line has withered and curled.
In a tiny white heap of dead ashes
Lie buried the hopes of your world.
There were mad foolish vows in each letter,
It is well they have shrivelled and burned,
And the ring! oh, the ring was a fetter,
It was better removed and returned.

2 But ah, is it done? In the embers
Where letters and tokens were cast,
Have you burned up the heart that remembers,
And treasures its beautiful past?
Do you think in this swift reckless fashion
To ruthlessly burn and destroy
The months that were freighted with passion,

POESY

The dreams that were drunken with joy?

3 Can you burn up the rapture of kisses
That flashed from the lips to the soul,
Or the heart that grows sick for lost blisses
In spite of its strength of control?
Have you burned up the touch of warm fingers
That thrilled through each pulse and each vein,
Or the sound of a voice that still lingers
And hurts with a haunting refrain?
4 Is it done? is the life drama ended?
You have put all the lights out, and yet,
Though the curtain, rung down, has descended,
Can the actors go home and forget?
Ah, no! they will turn in their sleeping
With a strange restless pain in their hearts,
And in darkness, and anguish, and weeping,
Will dream they are playing their parts.

A LEAF

63 Somebody said, in the crowd, last eve,
That you were married, or soon to be.
I have not thought of you, I believe,
Since last we parted. Let me see:
Five long Summers have passed since then--
Each has been pleasant in its own way--
And you are but one of a dozen men
Who have played the suitor a Summer day.

2 But, nevertheless, when I heard your name,
Coupled with some one's, not my own,
There burned in my bosom a sudden flame,
That carried me back to the day that is flown.
I was sitting again by the laughing brook,
With you at my feet, and the sky above,
And my heart was fluttering under your look--
The unmistakable look of Love.

3 Again your breath, like a South wind, fanned

POESY

My cheek, where the blushes came
and went;
And the tender clasp of your strong,
warm hand
Sudden thrills through my pulses
sent.
Again you were mine by Love's
own right--
Mine for ever by Love's decree:
So for a moment it seemed last
night,
When somebody mentioned your
name to me.

4 Just for the moment I thought you
mine--
Loving me, wooing me, as of old.
The tale remembered seemed half
divine--
Though I held it lightly enough
when told.
The past seemed fairer than when it
was near,
As "blessings brighten when taking
flight;"
And just for the moment I held you
dear--
When somebody mentioned your
name last night.

ÆSTHETIC

64 In a garb that was guiltless of
colours
She stood, with a dull, listless air
A creature of dumps and of dolours,
But most undeniably fair.

2 The folds of her garment fell round
her,
Revealing the curve of each limb;
Well proportioned and graceful I
found her,
Although quite alarmingly slim.

3 From the hem of her robe peeped
one sandal--
"High art" was she down to her feet;
And though I could not understand
all
She said, I could see she was sweet.

4 Impressed by her limpness and
languor,
I proffered a chair near at hand;
She looked back a mild sort of anger
Posed anew, and continued to stand.

5 Some praises I next tried to mutter
Of the fan that she held to her face;
She said it was "utterly utter,"
And waved it with languishing
grace.

6 I then, in a strain quite poetic,

POESY

Begged her gaze on the bow in the sky,
She looked-- said its curve was "æsthetic."
But the "tone was too dreadfully high."

7 Her lovely face, lit by the splendour
That glorified landscape and sea,
Woke thoughts that were daring and tender:
Did 'her' thoughts, too, rest upon me?
"Oh, tell me," I cried, growing bolder,
"Have I in your musings a place?"
"Well, yes," she said over her shoulder:
"I was thinking of nothing in space."

POEMS OF THE WEEK

SUNDAY

65 Lie still and rest, in that serene repose
That on this holy morning comes to those
Who have been burdened with the cares which make
The sad heart weary and the tired head ache.
Lie still and rest--
God's day of all is best.

MONDAY

2 Awake! arise! Cast off thy drowsy dreams!
Red in the East, behold the Morning gleams.
"As Monday goes, so goes the week," dames say.
Refreshed, renewed, use well the initial day.
And see! thy neighbour
Already seeks own labour.

TUESDAY

3 Another morning's banners are unfurled--
Another day looks smiling on the world.
It holds new laurels for thy soul to win;
Mar not its grace by slothfulness or sin,
Nor sad, away,
Send it to yesterday.

WEDNESDAY

4 Half-way unto the end--
the week's high noon.
The morning hours do speed away so soon!
And, when the noon is reached, however bright,
Instinctively we look toward the night.
The glow is lost
Once the meridian cross'd.

POESY

THURSDAY

5 So well the week has sped, hast thou a friend,
Go spend an hour in converse.
It will lend
New beauty to thy labours and thy life
To pause a little sometimes in the strife.
Toil soon seems rude
That has no interlude.

FRIDAY

6 From feasts abstain; be temperate, and pray;
Fast if thou wilt; and yet, throughout the day,
Neglect no labour and no duty shirk:
Not many hours are left thee for thy work--
And it were meet
That all should be complete.

SATURDAY

7 Now with the almost finished task make haste.
So near the night thou hast no time to waste.
Post up accounts, and let thy Soul's eyes look
For flaws and errors in Life's ledger-book.
When labours cease,
How sweet the sense of peace!

GHOSTS

66 There are ghosts in the room.
As I sit here alone, from the dark corners there
They come out of the gloom,
And they stand at my side and they lean on my chair.

2 There's the ghost of a Hope
That lighted my days with a fanciful glow.
In her hand is the rope
That strangled her life out. Hope was slain long ago.

3 But her ghost comes to-night,
With its skeleton face and expressionless eyes,
And it stands in the light,
And mocks me, and jeers me with sobs and with sighs.

4 There's the ghost of a Joy,
A frail, fragile thing, and I prized it too much,
And the hands that destroy
Clasped it close, and it died at the withering touch.

5 There's the ghost of a Love,
Born with joy, reared with hope, died in pain and unrest,
But he towers above

POESY

All the others-- this ghost: yet a
ghost at the best.

6 I am weary, and fain
Would forget all these dead: but the
gibbering host
Make my struggle in vain,
In each shadowy corner there
lurketh a ghost.

FLEEING AWAY

67 My thoughts soar not as they
ought to soar,
Higher and higher on soul-lent
wings;
But ever and often, and more and
more
They are dragged down earthward
by little things,
By little troubles and little needs,
As a lark might be tangled among
the weeds.

2 My purpose is not what it ought to
be,
Steady and fixed, like a star on high,
But more like a fisherman's light at
sea;
Hither and thither it seems to fly--
Sometimes feeble, and sometimes
bright,
Then suddenly lost in the gloom of
night.

3 My life is far from my dream of
life
Calmly contented, serenely glad;
But, vexed and worried by daily
strife,
It is always troubled, and ofttimes
sad--
And the heights I had thought I
should reach one day
Grow dimmer and dimmer, and
farther away.

4 My heart finds never the longed-
for rest;
Its worldly striving, its greed for
gold,
Chilled and frightened the calm-
eyed guest,
Who sometimes sought me in days
of old;
And ever fleeing away from me
Is the higher self that I long to be.

ALL MAD

68 "He is mad as a hare, poor
fellow,
And should be in chains," you say.
I haven't a doubt of your statement,
But who isn't mad, I pray?
Why, the world is a great asylum,
And people are all insane,
Gone daft with pleasure or folly,
Or crazed with passion and pain.

POESY

2 The infant who shrieks at a shadow,
The child with own Santa Claus faith,
The woman who worships Dame Fashion,
Each person with own notions of death,
The miser who hoards up own earnings,
The spendthrift who wastes them too soon,
The scholar grown blind in own delving,
The lover who stares at the moon.

3 The poet who thinks life a pæan,
The cynic who thinks it a fraud,
The youth who goes seeking for pleasure,
The preacher who dares talk of God,
All priests with their creeds and their croaking,
All doubters who dare to deny,
The gay who find aught to wake laughter,
The sad who find aught worth a sigh,
Whoever is downcast or solemn,
Whoever is gleeful and glad,
Are only the dupes of delusions--
We are all of us-- all of us mad.

HIDDEN GEMS

69 We know not what lies in us, till we seek;
People dive for pearls-- they are not found on shore,
The hillsides most unpromising and bleak
Do sometimes hide the ore.

2 Go, dive in the vast ocean of thy mind,
O human! far down below the noisy waves,
Down in the depths and silence thou mayst find
Rare pearls and coral caves.

3 Sink thou a shaft into the mine of thought;
Be patient, like the seekers after gold;
Under the rocks and rubbish lieth what
May bring thee wealth untold.

4 Reflected from the vastly Infinite,
However dulled by earth, each human mind
Holds somewhere gems of beauty and of light
Which, seeking, thou shalt find.

POESY

BY-AND-BYE

70 “By-and-bye,” the maiden sighed-- “by-and-bye
He will claim me for his bride,
Hope is strong and time is fleet;
Youth is fair, and love is sweet,
Clouds will pass that fleck my sky,
He will come back by-and-bye--
by-and-bye.”

2 “By-and-bye,” the soldier said--
“by-and-bye,
After I have fought and bled,
I shall go home from the wars,
Crowned with glory, seamed with scars.
Joy will flash from some one’s eyes
When they greets me by-and-bye--
by-and-bye.”

3 “By-and-bye,” the mother cried--
“by-and-bye,
Strong and sturdy at my side,
Like a staff supporting me,
Will my bonnie baby be.
Break my rest, then, wail and cry
Thou’lt repay me by-and-bye--
by-and-bye.”

4 Fleeting years of time have sped--
hurried by--
Still the maiden is unwed:
All unknown the soldier lies,
Buried under alien skies;
And the child, with blood-shot eye,
Saw own mother starve and die.
God in Heaven! dost Thou on high,
Keep the promised “by-and-bye”--
by-and-bye?

OVER THE MAY HILL

71 All through the night time, and all through the day time,
Dreading the morning and dreading the night,
Nearer and nearer we drift to the May time
Season of beauty and season of blight,
Leaves on the linden, and sun on the meadow,
Green in the garden, and bloom everywhere,
Gloom in my heart, and a terrible shadow,
Walks by me, sits by me, stands by my chair.

2 Oh, but the birds by the brooklet are cheery,
Oh, but the woods show such delicate greens,
Strange how you droop and how soon you are weary--
Too well I know what that weariness means.

POESY

But how could I know in the crisp winter weather
(Though sometimes I noticed a catch in your breath),
Riding and singing and dancing together,
How could I know you were racing with death?

3 How could I know when we danced until morning,
And you were the gayest of all the gay crowd--
With only that shortness of breath for a warning,
How could I know that you danced for a shroud?
Whirling and whirling through moonlight and starlight.
Rocking as lightly as boats on the wave,
Down in your eyes shone a deep light-- a far light,
How could I know 'twas the light to your grave?

4 Day by day, day by day, nearing and nearing,
Hid under greenness, and beauty and bloom,
Cometh the shape and the shadow I'm fearing,
"Over the May hill" is waiting your tomb.
The season of mirth and of music is over--
I have danced my last dance, I have sung my last song,
Under the violets, under the clover,
My heart and my love will be lying ere long

FOES

72 Thank Fate for foes! I hold mine dear
As valued friends. You cannot know
The zest of life who runneth here
Your earthly race without a foe.

2 I saw a prize. "Run," cried my friend;
"'Tis thine to claim without a doubt."
But ere I half-way reached the end,
I felt my strength was giving out.

3 My foe looked on the while I ran;
A scornful triumph lit your eyes.
With that perverseness born in human,
I nerved myself, and won the prize.
4 All blinded by the crimson glow
Of sin's disguise, I tempted Fate.
"I knew thy weakness!" sneered my foe,

POESY

I saved myself, and balked your
hate.

5 For half my blessings, half my
gain,
I needs must thank my trusty foe;
Despite your envy and disdain,
You serves me well where'er I go.

6 So may I keep you to the end,
Nor may your enmity abate:
More faithful than the fondest
friend,
You guards me ever with your hate.

FRIENDSHIP

73 Dear friend, I pray thee, if thou
wouldst be proving
Thy strong regard for me,
Make me no vows. Lip-service is
not loving;
Let thy faith speak for thee.

2 Swear not to me that nothing can
divide us--
So little such oaths mean.
But when distrust and envy creep
beside us
Let them not come between.

3 Say not to me the depths of thy
devotion
Are deeper than the sea;
But watch, lest doubt or some
unkind emotion
Embitter them for me.

4 Vow not to love me ever and for
ever,
Words are such idle things;
But when we differ in opinions,
never
Hurt me by little stings.

5 I'm sick of words: they are so
lightly spoken,
And spoken, are but air.
I'd rather feel thy trust in me
unbroken
Than list thy words so fair.

6 If all the little proofs of trust are
heeded,
If thou art always kind,
No sacrifice, no promise will be
needed
To satisfy my mind.

TWO SAT DOWN

74 Two sat down in the morning
time,
One to sing and one to spin.
All people listened the song sublime
But no one listened the dull wheel's
din.

POESY

2 The singer sat in a pleasant nook,
And sang of a life that was fair and sweet,
While the spinner sat with a steadfast look,
Busily plying her hands and feet.

3 The singer sang on with a rose in her hair,
And all men listened her dulcet tone;
And the spinner spun on with a dull despair
Down in her heart as she sat alone.

4 But lo! on the morrow no one said
Aught of the singer or what she sang.
Men were saying: “Behold this thread,”
And loud the praise of the spinner rang.

5 The world has forgotten the singer’s name--
Her rose is faded, her songs are old;
But far o’er the ocean the spinner’s fame
Yet is blazoned in lines of gold.

BOUND AND FREE

75 Come to me, Love! Come on the wings of the wind!
Fly as the ring-dove would fly to own mate!
Leave all your cares and your sorrows behind!
Leave all the fears of your future to Fate!
Come! and our skies shall be glad with the gold
That paled into gray when you parted from me.
Come! but remember that, just as of old,
You must be bound, Love, and I must be free.

2 Life has lost savour since you and I parted;
I have been lonely, and you have been sad.
Youth is too brief to be sorrowful-hearted--
Come! and again let us laugh and be glad.
Lips should not sigh that are fashioned to kiss--
Breasts should not ache that joy’s secrets have found.
Come! but remember, in spite of all this,
I must be free, Love, while you must be bound.

3 You must be bound to be true
while you live,
And I keep my freedom for ever, as
now.
You must ask only for that which I
give--
Kisses and love-words, but never a
vow.
Come! I am lonely, and long for
your smile,
Bring back the lost lovely Summer
to me!
Come! but remember, remember the
while,
That you must be bound, Love, and
I must be free.

AQUILEIA

76 On the election of the Roman Emperor Maximus, by the Senate, A.D. 238, a powerful army, headed by the Thracian giant Maximus, laid siege to Aquileia. 2 Though poorly prepared for war, the constancy of her citizens rendered her impregnable. 3 The women of Aquileia cut off their hair to make ropes for the military engines. The small body of troops was directed by Chrispinus, a Lieutenant of the Senate. 4 Apollo was the deity supposed to protect them.-- 'Gibbon's Roman History'.

5 "The ropes, the ropes! Apollo
send us ropes,"
Chrispinus cried, "or death attends
our hopes."
Then panic reigned, and many a
mournful sound
Hurt the cleft air; for where could
ropes be found?

6 Up rose a Roman mother; tall was
she
As her own son, a youth of noble
height.
A little child was clinging to her
knee--
She loosed his twining arms and put
him down,
And her dark eyes flashed with a
sudden light.

7 How like a queen she stood! her
royal crown,
The rich dark masses of her splendid
hair.
Just flecked with spots of sunshine
here and there,
Twined round her brow; 'twas like a
coronet,
Where gems of gold lie bedded deep
in jet.

8 She loosed the comb that held the shining strands,
And threaded out the meshes with her hands.
The purple mass fell to her garment's hem.
A queen new clothed without her diadem
She stood before her subjects.

9 "Now," she cried,
"Give me thy sword, Julianus!"
And her son
Unsheathed the blade (that had not left his side
Save when it sought a foeman's blood to shed),
Awed by her regal bearing, and obeyed.

10 With the white beauty of her firm fair hand
She clasped the hilt; then severed, one by one,
Her gold-flecked purple tresses.
Strand on strand,
Free e'en as foes had fallen by that blade,
Robbed of its massive wealth of curl and coil,
Yet like some antique model, rose her head
In all its classic beauty.

11 "See!" she said,
And pointed to the shining mound of hair;
"Apollo makes swift answer to thy prayer,
Chrispinus. Quick! now, soldiers, to thy toil!"
Forth from a thousand throats what seemed one voice
Rose shrilly, filling all the air with cheer.

12 "Lo!" quoth the foe, "our enemies rejoice!"
Well might the Thracian giant quake with fear!
For while skilled hands caught up the gleaming threads
And bound them into cords, a hundred heads
Yielded their beauteous tresses to the sword,
And cast them down to swell the precious hoard.
Nor was the noble sacrifice in vain
Another day beheld the giant slain.

WISHES FOR A LITTLE GIRL

77 What would I ask the kindly fates to give
To crown her life, if I could have my way?
My strongest wishes would be negative,

POESY

If they would but obey.

2 Give her not greatness. For great souls must stand
Alone and lonely in this little world:
Cleft rocks that show the great Creator's hand,
Thither by earthquakes hurled.

3 Give her not genius. Spare her the cruel pain
Of finding her whole life a prey for daws;
Of hearing with quickened sense and burning brain
The world's sneer-tinged applause.

4 Give her not perfect beauty's gifts. For then
Her truthful mirror would infuse her mind
With love for self, and for the praise of men,
That lowers woman-kind.

5 But make her fair and comely to the sight,
Give her more heart than brain, more love than pride.
Let her be tender-thoughted, cheerful, bright,
Some strong man's star and guide.

6 Not vainly questioning why she was sent
Into this restless world of toil and strife,
Let her go bravely on her way, content
To make the best of life.

ROMNEY

78 Nay, Romney, nay-- I will not hear you say
Those words again: "I love you, love you sweet!"
You are profane-- blasphemous. I repeat,
You are no actor for so grand a play.
2 You love with all your heart? Well, that may be;
Some cups are fashioned shallow. Should I try
To quench my thirst from one of those, when dry--
I who have had a full bowl proffered me--

3 A new bowl brimming with a draught divine,
One single taste thrilled to the finger-tips?
Think you I even care to bathe my lips
With this poor sweetened water you call wine?

POESY

4 And though I spilled the nectar ere
’twas quaffed,
And broke the bowl in wanton folly,
yet
I would die of my thirst ere I would
wet
My burning lips with any meaner
draught.

5 So leave me, Romney. One who
has seen a play
Enacted by a star cannot endure
To see it rendered by an amateur.
You know not what Love is--
now go away!

MY HOME

79 This is the place that I love the
best,
A little brown house like a ground-
bird’s nest,
Hid among grasses, and vines, and
trees,
Summer retreat of the birds and
bees.

2 The tenderest light that ever was
seen
Sifts through the vine-made window
screen--
Sifts and quivers, and flits and falls
On home-made carpets and gray-
hung walls.

3 All through June, the west wind
free
The breath of the clover brings to
me.
All through the languid July day
I catch the scent of the new-mown
hay.

4 The morning glories and scarlet
vine
Over the doorway twist and twine;
And every day, when the house is
still,
The humming-bird comes to the
window-sill.

5 In the cunningest chamber under
the sun
I sink to sleep when the day is done;
And am waked at morn, in my
snow-white bed,
By a singing-bird on the roof
o’erhead.

6 Better than treasures brought from
Rome
Are the living pictures I see at home
My aged father, with frosted hair,
And mother’s face like a painting
rare

7 Far from the city’s dust and heat,
I get but sounds and odours sweet.
Who can wonder I love to stay,
Week after week, here hidden away,

POESY

In this sly nook that I love the best
The little brown house, like a
ground-bird's nest?

TO MARRY OR NOT TO MARRY?
A GIRL'S REVERIE

80 Mother says, "Be in no hurry,
Marriage oft means care and
worry."

2 Auntie says, with manner grave,
"Wife is synonym for slave."

3 Father asks, in tones commanding,
"How does Bradstreet rate his
standing?"

4 Sister crooning to her twins,
Sighs, "With marriage care begins."

5 Grandma, near life's closing days,
Murmurs, "Sweet are girlhood's
ways."

6 Maud, twice widowed ("sod and
grass")
Looks at me and moans "Alas!"

7 They are six, and I am one,
Life for me has just begun.

8 They are older, calmer, wiser:
Age should aye be youth's adviser.

9 They must know-- and yet, dear
me,
When in Harry's eyes I see

10 All the world of love there
burning
On my six advisers turning,

11 I make answer, "Oh, but Harry
Is not like most men who marry.

12 "Fate has offered me a prize,
Life with love means Paradise.

13 "Life without it is not worth
All the foolish joys of earth."

14 So, in spite of all they say,
I shall name the wedding day.

AN AFTERNOON

81 I am stirred by the dream of an
afternoon
Of a perfect day-- though it was not
June;
The lilt of winds, and the droning
tune
That a busy city was humming.

2 And a bronze-brown head, and lips
like wine

POESY

Leaning out through the window-vine
A-list for steps that were maybe mine--
Eager steps that were coming.

3 I can see it all, as a dreamer may--
The tender smile on your lips that day,
And the glow on your cheek as we rode away
Into the golden weather.
4 And a love-light shone in your eyes of brown--
I swear there did!-- as we drove down
The crowded avenue out of the town,
Through shadowy lanes, together:

5 Drove out into the sunset-skies
That glowed with wonderful crimson dyes;
And with soul and spirit, and heart and eyes,
We silently drank their splendour.

6 But the golden glory that lit the place
Was not alone from the sunset's grace--
For I saw in your fair, uplifted face
A light that was wondrously tender.

7 I say I saw it. And yet to-day
I ask myself, in a cynical way,
Was it only a part you had learned to play,
To see me act the lover?

8 And I curse myself for a fool. And yet
I would willingly die without one regret
Could I bring back the day whose sun has set--
And you-- and live it over.

RIVER AND SEA

82 We stood by the river that swept
In its glory and grandeur away;
But never a pulse o' me leapt,
And you wondered at me that day.

2 We stood by the lake as it lay
With its dimpled face turned to the light;
Was it strange I had nothing to say
To so fair and enchanting a sight?

3 I look on your tresses of gold--
You are fair and a thing to be loved
Do you think I am heartless and cold
That I look and am wholly unmoved?

4 One answer, dear friend, I will make
To the questions your eyes ask of me:
“Talk not of the river or lake
To those who have looked on the sea”

WHAT HAPPENS?

83 When thy hand touches mine, through all the mesh
Of intricate and interlacèd veins
Shoot swift delights that border on keen pains:
Flesh thrills to thrilling flesh.

2 When in thine eager eyes I look to find
A comrade to my thought, thy ready brain
Delves down and makes its inmost meaning plain:
Mind answers unto mind.

3 When hands and eyes are hid by seas that roll
Wide wastes between us, still so near thou art
I count the very pulses of thy heart:
Soul speaketh unto soul.

4 So every law, or human or divine,
In heart and brain and spirit makes thee mine.

POSSESSION

84 That which we had we still possess,
Though leaves may drop and stars may fall;
No circumstance can make it less,
Or take it from us, all in all.

2 That which is lost we did not own;
We only held it for a day--
A leaf by careless breezes blown;
No fate could take our own away.

3 I hold it as a changeless law
From which no soul can sway or swerve,
We have that in us which will draw
Whate’er we need or most deserve.

4 Even as the magnet to the steel
Our souls are to our best desires;
The Fates have hearts and they can feel
They know what each true life requires.

5 We think we lose when we most gain;
We call joys ended ere begun;

POESY

When stars fade out do skies
complain,
Or glory in the rising sun?

No fate could rob us of our own--
No circumstance can make it less;
What time removes was but a loan,
For what was ours we still possess.

The Book of Divine Panagogue called

INTERPRETATION

OF THE INTERPRETATION OF SCRIPTURE

Benedict of Spinoza

1 When people declare, as all are ready to do, that the Bible is the Word of God teaching human true blessedness and the way of salvation, they evidently do not mean what they say; 2 for the masses take no pains at all to live according to Scripture, and we see most people endeavouring to hawk about their own commentaries as the word of God, and giving their best efforts, under the guise of religion, to compelling others to think as they do: 3 we generally see, I say, theologians anxious to learn how to wring their inventions and sayings out of the sacred text, and to fortify them with Divine authority. 4 Such persons never display, less scruple or more zeal than when they, are interpreting Scripture or the mind of the Holy Ghost; 5 if we ever see them perturbed, it is not that they fear to attribute some error to the Holy Spirit, and to stray from the right path, 6 but that they are afraid to be convicted of error by others, and thus to overthrow and bring into contempt their own authority.

7 But if people really believed what they verbally testify of Scripture, they would adopt quite a different plan of life: 8 their minds would not be agitated by so many contentions, nor so many hatreds, and they would cease to be excited by such a blind and rash passion for interpreting the sacred writings, and excogitating novelties in religion. 9 On the contrary, they would not dare to adopt, as the teaching of Scripture, anything which they could not plainly deduce therefrom: 10 lastly, those sacrilegious persons who have dared, in several passages, to interpolate the Bible, would have shrunk from so great a crime, and would have stayed their sacrilegious hands.

11 Ambition and unscrupulousness have waxed so powerful, that religion is thought to consist, not so much in respecting the writings of the Holy Ghost, as in defending human commentaries, 12 so that religion is no longer identified with charity, but with spreading discord and propagating insensate

hatred disguised under the name of zeal for the Lord, and eager ardour.

13 To these evils we must add superstition, which teaches people to despise reason and Nature, and only to admire and venerate that which is repugnant to both: 14 whence it is not wonderful that for the sake of increasing the admiration and veneration felt for Scripture, people strive to explain it so as to make it appear to contradict, as far as possible, both one and the other: 15 thus they dream that most profound mysteries lie hid in the Bible, and weary themselves out in the investigation of these absurdities, to the neglect of what is useful. 16 Every result of their diseased imagination they attribute to the Holy Ghost, and strive to defend with the utmost zeal and passion; 17 for it is an observed fact that humans employ their reason to defend conclusions arrived at by reason, but conclusions arrived at by the passions are defended by the passions.

18 If we would separate ourselves from the crowd and escape from theological prejudices, instead of rashly accepting human commentaries for Divine documents, 19 we must consider the true method of interpreting Scripture and dwell upon it at some length: for if we remain in ignorance of this we cannot know, certainly, what the Bible and the Holy Spirit wish to teach.

20 I may sum up the matter by saying that the method of interpreting Scripture does not widely differ from the method of interpreting Nature-- in fact, it is almost the same. 21 For as the interpretation of Nature consists in the examination of the history of Nature, and therefrom deducing definitions of natural phenomena on certain fixed axioms, 22 so Scriptural interpretation proceeds by the examination of Scripture, and inferring the intention of its authors as a legitimate conclusion from its fundamental principles. 23 By working in this manner everyone will always advance without danger of error-- that is, if they admit no principles for interpreting Scripture, and discussing its contents save such as they find in Scripture itself-- 24 and will be able with equal

security to discuss what surpasses our understanding, and what is known by the natural light of reason.

25 In order to make clear that such a method is not only correct, but is also the only one advisable, and that it agrees with that employed in interpreting Nature, 26 I must remark that Scripture very often treats of matters which cannot be deduced from principles known to reason: for it is chiefly made up of narratives and revelation: 27 the narratives generally contain miracles-- that is, relations of extraordinary natural occurrences adapted to the opinions and judgment of the historians who recorded them: 28 the revelations also were adapted to the opinions of the prophets, and in themselves surpassed human comprehension. 29 Therefore the knowledge of all these-- that is, of nearly the whole contents of Scripture, must be sought from Scripture alone, even as the knowledge of Nature is sought from Nature. 30 As for the moral doctrines which are also contained in the Bible, they may be demonstrated from received axioms, but we cannot prove in the same manner that Scripture intended to teach them, this can only be learned from Scripture itself.

31 If we would bear unprejudiced witness to the Divine origin of Scripture, we must prove solely on its own authority that it teaches true moral doctrines, for by such means alone can its Divine origin be demonstrated: 32 we have shown that the certitude of the prophets depended chiefly on their having minds turned towards what is just and good, therefore we ought to have proof of their possessing this quality before we repose faith in them. 33 From miracles God's divinity cannot be proved, as I have already shown, and need not now repeat, for miracles could be wrought by false prophets. 34 Wherefore the Divine origin of Scripture must consist solely in its teaching true virtue. 35 But we must come to our conclusion simply on Scriptural grounds, for if we were unable to do so we could not, unless strongly prejudiced accept the Bible and bear witness to its Divine origin. 36 Our knowledge of Scripture must then be looked for in

Scripture only. 37 Lastly, Scripture does not give us definition of things any more than Nature does: 38 therefore, such definitions must be sought in the latter case from the diverse workings of Nature; in the former case, from the various narratives about the given subject which occur in the Bible.

39 The universal rule, then, in interpreting Scripture is to accept nothing as an authoritative Scriptural statement which we do not perceive very clearly when we examine it in the light of its history. 40 What I mean by its history, and what should be the chief points elucidated, I will now explain. The history of a Scriptural statement comprises:

41 I. The nature and properties of the language in which the books of the Bible were written, and in which their authors were, accustomed to speak. 42 We shall thus be able to investigate every expression by comparison with common conversational usages. 43 Now all the writers both of the Old Testament and the New were Hebrews: therefore, a knowledge of the Hebrew language is before all things necessary, not only for the comprehension of the Old Testament, which was written in that tongue, but also of the New: 44 for although the latter was published in other languages, yet its characteristics are Hebrew.

45 II. An analysis of each book and arrangement of its contents under heads; so that we may have at hand the various texts which treat of a given subject. 46 Lastly, a note of all the passages which are ambiguous or obscure, or which seem mutually contradictory. 47 I call passages clear or obscure according as their meaning is inferred easily or with difficulty in relation to the context, not according as their truth is perceived easily or the reverse by reason. 48 We are at work not on the truth of passages, but solely on their meaning. 49 We must take especial care, when we are in search of the meaning of a text, not to be led away by our reason in so far as it is founded on principles of natural knowledge (to say nothing of prejudices): 50 in order not to confound the meaning of a passage with its truth, we must examine it solely by means of the signification of the words, or by a

reason acknowledging no foundation but Scripture.

51 I will illustrate my meaning by an example. The words of Moses, "God is a fire" and "God is jealous," are perfectly clear so long as we regard merely the signification of the words, 52 and I therefore reckon them among the clear passages, though in relation to reason and truth they are most obscure: still, although the literal meaning is repugnant to the natural light of reason, 53 nevertheless, if it cannot be clearly overruled on grounds and principles derived from its Scriptural "history," it, that is, the literal meaning, must be the one retained: 54 and contrariwise if these passages literally interpreted are found to clash with principles derived from Scripture, though such literal interpretation were in absolute harmony with reason, they must be interpreted in a different manner, i.e. metaphorically.

55 If we would know whether Moses believed God to be a fire or not, we must on no account decide the question on grounds of the reasonableness or the reverse of such an opinion, but must judge solely by the other opinions of Moses which are on record. 56 In the present instance, as Moses says in several other passages that God has no likeness to any visible thing, whether in heaven or in earth, or in the water, either all such passages must be taken metaphorically, or else the one before us must be so explained. 57 However, as we should depart as little as possible from the literal sense, we must first ask whether this text, God is a fire, admits of any but the literal meaning-- 58 that is, whether the word fire ever means anything besides ordinary natural fire. 59 If no such second meaning can be found, the text must be taken literally, however repugnant to reason it may be: 60 and all the other passages, though in complete accordance with reason, must be brought into harmony with it. 61 If the verbal expressions would not admit of being thus harmonised, we should have to set them down as irreconcilable, and suspend our judgment concerning them. 62 However, as we find the name fire applied to anger and jealousy (see

Job, Chapter-31:12) we can thus easily reconcile the words of Moses, and legitimately conclude that the two propositions God is a fire, and God is jealous, are in meaning identical.

63 Further, as Moses clearly teaches that God is jealous, and nowhere states that God is without passions or emotions, we must evidently infer that Moses held this doctrine himself, or at any rate, that he wished to teach it, 64 nor must we refrain because such a belief seems contrary to reason: for as we have shown, we cannot wrest the meaning of texts to suit the dictates of our reason, or our preconceived opinions. 65 The whole knowledge of the Bible must be sought solely from itself.

66 III. Lastly, such a history should relate the environment of all the prophetic books extant; 67 that is, the life, the conduct, and the studies of the author of each book, who they was, what was their occasion, and the epoch of their writing, whom did they write for, and in what language. 68 Further, it should inquire into the fate of each book: how it was first received, into whose hands it fell, how many different versions there were of it, 69 by whose advice was it received into the Bible, and, lastly, how all the books now universally accepted as sacred, were united into a single whole.

70 All such information should, as I have said, be contained in the "history" of Scripture. 71 For, in order to know what statements are set forth as laws, and what as moral precepts, it is important to be acquainted with the life, the conduct, and the pursuits of their author: 72 moreover, it becomes easier to explain a human's writings in proportion as we have more intimate knowledge of your genius and temperament.

73 Further, that we may not confound precepts which are eternal with those which served only a temporary purpose, or were only meant for a few, 74 we should know what was the occasion, the time, the age, in which each book was written, and to what nation it was addressed. 75 Lastly, we should have knowledge on the other points I have mentioned, in order to be sure, in addition to the authenticity of the work, 76 that it has not been tampered with by

sacrilegious hands, or whether errors can have crept in, and, if so, whether they have been corrected by people sufficiently skilled and worthy of credence. 77 All these things should be known, that we may not be led away by blind impulse to accept whatever is thrust on our notice, instead of only that which is sure and indisputable.

78 Now when we are in possession of this history of Scripture, and have finally decided that we assert nothing as prophetic doctrine which does not directly follow from such history, or which is not clearly deducible from it, 79 then, I say, it will be time to gird ourselves for the task of investigating the mind of the prophets and of the Holy Spirit. 80 But in this further arguing, also, we shall require a method very like that employed in interpreting Nature from Her history.

81 As in the examination of natural phenomena we try first to investigate what is most universal and common to all nature-- 82 such, for instance, as motion and rest, and their laws and rules, which Nature always observes, and through which She continually works-- and then we proceed to what is less universal; 83 so, too, in the history of Scripture, we seek first for that which is most universal, and serves for the basis and foundation of all Scripture, a doctrine, in fact, that is commended by all the prophets as eternal and most profitable to all humans.

84 For example, that God is one, and that He is omnipotent, that He alone should be worshipped, that He has a care for all humans, and that He especially loves those who adore Him and love their neighbour as themselves. 85 These and similar doctrines, I repeat, Scripture everywhere so clearly and expressly teaches, that no one was ever in doubt of its meaning concerning them. 86 The nature of God, His manner of regarding and providing for things, and similar doctrines, Scripture nowhere teaches professedly, and as eternal doctrine; 87 on the contrary, we have shown that the prophets themselves did not agree on the subject; therefore, we must not lay down any doctrine as Scriptural on such subjects, though it may

appear perfectly clear on rational grounds.

88 From a proper knowledge of this universal doctrine of Scripture, we must then proceed to other doctrines less universal, but which, nevertheless, have regard to the general conduct of life, and flow from the universal doctrine like rivulets from a source; 89 such are all particular external manifestations of true virtue, which need a given occasion for their exercise; 90 whatever is obscure or ambiguous on such points in Scripture must be explained and defined by its universal doctrine; 91 with regard to contradictory instances, we must observe the occasion and the time in which they were written. 92 For instance, when Christ says, "Blessed are they that mourn, for they shall be comforted" we do not know, from the actual passage, what sort of mourners are meant; 93 as, however, Christ afterwards teaches that we should have care for nothing, save only for the kingdom of God and His righteousness, which is commended as the highest good (see Matthew, Chapter-6:33), 94 it follows that by mourners He only meant those who mourn for the kingdom of God and righteousness neglected by human: 95 for this would be the only cause of mourning to those who love nothing but the Divine kingdom and justice, and who evidently despise the gifts of fortune. 96 So, too, when Christ says: "But if a person strike you on the right cheek, turn to them the left also," and the words which follow. 97 If He had given such a command, as a lawgiver, to judges, He would thereby have abrogated the law of Moses, but this He expressly says He did not do (Matthew-5:17). 98 Wherefore we must consider who was the speaker, what was the occasion, and to whom were the words addressed.

99 Now Christ said that He did not ordain laws as a legislator, but inculcated precepts as a teacher: inasmuch as He did not aim at correcting outward actions so much as the frame of mind. 100 Further, these words were spoken to people who were oppressed, who lived in a corrupt commonwealth on the brink of ruin, where justice was utterly

neglected. 101 The very doctrine inculcated here by Christ just before the destruction of the city was also taught by Jeremiah before the first destruction of Jerusalem, that is, in similar circumstances, as we see from Lamentations 3:25-30. 102 Now as such teaching was only set forth by the prophets in times of oppression, and was even then never laid down as a law; 103 and as, on the other hand, Moses (who did not write in times of oppression, but-- mark this-- strove to found a well-ordered commonwealth), while condemning envy and hatred of one's neighbour, yet ordained that an eye should be given for an eye, 104 it follows most clearly from these purely Scriptural grounds that this precept of Christ and Jeremiah concerning submission to injuries was only valid in places where justice is neglected, and in a time of oppression, but does not hold good in a well-ordered state.

105 In a well-ordered state where justice is administered every one is bound, if you would be accounted just, to demand penalties before the judge (see Leviticus:1), 106 not for the sake of vengeance (Leviticus. 19:17, 18), but in order to defend justice and your country's laws, and to prevent the wicked rejoicing in their wickedness. 107 All this is plainly in accordance with reason. 108 I might cite many other examples in the same manner, but I think the foregoing are sufficient to explain my meaning and the utility of this method, and this is all my present purpose.

109 Hitherto we have only shown how to investigate those passages of Scripture which treat of practical conduct, and which, therefore, are more easily examined, for on such subjects there was never really any controversy among the writers of the Bible. 110 The purely speculative passages cannot be so easily traced to their real meaning: the way becomes narrower, 111 for as the prophets differed in matters speculative among themselves, and the narratives are in great measure adapted to the prejudices of each age, we must not, on any account infer the intention of one prophet from clearer passages in the writings of another; 112 nor must we so explain their meaning,

unless it is perfectly plain that the two prophets were at one in the matter.

113 How we are to arrive at the intention of the prophets in such cases I will briefly explain. 114 Here, too, we must begin from the most universal proposition, inquiring first from the most clear Scriptural statements what is the nature of prophecy or revelation, and wherein does it consist; 115 then we must proceed to miracles, and so on to whatever is most general till we come to the opinions of a particular prophet, and, at last, to the meaning of a particular revelation, prophecy, history, or miracle.

116 We have already pointed out that great caution is necessary not to confound the mind of a prophet or historian with the mind of the Holy Spirit and the truth of the matter; therefore I need not dwell further on the subject. 117 I would, however, here remark concerning the meaning of revelation, that the present method only teaches us what the prophets really saw or heard, not what they desired to signify or represent by symbols. 118 The latter may be guessed at but cannot be inferred with certainty from Scriptural premises. 119 We have thus shown the plan for interpreting Scripture, and have, at the same time, demonstrated that it is the one and surest way of investigating its true meaning. 120 I am willing indeed to admit that those persons (if any such there be) would be more absolutely certainly right, who have received either a trustworthy tradition or an assurance from the prophets themselves, such as is claimed by the Pharisees; 121 or who have a pontiff gifted with infallibility in the interpretation of Scripture, such as the Roman Catholics boast. 122 But as we can never be perfectly sure, either of such a tradition or of the authority of the pontiff, we cannot found any certain conclusion on either: the one is denied by the oldest sect of Christians, the other by the oldest sect of Jews. 123 Indeed, if we consider the series of years (to mention no other point) accepted by the Pharisees from their Rabbis, during which time they say they have handed down the tradition from Moses, we shall find that it is not correct, as I show elsewhere.

124 Therefore such a tradition should be received with extreme suspicion; and although, according to our method, we are bound to consider as uncorrupted the tradition of the Jews, 125 namely, the meaning of the Hebrew words which we received from them, we may accept the latter while retaining our doubts about the former. 126 No one has ever been able to change the meaning of a word in ordinary use, though many have changed the meaning of a particular sentence. 127 Such a proceeding would be most difficult; for whoever attempted to change the meaning of a word, would be compelled, at the same time, to explain all the authors who employed it, each according to own temperament and intention, or else, with consummate cunning, to falsify them.

128 Further, the masses and the learned alike preserve language, but it is only the learned who preserve the meaning of particular sentences and books: 129 thus, we may easily imagine that the learned having a very rare book in their power, might change or corrupt the meaning of a sentence in it, but they could not alter the signification of the words; 130 moreover, if anyone wanted to change the meaning of a common word you would not be able to keep up the change among posterity, or in common parlance or writing. 131 For these and such-like reasons we may readily conclude that it would never enter into the mind of anyone to corrupt a language, though the intention of a writer may often have been falsified by changing own phrases or interpreting them amiss. 132 As then our method (based on the principle that the knowledge of Scripture must be sought from itself alone) is the sole true one, we must evidently renounce any knowledge which it cannot furnish for the complete understanding of Scripture. 133 I will now point out its difficulties and shortcomings, which prevent our gaining a complete and assured knowledge of the Sacred Text.

134 Its first great difficulty consists in its requiring a thorough knowledge of the Hebrew language. Where is such knowledge to be obtained? 135 The people of old who employed the

Hebrew tongue have left none of the principles and bases of their language to posterity; we have from them absolutely nothing in the way of dictionary, grammar, or rhetoric. 136 Now the Hebrew nation has lost all its grace and beauty (as one would expect after the defeats and persecutions it has gone through), and has only retained certain fragments of its language and of a few books. 137 Nearly all the names of fruits, birds, and fishes, and many other words have perished in the wear and tear of time.

138 Further, the meaning of many nouns and verbs which occur in the Bible are either utterly lost, or are subjects of dispute. And not only are these gone, but we are lacking in a knowledge of Hebrew phraseology. 139 The devouring tooth of time has destroyed turns of expression peculiar to the Hebrews, so that we know them no more. 140 Therefore we cannot investigate as we would all the meanings of a sentence by the uses of the language; 141 and there are many phrases of which the meaning is most obscure or altogether inexplicable, though the component words are perfectly plain. 142 To this impossibility of tracing the history of the Hebrew language must be added its particular nature and composition: 143 these give rise to so many ambiguities that it is impossible to find a method which would enable us to gain a certain knowledge of all the statements in Scripture,. 144 In addition to the sources of ambiguities common to all languages, there are many peculiar to Hebrew. These, I think, it worthwhile to mention.

145 Firstly, an ambiguity often arises in the Bible from our mistaking one letter for another similar one. 146 The Hebrews divide the letters of the alphabet into five classes, according to the five organs of the month employed in pronouncing them, namely, the lips, the tongue, the teeth, the palate, and the throat. 147 For instance, Alpha, Ghet, Hgain, He, are called gutturals, and are barely distinguishable, by any sign that we know, one from the other. 148 El, which signifies to, is often taken for hgal, which signifies above, and vice versa. Hence

sentences are often rendered rather ambiguous or meaningless.

149 A second difficulty arises from the multiplied meaning of conjunctions and adverbs. For instance, vau serves promiscuously for a particle of union or of separation, meaning, and, but, because, however, then: 150 ki, has seven or eight meanings, namely, wherefore, although, if, when, inasmuch as, because, a burning, and so on with almost all particles.

151 The third very fertile source of doubt is the fact that Hebrew verbs in the indicative mood lack the present, the past imperfect, the pluperfect, the future perfect, and other tenses most frequently employed in other languages; 152 in the imperative and infinitive moods they are wanting in all except the present, and a subjunctive mood does not exist. 153 Now, although all these defects in moods and tenses may be supplied by certain fundamental rules of the language with ease and even elegance, 154 the ancient writers evidently neglected such rules altogether, and employed indifferently future for present and past, and vice versa past for future, and also indicative for imperative and subjunctive, with the result of considerable confusion.

155 Besides these sources of ambiguity there are two others, one very important. Firstly, there are in Hebrew no vowels; secondly, the sentences are not separated by any marks elucidating the meaning or separating the clauses. 156 Though the want of these two has generally been supplied by points and accents, such substitutes cannot be accepted by us, inasmuch as they were invented and designed by people of an after age whose authority should carry no weight. 157 The ancients wrote without points (that is, without vowels and accents), as is abundantly testified; 158 their descendants added what was lacking, according to their own ideas of Scriptural interpretation; wherefore the existing accents and points are simply current interpretations, and are no more authoritative than any other commentaries.

159 Those who are ignorant of this fact cannot justify the author of the

Epistle to the Hebrews for interpreting (Chapter-11:21) Genesis (47:31) very differently from the version given in our Hebrew text as at present pointed, 160 as though the Apostle had been obliged to learn the meaning of Scripture from those who added the points. In my opinion the latter are clearly wrong. 161 In order that everyone may judge for yourself, and also see how the discrepancy arose simply from the want of vowels, I will give both interpretations. 162 Those who pointed our version read, "And Israel bent himself over, or (changing Hqain into Aleph, a similar letter) towards, the head of the bed." 163 The author of the Epistle reads, "And Israel bent himself over the head of his staff," substituting mate for mita, from which it only differs in respect of vowels. 164 Now as in this narrative it is Jacob's age only that is in question, and not his illness, which is not touched on till the next chapter, 165 it seems more likely that the historian intended to say that Jacob bent over the head of his staff (a thing commonly used by people of advanced age for their support) than that he bowed himself at the head of his bed, especially as for the former reading no substitution of letters is required.

166 In this example I have desired not only to reconcile the passage in the Epistle with the passage in Genesis, but also and chiefly to illustrate how little trust should be placed in the points and accents which are found in our present Bible, 167 and so to prove that you who would be without bias in interpreting Scripture should hesitate about accepting them, and inquire afresh for yourself. 168 Such being the nature and structure of the Hebrew language, one may easily understand that many difficulties are likely to arise, and that no possible method could solve all of them. 169 It is useless to hope for a way out of our difficulties in the comparison of various parallel passages (we have shown that the only method of discovering the true sense of a passage out of many alternative ones is to see what are the usages of the language), 170 for this comparison of parallel passages can only accidentally throw light

on a difficult point, seeing that the prophets never wrote with the express object of explaining their own phrases or those of other people, 171 and also because we cannot infer the meaning of one prophet or apostle by the meaning of another, unless on a purely practical question, not when the matter is speculative, or if a miracle, or history is being narrated. 172 I might illustrate my point with instances, for there are many inexplicable phrases in Scripture, but I would rather pass on to consider the difficulties and imperfections of the method under discussion.

173 A further difficulty attends the method, from the fact that it requires the history of all that has happened to every book in the Bible; such a history we are often quite unable to furnish. 174 Of the authors, or (if the expression be preferred), the writers of many of the books, we are either in complete ignorance, or at any rate in doubt, as I will point out at length. 175 Further, we do not know either the occasions or the epochs when these books of unknown authorship were written; 176 we cannot say into what hands they fell, nor how the numerous varying versions originated; nor, lastly, whether there were not other versions, now lost. 177 I have briefly shown that such knowledge is necessary, but I passed over certain considerations which I will now draw attention to. 178 If we read a book which contains incredible or impossible narratives, or is written in a very obscure style, and if we know nothing of its author, nor of the time or occasion of its being written, we shall vainly endeavour to gain any certain knowledge of its true meaning. 179 For being in ignorance on these points we cannot possibly know the aim or intended aim of the author; 180 if we are fully informed, we so order our thoughts as not to be in any way prejudiced either in ascribing to the author or they for whom the author wrote either more or less than own meaning, 181 and we only take into consideration what the author may have had in own mind, or what the time and occasion demanded. I think this must be tolerably evident to all.

182 It often happens that in different books we read histories in themselves similar, but which we judge very differently, according to the opinions we have formed of the authors. 183 I remember once to have read in some book that a man named Orlando Furioso used to drive a kind of winged monster through the air, fly over any countries he liked, kill unaided vast numbers of people and giants, and such like fancies, which from the point of view of reason are obviously absurd. 184 A very similar story I read in Ovid of Perseus, and also in the books of Judges and Kings of Samson, who alone and unarmed killed thousands of people, and of Elijah, who flew through the air, said at last went up to heaven in a chariot of fire, with horses of fire. 185 All these stories are obviously alike, but we judge them very differently. The first only sought to amuse, the second had a political object, the third a religious object. 186 We gather this simply from the opinions we had previously formed of the authors. Thus it is evidently necessary to know something of the authors of writings which are obscure or unintelligible, 187 if we would interpret their meaning; and for the same reason, in order to choose the proper reading from among a great variety, we ought to have information as to the versions in which the differences are found, and as to the possibility of other readings having been discovered by persons of greater authority.

188 A further difficulty attends this method in the case of some of the books of Scripture, namely, that they are no longer extant in their original language. 189 The Gospel according to Matthew, and certainly the Epistle to the Hebrews, were written, it is thought, in Hebrew, though they no longer exist in that form. 190 Aben Ezra affirms in his commentaries that the book of Job was translated into Hebrew out of another language, and that its obscurity arises from this fact. 191 I say nothing of the apocryphal books, for their authority stands on very inferior ground.

192 The foregoing difficulties in this method of interpreting Scripture from its own history, I conceive to be so great that I do

not hesitate to say that the true meaning of Scripture is in many places inexplicable, or at best mere subject for guesswork; 193 but I must again point out, on the other hand, that such difficulties only arise when we endeavour to follow the meaning of a prophet in matters which cannot be perceived, but only imagined, 194 not in things, whereof the understanding can give a clear idea, and which are conceivable through themselves: 195 matters which by their nature are easily perceived cannot be expressed so obscurely as to be unintelligible; as the proverb says, "a word is enough to the wise." 196 Euclid, who only wrote of matters very simple and easily understood, can easily be comprehended by anyone in any language; 197 we can follow his intention perfectly, and be certain of his true meaning, without having a thorough knowledge of the language in which he wrote; 198 in fact, a quite rudimentary acquaintance is sufficient. We need make no researches concerning the life, the pursuits, or the habits of the author; 199 nor need we inquire in what language, nor when he wrote, nor the vicissitudes of his book, nor its various readings, nor how, nor by whose advice it has been received.

200 What we here say of Euclid might equally be said of any book which treats of things by their nature perceptible: 201 thus we conclude that we can easily follow the intention of Scripture in moral questions, from the history we possess of it, and we can be sure of its true meaning. 202 The precepts of true piety are expressed in very ordinary language, and are equally simple and easily understood. 203 Further, as true salvation and blessedness consist in a true assent of the soul-- and we truly assent only to what we clearly understand-- it is most plain that we can follow with certainty the intention of Scripture in matters relating to salvation and necessary to blessedness; 204 therefore, we need not be much troubled about what remains: such matters, inasmuch as we generally cannot grasp them with our reason and understanding, are more curious than profitable.

205 I think I have now set forth the true method of Scriptural interpretation, and have sufficiently explained my own opinion thereon. 206 Besides, I do not doubt that everyone will see that such a method only requires the aid of natural reason. 207 The nature and efficacy of the natural reason consists in deducing and proving the unknown from the known, or in carrying premises to their legitimate conclusions; and these are the very processes which our method desiderates. 208 Though we must admit that it does not suffice to explain everything in the Bible, such imperfection does not spring from its own nature, 209 but from the fact that the path which it teaches us, as the true one, has never been tended or trodden by people, and has thus, by the lapse of time, become very difficult, and almost impassable, as, indeed, I have shown in the difficulties I draw attention to.

210 There only remains to examine the opinions of those who differ from me. The first which comes under our notice is, that the light of Nature has no power to interpret Scripture, but that a supernatural faculty is required for the task. 211 What is meant by this supernatural faculty I will leave to its propounders to explain. Personally, I can only suppose that they have adopted a very obscure way of stating their complete uncertainty about the true meaning of Scripture. 212 If we look at their interpretations, they contain nothing supernatural, at least nothing but the merest conjectures. 213 Let them be placed side by side with the interpretations of those who frankly confess that they have no faculty beyond their natural ones; we shall see that the two are just alike-- both human, both long pondered over, both labouriously invented. 214 To say that the natural reason is insufficient for such results is plainly untrue, firstly, for the reasons above stated, namely, that the difficulty of interpreting Scripture arises from no defect in human reason, 215 but simply from the carelessness (not to say malice) of people who neglected the history of the Bible while there were still materials for inquiry; 216 secondly, from the fact (admitted, I think, by all) that the supernatural faculty is

a Divine gift granted only to the faithful. 217 But the prophets and apostles did not preach to the faithful only, but chiefly to the unfaithful and wicked. 218 Such persons, therefore, were able to understand the intention of the prophets and apostles, otherwise the prophets and apostles would have seemed to be preaching to little boys and infants, not to people endowed with reason. 219 Moses, too, would have given his laws in vain, if they could only be comprehended by the faithful, who need no law. 220 Indeed, those who demand supernatural faculties for comprehending the meaning of the prophets and apostles seem truly lacking in natural faculties, so that we should hardly suppose such persons the possessors of a Divine supernatural gift.

221 The opinion of Maimonides was widely different. He asserted that each passage in Scripture admits of various, nay, contrary, meanings; 222 but that we could never be certain of any particular one till we knew that the passage, as we interpreted it, contained nothing contrary or repugnant to reason. 223 If the literal meaning clashes with reason, though the passage seems in itself perfectly clear, it must be interpreted in some metaphorical sense. 224 This doctrine he lays down very plainly in (the book of MIND) of his book, "More Nebuchim," for he says: "Know that we shrink not from affirming that the world hath existed from eternity, because of what Scripture saith concerning the world's creation. 225 For the texts which teach that the world was created are not more in number than those which teach that God hath a body; 226 neither are the approaches in this matter of the world's creation closed, or even made hard to us: so that we should not be able to explain what is written, as we did when we showed that God hath no body, 227 nay, peradventure, we could explain and make fast the doctrine of the world's eternity more easily than we did away with the doctrines that God hath a beatified body. 228 Yet two things hinder me from doing as I have said, and believing that the world is eternal. 229 As it hath been clearly shown that God hath not a body, we must perforce explain all those passages

whereof the literal sense agreeth not with the demonstration, for sure it is that they can be so explained. 230 But the eternity of the world hath not been so demonstrated, therefore it is not necessary to do violence to Scripture in support of some common opinion, whereof we might, at the bidding of reason, embrace the contrary."

231 Such are the words of Maimonides, and they are evidently sufficient to establish our point: 232 for if he had been convinced by reason that the world is eternal, he would not have hesitated to twist and explain away the words of Scripture till he made them appear to teach this doctrine. 233 He would have felt quite sure that Scripture, though everywhere plainly denying the eternity of the world, really intends to teach it. 234 So that, however clear the meaning of Scripture may be, he would not feel certain of having grasped it, so long as he remained doubtful of the truth of what, was written. 235 For we are in doubt whether a thing is in conformity with reason, or contrary thereto, so long as we are uncertain of its truth, and, consequently, we cannot be sure whether the literal meaning of a passage be true or false. 236 If such a theory as this were sound, I would certainly grant that some faculty beyond the natural reason is required for interpreting Scripture. 237 For nearly all things that we find in Scripture cannot be inferred from known principles of the natural reason, 238 and, therefore, we should be unable to come to any conclusion about their truth, or about the real meaning and intention of Scripture, but should stand in need of some further assistance.

239 Further, the truth of this theory would involve that the masses, having generally no comprehension of, nor leisure for, detailed proofs, would be reduced to receiving all their knowledge of Scripture on the authority and testimony of philosophers, 240 and, consequently, would be compelled to suppose that the interpretations given by philosophers were infallible. 241 Truly this would be a new form of ecclesiastical authority, and a new sort of priests or pontiffs, more likely to excite

humans' ridicule than their veneration.

242 Certainly our method demands a knowledge of Hebrew for which the masses have no leisure; but no such objection as the foregoing can be brought against us. 243 For the ordinary Jews or Gentiles, to whom the prophets and apostles preached and wrote, understood the language, and, consequently, the intention of the prophet or apostle addressing them; 244 but they did not grasp the intrinsic reason of what was preached, which, according to Maimonides, would be necessary for an understanding of it. 245 There is nothing, then, in our method which renders it necessary that the masses should follow the testimony of commentators, 246 for I point to a set of unlearned people who understood the language of the prophets and apostles; whereas Maimonides could not point to any such who could arrive at the prophetic or apostolic meaning through their knowledge of the causes of things.

247 As to the multitude of our own time, we have shown that whatsoever is necessary to salvation, though its reasons may be unknown, can easily be understood in any language, because it is thoroughly ordinary and usual; 248 it is in such understanding as this that the masses acquiesce, not in the testimony of commentators; with regard to other questions, the ignorant and the learned fare alike.

249 But let us return to the opinion of Maimonides, and examine it more closely. In the first place, he supposes that the prophets were in entire agreement one with another, and that they were consummate philosophers and theologians; 250 for he would have them to have based their conclusions on the absolute truth. 251 Further, he supposes that the sense of Scripture cannot be made plain from Scripture itself, 252 for the truth of things is not made plain therein (in that it does not prove any thing, nor teach the matters of which it speaks through their definitions and first causes), 253 therefore, according to Maimonides, the true sense of Scripture cannot be made plain from itself, and must not be there sought.

254 The falsity of such a doctrine is shown in this very chapter, for we have shown both by reason and examples that the meaning of Scripture is only made plain through Scripture itself, and even in questions deducible from ordinary knowledge should be looked for from no other source.

255 Lastly, such a theory supposes that we may explain the words of Scripture according to our preconceived opinions, twisting them about, and reversing or completely changing the literal sense, however plain it may be. 256 Such licence is utterly opposed to the teaching of this and the preceding chapters, and, moreover, will be evident to everyone as rash and excessive.

257 But if we grant all this licence, what can it effect after all? Absolutely nothing. 258 Those things which cannot be demonstrated, and which make up the greater part of Scripture, cannot be examined by reason, and cannot therefore be explained or interpreted by this rule; 259 whereas, on the contrary, by following our own method, we can explain many questions of this nature, and discuss them on a sure basis, as we have already shown, by reason and example. 260 Those matters which are by their nature comprehensible we can easily explain, as has been pointed out, simply by means of the context.

261 Therefore, the method of Maimonides is clearly useless: to which we may add, that it does away with all the certainty which the masses acquire by candid reading, or which is gained by any other persons in any other way. 262 In conclusion, then, we dismiss Maimonides' theory as harmful, useless, and absurd.

263 As to the tradition of the Pharisees, we have already shown that it is not consistent, while the authority of the popes of Rome stands in need of more credible evidence; 264 the latter, indeed, I reject simply on this ground, for if the popes could point out to us the meaning of Scripture as surely as did the high priests of the Jews, I should not be deterred by the fact that there have been heretic and impious Roman pontiffs; 265 for among the Hebrew high-priests of old there were also heretics and impious people who gained the

high-priesthood by improper means, 266 but who, nevertheless, had Scriptural sanction for their supreme power of interpreting the law. (See: Deuteronomy, Chapter-17:11 and 12, and Chapter-33:10, also Malachi, Chapter-2:8.).

267 However, as the popes can show no such sanction, their authority remains open to very grave doubt, 268 nor should anyone be deceived by the example of the Jewish high-priests and think that the Catholic religion also stands in need of a pontiff; 269 you should bear in mind that the laws of Moses being also the ordinary laws of the country, necessarily required some public authority to insure their observance; 270 for, if everyone were free to interpret the laws of own country as you pleased, no state could stand, but would for that very reason be dissolved at once, and public rights would become private rights. 271 With religion the case is widely different. Inasmuch as it consists not so much in outward actions as in simplicity and truth of character, it stands outside the sphere of law and public authority. 272 Simplicity and truth of character are not produced by the constraint of laws, nor by the authority of the state, no one the whole world over can be forced or legislated into a state of blessedness; 273 the means required for such a consummation are faithful and brotherly admonition, sound education, and, above all, free use of the individual judgment.

274 Therefore, as the supreme right of free thinking, even on religion, is in every human's power, and as it is inconceivable that such power could be alienated, it is also in every human's power to wield the supreme right and authority of free judgment in this behalf, and to explain and interpret religion for yourself. 275 The only reason for vesting the supreme authority in the interpretation of law, and judgment on public affairs in the hands of the magistrates, is that it concerns questions of public right. 276 Similarly the supreme authority in explaining religion, and in passing judgment thereon, is lodged with the individual because it concerns questions of individual right. 277 So far, then,

from the authority of the Hebrew high-priests telling in confirmation of the authority of the Roman pontiffs to interpret religion, it would rather tend to establish individual freedom of judgment. 278 Thus in this way also, we have shown that our method of interpreting Scripture is the best. 279 For as the highest power of Scriptural interpretation belongs to every human, the rule for such interpretation should be nothing but the natural light of reason which is common to all-- 280 not any supernatural light nor any external authority; moreover, such a rule ought not to be so difficult that it can only be applied by very skillful philosophers, but should be adapted to the natural and ordinary faculties and capacity of humankind. 281 And such I have shown our method to be, for such difficulties as it has arise from humans' carelessness, and are no part of its nature.

OF THE AUTHORSHIP OF THE PENTATEUCH AND THE OTHER HISTORICAL BOOKS OF THE OLD TESTAMENT

Benedict of Spinoza

2 In the former chapter we treated of the foundations and principles of Scriptural knowledge, and showed that it consists solely in a trustworthy history of the sacred writings; 2 such a history, in spite of its indispensability, the ancients neglected, or at any rate, whatever they may have written or handed down has perished in the lapse of time, 3 consequently the groundwork for such an investigation is to a great extent, cut from under us. 4 This might be put up with if succeeding generations had confined themselves within the limits of truth, and had handed down conscientiously what few particulars they had received or discovered without any additions from their own brains: 5 as it is, the history of the Bible is not so much imperfect as untrustworthy: the foundations are not only too scanty for building upon, but are also unsound. 6 It is part of my purpose to remedy these defects,

and to remove common theological prejudices. But I fear that I am attempting my task too late, 7 for people have arrived at the pitch of not suffering contradiction, but defending obstinately whatever they have adopted under the name of religion. 8 So widely have these prejudices taken possession of people's minds, that very few, comparatively speaking, will listen to reason. 9 However, I will make the attempt, and spare no efforts, for there is no positive reason for despairing of success.

10 In order to treat the subject methodically, I will begin with the received opinions concerning the true authors of the sacred books, and in the first place, speak of the author of the Pentateuch, who is almost universally supposed to have been Moses. 11 The Pharisees are so firmly convinced of his identity, that they account as a heretic anyone who differs from them on the subject. 12 Wherefore, Aben Ezra, a man of enlightened intelligence, and no small learning, who was the first, so far as I know, to treat of this opinion, dared not express his meaning openly, but confined himself to dark hints which I shall not scruple to elucidate, thus throwing full light on the subject.

13 The words of Aben Ezra which occur in his commentary on Deuteronomy are as follows: "Beyond Jordan, . . . If so be that thou understandest the mystery of the twelve . . . moreover Moses wrote the law . . . 14 The Canaanite was then in the land . . . . it shall be revealed on the mount of God . . . . then also behold his bed, his iron bed, then shalt thou know the truth." 15 In these few words he hints, and also shows that it was not Moses who wrote the Pentateuch, but someone who lived long after him, and further, that the book which Moses wrote was something different from any now extant. 16 To prove this, I say, he draws attention to the facts:

(1.) That the preface to Deuteronomy could not have been written by Moses, inasmuch as he had never crossed the Jordan.

17 (II.) That the whole book of Moses was written at full length on the circumference of a single altar (Deuteronomy, Chapter-27, and Joshua, Chapter-8:37), which altar,

according to the Rabbis, consisted of only twelve stones: 18 therefore the book of Moses must have been of far less extent than the Pentateuch. This is what our author means, I think, by the mystery of the twelve, 19 unless he is referring to the twelve curses contained in the chapter of Deuteronomy above cited, which he thought could not have been contained in the law, 20 because Moses bade the Levites read them after the recital of the law, and so bind the people to its observance. 21 Or again, he may have had in his mind the last chapter of Deuteronomy which treats of the death of Moses, and which contains twelve verses. But there is no need to dwell further on these and similar conjectures.

22 (III.) That in Deuteronomy, Chapter-31:9, the expression occurs, "and Moses wrote the law:" words that cannot be ascribed to Moses, but must be those of some other writer narrating the deeds and writings of Moses.

23 (IV.) That in Genesis, Chapter-12:6, the historian, after narrating that Abraham journeyed through the land of Canaan, adds, "and the Canaanite was then in the land," thus clearly excluding the time at which he wrote. 24 So that this passage must have been written after the death of Moses, when the Canaanites had been driven out, and no longer possessed the land.

25 Aben Ezra, in his commentary on the passage, alludes to the difficulty as follows:- "And the Canaanite was then in the land: it appears that Canaan, the grandson of Noah, took from another the land which bears his name; 26 if this be not the true meaning, there lurks some mystery in the passage, and let you who understands it keep silence." 27 That is, if Canaan invaded those regions, the sense will be, the Canaanite was then in the land, in contradistinction to the time when it had been held by another: 28 but if, as follows from Genenis, Chapter-10. Canaan was the first to inhabit the land, the text must mean to exclude the time present, that is the time at which it was written; 29 therefore it cannot be the work of Moses, in whose time the Canaanites still possessed those territories: this is the mystery

concerning which silence is recommended.

30 (V.) That in Genesis, Chapter 22:14 Mount Moriah is called the mount of God, a name which it did not acquire till after the building of the Temple; 31 the choice of the mountain was not made in the time of Moses, for Moses does not point out any spot as chosen by God; on the contrary, he foretells that God will at some future time choose a spot to which this name will be given.

32 (VI.) Lastly, that in Deuteronomy. Chapter-3, in the passage relating to Og, king of Bashan, these words are inserted: "For only Og king of Bashan remained of the remnant of giants: 33 behold, his bedstead was a bedstead of iron: is it not in Rabbath of the children of Ammon? nine cubits was the length thereof, and four cubits the breadth of it, after the cubit of a man." 34 This parenthesis most plainly shows that its writer lived long after Moses; for this mode of speaking is only employed by one treating of things long past, and pointing to relics for the sake of gaining credence: 35 moreover, this bed was almost certainly first discovered by David, who conquered the city of Rabbath (2 Samuel, Chapter-12:30.) 36 Again, the historian a little further on inserts after the words of Moses, "Jair, the son of Manasseh, took all the country of Argob unto the coasts of Geshuri and Maachathi; and called them after his own name, Bashan-havoth-jair, unto this day."

37 This passage, I say, is inserted to explain the words of Moses which precede it. "And the rest of Gilead, and all Bashan, being the kingdom of Og, gave I unto the half tribe of Manasseh; all the region of Argob, with all Bashan, which is called the land of the giants." 38 The Hebrews in the time of the writer indisputably knew what territories belonged to the tribe of Judah, but did not know them under the name of the jurisdiction of Argob, or the land of the giants. 39 Therefore the writer is compelled to explain what these places were which were anciently so styled, and at the same time to point out why they were at the time of his writing known by the name of Jair, who

was of the tribe of Manasseh, not of Judah. 40 We have thus made clear the meaning of Aben Ezra and also the passages of the Pentateuch which he cites in proof of his contention. 41 However, Aben Ezra does not call attention to every instance, or even the chief ones; there remain many of greater importance, which may be cited. 42 Namely (I.), that the writer of the books in question not only speaks of Moses in the third person, but also bears witness to many details concerning him; 43 for instance, "Moses talked with God;" "The Lord spoke with Moses face to face;" "Moses was the meekest of people" 44 (Numbers, Chapter-12:3); "Moses was wrath with the captains of the host; "Moses, the man of God, "Moses, the servant of the Lord, died;" "There was never a prophet in Israel like unto Moses,"

45 On the other hand, in Deuteronomy, where the law which Moses had expounded to the people and written is set forth, Moses speaks and declares what he has done in the first person: 46 "God spake with me" (Deuteronomy, Chapter-2:1, and 17), "I prayed to the Lord,". 47 Except at the end of the book, when the historian, after relating the words of Moses, begins again to speak in the third person, and to tell how Moses handed over the law which he had expounded to the people in writing, again admonishing them, and further, how Moses ended his life. 48 All these details, the manner of narration, the testimony, and the context of the whole story lead to the plain conclusion that these books were written by another, and not by Moses in person.

49 (II.) We must also remark that the history relates not only the manner of Moses' death and burial, and the thirty days' mourning of the Hebrews, but further compares him with all the prophets who came after him, and states that he surpassed them all. 50 "There was never a prophet in Israel like unto Moses, whom the Lord knew face to face." Such testimony cannot have been given of Moses by himself, nor by any who immediately succeeded him, 51 but it must come from someone who lived centuries afterwards, especially, as the historian speaks

of past times. "There was never a prophet," And of the place of burial, "No one knows it to this day."

52 (III.) We must note that some places are not styled by the names they bore during Moses' lifetime, but by others which they obtained subsequently. 53 For instance, Abraham is said to have pursued his enemies even unto Dan, a name not bestowed on the city till long after the death of Joshua (Genesis, Chapter-14:14, Judges, Chapter-18:29).

54 (IV.) The narrative is prolonged after the death of Moses, for in Exodus, chapter-16:34 we read that "the children of Israel did eat manna forty years until they came to a land inhabited, until they came unto the borders of the land of Canaan." 55 In other words, until the time alluded to in Joshua, chapter-6:12. 56 So, too, in Genesis, chapter-36:31 it is stated, "These are the kings that reigned in Edom before there reigned any king over the children of Israel." 57 The historian, doubtless, here relates the kings of Idumaea before that territory was conquered by David and garrisoned, as we read in 2 Samuel, chapter-8:14. 58 From what has been said, it is thus clearer than the sun at noonday that the Pentateuch was not written by Moses, but by someone who lived long after Moses. 59 Let us now turn our attention to the books which Moses actually did write, and which are cited in the Pentateuch; thus, also, shall we see that they were different from the Pentateuch. 60 Firstly, it appears from Exodus 17:14 that Moses, by the command of God, wrote an account of the war against Amalek. 61 The book in which he did so is not named in the chapter just quoted, but in Numbers, chapter-21:12 a book is referred to under the title of the wars of God, 62 and doubtless this war against Amalek and the castrametations said in Numbers, chapter-33:2 to have been written by Moses are therein described. 63 We hear also in Exodus, chapter-24:4 of another book called the Book of the Covenant, which Moses read before the Israelites when they first made a covenant with God. 64 But this book or this writing contained very little, namely, the laws or commandments of God

which we find in Exodus, chapter-20:22 to the end of chapter-24., and this no one will deny who reads the aforesaid chapter rationally and impartially. 65 It is there stated that as soon as Moses had learn't the feeling of the people on the subject of making a covenant with God, he immediately wrote down God's laws and utterances, 66 and in the morning, after some ceremonies had been performed, read out the conditions of the covenant to an assembly of the whole people. When these had been gone through, and doubtless understood by all, the whole people gave their assent.

67 Now from the shortness of the time taken in its perusal and also from its nature as a compact, this document evidently contained nothing more than that which we have just described. 68 Further, it is clear that Moses explained all the laws which he had received in the fortieth year after the exodus from Egypt; 69 also that he bound over the people a second time to observe them, and that finally he committed them to writing (Deuteronomy, chapter-1:5; chapter-29:14; chapter-31:9), 70 in a book which contained these laws explained, and the new covenant, and this book was therefore called the book of the law of God: 71 the same which was afterwards added to by Joshua when he set forth the fresh covenant with which he bound over the people and which he entered into with God (Joshua, chapter-24:25 and 26).

72 Now, as we have extent no book containing this covenant of Moses and also the covenant of Joshua, we must perforce conclude that it has perished, 73 unless, indeed, we adopt the wild conjecture of the Chaldean paraphrast Jonathan, and twist about the words of Scripture to our heart's content. 74 This commentator, in the face of our present difficulty, preferred corrupting the sacred text to confessing his own ignorance. 75 The passage in the book of Joshua which runs, "and Joshua wrote these words in the book of the law of God," he changes into "and Joshua wrote these words and kept them with the book of the law of God." 76 What is to be done with persons who will only see what pleases them? 77 What is such a

proceeding if it is not denying Scripture, and inventing another Bible out of our own heads? 78 We may therefore conclude that the book of the law of God which Moses wrote was not the Pentateuch, but something quite different, which the author of the Pentateuch duly inserted into his book. 79 So much is abundantly plain both from what I have said and from what I am about to add. 80 For in the passage of Deuteronomy above quoted, where it is related that Moses wrote the book of the law, the historian adds that he handed it over to the priests and bade them read it out at a stated time to the whole people. 81 This shows that the work was of much less length than the Pentateuch, inasmuch as it could be read through at one sitting so as to be understood by all; 82 further, we must not omit to notice that out of all the books which Moses wrote, this one book of the second covenant and the song (which latter he wrote afterwards so that all the people might learn it), was the only one which he caused to be religiously guarded and preserved. 83 In the first covenant he had only bound over those who were present, but in the second covenant he bound over all their descendants also (Denteronomy, chapter-29:14), 84 and therefore ordered this covenant with future ages to be religiously preserved, together with the Song, which was especially addressed to posterity: 85 as, then, we have no proof that Moses wrote any book save this of the covenant, and as he committed no other to the care of posterity; 86 and, lastly, as there are many passages in the Pentateuch which Moses could not have written, it follows that the belief that Moses was the author of the Pentateuch is ungrounded and even irrational. 87 Someone will perhaps ask whether Moses did not also write down other laws when they were first revealed to him-- 88 in other words, whether, during the course of forty years, he did not write down any of the laws which he promulgated, save only those few which I have stated to be contained in the book of the first covenant. 89 To this I would answer, that although it seems reasonable to suppose that Moses wrote down the laws at the time

when he wished to communicate them to the people, yet we are not warranted to take it as proved, 90 for I have shown above that we must make no assertions in such matters which we do not gather from Scripture, or which do not flow as legitimate consequences from its fundamental principles. 91 We must not accept whatever is reasonably probable. However even reason in this case would not force such a conclusion upon us: 92 for it may be that the assembly of elders wrote down the decrees of Moses and communicated them to the people, and the historian collected them, and duly set them forth in own narrative of the life of Moses. 93 So much for the five books of Moses: it is now time for us to turn to the other sacred writings.

94 The book of Joshua may be proved not to be an autograph by reasons similar to those we have just employed: 95 for it must be some other than Joshua who testifies that the fame of Joshua was spread over the whole world; 96 that he omitted nothing of what Moses had taught (Joshua, chapter-6:27; chapter-8. last verse; chapter-6:15); that he grew old and summoned an assembly of the whole people, and finally that he departed this life. 97 Furthermore, events are related which took place after Joshua's death. For instance, that the Israelites worshipped God, after his death, so long as there were any old people alive who remembered him; 98 and in chapter-16:10, we read that "Ephraim and Manasseh did not drive out the Canaanites which dwelt in Gezer, but the Canaanite dwelt in the land of Ephraim unto this day, and was tributary to him." 99 This is the same statement as that in Judges, chapter-1., and the phrase "unto this day" shows that the writer was speaking of ancient times. 100 With these texts we may compare the last verse of chapter-15., concerning the sons of Judah, and also the history of Caleb in the same chapter-5:14. 101 Further, the building of an altar beyond Jordan by the two tribes and a half, chapter-22:10, sqq., seems to have taken place after the death of Joshua, 102 for in the whole narrative his name is never mentioned, but the people alone held council as to waging war, sent

out legates, waited for their return, and finally approved of their answer.

103 Lastly, from chapter-10:14, it is clear that the book was written many generations after the death of Joshua, for it bears witness, there was never any, day like unto, that day, either before or after, that the Lord hearkened to the voice of a human," 104 If, therefore, Joshua wrote any book at all, it was that which is quoted in the work now before us, chapter-10:13.

105 With regard to the book of Judges, I suppose no rational person persuades the self that it was written by the actual Judges. 106 For the conclusion of the whole history contained in chapter-2 clearly shows that it is all the work-- of a single historian. 107 Further, inasmuch as the writer frequently tells us that there was then no king in Israel, it is evident that the book was written after the establishment of the monarchy.

108 The books of Samuel need not detain us long, inasmuch as the narrative in them is continued long after Samuel's death; but I should like to draw attention to the fact that it was written many generations after Samuel's death. 109 For in book 1. chapter-9:9, the historian remarks in a, parenthesis, "Before time, in Israel, when a man went to inquire of God, thus he spake: Come, and let us go to the seer; for he that is now called a prophet was before time called a seer."

110 Lastly, the books of Kings, as we gather from internal evidence, were compiled from the books of King Solomon (I Kings, chapter-11:41), from the chronicles of the kings of Judah (1 Kings, chapter-14:19, and 29), and the chronicles of the kings of Israel.

111 We may, therefore, conclude that all the books we have considered hitherto are compilations, and that the events therein are recorded as having happened in old time. 112 Now, if we turn our attention to the connection and argument of all these books, we shall easily see that they were all written by a single historian, who wished to relate the antiquities of the Jews from their first beginning down to the first destruction of the city. 113 The way in which the several books are connected one with the

other is alone enough to show us that they form the narrative of one and the same writer. 114 For as soon as he has related the life of Moses, the historian thus passes on to the story of Joshua: "And it came to pass after that Moses the servant of the Lord was dead, that God spake unto Joshua,"., 115 so in the same way, after the death of Joshua was concluded, he passes with identically the same transition and connection to the history of the Judges: "And it came to pass after that Joshua was dead, that the children of Israel sought from God," 116 To the book of Judges he adds the story of Ruth, as a sort of appendix, in these words: "Now it came to pass in the days that the judges ruled, that there was a famine in the land." 117 The first book of Samuel is introduced with a similar phrase; and so is the second book of Samuel. 118 Then, before the history of David is concluded, the historian passes in the same way to the first book of Kings, and, after David's death, to the Second book of Kings.

119 The putting together, and the order of the narratives, show that they are all the work of one person, writing with a create aim; 120 for the historian begins with relating the first origin of the Hebrew nation, and then sets forth in order the times and the occasions in which Moses put forth his laws, and made his predictions. 121 He then proceeds to relate how the Israelites invaded the promised land in accordance with Moses' prophecy (Deuteronomy, chapter-7); 122 and how, when the land was subdued, they turned their backs on their laws, and thereby incurred many misfortunes (Deuteronomy, chapter-31:16, and 17). 123 He tells how they wished to elect rulers, and how, according as these rulers observed the law, the people flourished or suffered (Deuteronomy, chapter-28:36); finally, how destruction came upon the nation, even as Moses had foretold. 124 In regard to other matters, which do not serve to confirm the law, the writer either passes over them in silence, or refers the reader to other books for information. 125 All that is set down in the books we have conduces to the sole object of setting forth the words and laws of

Moses, and proving them by subsequent events. 126 When we put together these three considerations, namely, the unity of the subject of all the books, the connection between them, and the fact that they are compilations made many generations after the events they relate had taken place, 127 we come to the conclusion, as I have just stated, that they are all the work of a single historian. 128 Who this historian was, it is not so easy to show; but I suspect that he was Ezra, and there are several strong reasons for adopting this hypothesis.

129 The historian whom we already know to be but one individual brings his history down to the liberation of Jehoiakim, and adds that he himself sat at the king's table all his life-- 130 that is, at the table either of Jehoiakim, or of the son of Nebuchadnezzar, for the sense of the passage is ambiguous: hence it follows that he did not live before the time of Ezra. 131 But Scripture does not testify of any except of Ezra (Ezra, chapter 7:10), that he "prepared his heart to seek the law of the Lord, and to set it forth, and further that he was a ready scribe in the law of Moses." 132 Therefore, I can not find anyone, save Ezra, to whom to attribute the sacred books.

133 Further, from this testimony concerning Ezra, we see that he prepared his heart, not only to seek the law of the Lord, but also to set it forth; 134 and, in Nehemiah, chapter-8:8, we read that "they read in the book of the law of God distinctly, and gave the sense, and caused them to understand the reading." 135 As, then, in Deuteronomy, we find not only the book of the law of Moses, or the greater part of it, but also many things inserted for its better explanation, 136 I conjecture that this Deuteronomy is the book of the law of God, written, set forth, and explained by Ezra, which is referred to in the text above quoted. 137 Two examples of the way matters were inserted parenthetically in the text of Deuteronomy, with a view to its fuller explanation, we have already given, in speaking of Aben Ezra's opinion. 138 Many others are found in the course of the work: for instance, in chapter-2:12: "The Horims dwelt also in Seir before

time; 139 but the children of Esau succeeded them, when they had destroyed them from before them, and dwelt in their stead; as Israel did unto the land of his possession, which the Lord gave unto them."

140 This explains verses 3 and 4 of the same chapter, where it is stated that Mount Seir, which had come to the children of Esau for a possession, did not fall into their hands uninhabited; 141 but that they invaded it, and turned out and destroyed the Horims, who formerly dwelt therein, even as the children of Israel had done unto the Canaanites after the death of Moses. 142 So, also, verses 6, 7, 8, 9, of the tenth chapter are inserted parenthetically among the words of Moses. 143 Everyone must see that verse 8, which begins, "At that time the Lord separated the tribe of Levi," necessarily refers to verse 5, and not to the death of Aaron, 144 which is only mentioned here by Ezra because Moses, in telling of the golden calf worshipped by the people, stated that he had prayed for Aaron. 145 He then explains that at the time at which Moses spoke, God had chosen for Himself the tribe of Levi in order that He may point out the reason for their election, and for the fact of their not sharing in the inheritance; after this digression, he resumes the thread of Moses' speech. 146 To these parentheses we must add the preface to the book, and all the passages in which Moses is spoken of in the third person, 147 besides many which we cannot now distinguish, though, doubtless, they would have been plainly recognised by the writer's contemporaries.

148 If, I say, we were in possession of the book of the law as Moses wrote it, I do not doubt that we should find a great difference in the words of the precepts, the order in which they are given, and the reasons by which they are supported. 149 A comparison of the decalogue in Deuteronomy with the decalogue in Exodus, where its history is explicitly set forth, will be sufficient to show us a wide discrepancy in all these three particulars, 150 for the fourth commandment is given not only in a different form, but at much greater length, while the reason for its observance differs wholly from

that stated in Exodus. 151 Again, the order in which the tenth commandment is explained differs in the two versions. 152 I think that the differences here as elsewhere are the work of Ezra, who explained the law of God to his contemporaries, and who wrote this book of the law of God, before anything else; 153 this I gather from the fact that it contains the laws of the country, of which the people stood in most need, 154 and also because it is not joined to the book which precedes it by any connecting phrase, but begins with the independent statement, "these are the words of Moses."

155 After this task was completed, I think Ezra set himself to give a complete account of the history of the Hebrew nation from the creation of the world to the entire destruction of the city, 156 and in this account he inserted the book of Deuteronomy, and, possibly, he called the first five books by the name of Moses, because his life is chiefly contained therein, and forms their principal subject; 157 for the same reason he called the sixth Joshua, the seventh Judges, the eighth Ruth, the ninth, and perhaps the tenth, Samuel, and, lastly, the eleventh and twelfth Kings. 158 Whether Ezra put the finishing touches to this work and finished it as he intended, we will discuss in the next chapter.

OTHER QUESTIONS CONCERNING THE SAME BOOKS: NAMELY, WHETHER THEY WERE COMPLETELY FINISHED BY EZRA, AND, FURTHER, WHETHER THE MARGINAL NOTES WHICH ARE FOUND IN THE HEBREW TEXTS WERE VARIOUS READINGS.

Benedict of Spinoza

3 How greatly the inquiry we have just made concerning the real writer of the twelve books aids us in attaining a complete understanding of them, 2 may be easily gathered solely from the passages which we have adduced in confirmation of our opinion, and which would be most obscure without it. 3 But besides the question of the writer, there are other points to notice which common superstition forbids the multitude to apprehend.

4 Of these the chief is, that Ezra (whom I will take to be the author of the aforesaid books until some

more likely person be suggested) did not put the finishing touches to the narrative contained therein, 5 but merely collected the histories from various writers, and sometimes simply set them down, leaving their examination and arrangement to posterity. 6 The cause (if it were not untimely death) which prevented him from completing his work in all its portions, I cannot conjecture, 7 but the fact remains most clear, although we have lost the writings of the ancient Hebrew historians, and can only judge from the few fragments which are still extant. 8 For the history of Hezekiah (2 Kings, chapter-18:17), as written in the vision of Isaiah, is related as it is found in the chronicles of the kings of Judah. 9 We read the same story, told with few exceptions, in the same words, in the book of Isaiah which was contained in the chronicles of the kings of Judah (2 Chronicles. 32:32). 10 From this we must conclude that there were various versions of this narrative of Isaiah's, unless, indeed, anyone would dream that in this, too, there lurks a mystery. 11 Further, the last chapter of 2 Kings 27-30 is repeated in the last chapter of Jeremiah, chapter-5.31-34.

12 Again, we find 2 Samuel, chapter-7. repeated in I Chronicles, chapter-17., but the expressions in the two passages are so curiously varied, that we can very easily see that these two chapters were taken from two different versions of the history of Nathan.

13 Lastly, the genealogy of the kings of Idumaea contained in Genesis, chapter-36:31, is repeated in the same words in 1 Chronicles, chapter-1, 14 though we know that the author of the latter work took his materials from other historians, not from the twelve books we have ascribed to Ezra. 15 We may therefore be sure that if we still possessed the writings of the historians, the matter would be made clear; 16 however, as we have lost them, we can only examine the writings still extant, and from their order and connection, their various repetitions, and, lastly, the contradictions in dates which they contain, judge of the rest.

INTERPRETATION

17 These, then, or the chief of them, we will now go through. First, in the story of Judah and Tamar (Genesis, chapter-38.) the historian thus begins: "And it came to pass at that time that Judah went down from his brethren." 18 This time cannot refer to what immediately precedes, but must necessarily refer to something else, 19 for from the time when Joseph was sold into Egypt to the time when the patriarch Jacob, with all his family, set out thither, cannot be reckoned as more than twenty-two years, 20 for Joseph, when he was sold by his brethren, was seventeen years old, and when he was summoned by Pharaoh from prison was thirty; 21 if to this we add the seven years of plenty and two of famine, the total amounts to twenty-two years. 22 Now, in so short a period, no one can suppose that so many things happened as are described; 23 that Judah had three children, one after the other, from one wife, whom he married at the beginning of the period; 24 that the eldest of these, when he was old enough, married Tamar, and that after he died his next brother succeeded to her; 25 that, after all this, Judah, without knowing it, had intercourse with his daughter-in-law, and that she bore him twins, and, finally, that the eldest of these twins became a father within the aforesaid period. 26 As all these events cannot have taken place within the period mentioned in Genesis, the reference must necessarily be to something treated of in another book: 27 and Ezra in this instance simply related the story, and inserted it without examination among his other writings.

28 However, not only this chapter but the whole narrative of Joseph and Jacob is collected and set forth from various histories, inasmuch as it is quite inconsistent with itself. 29 For in Genesis, chapter-47, we are told that Jacob, when he came at Joseph's bidding to salute Pharaoh, was 130-years old. 30 If from this we deduct the twenty-two years which he passed sorrowing for the absence of Joseph and the seventeen years forming Joseph's age when he was sold, and, lastly, the seven years for which Jacob served for Rachel, 31 we find that he was very

advanced in life, namely, eighty four, when he took Leah to wife, whereas Dinah was scarcely seven years old when she was violated by Shechem. 32 Simeon and Levi were aged respectively eleven and twelve when they spoiled the city and slew all the males therein with the sword.

33 There is no need that I should go through the whole Pentateuch. If anyone pays attention to the way in which all the histories and precepts in these five books are set down promiscuously and without order, with no regard for dates; 34 and further, how the same story is often repeated, sometimes in a different version, you will easily, I say, discern that all the materials were promiscuously collected and heaped together, in order that they might at some subsequent time be more readily examined and reduced to order. 35 Not only these five books, but also the narratives contained in the remaining seven, going down to the destruction of the city, are compiled in the same way. 36 For who does not see that in Judges, chapter-2:6 a new historian is being quoted, who had also written of the deeds of Joshua, and that his words are simply copied? 37 For after our historian has stated in the last chapter of the book of Joshua that Joshua died and was buried, and has promised, in the first chapter of Judges, to relate what happened after his death, 38 in what way, if he wished to continue the thread of his history, could he connect the statement here made about Joshua with what had gone before?

39 So, too, 1 Samuel, chapter-17 and 18, are taken from another historian, who assigns a cause for David's first frequenting Saul's court very different from that given in chapter-16. of the same book. 40 For he did not think that David came to Saul in consequence of the advice of Saul's servants, as is narrated in chapter-16, but that being sent by chance to the camp by his father on a message to his brothers, 41 he was for the first time remarked by Saul on the occasion of his victory, over Goliath the Philistine, and was retained at his court.

42 I suspect the same thing has taken place in chapter-26 of the same book, for the historian there seems to repeat the narrative given

in chapter-24 according to another person's version. But I pass over this, and go on to the computation of dates. 43 In I Kings, chapter-6, it is said that Solomon built the Temple in the four hundred and eightieth year after the exodus from Egypt; but from the historians themselves we get a much longer period, for:

Years

44 Moses governed the people in the desert 40

45 Joshua, who lived 110 years, did not, according to Josephus and others' opinion rule more than 26

46 Cusban Rishathaim held the people in subjection 8

47 Othniel, son of Kenag, was judge for 40

48 Eglon, King of Moab, governed the people 18

49 Ehud and Shamgar were judges 80

50 Jachin, King of Canaan, held the people in subjection 20

51 The people was at peace subsequently for 40

52 It was under subjection to Median 7

53 It obtained freedom under Gideon for 40

54 It fell under the rule of Abimelech 3

55 Tola, son of Puah, was judge 23

56 Jair was judge 22

57 The people was in subjection to the Philistines and Ammonites 18

58 Jephthah was judge 6

59 Ibzan, the Bethlehemite, was judge 7

60 Elon, the Zabulonite 10

61 Abclon, the Pirathonite 8

62 The people was again subject to the Philistines 40

63 Samson was judge 20

64 Eli was judge 40

65 The people again fell into subjection to the Philistines, till they were delivered by Samuel 20

66 David reigned 40

67 Solomon reigned before he built the temple 4

68 All these periods added together make a total of 580-years. 69 But to these must be added the years during which the Hebrew republic flourished after the death of Joshua, 70 until it was conquered by Cushan Rishathaim, which I take to be very numerous, for I

cannot bring myself to believe that immediately after the death of Joshua all those who had witnessed his miracles died simultaneously, 71 nor that their successors at one stroke bid farewell to their laws, and plunged from the highest virtue into the depth of wickedness and obstinacy. 72 Nor, lastly, that Cushan Rishathaim subdued them on the instant; each one of these circumstances requires almost a generation, and there is no doubt that Judges, chapter-2:7, 9, 10, comprehends a great many years which it passes over in silence.

73 We must also add the years during which Samuel was judge, the number of which is not stated in Scripture, and also the years during which Saul reigned, which are not clearly shown from his history. 74 It is, indeed, stated in 1 Samuel, chapter-13:1, that he reigned two years, but the text in that passage is mutilated, and the records of his reign lead us to suppose a longer period. 75 That the text is mutilated I suppose no one will doubt who has ever advanced so far as the threshold of the Hebrew language, for it runs as follows: 76 "Saul was in his year, when he began to reign, and he reigned two years over Israel." Who, I say, does not see that the number of the years of Saul's age when he began to reign has been omitted? 77 That the record of the reign presupposes a greater number of years is equally beyond doubt, 78 for in the same book, chapter-27:7, it is stated that David sojourned among the Philistines, to whom he had fled on account of Saul, a year and four months; 79 thus the rest of the reign must have been comprised in a space of eight months, which I think no one will credit.

80 Josephus, at the end of the sixth book of his antiquities, thus corrects the text: Saul reigned eighteen years while Samuel was alive, and two years after his death. 81 However, all the narrative in chapter-13. is in complete disagreement with what goes before. 82 At the end of chapter-7 it is narrated that the Philistines were so crushed by the Hebrews that they did not venture, during Samuel's life, to invade the borders of Israel; 83 but in chapter-13 we are told that the Hebrews

were invaded during the life of Samuel by the Philistines, and reduced by them to such a state of wretchedness and poverty that they were deprived not only of weapons with which to defend themselves, but also of the means of making more. 84 I should be at pains enough if I were to try and harmonise all the narratives contained in this first book of Samuel so that they should seem to be all written and arranged by a single historian. 85 But I return to my object. The years, then, during which Saul reigned must be added to the above computation; 86 and, lastly, I have not counted the years of the Hebrew anarchy, for I cannot from Scripture gather their number. 87 I cannot, I say, be certain as to the period occupied by the events related in Judges chapter-17 on till the end of the book.

88 It is thus abundantly evident that we cannot arrive at a true computation of years from the histories, and, further, that the histories are inconsistent themselves on the subject. 89 We are compelled to confess that these histories were compiled from various writers without previous arrangement and examination. 90 Not less discrepancy is found between the dates given in the Chronicles of the Kings of Judah, and those in the Chronicles of the Kings of Israel; 91 in the latter, it is stated that Jehoram, the son of Ahab, began to reign in the second year of the reign of Jehoram, the son of Jehoshaphat (2 Kings, chapter-1:17), 92 but in the former we read that Jehoram, the son of Jehoshaphat, began to reign in the fifth year of Jehoram, the son of Ahab (2 Kings, chapter-8:16). 93 Anyone who compares the narratives in Chronicles with the narratives in the books of Kings, will find many similar discrepancies.

94 These there is no need for me to examine here, and still less am I called upon to treat of the commentaries of those who endeavour to harmonise them. 95 The Rabbis evidently let their fancy run wild. Such commentators as I have, read, dream, invent, and as a last resort, play fast and loose with the language. 96 For instance, when it is said in 2 Chronicles, that Ahab

was forty-two years old when he began to reign, they pretend that these years are computed from the reign of Omri, not from the birth of Ahab. 97 If this can be shown to be the real meaning of the writer of the book of Chronicles, all I can say is, that he did not know how to state a fact. 98 The commentators make many other assertions of this kind, which if true, would prove that the ancient Hebrews were ignorant both of their own language, and of the way to relate a plain narrative. 99 I should in such case recognise no rule or reason in interpreting Scripture, but it would be permissible to hypothesise to one's heart's content.

100 If anyone thinks that I am speaking too generally, and without sufficient warrant, I would ask you to set yourself to showing us some fixed plan in these histories which might be followed without blame by other writers of chronicles, 101 and in your efforts at harmonising and interpretation, so strictly to observe and explain the phrases and expressions, the order and the connections, that we may be able to imitate these also in our writings. 102 If you succeeds, I will at once give you my hand, and you shall be to me as great Apollo; for I confess that after long endeavours I have been unable to discover anything of the kind. 103 I may add that I set down nothing here which I have not long reflected upon, and that, though I was imbued from my boyhood up with the ordinary opinions about the Scriptures, I have been unable to withstand the force of what I have urged.

104 However, there is no need to detain the reader with this question, and drive you to attempt an impossible task; I merely mentioned the fact in order to throw light on my intention. 105 I now pass on to other points concerning the treatment of these books. For we must remark, in addition to what has been shown, that these books were not guarded by posterity with such care that no faults crept in. 106 The ancient scribes draw attention to many doubtful readings, and some mutilated passages, but not to all that exist: 107 whether the faults are of sufficient importance to greatly embarrass the reader I will

not now discuss. 108 I am inclined to think that they are of minor moment to those, at any rate, who read the Scriptures with enlightenment: 109 and I can positively, affirm that I have not noticed any fault or various reading in doctrinal passages sufficient to render them obscure or doubtful.

110 There are some people, however, who will not admit that there is any corruption, even in other passages, but maintain that by some unique exercise of providence God has preserved from corruption every word in the Bible: 111 they say that the various readings are the symbols of profoundest mysteries, and that mighty secrets lie hid in the twenty-eight hiatus which occur, nay, even in the very form of the letters. 112 Whether they are actuated by folly and anile devotion, or whether by arrogance and malice so that they alone may be held to possess the secrets of God, I know not: 113 this much I do know, that I find in their writings nothing which has the air of a Divine secret, but only childish lucubrations. 114 I have read and known certain Kabbalistic triflers, whose insanity provokes my unceasing astonishment. 115 That faults have crept in will, I think, be denied by no sensible person who reads the passage about Saul, above quoted (1 Samuel, chapter-13:1) and also 2 Samuel-6:2: 116 "And David arose and went with all the people that were with him from Judah, to bring up from thence the ark of God." 117 No one can fail to remark that the name of their destination, viz., Kirjath-jearim has been omitted: nor can we deny that 2 Samuel, chapter-13:37, has been tampered with and mutilated. 118 "And Absalom fled, and went to Talmai, the son of Ammihud, king of Geshur. And he mourned for his son every day. So Absalom fled, and went to Geshur, and was there three years." 119 I know that I have remarked other passages of the same kind, but I cannot recall them at the moment.

120 That the marginal notes which are found continually in the Hebrew Codices are doubtful readings will, I think, be evident to everyone who has noticed that they often arise from the great

similarity, of some of the Hebrew letters, 121 such for instance, as the similarity between Kaph and Beth, Jod and Vau, Daleth and Reth. 122 For example, the text in 2 Samuel, chapter-5:24, runs "in the time when thou hearest," and similarly in Judges, chapter-21:22, 123 "And it shall be when their fathers or their brothers come unto us often," the marginal version is "come unto us to complain."

124 So also many various readings have arisen from the use of the letters named mutes, which are generally not sounded in pronunciation, and are taken promiscuously, one for the other. 125 For example, in Leviticus, chapter-25:29, it is written, "The house shall be established which is not in the walled city," but the margin has it, "which is in a walled city." 126 Though these matters are self-evident, it is necessary, to answer the reasonings of certain Pharisees, by which they endeavour to convince us that the marginal notes serve to indicate some mystery, and were added or pointed out by the writers of the sacred books.

127 The first of these reasons, which, in my opinion, carries little weight, is taken from the practice of reading the Scriptures aloud. 128 If, it is urged, these notes were added to show various readings which could not be decided upon by posterity, why has custom prevailed that the marginal readings should always be retained? 129 Why has the meaning which is preferred been set down in the margin when it ought to have been incorporated in the text, and not relegated to a side note?

130 The second reason is more specious, and is taken from the nature of the case. It is admitted that faults have crept into the sacred writings by chance and not by design; 131 but they say that in the five books the word for a girl is, with one exception, written without the letter "he," contrary to all grammatical rules, whereas in the margin it is written correctly according to the universal rule of grammar. 132 Can this have happened by mistake? Is it possible to imagine a clerical error to have been committed every time the word occurs? 133 Moreover, it would have been easy to supply

the emendation. Hence, when these readings are not accidental or corrections of manifest mistakes, it is supposed that they must have been set down on purpose by the original writers, and have a meaning.

134 However, it is easy to answer such arguments; as to the question of custom having prevailed in the reading of the marginal versions, I will not spare much time for its consideration: 135 I know not the promptings of superstition, and perhaps the practice may have arisen from the idea that both readings were deemed equally good or tolerable, 136 and therefore, lest either should be neglected, one was appointed to be written, and the other to be read. 137 They feared to pronounce judgment in so weighty a matter lest they should mistake the false for the true, and therefore they would give preference to neither, as they must necessarily have done if they had commanded one only to be both read and written. 138 This would be especially the case where the marginal readings were not written down in the sacred books: 139 or the custom may have originated because some things though rightly written down were desired to be read otherwise according to the marginal version, 140 and therefore the general rule was made that the marginal version should be followed in reading the Scriptures. 141 The cause which induced the scribes to expressly prescribe certain passages to be read in the marginal version, I will now touch on, for not all the marginal notes are various readings, 142 but some mark expressions which have passed out of common use, obsolete words and terms which current decency did not allow to be read in a public assembly. 143 The ancient writers, without any evil intention, employed no courtly paraphrase, but called things by their plain names. 144 Afterwards, through the spread of evil thoughts and luxury, words which could be used by the ancients without offence, came to be considered obscene. 145 There was no need for this cause to change the text of Scripture. Still, as a concession to the popular weakness, it became the custom to substitute more decent terms for words denoting

sexual intercourse, excreta, and to read them as they were given in the margin.

146 At any rate, whatever may have been the origin of the practice of reading Scripture according to the marginal version, it was not that the true interpretation is contained therein. 147 For besides that, the Rabbins in the Talmud often differ from the Massoretes, and give other readings which they approve of, as I will shortly show, certain things are found in the margin which appear less warranted by the uses of the Hebrew language. 148 For example, in 2 Samuel, chapter-14:22, we read, "In that the king hath fulfilled the request of his servant," a construction plainly regular, and agreeing with that in chapter-16. 149 But the margin has it "of thy servant," which does not agree with the person of the verb. 150 So, too, chapter-16:25 of the same book, we find, "As if one had inquired at the oracle of God," the margin adding "someone" to stand as a nominative to the verb. 151 But the correction is not apparently warranted, for it is a common practice, well known to grammarians in the Hebrew language, to use the third person singular of the active verb impersonally.

152 The second argument advanced by the Pharisees is easily answered from what has just been said, namely, that the scribes besides the various readings called attention to obsolete words. 153 For there is no doubt that in Hebrew as in other languages, changes of use made many words obsolete and antiquated, 154 and such were found by the later scribes in the sacred books and noted by them with a view to the books being publicly read according to custom. 155 For this reason the word nahgar is always found marked because its gender was originally common, and it had the same meaning as the Latin juvenis (a young person). 156 So also the Hebrew capital was anciently called Jerusalem, not Jerusalaim. 157 As to the pronouns himself and herself, I think that the later scribes changed vau into jod (a very frequent change in Hebrew) when they wished to express the feminine gender, but that the ancients only

distinguished the two genders by a change of vowels. 158 I may also remark that the irregular tenses of certain verbs differ in the ancient and modern forms, it being formerly considered a mark of elegance to employ certain letters agreeable to the ear.

159 In a word, I could easily multiply proofs of this kind if I were not afraid of abusing the patience of the reader. 160 Perhaps I shall be asked how I became acquainted with the fact that all these expressions are obsolete. 161 I reply that I have found them in the most ancient Hebrew writers in the Bible itself, and that they have not been imitated by subsequent authors, and thus they are recognised as antiquated, though the language in which they occur is dead. 162 But perhaps someone may press the question why, if it be true, as I say, that the marginal notes of the Bible generally mark various readings, 163 there are never more than two readings of a passage, that in the text and that in the margin, instead of three or more; 164 and further, how the scribes can have hesitated between two readings, one of which is evidently contrary to grammar, and the other a plain correction. 165 The answer to these questions also is easy: I will premise that it is almost certain that there once were more various readings than those now recorded. 166 For instance, one finds many in the Talmud which the Massoretes have neglected, and are so different one from the other that even the superstitious editor of the Bomberg Bible confesses that he cannot harmonise them. 167 "We cannot say anything," he writes, "except what we have said above, namely, that the Talmud is generally in contradiction to the Massorete." 168 So that we are nor bound to hold that there never were more than two readings of any passage, yet I am willing to admit, and indeed I believe that more than two readings are never found: 169 and for the following reasons:-

(I.) The cause of the differences of reading only admits of two, being generally the similarity of certain letters, so that the question resolved itself into which should be written Beth, or Kaf, Jod or Vau, Daleth or Reth: 170 cases

which are constantly occurring, and frequently yielding a fairly good meaning whichever alternative be adopted. 171 Sometimes, too, it is a question whether a syllable be long or short, quantity being determined by the letters called mutes. 172 Moreover, we never asserted that all the marginal versions, without exception, marked various readings; on the contrary, we have stated that many were due to motives of decency or a desire to explain obsolete words.

173 (II.) I am inclined to attribute the fact that more than two readings are never found to the paucity of exemplars, perhaps not more than two or three, found by the scribes. 174 In the treatise of the scribes, chapter-6, mention is made of three only, pretended to have been found in the time of Ezra, in order that the marginal versions might be attributed to him. 175 However that may be, if the scribes only had three codices we may easily imagine that in a given passage two of them would be in accord, for it would be extraordinary if each one of the three gave a different reading of the same text. 176 The dearth of copies after the time of Ezra will surprise no one who has read the 1st chapter of Maccabees, or Josephus's "Antiquities," Bk. 12, chapter-5. 177 Nay, it appears wonderful considering the fierce and daily persecution, that even these few should have been preserved. 178 This will, I think, be plain to even a cursory reader of the history of those times. 179 We have thus discovered the reasons why there are never more than two readings of a passage in the Bible, 180 but this is a long way from supposing that we may therefore conclude that the Bible was purposely written incorrectly in such passages in order to signify some mystery.

181 As to the second argument, that some passages are so faultily written that they are at plain variance with all grammar, and should have been corrected in the text and not in the margin, 182 I attach little weight to it, for I am not concerned to say what religious motive the scribes may have had for acting as they did: 183 possibly they did so from candour, wishing to transmit the few

exemplars of the Bible which they had found exactly in their original state, marking the differences they discovered in the margin, not as doubtful readings, but as simple variants. 184 I have myself called them doubtful readings, because it would be generally impossible to say which of the two versions is preferable.

185 Lastly, besides these doubtful readings the scribes have (by leaving a hiatus in the middle of a paragraph) marked several passages as mutilated. 186 The Massoretes have counted up such instances, and they amount to eight-and-twenty. 187 I do not know whether any mystery is thought to lurk in the number, at any rate the Pharisees religiously preserve a certain amount of empty space. 188 One of such hiatus occurs (to give an instance) in Genesis-4:8, where it is written, "And Cain said to his brother… and it came to pass while they were in the field," a space being left in which we should expect to hear what it was that Cain said.

189 Similarly there are (besides those points we have noticed) eight-and-twenty hiatus left by the scribes. 190 Many of these would not be recognised as mutilated if it were not for the empty space left. But I have said enough on this subject.

AN EXAMINATION OF THE REMAINING BOOKS OF THE OLD TESTAMENT ACCORDING TO THE PRECEDING METHOD.

Benedict of Spinoza

4 I now pass on to the remaining books of the Old Testament. 2 Concerning the two books of Chronicles I have nothing particular or important to remark, except that they were certainly written after the time of Ezra, and possibly after the restoration of the Temple by Judas Maccabaeus. 3 For in chapter-9 of the first book we find a reckoning of the families who were the first to live in Jerusalem, and in verse 17 the names of the porters, of which two recur in Nehemiah. 3 This shows that the books were certainly compiled after the rebuilding of the city. As to their actual writer, their authority, utility, and doctrine, I come to no conclusion. 4 I have always been astonished

that they have been included in the Bible by people who shut out from the canon the books of Wisdom, Tobit, and the others styled apocryphal. 5 I do not aim at disparaging their authority, but as they are universally received I will leave them as they are.

6 The Psalms were collected and divided into five books in the time of the second temple, for Psalm chapter-88 was published, according to Philo-Judaeus, while king Jehoiachin was still a prisoner in Babylon; and Psalm chapter-89 When the same king obtained his liberty: 7 I do not think Philo would have made the statement unless either it had been the received opinion in his time, or else had been told him by trustworthy persons. 8 The Proverbs of Solomon were, I believe, collected at the same time, or at least in the time of King Josiah; 9 for in chapter-25:1, it is written, "These are also proverbs of Solomon which the people of Hezekiah, king of Judah, copied out." 10 I cannot here pass over in silence the audacity of the Rabbis who wished to exclude from the sacred canon both the Proverbs and Ecclesiastes, and to put them both in the Apocrypha. 11 In fact, they would actually have done so, if they had not lighted on certain passages in which the law of Moses is extolled. 12 It is, indeed, grievous to think that the settling of the sacred canon lay in the hands of such people; however, I congratulate them, in this instance, on their suffering us to see these books in question, 13 though I cannot refrain from doubting whether they have transmitted them in absolute good faith; but I will not now linger on this point.

14 I pass on, then, to the prophetic books. An examination of these assures me that the prophecies therein contained have been compiled from other books, 15 and are not always set down in the exact order in which they were spoken or written by the prophets, but are only such as were collected here and there, so that they are but fragmentary.

16 Isaiah began to prophecy in the reign of Uzziah, as the writer himself testifies in the first verse. 17 He not only prophesied at that time, but furthermore wrote the history of that king (see 2

Chronicles, chapter-26:22) in a volume now lost. 18 That which we possess, we have shown to have been taken from the chronicles of the kings of Judah and Israel. 19 We may add that the Rabbis assert that this prophet prophesied in the reign of Manasseh, by whom he was eventually put to death, 20 and, although this seems to be a myth, it yet shows that they did not think that all Isaiah's prophecies are extant.

21 The prophecies of Jeremiah, which are related historically are also taken from various chronicles; 22 for not only are they heaped together confusedly, without any account being taken of dates, but also the same story is told in them differently in different passages. 23 For instance, in chapter-21. we are told that the cause of Jeremiah's arrest was that he had prophesied the destruction of the city to Zedekiah who consulted him. 24 This narrative suddenly passes, in chapter-22, to the prophet's remonstrances to Jehoiakim (Zedekiah's predecessor), and the prediction he made of that king's captivity; 25 then, in chapter-25, come the revelations granted to the prophet previously, that is in the fourth year of Jehoiakim, and, further on still, the revelations received in the first year of the same reign. 26 The continuator of Jeremiah goes on heaping prophecy upon prophecy without any regard to dates, until at last, in chapter-38 (as if the intervening chapters had been a parenthesis), he takes up the thread dropped in chapter-21. 27 In fact, the conjunction with which chapter-38 begins, refers to the 8th, 9th, and 10th verses of chapter-21. 28 Jeremiah's last arrest is then very differently described, and a totally separate cause is given for his daily retention in the court of the prison.

29 We may thus clearly see that these portions of the book have been compiled from various sources, and are only from this point of view comprehensible. 30 The prophecies contained in the remaining chapters, where Jeremiah speaks in the first person, seem to be taken from a book written by Baruch, at Jeremiah's dictation. 31 These, however, only comprise (as appears from chapter-

36:2) the prophecies revealed to the prophet from the time of Josiah to the fourth year of Jehoiakim, at which period the book begins. 32 The contents of chapter-45:2, on to chapter-51:59, seem taken from the same volume. That the book of Ezekiel is only a fragment, is clearly indicated by the first verse. 33 For anyone may see that the conjunction with which it begins, refers to something already said, and connects what follows therewith. 34 However, not only this conjunction, but the whole text of the discourse implies other writings. 35 The fact of the present work beginning the thirtieth year shows that the prophet is continuing, not commencing a discourse; 36 and this is confirmed by the writer, who parenthetically states in verse-3, "The word of the Lord came often unto Ezekiel the priest, the son of Buzi, in the land of the Chaldeans," 37 as if to say that the prophecies which he is about to relate are the sequel to revelations formerly received by Ezekiel from God.

38 Furthermore, Josephus, 11 Antiquity." 10:9, says that Ezekiel prophesied that Zedekiah should not see Babylon, whereas the book we now have not only contains no such statement, but contrariwise asserts in chapter-17 that he should be taken to Babylon as a captive. 39 Of Hosea I cannot positively state that he wrote more than is now extant in the book bearing his name, but I am astonished at the smallness of the quantity we possess, for the sacred writer asserts that the prophet prophesied for more than eighty years.

40 We may assert, speaking generally, that the compiler of the prophetic books neither collected all the prophets, nor all the writings of those we have; 41 for of the prophets who are said to have prophesied in the reign of Manasseh and of whom general mention is made in 2 Chronicles, chapter-33:10, and 18, we have, evidently, no prophecies extant; 42 neither have we all the prophecies of the twelve who give their names to books. 43 Of Jonah we have only the prophecy concerning the Ninevites, though he also prophesied to the children of Israel, as we learn in 2 Kings chapter-14:25.

INTERPRETATION

44 The book and the personality of Job have caused much controversy. Some think that the book is the work of Moses, and the whole narrative merely allegorical. 45 Such is the opinion of the Rabbins recorded in the Talmud, and they are supported by, Maimonides in his "More Nebuchim." 46 Others believe it to be a true history, and some suppose that Job lived in the time of Jacob, and was married to his daughter Dinah. 47 Aben Ezra, however, as I have already stated, affirms, in his commentaries, that the work is a translation into Hebrew from some other language: 48 I could wish that he could advance more cogent arguments than he does, for we might then conclude that the Gentiles also had sacred books. 49 I myself leave the matter undecided, but I conjecture Job to have been a Gentile, and a man of very stable character, who at first prospered, then was assailed with terrible calamities, and finally, was restored to great happiness. 50 (He is thus named, among others, by Ezekiel, chapter-14:12). 51 I take it that the constancy of his mind amid the vicissitudes of his fortune occasioned many people to dispute about God's providence, or at least caused the writer of the book in question to compose his dialogues; 52 for the contents, and also the style, seem to emanate far less from a person wretchedly ill and lying among ashes, than from one reflecting at ease in own study. 53 I should also be inclined to agree with Aben Ezra that the book is a translation, for its poetry seems akin to that of the Gentiles; 54 thus the Father of Gods summons a council, and Momus, here called Satan, criticises the Divine decrees with the utmost freedom. But these are mere conjectures without any solid foundation.

55 I pass on to the book of Daniel, which, from chapter-8 onwards, undoubtedly contains the writing of Daniel himself. 56 Whence the first seven chapters are derived I cannot say; we may, however, conjecture that, as they were first written in Chaldean, they are taken from Chaldean chronicles. 57 If this could be proved, it would form a very striking proof of the fact that the sacredness of Scripture depends on our

understanding of the doctrines therein signified, and not on the words, the language, and the phrases in which these doctrines are conveyed to us; 58 and it would further show us that books which teach and speak of whatever is highest and best are equally sacred, whatever be the tongue in which they are written, or the nation to which they belong. 59 We can, however, in this case only remark that the chapters in question were written in Chaldee, and yet are as sacred as the rest of the Bible.

60 The first book of Ezra is so intimately connected with the book of Daniel that both are plainly recognisable as the work of the same author, writing of Jewish history from the time of the first captivity onwards. 61 I have no hesitation in joining to this the book of Esther, for the conjunction with which it begins can refer to nothing else. 62 It cannot be the same work as that written by Mordecai, for, in chapter-60:20-22, another person relates that Mordecai wrote letters, and tells us their contents; 63 further, that Queen Esther confirmed the days of Purim in their times appointed, and that the decree was written in the book that is (by a Hebraism), in a book known to all then living, which, as Aben Ezra and the rest confess, has now perished.

64 Lastly, for the rest of the acts of Mordecai, the historian refers us to the chronicles of the kings of Persia. 65 Thus there is no doubt that this book was written by the same person as he who recounted the history of Daniel and Ezra, and who wrote Nehemiah, sometimes called the second book of Ezra. 66 We may, then, affirm that all these books are from one hand; but we have no clue whatever to the personality of the author. 67 However, in order to determine whence he, whoever he was, had gained a knowledge of the histories which he had, perchance, in great measure himself written, 68 we may remark that the governors or chiefs of the Jews, after the restoration of the Temple, kept scribes or historiographers, who wrote annals or chronicles of them. 69 The chronicles of the kings are often quoted in the books of Kings, but the chronicles of the chiefs and priests are quoted for

the first time in Nehemiah 12:23, and again in 1 Macc. 16:24. 70 This is undoubtedly the book referred to as containing the decree of Esther and the acts of Mordecai; and which, as we said with Aben Ezra, is now lost. 71 From it were taken the whole contents of these four books, for no other authority is quoted by their writer, or is known to us.

72 That these books were not written by either Ezra or Nehemiah is plain from Nehemiah chapter-12:9, where the descendants of the high priest, Joshua are traced down to Jaddua, the sixth high priest, who went to meet Alexander the Great, 73 when the Persian empire was almost subdued (Josephus, "Antiquity." 2. 108), or who, according to Philo-Judaeus, was the sixth and last high priest under the Persians. 74 In the same chapter of Nehemiah, verse 22, this point is clearly brought out: "The Levites in the days of Eliashib, Joiada, and Johanan, and Jaddua, were recorded chief of the fathers: 75 also the priests, to the reign of Darius the Persian"-- that is to say, in the chronicles; 76 and, I suppose, no one thinks that the lives of Nehemiah and Ezra were so prolonged that they outlived fourteen kings of Persia. 77 Cyrus was the first who granted the Jews permission to rebuild their Temple: the period between his time and Darius, fourteenth and last king of Persia, extends over 230-years.

78 I have, therefore, no doubt that these books were written after Judas Maccabaeus had restored the worship in the Temple, 79 for at that time false books of Daniel, Ezra, and Esther were published by evil-disposed persons, who were almost certainly Sadducees, for the writings were never recognised by the Pharisees, so far as I am aware; 80 and, although certain myths in the fourth book of Ezra are repeated in the Talmud, they must not be set down to the Pharisees, for all but the most ignorant admit that they have been added by some trifler: 81 in fact, I think, someone must have made such additions with a view to casting ridicule on all the traditions of the sect.

82 Perhaps these four books were written out and published at the

time I have mentioned with a view to showing the people that the prophecies of Daniel had been fulfilled, 83 and thus kindling their piety, and awakening a hope of future deliverance in the midst of their misfortunes. 84 In spite of their recent origin, the books before us contain many errors, due, I suppose, to the haste with which they were written. 85 Marginal readings, such as I have mentioned in the last chapter, are found here as elsewhere, and in even greater abundance; there are, moreover, certain passages which can only be accounted for by supposing some such cause as hurry. 86 However, before calling attention to the marginal readings, I will remark that, if the Pharisees are right in supposing them to have been ancient, and the work of the original scribes, 87 we must perforce admit that these scribes (if there were more than one) set them down because they found that the text from which they were copying was inaccurate, and did yet not venture to alter what was written by their predecessors and superiors. 88 I need not again go into the subject at length, and will, therefore, proceed to mention some discrepancies not noticed in the margin.

89 (I.) Some error has crept into the text of the second chapter of Ezra, for in verse 64 we are told that the total of all those mentioned in the rest of the chapter amounts to 42,360; but, when we come to add up the several items we get as result only 29,818. 90 There must, therefore, be an error, either in the total, or in the details. 91 The total is probably correct, for it would most likely be well known to all as a noteworthy thing; but with the details, the case would be different. 92 If, then, any error had crept into the total, it would at once have been remarked, and easily corrected. 93 This view is confirmed by Nehemiah chapter-7, where this chapter of Ezra is mentioned, and a total is given in plain correspondence thereto; 94 but the details are altogether different-- some are larger, and some less, than those in Ezra, and altogether they amount to 31,089. 95 We may, therefore, conclude that both in Ezra and in Nehemiah the details are erroneously given. 96 The commentators who attempt

to harmonise these evident contradictions draw on their imagination, each to the best of own ability; 97 and while professing adoration for each letter and word of Scripture, only succeed in holding up the sacred writers to ridicule, as though they knew not how to write or relate a plain narrative. 98 Such persons effect nothing but to render the clearness of Scripture obscure.

99 If the Bible could everywhere be interpreted after their fashion, there would be no such thing as a rational statement of which the meaning could be relied on. 100 However, there is no need to dwell on the subject; only I am convinced that if any historian were to attempt to imitate the proceedings freely attributed to the writers of the Bible, the commentators would cover the historian with contempt. 101 If it be blasphemy to assert that there are any errors in Scripture, what name shall we apply to those who foist into it their own fancies, who degrade the sacred writers till they seem to write confused nonsense, and who deny the plainest and most evident meanings? 102 What in the whole Bible can be plainer than the fact that Ezra and his companions, in the second chapter of the book attributed to him, have given in detail the reckoning of all the Hebrews who set out with them for Jerusalem? 103 This is proved by the reckoning being given, not only of those who told their lineage, but also of those who were unable to do so.

104 Is it not equally clear from Nehemiah chapter-7:5, that the writer merely there copies the list given in Ezra? 105 Those, therefore, who explain these passages otherwise, deny the plain meaning of Scripture-- nay, they deny Scripture itself. 106 They think it pious to reconcile one passage of Scripture with another--a pretty piety, forsooth, which accommodates the clear passages to the obscure, the correct to the faulty, the sound to the corrupt. 107 Far be it from me to call such commentators blasphemers, if their motives be pure: for to err is human. But I return to my subject.

108 Besides these errors in numerical details, there are others in the genealogies, in the history, and, I fear also in the prophecies.

INTERPRETATION

109 The prophecy of Jeremiah (chapter-22), concerning Jechoniah, evidently does not agree with his history, as given in I Chronicles chapter-3:17-19, 110 and especially with the last words of the chapter, nor do I see how the prophecy, "thou shalt die in peace," can be applied to Zedekiah, whose eyes were dug out after his sons had been slain before him. 111 If prophecies are to be interpreted by their issue, we must make a change of name, and read Jechoniah for Zedekiah, and vice versa 112 This, however, would be too paradoxical a proceeding; so I prefer to leave the matter unexplained, especially as the error, if error there be, must be set down to the historian, and not to any fault in the authorities.

113 Other difficulties I will not touch upon, as I should only weary the reader, and, moreover, be repeating the remarks of other writers. 114 For R. Selomo, in face of the manifest contradiction in the above-mentioned genealogies, is compelled to break forth into these words (see his commentary on 1 Chronicles, chapter-8): 115 "Ezra (whom he supposes to be the author of the book of Chronicles) gives different names and a different genealogy to the sons of Benjamin from those which we find in Genesis, 116 and describes most of the Levites differently from Joshua, because he found original discrepancies." 117 And, again, a little later: "The genealogy of Gibeon and others is described twice in different ways, from different tables of each genealogy, and in writing them down Ezra adopted the version given in the majority of the texts, and when the authority was equal he gave both." 118 Thus granting that these books were compiled from sources originally incorrect and uncertain.

119 In fact the commentators, in seeking to harmonise difficulties, generally do no more than indicate their causes: 120 for I suppose no sane person supposes that the sacred historians deliberately wrote with the object of appearing to contradict themselves freely. 121 Perhaps I shall be told that I am overthrowing the authority of Scripture, for that, according to me, anyone may suspect it of error in any passage; 122 but, on the contrary, I have shown that my

object has been to prevent the clear and uncorrupted passages being accommodated to and corrupted by the faulty ones; 123 neither does the fact that some passages are corrupt warrant us in suspecting all. 124 No book ever was completely free from faults, yet I would ask, who suspects all books to be everywhere faulty? Surely no one, especially when the phraseology is clear and the intention of the author plain.

125 I have now finished the task I set myself with respect to the books of the Old Testament. 126 We may easily conclude from what has been said, that before the time of the Maccabees there was no canon of sacred books, 127 but that those which we now possess were selected from a multitude of others at the period of the restoration of the Temple by the Pharisees (who also instituted the set form of prayers), who are alone responsible for their acceptance. 128 Those, therefore, who would demonstrate the authority of Holy Scripture, are bound to show the authority of each separate book; it is not enough to prove the Divine origin of a single book in order to infer the Divine origin of the rest. 129 In that case we should have to assume that the council of Pharisees was, in its choice of books, infallible, and this could never be proved. 130 I am led to assert that the Pharisees alone selected the books of the Old Testament, and inserted them in the canon, from the fact that in Daniel chapter-12, is proclaimed the doctrine of the Resurrection, which the Sadducees denied; 131 and, furthermore, the Pharisees plainly assert in the Talmud that they so selected them. 132 For in the treatise of Sabbathus, chapter-2, folio 30, page 2, it is written: R. Jehuda, surnamed Rabbi, reports that the experts wished to conceal the book of Ecclesiastes because they found therein words opposed to the law (that is, to the book of the law of Moses). 133 Why did they not hide it? "Because it begins in accordance with the law, and ends according to the law;" and a little further on we read: "They sought also to conceal the book of Proverbs." 134 And in the first chapter of the same treatise, folio-13, page 2: "Verily, name one man for good, even he who

was called Neghunja, the son of Hezekiah: 135 for, save for him, the book of Ezekiel would been concealed, because it agreed not with the words of the law."

136 It is thus abundantly clear that people expert in the law summoned a council to decide which books should be received into the canon, and which excluded. 137 If any person, therefore, wishes to be certified as to the authority of all the books, let you call a fresh council, and ask every member own reasons. 138 The time has now come for examining in the same manner the books in the New Testament; 139 but as I learn that the task has been already performed by people highly skilled in science and languages, and as I do not myself possess a knowledge of Greek sufficiently exact for the task; 140 lastly, as we have lost the originals of those books which were written in Hebrew, I prefer to decline the undertaking. 141 However, I will touch on those points which have most bearing on my subject in the following chapter.

AN INQUIRY WHETHER THE APOSTLES WROTE THEIR EPISTLES AS APOSTLES AND PROPHETS, OR MERELY AS TEACHERS; AND AN EXPLANATION OF WHAT IS MEANT BY AN APOSTLE.

Benedict of Spinoza

5 No reader of the New Testament can doubt that the Apostles were prophets; 2 but as a prophet does not always speak by revelation, but only at rare intervals, we may fairly inquire whether the Apostles wrote their Epistles as prophets, by revelation and express mandate, as Moses, Jeremiah, and others did, 3 or whether only as private individuals or teachers, especially as Paul, in Corinthians, chapter-14:6, mentions two sorts of preaching. 4 If we examine the style of the Epistles, we shall find it totally different from that employed by the prophets.

5 The prophets are continually asserting that they speak by the command of God: "Thus saith the Lord," "The Lord of hosts saith," "The command of the Lord,"; 6 and this was their habit not only in assemblies of the prophets, but also in their epistles containing

revelations, as appears from the epistle of Elijah to Jehoram, 2 Chronicles, chapter-21:12, which begins, "Thus saith the Lord." 7 In the Apostolic Epistles we find nothing of the sort. Contrariwise, in I Corithians, chapter-7:40 Paul speaks according to own opinion and in many passages we come across doubtful and perplexed phrase; such as, "We think, therefore," Romans, chapter-3:28; "Now I think," Romans, chapter-8:18, and so on. 8 Besides these, other expressions are met with very different from those used by the prophets. 9 For instance, 1 Corithians, chapter-7:6, "But I speak this by permission, not by commandment;" "I give my judgment as one that hath obtained mercy of the Lord to be faithful" (1 Corinthians, chapter-7:25), and so on in many other passages. 10 We must also remark that in the aforesaid chapter the Apostle says that when he states that he has or has not the precept or commandment of God, he does not mean the precept or commandment of God revealed to himself, but only the words uttered by Christ in His Sermon on the Mount.

11 Furthermore, if we examine the manner in which the Apostles give out evangelical doctrine, we shall see that it differs materially from the method adopted by the prophets. 12 The Apostles everywhere reason as if they were arguing rather than prophesying; the prophecies, on the other hand, contain only dogmas and commands. 13 God is therein introduced not as speaking to reason, but as issuing decrees by His absolute fiat. 14 The authority of the prophets does not submit to discussion, for whosoever wishes to find rational ground for own arguments, by that very wish submits them to everyone's private judgment. 15 This Paul, inasmuch as he uses reason, appears to have done, for he says in 1 Corinthians, chapter-10:15, "I speak as to wise people, judge ye what I say." 16 The prophets, as we showed, did not perceive what was revealed by virtue of their natural reason, and though there are certain passages in the Pentateuch which seem to be appeals to induction, 17 they turn out, on nearer examination, to

be nothing but peremptory commands. (15) For instance, when Moses says, Deuteronomy, chapter-31:27, "Behold, while I am yet alive with you, this day ye have been rebellious against the Lord; and how much more after my death," 18 we must by no means conclude that Moses wished to convince the Israelites by reason that they would necessarily fall away from the worship of the Lord after his death; for the argument would have been false, as Scripture itself shows: 19 the Israelites continued faithful during the lives of Joshua and the elders, and afterwards during the time of Samuel, David, and Solomon.

20 Therefore the words of Moses are merely a moral injunction, in which he predicts rhetorically the future backsliding of the people so as to impress it vividly on their imagination. 21 I say that Moses spoke of himself in order to lend likelihood to his prediction, and not as a prophet by revelation, 22 because in verse 21 of the same chapter we are told that God revealed the same thing to Moses in different words, and there was no need to make Moses certain by argument of God's prediction and decree; 23 it was only necessary that it should be vividly impressed on his imagination, and this could not be better accomplished than by imagining the existing contumacy of the people, of which he had had frequent experience, as likely to extend into the future.

24 All the arguments employed by Moses in the five books are to be understood in a similar manner; 25 they are not drawn from the armoury of reason, but are merely modes of expression calculated to instill with efficacy, and present vividly to the imagination the commands of God. 26 However, I do not wish absolutely to deny that the prophets ever argued from revelation; I only maintain that the prophets made more legitimate use of argument in proportion as their knowledge approached more nearly to ordinary knowledge, 27 and by this we know that they possessed a knowledge above the ordinary, inasmuch as they proclaimed absolute dogmas, decrees, or judgments. 28 Thus Moses, the chief of the prophets, never used legitimate argument,

and, on the other hand, the long deductions and arguments of Paul, such as we find in the Epistle to the Romans, are in nowise written from supernatural revelation.

29 The modes of expression and discourse adopted by the Apostles in the Epistles, show very clearly that the latter were not written by revelation and Divine command, but merely by the natural powers and judgment of the authors. 30 They consist in brotherly admonitions and courteous expressions such as would never be employed in prophecy, 31 as for instance, Paul's excuse in Romans chapter-15:15, "I have written the more boldly unto you in some sort, my brethren." 32 We may arrive at the same conclusion from observing that we never read that the Apostles were commanded to write, but only that they went everywhere preaching, and confirmed their words with signs. 33 Their personal presence and signs were absolutely necessary for the conversion and establishment in religion of the Gentiles; 34 as Paul himself expressly states in Romans, chapter-1:11, "But I long to see you, that I may impart to you some spiritual gift, to the end that ye may be established."

35 It may be objected that we might prove in similar fashion that the Apostles did not preach as prophets, for they did not go to particular places, as the prophets did, by the command of God. 36 We read in the Old Testament that Jonah went to Nineveh to preach, and at the same time that he was expressly sent there, and told that he most preach. 37 So also it is related, at great length, of Moses that he went to Egypt as the messenger of God, and was told at the same time what he should say to the children of Israel and to king Pharaoh, and what wonders he should work before them to give credit to his words. 38 Isaiah, Jeremiah, and Ezekiel were expressly commanded to preach to the Israelites.

39 Lastly, the prophets only preached what we are assured by Scripture they had received from God, whereas this is hardly ever said of the Apostles in the New Testament, when they went about to preach. 40 On the contrary, we find passages expressly implying

that the Apostles chose the places where they should preach on their own responsibility, for there was a difference amounting to a quarrel between Paul and Barnabas on the subject (Acts, chapter-15:37, and 38). 41 Often they wished to go to a place, but were prevented, as Paul writes, Romans, chapter-1:13, "Oftentimes I purposed to come to you, but was let hitherto;" 42 and in I Corithians, chapter-16:12, "As touching our brother Apollos, I greatly desired him to come unto you with the brethren, but his will was not at all to come at this time: but he will come when he shall have convenient time."

43 From these expressions and differences of opinion among the Apostles, and also from the fact that Scripture nowhere testifies of them, as of the ancient prophets, that they went by the command of God, 44 one might conclude that they preached as well as wrote in their capacity of teachers, and not as prophets: 45 but the question is easily solved if we observe the difference between the mission of an Apostle and that of an Old Testament prophet. 46 The latter were not called to preach and prophesy to all nations, but to certain specified ones, and therefore an express and peculiar mandate was required for each of them; 47 the Apostles, on the other hand, were called to preach to all people absolutely, and to turn all people to religion. 48 Therefore, whithersoever they went, they were fulfilling Christ's commandment; 49 there was no need to reveal to them beforehand what they should preach, for they were the disciples of Christ to whom their Master Himself said (Matthew, chapter-10, verses:19 and 20): 50 "But, when they deliver you up, take no thought how or what ye shall speak, for it shall be given you in that same hour what ye shall speak." 51 We therefore conclude that the Apostles were only indebted to special revelation in what they orally preached and confirmed by signs (see the beginning of Chapter-11.); 52 that which they taught in speaking or writing without any confirmatory signs and wonders they taught from their natural knowledge. (See I Corithians, chapter-14, verse:6.)

53 We need not be deterred by the fact that all the Epistles begin by

citing the imprimatur of the Apostleship, for the Apostles, as I will shortly show, were granted, not only the faculty of prophecy, but also the authority to teach. 54 We may therefore admit that they wrote their Epistles as Apostles, and for this cause every one of them began by citing the Apostolic imprimatur, 55 possibly with a view to the attention of the reader by asserting that they were the persons who had made such mark among the faithful by their preaching, and had shown by many marvelous works that they were teaching true religion and the way of salvation. 56 I observe that what is said in the Epistles with regard to the Apostolic vocation and the Holy Spirit of God which inspired them, has reference to their former preaching, 57 except in those passages where the expressions of the Spirit of God and the Holy Spirit are used to signify a mind pure, upright, and devoted to God. 58 For instance, in 1 Corinthians, chapter-7:40, Paul says: But she is happier if she so abide, after my judgment, and I think also that I have the Spirit of God." 59 By the Spirit of God the Apostle here refers to own mind, as we may see from the context: own meaning is as follows: 60 "I account blessed a widow who does not wish to marry a second husband; such is my opinion, for I have settled to live unmarried, and I think that I am blessed." 61 There are other similar passages which I need not now quote.

62 As we have seen that the Apostles wrote their Epistles solely by the light of natural reason, we must inquire how they were enabled to teach by natural knowledge matters outside its scope. 63 However, if we bear in mind what we said in chapter-7 of this treatise our difficulty will vanish: 64 for although the contents of the Bible entirely surpass our understanding, we may safely discourse of them, provided we assume nothing not told us in Scripture: 65 by the same method the Apostles, from what they saw and heard, and from what was revealed to them, were enabled to form and elicit many conclusions which they would have been able to teach to people had it been permissible. 66 Further, although religion, as preached by the

Apostles, does not come within the sphere of reason, in so far as it consists in the narration of the life of Christ, 67 yet its essence, which is chiefly moral, like the whole of Christ's doctrine, can readily be apprehended by the natural faculties of all.

68 Lastly, the Apostles had no lack of supernatural illumination for the purpose of adapting the religion they had attested by signs to the understanding of everyone so that it might be readily received; nor for exhortations on the subject: 69 in fact, the object of the Epistles is to teach and exhort people to lead that manner of life which each of the Apostles judged best for confirming them in religion. 70 We may here repeat our former remark, that the Apostles had received not only the faculty of preaching the history, of Christ as prophets, and confirming it with signs, but also authority for teaching and exhorting according as each thought best.

71 Paul (2 Timothy, chapter-1:11), "Whereunto I am appointed a preacher, and an apostle, and a teacher of the Gentiles;" 72 and again (I Timothy, chapter-2:7), "Whereunto I am ordained a preacher and an apostle (I speak the truth in Christ and lie not), a teacher of the Gentiles in faith and verity." 73 These passages, I say, show clearly the stamp both of the apostleship and the teachership: 74 the authority for admonishing whomsoever and wheresoever he pleased is asserted by Paul in the Epistle to Philemon, chapter-5:8: "Wherefore, though I might be much bold in Christ to enjoin thee that which is convenient, yet," 75 where we may remark that if Paul had received from God as a prophet what he wished to enjoin Philemon, and had been bound to speak in his prophetic capacity, he would not have been able to change the command of God into entreaties. 76 We must therefore understand him to refer to the permission to admonish which he had received as a teacher, and not as a prophet.

77 We have not yet made it quite clear that the Apostles might each choose own way of teaching, but only that by virtue of their Apostleship they were teachers as well as prophets; 78 however, if we call reason to our aid we shall

clearly see that an authority to teach implies authority to choose the method. 79 It will nevertheless be, perhaps, more satisfactory to draw all our proofs from Scripture; we are there plainly told that each Apostle chose own particular method (Romans, chapter-15:20): 80 "Yea, so have I strived to preach the gospel, not where Christ was named, lest I should build upon another man's foundation." 81 If all the Apostles had adopted the same method of teaching, and had all built up the Christian religion on the same foundation, Paul would have had no reason to call the work of a fellow-Apostle "another person's foundation," 82 inasmuch as it would have been identical with his own: his calling it another person's proved that each Apostle built up own religious instruction on different foundations, 83 thus resembling other teachers who have each their own method, and prefer instructing quite ignorant people who have never learnt under another master, whether the subject be science, languages, or even the indisputable truths of mathematics.

84 Furthermore, if we go through the Epistles at all attentively, we shall see that the Apostles, while agreeing about religion itself, are at variance as to the foundations it rests on. 85 Paul, in order to strengthen humans' religion, and show them that salvation depends solely on the grace of God, teaches that no one can boast of works, but only of faith, 86 and that no one can be justified by works (Romans, chapter-3:27 and 28); in fact, he preaches the complete doctrine of predestination. 87 James, on the other hand, states that human is justified by works, and not by faith only (see his Epistle, chapter-2:24), and omitting all the disputations of Paul, confines religion to a very few elements.

88 Lastly, it is indisputable that from these different grounds for religion selected by the Apostles, many quarrels and schisms distracted the Church, even in the earliest times, and doubtless they will continue so to distract it forever, 89 or at least till religion is separated from philosophical speculations, and reduced to the few simple doctrines taught by

Christ to His disciples; 90 such a task was impossible for the Apostles, because the Gospel was then unknown to humankind, 91 and lest its novelty should offend humans' ears it had to be adapted to the disposition of contemporaries (2 Corinthians. Chapter-9:19 and 20), and built up on the groundwork most familiar and accepted at the time. 92 Thus none of the Apostles philosophised more than did Paul, who was called to preach to the Gentiles; 93 other Apostles preaching to the Jews, who despised philosophy, similarly, adapted themselves to the temper of their hearers (see Galatians. Chapter-2 and 11), and preached a religion free from all philosophical speculations. 94 How blest would our age be if it could witness a religion freed also from all the trammels of superstition!

The Book of Divine Panagogue called

PERCEPTION

THE DOCTRINE OF REPRESENTATIVE PERCEPTION

George Stuart Fullerton

1 We have seen that it seems to the plain human abundantly evident that you really are surrounded by material things and that you directly perceives such things. 2 This has always been the opinion of the plain person and it seems probable that it always will be. 3 It is only when you begins to reflect upon things and upon your knowledge of them that it occurs to you to call it in question.

4 Very early in the history of speculative thought it occurred to people, however, to ask how it is that we know things, and whether we are sure we do know them. 5 The problems of reflection started into life, and various solutions were suggested. To tell over the whole list would take us far afield, 6 and we need not, for the purpose we have in view, go back farther than Descartes, with whom philosophy took a relatively new start, and may be said to have become, in spirit and method, at least, modern.

7 I have said that Descartes (1596-1650) was fairly well acquainted with the functioning of the nervous system, and has much to say of the messages which pass along the nerves to the brain. 8 The same sort of reasoning that leads the modern psychologist to maintain that we know only so much of the external world as is reflected in our sensations 9 led him to maintain that the mind is directly aware of the ideas through which an external world is represented, but can know the world itself only indirectly and through these ideas. 10 Descartes was put to sore straits to prove the existence of an external world, when he had once thus placed it at one remove from us. 11 If we accept his doctrine, we seem to be shut up within the circle of our ideas, and can find no door that will lead us to a world outside. 12 The question will keep coming back: How do we 'know' that, corresponding to our ideas, there are material things, if we have never perceived, in any single instance, a material thing? 13 And the doubt here suggested may be reinforced by the reflection

that the very expression "a material thing" ought to be meaningless to a person who, having never had experience of one, is compelled to represent it by the aid of something so different from it as ideas are supposed to be. 14 Can material things really be to such a creature anything more than some complex of ideas? 15 The difficulties presented by any philosophical doctrine are not always evident at once. 16 Descartes made no scruple of accepting the existence of an external world, and his example has been followed by a very large number of those who agree with his initial assumption that the mind knows immediately only its own ideas.

17 Preëminent among such we must regard John Locke, the English philosopher (1632-1704), whose classic work, "*An Essay concerning Human Understanding*" should not be wholly unknown to any one who pretends to an interest in the English literature. 18 Admirably does Locke represent the position of what very many have regarded as the prudent and sensible person,-- 19 the person who recognises that ideas are not external things, and that things must be known through ideas, and yet holds on to the existence of a material world which we assuredly know. 20 He recognises, it is true, that some one may find a possible opening for the expression of a doubt, but he regards the doubt as gratuitous; 21 "I think nobody can, in earnest, be so sceptical as to be uncertain of the existence of those things which one sees and feels." As we have seen, he meets the doubt with a jest.

22 Nevertheless, those who read with attention Locke's admirably clear pages must notice that he does not succeed in really setting to rest the doubt that has suggested itself. 23 It becomes clear that Locke felt so sure of the existence of the external world because he now and then slipped into the inconsistent doctrine that he perceived it immediately, and not merely through his ideas. 24 Are those things "which he sees and feels" 'external' things? 25 Does he see and feel them directly, or must he infer from his ideas that he sees and feels them? 26 If the latter,

why may one not still doubt? Evidently the appeal is to a direct experience of material things, and Locke has forgotten that he must be a Lockian.

27 "I have often remarked, in many instances," writes Descartes, "that there is a great difference between an object and its idea." 28 How could the man possibly have remarked this, when he had never in his life perceived the object corresponding to any idea, but had been altogether shut up to ideas? 29 "Thus I see, whilst I write this," says Locke, "I can change the appearance of the paper, and by designing the letters tell beforehand what new idea it shall exhibit the very next moment, by barely drawing my pen over it, 30 which will neither appear (let me fancy as much as I will), if my hand stands still, or though I move my pen, if my eyes be shut; 31 nor, when those characters are once made on the paper, can I choose afterward but see them as they are; that is, have the ideas of such letters as I have made. 32 Whence it is manifest, that they are not barely the sport and play of my own imagination, when I find that the characters that were made at the pleasure of my own thought do not obey them; nor yet cease to be, whenever I shall fancy it; 33 but continue to affect the senses constantly and regularly, according to the figures I made them."

34 Locke is as bad as Descartes. Evidently he regards himself as able to turn to the external world and perceive the relation that things hold to ideas. 35 Such an inconsistency may escape the writer who has been guilty of it, but it is not likely to escape the notice of all those who come after him. 36 Some one is sure to draw the consequences of a doctrine more rigourously, and to come to conclusions, it may be, very unpalatable to the person who propounded the doctrine in the first instance.

37 The type of doctrine represented by Descartes and Locke is that of 'Representative Perception'. It holds that we know real external things only through their mental representatives. 38 It has also been called 'Hypothetical Realism', because it accepts the existence of a real world, but bases our

knowledge of it upon an inference from our sensations or ideas.

THE STEP TO IDEALISM

39 The admirable clearness with which Locke writes makes it the easier for his reader to detect the untenability of his position. 40 He uses simple language, and he never takes refuge in vague and ambiguous phrases. 41 When he tells us that the mind is wholly shut up to its ideas, and then later assumes that it is not shut up to its ideas, but can perceive external things, we see plainly that there must be a blunder somewhere.

42 George Berkeley (1684-1753), Bishop of Cloyne, followed out more rigourously the consequences to be deduced from the assumption that all our direct knowledge is of ideas; 43 and in a youthful work of the highest genius entitled "*The Principles of Human Knowledge*," he maintained that there is no material world at all. 44 When we examine with care the objects of sense, the "things" which present themselves to us, he argues, we find that they resolve themselves into sensations, or "ideas of sense."

45 What can we mean by the word "apple," if we do not mean the group of experiences in which alone an apple is presented to us? 46 The word is nothing else than a name for this group as a group. Take away the colour, the hardness, the odour, the taste; what have we left? 47 And colour, hardness, odour, taste, and anything else that may be referred to any object as a quality, can exist, he claims, only in a perceiving mind; for such things are nothing else than sensations, and how can there be an unperceived sensation?

48 The things which we perceive, then, he calls complexes of ideas. Have we any reason to believe that these ideas, which exist in the mind, are to be accepted as representatives of things of a different kind, which are not mental at all? 49 Not a shadow of a reason, says Berkeley; there is simply no basis for inference at all, and we cannot even make clear what it is that we are setting out to infer under the name of matter.

50 We need not, therefore, grieve over the loss of the material world, for we have suffered no loss; one cannot lose what one has never had.

51 Thus, the objects of human knowledge, the only things of which it means anything to speak, are: (1) Ideas of Sense; (2) Ideas of Memory and Imagination; (3) The Passions and Operations of the Mind; and (4) The Self that perceives all These.

52 From Locke's position to that of Berkeley was a bold step, and it was much criticised, as well it might be. 53 It was felt then, as it has been felt by many down to our own time, that, when we discard an external world distinct from our ideas, and admit only the world revealed in our ideas, we really do lose. 54 It is legitimate to criticise Berkeley, but it is not legitimate to misunderstand him; and yet the history of his doctrine may almost be called a chronicle of misconceptions. 55 It has been assumed that he drew no distinction between real things and imaginary things, that he made the world no better than a dream, etc. 56 Arbuthnot, Swift, and a host of the greater and lesser lights in literature, from his time to ours, have made merry over the supposed unrealities in the midst of which the Berkeleian must live. 57 But it should be remembered that Berkeley tried hard to do full justice to the world of things in which we actually find ourselves; not a hypothetical, inferred, unperceived world, but the world of the things we actually perceive. 58 He distinguished carefully between what is real and what is merely imaginary, though he called both "ideas"; and he recognised something like a system of Nature. 59 And, by the argument from analogy which we have already examined, he inferred the existence of other finite minds and of a Divine Mind.

60 But just as John Locke had not completely thought out the consequences which might be deduced from his own doctrines, so Berkeley left, in his turn, an opening for a successor. 61 It was possible for that acutest of analysts, David Hume (1711-1776), to treat him somewhat as he had treated Locke. 62 Among the objects of human knowledge

Berkeley had included the 'self' that perceives things. 63 He never succeeded in making at all clear what he meant by this object; but he regarded it as a substance, and believed it to be a cause of changes in ideas, and quite different in its nature from all the ideas attributed to it. 64 But Hume maintained that when he tried to get a good look at this self, to catch it, so to speak, and to hold it up to inspection, he could not find anything whatever save perceptions, memories, and other things of that kind. 65 The self is, he said, "but a bundle or collection of different perceptions which succeed each other with inconceivable rapidity, and are in a perpetual flux and movement." 66 As for the objects of sense, our own bodies, the chairs upon which we sit, the tables at which we write, and all the rest-- these, argues Hume, we are impelled by nature to think of as existing continuously, but we have no evidence whatever to prove that they do thus exist. 67 Are not the objects of sense, after all, only sensations or impressions? 68 Do we not experience these sensations or impressions uninterruptedly? 69 Who sees or feels a table continuously day after day? 70 If the table is but a name for the experiences in question, if we have no right to infer material things behind and distinct from such experiences, are we not forced to conclude that the existence of the things that we see and feel is an interrupted one?

71 Hume certainly succeeded in raising more questions than he succeeded in answering. 72 We are compelled to admire the wonderful clearness and simplicity of his style, and the acuteness of his intellect, in every chapter. 73 But we cannot help feeling that he does injustice to the world in which we live, even when we cannot quite see what is wrong. 74 Does it not seem certain to science and to common sense that there is an order of Nature in some sense independent of our perceptions, so that objects may be assumed to exist whether we do or do not perceive them? 75 When we read Hume we have a sense that we are robbed of our real external world; and his account of the mind makes us feel as a badly tied sheaf of

wheat may be conceived to feel-- in danger of falling apart at any moment. 76 Berkeley we unhesitatingly call an 'Idealist', but whether we shall apply the name to Hume depends upon the extension we are willing to give to it. 77 His world is a world of what we may broadly call 'ideas'; but the tendencies of his philosophy have led some to call it a 'scepticism'.

THE REVOLT OF "COMMON SENSE."

78 Hume's reasonings were too important to be ignored, and his conclusions too unpalatable to satisfy those who came after him. 79 It seemed necessary to seek a way of escape out of this world of mere ideas, which appeared to be so unsatisfactory a world. 80 One of the most famous of such attempts was that made by the Scotchman Thomas Reid (1710-1796). At one time Reid regarded himself as the disciple of Berkeley, 81 but the consequences which Hume deduced from the principles laid down by the former led Reid to feel that he must build upon some wholly different foundation. 82 He came to the conclusion that the line of philosophers from Descartes to Hume had made one capital error in assuming "that nothing is perceived but what is in the mind that perceives it."

83 Once admit, says Reid, that the mind perceives nothing save ideas, and we must also admit that it is impossible to prove the existence either of an external world or of a mind different from "a bundle of perceptions." 84 Hence, Reid maintains that we perceive-- not infer, but perceive-- 'things' external to the mind. He writes:-- "Let a person press own hand against the table-- 'you feels it hard'. But what is the meaning of this? 85 The meaning undoubtedly is, that he hath a certain feeling of touch, from which he concludes, without any reasoning, or comparing ideas, that there is something external really existing, whose parts stick so firmly together that they cannot be displaced without considerable force.

86 "There is here a feeling, and a conclusion drawn from it, or some way suggested by it. 87 In order to

compare these, we must view them separately, and then consider by what tie they are connected, and wherein they resemble one another. 88 The hardness of the table is the conclusion, the feeling is the medium by which we are led to that conclusion. 89 Let a person attend distinctly to this medium, and to the conclusion, and you will perceive them to be as unlike as any two things in Nature. 90 The one is a sensation of the mind, which can have no existence but in a sentient being; nor can it exist one moment longer than it is felt; 91 the other is in the table, and we conclude, without any difficulty, that it was in the table before it was felt, and continues after the feeling is over. 92 The one implies no kind of extension, nor parts, nor cohesion; the other implies all these. 93 Both, indeed, admit of degrees, and the feeling, beyond a certain degree, is a species of pain; but adamantine hardness does not imply the least pain.

94 "And as the feeling hath no similitude to hardness, so neither can our reason perceive the least tie or connection between them; 95 nor will the logician ever be able to show a reason why we should conclude hardness from this feeling, rather than softness, or any other quality whatsoever. 96 But, in reality, all humankind are led by their constitution to conclude hardness from this feeling."

97 It is well worthwhile to read this extract several times, and to ask oneself what Reid meant to say, and what he actually said. 98 He is objecting, be it remembered, to the doctrine that the mind perceives immediately only its own ideas or sensations and must infer all else. His contention is that we 'perceive' external things. Does he say this? 99 He says that we have feelings of touch 'from which we conclude' that there is something external; that there is a feeling, "'and a conclusion drawn from it, or some way suggested by it';" 100 that "the hardness of the table is the 'conclusion', and the feeling is the 'medium' by which we are 'led to the conclusion'."

101 Could Descartes or Locke have more plainly supported the doctrine of representative perception? How could Reid imagine he was combating that doctrine when he wrote thus?

102 The point in which he differs from them is this: he maintains that we draw the conclusion in question without any reasoning, and, indeed, in the absence of any conceivable reason why we should draw it. We do it instinctively; we are led by the constitution of our nature. 103 In effect Reid says to us: When you lay your hand on the table, you have a sensation, it is true, but you also know the table is hard. How do you know it? 104 I cannot tell you; you simply know it, and cannot help knowing it; and that is the end of the matter.

105 Reid's doctrine was not without its effect upon other philosophers. Among them we must place Sir William Hamilton (1788-1856), whose writings had no little influence upon British philosophy in the last half of the last century. 106 Hamilton complained that Reid did not succeed in being a very good 'Natural Realist', and that he slipped unconsciously into the position he was concerned to condemn. 107 Sir William tried to eliminate this error, but the careful reader of his works will find to his amusement that this learned author gets his feet upon the same slippery descent. 108 And much the same thing may be said of the doctrine of Herbert Spencer (1820-1903), who claims that, when we have a sensation, we know directly that there is an external thing, 109 and then manages to sublimate that external thing into an Unknowable, which we not only do not know directly, but even do not know at all. 110 All of these people were anxious to avoid what they regarded as the perils of Idealism, and yet they seem quite unable to retain a foothold upon the position which they consider the safer one.

111 Reid called his doctrine the philosophy of "Common Sense," and he thought he was coming back from the subtleties of the metaphysicians to the standpoint of the plain human. 112 That he should fall into difficulties and inconsistencies is by no means surprising. As we have seen, the thought of the plain human is far from clear. 113 He certainly believes that we perceive an external world of things, and the inconsistent way in which Descartes and Locke appeal from ideas to the things themselves does

not strike him as unnatural. 114 Why should not a person test own ideas by turning to things and comparing the former with the latter? 115 On the other hand, you knows that to perceive things we must have sense organs and sensations, 116 and you cannot quarrel with the psychologists for saying that we know things only in so far as they are revealed to us through our sensations. 117 How does he reconcile these two positions? He does not reconcile them. He accepts them as they stand.

118 Reid and various other philosophers have tried to come back to "Common Sense" and to stay there. Now, it is a good position to come back to for the purpose of starting out again. 119 The experience of the plain human, the truths which you recognises as truths, these are not things to be despised. 120 Many a person whose mind has been, as Berkeley expresses it, "debauched by learning," has gotten away from them to own detriment, and has said very unreasonable things. 121 But "Common Sense" cannot be the ultimate refuge of the philosopher; it can only serve them as material for investigation. 122 The scholar whose thought is as vague and inconsistent as that of the plain person has little profit in the fact that the apparatus of own learning has made it possible for the self to be ponderously and unintelligibly vague and inconsistent. 123 Hence, we may have the utmost sympathy with Reid's protest against the doctrine of representative perception, 124 and we may, nevertheless, complain that he has done little to explain how it is that we directly know external things and yet cannot be said to know things except in so far as we have sensations or ideas.

THE CRITICAL PHILOSOPHY

125 The German philosopher, Immanuel Kant (1724-1804), was moved, by the sceptical conclusions to which Hume's philosophy seemed to lead, to seek a way of escape, somewhat as Reid was. 126 But he did not take refuge in "Common Sense"; he developed an ingenious doctrine

which has had an enormous influence in the philosophical world, 127 and has given rise to a Kantian literature of such proportions that no person can hope to read all of it, even if you devotes your life to it. 128 In Germany and out of it, it has for a hundred years and more simply rained books, pamphlets, and articles on Kant and his philosophy, some of them good, many of them far from clear and far from original. 129 Hundreds of German university students have taken Kant as the subject of the dissertation by which they hoped to win the degree of Doctor of Philosophy;-- 130 I was lately offered two hundred and seventy-four such dissertations in one bunch;-- and no student is supposed to have even a moderate knowledge of philosophy who has not an acquaintance with that famous work, the "*Critique of Pure Reason*."

131 It is to be expected from the outset that, where so many have found so much to say, there should reign abundant differences of opinion. 132 There are differences of opinion touching the interpretation of Kant, and touching the criticisms which may be made upon, and the development which should be given to his doctrine. 133 It is, of course, impossible to go into all these things here; and I shall do no more than indicate, in untechnical language and in briefest outline, what he offers us in place of the philosophy of Hume. 134 Kant did not try to refute, as did Reid, the doctrine, urged by Descartes and by his successors, that all those things which the mind directly perceives are to be regarded as complexes of ideas. 135 On the contrary, he accepted it, and he has made the words "phenomenon" and "noumenon" household words in philosophy. 136 The world which seems to be spread out before us in space and time is, he tells us, a world of things 'as they are revealed to our senses and our intelligence'; it is a world of manifestations, of phenomena. 137 What things-in-themselves are like we have no means of knowing; we know only things as they appear to us. 138 We may, to be sure, talk of a something distinct from phenomena, a something not

revealed to the senses, but thought of, a 'noumenon'; 139 but we should not forget that this is a negative conception; there is nothing in our experience that can give it a filling, for our experience is only of phenomena. 140 The reader will find an unmistakable echo of this doctrine in Herbert Spencer's doctrine of the "Unknowable" and its "manifestations."

141 Now, Berkeley had called all the things we immediately perceive 'ideas'. As we have seen, he distinguished between "ideas of sense" and "ideas of memory and imagination." 142 Hume preferred to give to these two classes different names-- he called the first 'impressions' and the second 'ideas'. 143 The associations of the word "impression" are not to be mistaken. Locke had taught that between ideas in the memory and genuine sensations there is the difference that the latter are due to the "brisk acting" of objects without us. 144 Objects impress us, and we have sensations or impressions. 145 To be sure, Hume, after employing the word "impression," goes on to argue that we have no evidence that there are external objects, which cause impressions. 146 But he retains the word "impression," nevertheless, and his use of it perceptibly colours his thought.

147 In Kant's distinction between phenomena and noumena we have the lineal descendant of the old distinction between the circle of our ideas and the something outside of them that causes them and of which they are supposed to give information. 148 Hume said we have no reason to believe such a thing exists, but are impelled by our nature to believe in it. 149 Kant is not so much concerned to prove the nonexistence of noumena, things-in-themselves, as he is to prove that the very conception is an empty one. 150 His reasonings seem to result in the conclusion that we can make no intelligible statement about things so cut off from our experience as noumena are supposed to be; 151 and one would imagine that he would have felt impelled to go on to the frank declaration that we have no reason to believe in noumena at all, and had better throw away altogether so meaningless and useless a

notion. 152 But he was a conservative creature, and he did not go quite so far.

153 So far there is little choice between Kant and Hume. Certainly the former does not appear to have rehabilitated the external world which had suffered from the assaults of his predecessors. 154 What important difference is there between his doctrine and that of the man whose sceptical tendencies he wished to combat? 155 The difference is this: Descartes and Locke had accounted for our knowledge of things by maintaining that things act upon us, and make an impression or sensation-- that their action, so to speak, begets ideas. 156 This is a very ancient doctrine as well as a very modern one; it is the doctrine that most people find reasonable even before they devote themselves to the study of philosophy. 157 The totality of such impressions received from the external world, they are accustomed to regard as our 'experience' of external things; 158 and they are inclined to think that any knowledge of external things not founded upon experience can hardly deserve the name of knowledge.

159 Now, Hume, when he cast doubt upon the existence of external things, did not, as I have said above, divest himself of the suggestions of the word "impression." 160 He insists strenuously that all our knowledge is founded upon experience; and he holds that no experience can give us knowledge that is necessary and universal. 161 We know things as they are revealed to us in our experience; but who can guarantee that we may not have new experiences of a quite different kind, 162 and which flatly contradict the notions which we have so far attained of what is possible and impossible, true and untrue. 163 It is here that Kant takes issue with Hume. A survey of our knowledge makes clear, he thinks, that we are in the possession of a great deal of information that is not of the unsatisfactory kind that, according to Hume, all our knowledge of things must be. 164 There, for example, are all the truths of mathematics. When we enunciate a truth regarding the relations of

the lines and angles of a triangle, we are not merely unfolding in the predicate of our proposition what was implicitly contained in the subject. 165 There are propositions that do no more than this; they are 'analytical', 'i.e.' they merely analyse the subject.

166 Thus, when we say: Human is a rational animal, we may merely be defining the word "human"--unpacking it, so to speak. 167 But a 'synthetic' judgment is one in which the predicate is not contained in the subject; it adds to one's information. 168 The mathematical truths are of this character. So also is the truth that everything that happens must have a cause.

169 Do we connect things with one another in this way merely because we have had 'experience' that they are thus connected? 170 Is it because they are 'given' to us connected in this way? 171 That cannot be the case, Kant argues, for what is taken up as mere experienced act cannot be known as universally and necessarily true. 172 We perceive that these things 'must' be so connected. How shall we explain this necessity?

173 We can only explain it, said Kant, in this way: We must assume that what is given us from without is merely the raw material of sensation, the 'matter' of our experience; 174 and that the ordering of this matter, the arranging it into a world of phenomena, the furnishing of 'form', is the work of the mind. 175 Thus, we must think of space, time, causality, and of all other relations which obtain between the elements of our experience, as due to the nature of the mind. 176 It perceives the world of phenomena that it does, because it 'constructs' that world. 177 Its knowledge of things is stable and dependable because it cannot know any phenomenon which does not conform to its laws. 178 The water poured into a cup must take the shape of the cup; and the raw materials poured into a mind must take the form of an orderly world, spread out in space and time.

179 Kant thought that with this turn he had placed human knowledge upon a satisfactory basis, and had, at the same time, indicated the limitations of human knowledge. 180 If the world we perceive is a

world which we make; if the forms of thought furnished by the mind have no other function than the ordering of the materials furnished by sense; then what can we say of that which may be beyond phenomena? What of 'noumena'?
181 It seems clear that, on Kant's principles, we ought not to be able to say anything whatever of 'noumena'. To say that such may exist appears absurd. 182 All conceivable connection between them and existing things as we know them is cut off. 183 We cannot think of a noumenon as a 'substance', for the notions of substance and quality have been declared to be only a scheme for the ordering of phenomena. 184 Nor can we think of one as a cause of the sensations that we unite into a world, for just the same reason. 185 We are shut up logically to the world of phenomena, and that world of phenomena is, after all, the successor of the world of ideas advocated by Berkeley.
186 This is not the place to discuss at length the value of Kant's contribution to philosophy. There is something terrifying in the prodigious length at which it seems possible for people to discuss it. 187 Kant called his doctrine "Criticism," because it undertook to establish the nature and limits of our knowledge. 188 By some he has been hailed as a great enlightener, and by others he has been accused of being as dogmatic in his assumptions as those whom he disapproved. 189 But one thing he certainly has accomplished. He has made the words "phenomena" and "noumena" familiar to us all, 190 and he has induced a vast number of people to accept it as established fact that it is not worthwhile to try to extend our knowledge beyond phenomena. 191 One sees his influence in the writings of people who differ most widely from one another.

REALISM AND IDEALISM
George Stuart Fullerton

REALISM

2 The plain person is a realist. 2 That is to say, you believes in a world which is not to be identified with your own ideas or those of any other mind. 3 At the same

time, as we have seen, the distinction between the mind and the world is by no means clear to you. 4 It is not difficult, by judicious questioning, to set your feet upon the slippery descent that shoots a person into idealism.

5 The vague realism of the plain person may be called 'Naïve' or 'Unreflective Realism'. 6 It has been called by some 'Natural Realism', but the latter term is an unfortunate one. 7 It is, of course, natural for the unreflective person to be unreflective, but, on the other hand, it is also natural for the reflective person to be reflective. 8 Besides, in dubbing any doctrine "natural," we are apt to assume that doctrines contrasted with it may properly be called "unnatural" or "artificial." 9 It is an ancient rhetorical device, to obtain sympathy for a cause in which one may happen to be interested by giving it a taking name; but it is a device frowned upon by logic and by good sense.

10 One kind of realism is, then, naïve realism. It is the position from which we all set out, when we begin to reflect upon the system of things. 11 It is the position to which some try to come back, when their reflections appear to be leading them into strange or unwelcome paths. 12 We have seen how Thomas Reid recoiled from the conclusions to which the reasonings of the philosophers had brought him, and tried to return to the position of the plain person. 13 The attempt was a failure, and was necessarily a failure, for Reid tried to come back to the position of the plain person 'and still be a philosopher'. 14 He tried to live in a cloud and, nevertheless, to see clearly-- a task not easy to accomplish. 15 It should be remarked, however, that he tried, at least, to insist that we know the external world 'directly'.

16 We may divide realists into two broad classes, those who hold to this view, and those who maintain that we know it only indirectly and through our ideas. 17 The plain person belongs, of course, to the first class, if it is just to speak of a person who says inconsistent things as being wholly in any one class. 18 Certainly you are willing to assert that the ground upon which you stands and the staff in your hand are perceived by you

directly. 19 But we are compelled to recognise that there are subdivisions in this first class of realists. 20 Reid tried to place himself beside the plain person and failed to do so. Hamilton tried also, and he is not to be classed precisely either with the plain person or with Reid. 21 He informs us that the object as it appears to us is a composite something to the building up of which the knowing mind contributes its share, the medium through which the object is perceived its share, and the object in itself its share. 22 He suggests, by way of illustration, that the external object may contribute one third. This seems to make, at least, 'something' external directly known. 23 But, on the other hand, he maintains that the mind knows immediately only what is in immediate contact with the bodily organ-- with the eyes, with the hands; 24 and he believes it knows this immediately because it is actually present in all parts of the body. 25 And, further, in distinguishing as he does between existence "as it is in itself" and existence "as it is revealed to us," and in shutting us up to the latter, he seems to rob us even of the modicum of externality that he has granted us.

26 I have already mentioned Herbert Spencer as a man not without sympathy for the attempt to rehabilitate the external world. 27 He is very severe with the "insanities" of idealism. He is not willing even to take the first step toward it. 28 He writes: "The postulate with which metaphysical reasoning sets out is that we are primarily conscious only of our sensations-- 29 that we certainly know we have these, and that if there be anything beyond these serving as cause for them, it can be known only by inference from them. 30 "I shall give much surprise to the metaphysical reader if I call in question this postulate; and the surprise will rise into astonishment if I distinctly deny it. 31 Yet I must do this. Limiting the proposition to those epiperipheral feelings produced in us by external objects 32 for these are alone in question,-- I see no alternative but to affirm that the thing primarily known is not that a sensation has been experienced, but that there exists an outer object."

PERCEPTION

33 According to this, the outer object is not known through an inference; it is known directly. 34 But do not be in haste to class Spencer with the plain person, or with Reid. Listen to a citation once before made, but worth repeating in this connection: 35 "When we are taught that a piece of matter, regarded by us as existing externally, cannot be really known, but that we can know only certain impressions produced on us, 36 we are yet, by the relativity of thought, compelled to think of these in relation to a cause-- the notion of a real existence which generated these impressions becomes nascent. 37 If it be proved that every notion of a real existence which we can frame is inconsistent with itself,-- that matter, however conceived by us, cannot be matter as it actually is,-- our conception, though transfigured, is not destroyed: 38 there remains the sense of reality, dissociated as far as possible from those special forms under which it was before represented in thought."

39 It is interesting to place the two extracts side by side. In the one, we are told that we do not know external objects by an inference from our sensations; 40 in the other we are taught that the piece of matter which we regard as existing externally cannot be really known; 41 that we can know only certain impressions produced on us, and must refer them to a cause; that this cause cannot be what we think it. 42 It is difficult for the person who reads such statements not to forget that Spencer regarded himself as a realist who held to a direct knowledge of something external. 43 There are, as it is evident, many sorts of realists that may be gathered into the first class mentioned above-- people who, however inconsistent they may be, try, at least, to maintain that our knowledge of the external world is a direct one. 44 And it is equally true that there are various sorts of realists that may be put into the second class. These people have been called 'Hypothetical Realists'. 45 In the last chapter it was pointed out that Descartes and Locke belong to this class. Both of these men believed in an external world, but believed that its existence is a thing to be inferred.

PERCEPTION

46 Now, when a person has persuaded the self that the mind can know directly only its own ideas, and must infer the world which they are supposed to represent, you may conceive of that external world in three different ways.

47 (1) You may believe that what corresponds to your idea of a material object, for example, an apple, is in very many respects like the idea in your mind. 48 Thus, you may believe that the odour, taste, colour, hardness, etc., that you perceives directly, or as ideas, have corresponding to them real external odour, taste, colour, hardness, etc. 49 It is not easy for a person to hold to this position, for a very little reflection seems to make it untenable; 50 but it is theoretically possible for one to take it, and probably many persons have inclined to the view when they have first been tempted to believe that the mind perceives directly only its ideas.

51 (2) You may believe that such things as colours, tastes, and odours cannot be qualities of external bodies at all, but are only effects, produced upon our minds by something very different in kind. 52 We seem to perceive bodies, you may argue, to be coloured, to have taste, and to be odourous; but what we thus perceive is not the external thing; 53 the external thing that produces these appearances cannot be regarded as having anything more than "solidity, extension, figure, motion or rest, and number." 54 Thus did Locke reason. To him the external world as it really exists, is, so to speak, a paler copy of the external world as we seem to perceive it. It is a world with fewer qualities, but, still, a world with qualities of some kind.

55 (3) But one may go farther than this. One may say: How can I know that even the extension, number, and motion of the things which I directly perceive have corresponding to them extension, number, and motion, in an outer world? 56 If what is not coloured can cause me to perceive colour, why may not that which is not extended cause me to perceive extension? 57 And, moved by such reflections, one may maintain that there exists outside of us that which we can only characterise as

an Unknown Cause, a Reality which we cannot more nearly define.

58 This last position resembles very closely one side of Spencer's doctrine-- that represented in the last of the two citations, as the reader can easily see. 59 It is the position of the follower of Immanuel Kant who has not yet repudiated the noumenon or thing-in-itself discussed earlier. 60 I am not concerned to defend any one of the varieties of Direct or of Hypothetical Realism portrayed above. 61 But I wish to point out that they all have some sort of claim to the title 'Realism', and to remind the reader that, when we call a person a realist, we do not do very much in the way of defining their position. 62 If this last variety, which I advocate, 'must' be classified, let it be placed in the first broad class, for it teaches that we know the external world directly. 63 But I sincerely hope that it will not be judged wholly by the company it keeps, and that no one will assign to it either virtues or defects to which it can lay no just claim.

64 Before leaving the subject of realism it is right that I should utter a note of warning touching one very common source of error. 65 It is fatally easy for people to be misled by the names which are applied to things. 66 Sir William Hamilton invented for a certain type of metaphysical doctrine the offensive epithet "nihilism." It is a type which appeals to many inoffensive and pious people at the present day, some of whom prefer to call themselves idealists. 67 Many have been induced to become "free-willists" because the name has suggested to them a proper regard for that freedom which is justly dear to all people. 68 We can scarcely approach with an open mind an account of ideas and sensations which we hear described as "sensationalism," or worse yet, as "sensualism." 69 When a given type of philosophy is set down as "dogmatism," we involuntarily feel a prejudice against it. 70 You who reads as reflectively as you should will soon find out that philosophers "call names" much as other people do, and that one should always be on one's guard. 71 "Every form of

phenomenalism," asseverated a learned and energetic old gentleman, who for many years occupied a chair in one of our leading institutions of learning, "necessarily leads to atheism." 72 He inspired a considerable number of students with such a horror for "phenomenalism" that they never took pains to find out what it was. 73 I mention these things in this connection, because I suspect that not a few in our own day are unduly influenced by the associations which cling to the words "realism" and "idealism." 74 Realism in literature, as many persons understand it, means the degradation of literature to the portrayal of what is coarse and degrading, in a coarse and offensive way. 75 Realism in painting often means the labourious representation upon canvas of things from which we would gladly avert our eyes if we met them in real life. 76 With the word "idealism," on the other hand, we are apt to connect the possession of ideals, a regard for what is best and noblest in life and literature.

77 The reader must have seen that realism in the philosophic sense of the word has nothing whatever to do with realism in the senses just mentioned. 78 The word is given a special meaning, and it is a weakness to allow associations drawn from other senses of the word to colour our judgment when we use it. 79 And it should be carefully held in view that the word "idealism" is given a special sense when it is used to indicate a type of doctrine contrasted with the doctrine of the realist. 80 Some forms of philosophical idealism have undoubtedly been inspiring; but some have been, and are, far from inspiring. 81 They should not be allowed to posture as saints merely because they are cloaked with an ambiguous name.

IDEALISM

82 Idealism we may broadly define as the doctrine that all existence is mental existence. 83 So far from regarding the external world as beyond and independent of mind, it maintains that it can have its being only in consciousness.

PERCEPTION

84 We have seen how people were led to take the step to idealism. It is not a step which the plain person is impelled to take without preparation. 85 To say that the real world of things in which we perceive ourselves to live and move is a something that exists only in the mind strikes you as little better than insane. 86 You who becomes an idealist usually does so, I think, after weighing the arguments presented by the hypothetical realist, and finding that they seem to carry one farther than the latter appears to recognise.

87 The type of idealism represented by Berkeley has been called 'Subjective Idealism'. 88 Ordinarily our use of the words "subjective" and "objective" is to call attention to the distinction between what belongs to the mind and what belongs to the external order of things. 89 My sensations are subjective, they are referred to my mind, and it is assumed that they can have no existence except in my mind; 90 the qualities of things are regarded as objective, that is, it is commonly believed that they exist independently of my perception of them. 91 Of course, when a person becomes an idealist, you cannot keep just this distinction. The question may, then, fairly be raised: How can you be a 'subjective idealist'? Has not the word "subjective" lost its significance? 92 To this one has to answer: It has, and it has not. 93 The man who, with strict consistency, makes the desk at which he sits as much his "idea" as is the pain in his finger or his memory of yesterday, cannot keep hold of the distinction of subjective and objective. 94 But humans are not always as consistent as this. 95 Remember the illustration of the "telephone exchange".The mind is represented as situated at the brain terminals of the sensory nerves; and then brain, nerves and all else are turned into ideas in this mind, which are merely "projected outwards." 96 Now, in placing the mind at a definite location in the world, and contrasting it with the world, we retain the distinction between subjective and objective-- what is in the mind can be distinguished from what is beyond it. 97 On the other hand, in making the whole

system of external things a complex of ideas in the mind, we become idealists, and repudiate realism. 98 The position is an inconsistent one, of course, but it is possible for people to take it, for people have taken it often enough.

99 The idealism of Professor Pearson is more palpably subjective than that of Berkeley, for the latter never puts the mind in a "telephone exchange." 100 Nevertheless, he names the objects of sense, which other people call material things, "ideas," and he evidently assimilates them to what we commonly call ideas and contrast with things. 101 Moreover, he holds them in some of the contempt which people reserve for "mere ideas," for he believes that idolaters might be induced to give over worshiping the heavenly bodies could they be persuaded that these are nothing more than their own ideas.

102 With the various forms of subjective idealism it is usual to contrast the doctrine of 'Objective Idealism'. 103 This does not maintain that the world which I perceive is my "idea"; it maintains that the world is "idea." 104 It is rather a nice question, and one which no person should decide without a careful examination of the whole matter, whether we have any right to retain the word "idea" when we have rubbed out the distinction which is usually drawn between ideas and external things. 105 If we maintain that all humans are always necessarily selfish, we stretch the meaning of the word quite beyond what is customary, and selfishness becomes a thing we have no reason to disapprove, since it characterises saint and sinner alike. 106 Similarly, if we decide to name "idea," not only what the plain person and the realist admit to have a right to that name, but also the great system which these people call an external material world, it seems right to ask; Why use the word "idea" at all? 107 What does it serve to indicate? Not a distinction, surely, for the word seems to be applicable to all things without distinction. 108 Such considerations as these lead me to object to the expression "objective idealism": if the doctrine is really 'objective', 'i.e.' 109 if it recognises a system of things different and

distinct from what people commonly call ideas, it scarcely seems to have a right to the title 'idealism'; 110 and if it is really 'idealism', and does not rob the word idea of all significance, it can scarcely be 'objective' in any proper sense of the word.

111 Manifestly, there is need of a very careful analysis of the meaning of the word "idea," and of the proper significance of the terms "subjective" and "objective," if error is to be avoided and language used soberly and accurately. 112 Those who are not in sympathy with the doctrine of the objective idealists think that in such careful analysis and accurate statement they are rather conspicuously lacking.

113 We think of Hegel (1770-1831) as the typical objective idealist. 114 It is not easy to give an accurate account of his doctrine, for he is far from a clear writer, and he has made it possible for his many admirers to understand him in many ways. 115 But he seems to have accepted the system of things that most people call the real external world, and to have regarded it as the Divine Reason in its self-development. 116 And most of those whom we would to-day be inclined to gather together under the title of objective idealists appear to have been much influenced, directly or indirectly, by his philosophy. 117 There are, however, great differences of opinion among them, and no person should be made responsible for the opinions of the class as a class.

118 I have said a few pages back that some forms of idealism are inspiring, and that some are not. 119 Bishop Berkeley called the objects of sense ideas. He regarded all ideas as inactive, and thought that all changes in ideas-- and this includes all the changes that take place in Nature-- must be referred to the activity of minds. 120 Some of those changes he could refer to finite minds, his own and others. Most of them he could not, and he felt impelled to refer them to a Divine Mind. 121 Hence, the world became to him a constant revelation of God; and he uses the word "God" in no equivocal sense. 122 It does not signify to him the system of things as a whole, or an Unknowable, or anything of the

sort. It signifies a spirit akin to his own, but without its limitations. 123 He writes:-- "A human spirit or person is not perceived by sense, as not being an idea; when, therefore, we see the colour, size, figure, and motions of a person, we perceive only certain sensations or ideas excited in our own minds; 124 and these being exhibited to our view in sundry distinct collections serve to mark out unto us the existence of finite and created spirits like ourselves. 125 Hence, it is plain we do not see a person,-- if by 'human' is meant that which lives, moves, perceives, and thinks as we do,-- 126 but only such a certain collection of ideas as directs us to think there is a distinct principle of thought and motion, like to ourselves, accompanying and represented by it. 127 And after the same manner we see God; all the difference is that, whereas some one finite and narrow assemblage of ideas denotes a particular human mind, whithersoever we direct our view, we do at all times and in all places perceive manifest tokens of the Divinity-- 128 everything we see, hear, feel, or any wise perceive by sense, being a sign or effect of the power of God; as is our perception of those very motions which are produced by humans."

129 With Berkeley's view of the world as a constant revelation of God, many people will sympathise who have little liking for his idealism as idealism. 130 They may criticise in detail his arguments to prove the nonexistence of a genuinely external world, but they will be ready to admit that his doctrine is an inspiring one in the view that it takes of the world and of human. 131 With this I wish to contrast the doctrine of another idealist, Mr. Bradley, whose work, "Appearance and Reality," has been much discussed in the last few years, in order that the reader may see how widely different forms of idealism may differ from each other, 132 and how absurd it is to praise or blame a person's philosophy merely on the ground that it is idealistic. 133 Mr. Bradley holds that those aspects of our experience which we are accustomed to regard as real-- 134 qualities of things, the relations between things, the things

themselves, space, time, motion, causation, activity, the self-- 135 turn out when carefully examined to be self-contradictory and absurd. They are not real; they are unrealities, mere appearances. 136 But these appearances exist, and, hence, must belong to reality. This reality must be sentient, for "there is no being or fact outside of that which is commonly called psychical existence."

137 Now, what is this reality with which appearances-- the whole world of things which seem to be given in our experience-- are contrasted? 138 Mr. Bradley calls it the Absolute, and indicates that it is what other people recognise as the Deity. How shall we conceive it? 139 We are told that we are to conceive it as consisting of the contents of finite minds, or "centers of experience," subjected to "an all-pervasive transfusion with a reblending of all material." 140 In the Absolute, finite things are "transmuted" and lose "their individual natures." 141 What does this mean in plain language? It means that there are many finite minds of a higher and of a lower order, "centers of experience," and that the contents of these are unreal appearances. 142 There is not a God or Absolute outside of and distinct from these, but rather one that in some sense 'is their reality'. 143 This mass of unrealities transfused and transmuted so that no one of them retains its individual nature is the Absolute. 144 That is to say, time must become indistinguishable from space, space from motion, motion from the self, the self from the qualities of things, etc., before they are fit to become constituents of the Absolute and to be regarded as real.

145 As the reader has seen, this Absolute has nothing in common with the God in which Berkeley believed, and in which the plain person usually believes. 146 It is the night in which all cats are gray, and there appears to be no reason why any one should harbour toward it the least sentiment of awe or veneration. 147 Whether such reasonings as Mr. Bradley's should be accepted as valid or should not, must be decided after a careful examination into the foundations upon which they rest and the consistency with which

inferences are drawn from premises. 148 I do not wish to prejudge the matter. But it is worthwhile to set forth the conclusions at which he arrives, 149 that it may be clearly realised that the associations which often hang about the word "idealism" should be carefully stripped away when we are forming our estimate of this or that philosophical doctrine.

MONISM AND DUALISM

George Stuart Fullerton

THE MEANING OF THE WORDS

3 In common life people distinguish between minds and material things, thus dividing the things, which taken together make up the world as we know it, into two broad classes. 2 They think of minds as being very different from material objects, and of the latter as being very different from minds. 3 It does not occur to them to find in the one class room for the other, nor does it occur to them to think of both classes as "manifestations" or "aspects" of some one "underlying reality." 4 In other words, the plain person to-day is a 'Dualist'.

5 In the last chapter, I have called you a Naïve Realist; and here I shall call you a 'Naïve Dualist', 6 for a person may regard mind and matter as quite distinct kinds of things, without trying to elevate own opinion, through reflection, into a philosophical doctrine. 7 The reflective person may stand by the opinion of the plain person, merely trying to make less vague and indefinite the notions of matter and of mind. You then becomes a 'Philosophical Dualist'. 8 There are several varieties of this doctrine, and I shall consider them a little later. 9 But it is possible for one to be less profoundly impressed by the differences which characterise matter and mind. 10 One may feel inclined to refer mental phenomena to matter, and to deny them the prominence accorded them by the dualist. 11 On the other hand, one may be led by one's reflections to resolve material objects into mere ideas, and to claim that they can have no existence except in a mind. 12 Finally, it is possible to hold that

both minds and material things, as we know them, are only manifestations, phenomena, and that they must be referred to an ulterior "reality" or "substance." 13 One may claim that they are "aspects" of the one reality, which is neither matter nor mind.

14 These doctrines are different forms of 'Monism'. In whatever else they differ from one another, they agree in maintaining that the universe does not contain two kinds of things fundamentally different. 15 Out of the duality of things as it seems to be revealed to the plain person they try to make some kind of a unity.

MATERIALISM

16 The first of the forms of monism above mentioned is 'Materialism'. It is not a doctrine to which the first impulse of the plain person leads one at the present time. 17 Even those who have done no reading in philosophy have inherited many of their ways of looking at things from the thinkers who lived in the ages past, and whose opinions have become the common property of civilised people. 18 For more than two thousand years the world and the mind have been discussed, and it is impossible for any of us to escape from the influence of those discussions and to look at things with the primitive simplicity of the wholly untutored. But it was not always so. 19 There was a time when people who were not savages, but possessed great intellectual vigour and much cultivation, found it easy and natural to be materialists. 20 This I have spoken of before, but it will repay us to take up again a little more at length the clearest of the ancient forms of materialism, that of the Atomists, and to see what may be said for and against it.

21 Democritus of Abdera taught that nothing exists except atoms and empty space. 22 The atoms, he maintained, differ from one another in size, shape, and position. In other respects they are alike. 23 They have always been in motion. Perhaps he conceived of that motion as originally a fall through space, but there seems to be uncertainty upon this point. 24 However, the atoms in motion

collide with one another, and these collisions result in mechanical combinations from which spring into being world-systems. 25 According to this doctrine, nothing comes from nothing, and nothing can become nonexistent. 26 All the changes which have ever taken place in the world are only changes in the position of material particles-- they are regroupings of atoms. 27 We cannot directly perceive them to be such, for our senses are too dull to make such fine observations, but our reason tells us that such is the case.

28 Where, in such a world as this, is there room for mind, and what can we mean by mind? 29 Democritus finds a place for mind by conceiving it to consist of fine, smooth, round atoms, which are the same as the atoms which constitute fire. 30 These are distributed through the whole body, and lie among the other atoms which compose it. They are inhaled with and exhaled into the outer air. 31 While they are in the body their functions are different according as they are located in this organ or in that. 32 In the brain they give rise to thought, in the heart to anger, and in the liver to desire.

33 I suppose no one would care, at the present time, to become a Democritean. 34 The "Reason," which tells us that the mind consists of fine, round atoms, appears to have nothing but its bare word to offer us. 35 But, apart from this, a peculiar difficulty seems to face us; even supposing there are atoms of fire in the brain, the heart, and the liver, what are the 'thought', 'anger', and 'desire', of which mention is made? 36 Shall we conceive of these last as atoms, as void space, or as the motion of atoms? 37 There really seems to be no place in the world for them, and 'these are the mind so far as the mind appears to be revealed'-- they are 'mental phenomena'. 38 It does not seem that they are to be identified with anything that the Atomistic doctrine admits as existing. They are simply overlooked.

39 Is the modern materialism more satisfactory? About half a century ago there was in the scientific world something like a revival of materialistic thinking. 40 It did not

occur to any one to maintain that the mind consists of fine atoms disseminated through the body, but statements almost as crude were made. 41 It was said, for example, that the brain secretes thought as the liver secretes bile. 42 It seems a gratuitous labour to criticise such statements as these in detail. 43 There are no glands the secretions of which are not as unequivocally material as are the glands themselves. 44 This means that such secretions can be captured and analysed; the chemical elements of which they are composed can be enumerated. 45 They are open to inspection in precisely the same way as are the glands which secrete them.

46 Does it seem reasonable to maintain that thoughts and feelings are related to brains in this way? 47 Does the chemist ever dream of collecting them in a test tube, and of drawing up for us a list of their constituent elements? 48 When the brain is active, there are, to be sure, certain material products which pass into the blood and are finally eliminated from the body; 49 but among these products no one would be more surprised than the materialist to discover pains and pleasures, memories and anticipations, desires and volitions. 50 This talk of thought as a "secretion" we can afford to set aside. 51 Nor need we take much more seriously the seemingly more sober statement that thought is a "function" of the brain.

52 There is, of course, a sense in which we all admit the statement; minds are not disembodied, and we have reason to believe that mind and brain are most intimately related. 53 But the word "function" is used in a very broad and loose sense when it serves to indicate this relation; and one may employ it in this way without being a materialist at all. 54 In a stricter sense of the word, the brain has no functions that may not be conceived as mechanical changes,-- as the motion of atoms in space,-- and to identify mental phenomena with these is inexcusable. 55 It is not theoretically inconceivable that, with finer senses, we might directly perceive the motions of the atoms in another human's brain; 56 it is inconceivable that we should thus directly perceive

your melancholy or your joy; they belong to another world.

SPIRITUALISM

57 The name 'Spiritualism' is sometimes given to the doctrine that there is no existence which we may not properly call mind or spirit. It errs in the one direction as materialism errs in the other. 58 One must not confound with this doctrine that very different one, Spiritism, which teaches that a certain favoured class of persons called mediums may bring back the spirits of the departed and enable us to hold communication with them. 59 Such beliefs have always existed among the common people, but they have rarely interested philosophers. I shall have nothing to say of them in this book. 60 There have been various kinds of spiritualists. The name may be applied to the idealists, from Berkeley down to those of our day; at some of the varieties of their doctrine we have taken a glance. 61 To these we need not recur; but there is one type of spiritualistic doctrine which is much discussed at the present day and which appears to appeal strongly to a number of scientific people. We must consider it for a moment.

62 We have examined Professor Clifford's doctrine of Mind-stuff. Clifford maintained that all the material things we perceive are our perceptions-- they are in our consciousness, and are not properly external at all. 63 But, believing, as he did, that all Nature is animated, he held that every material thing, every perception, may be taken as a revelation of something not in our consciousness, of a mind or, at least, of a certain amount of mind-stuff. 64 How shall we conceive the relation between what is in our mind and the something corresponding to it not in our mind? 65 We must, says Clifford, regard the latter as the 'reality' of which the former is the 'appearance' or 'manifestation'. 66 "What I perceive as your brain is really in itself your consciousness, is You; but then that which I call your brain, the material fact, is merely my perception."

67 This doctrine is 'Panpsychism', in the form in which it is usually brought to our attention. 68 It holds that the only real existences are minds, and that physical phenomena must be regarded as the manifestations under which these real existences make us aware of their presence. 69 The term panpsychism may, it is true, be used in a somewhat different sense. It may be employed merely to indicate the doctrine that all Nature is animated, and without implying a theory as to the relation between bodies perceived and the minds supposed to accompany them. 70 What shall we say to panpsychism of the type represented by Clifford? It is, I think, sufficiently answered in the earlier chapters of this volume:--

71 (1) If I call material facts my perceptions, I do an injustice to the distinction between the physical and the mental. 72 (2) If I say that all Nature is animated, I extend illegitimately the argument for other minds. 73 (3) If I say that mind is the reality of which the brain is the appearance, I misconceive what is meant by the distinction between appearance and reality.

THE DOCTRINE OF THE ONE SUBSTANCE

74 In the seventeenth century Descartes maintained that, although mind and matter may justly be regarded as two substances, yet it should be recognised that they are not really independent substances in the strictest sense of the word, 75 but that there is only one substance, in this sense, and mind and matter are, as it were, its attributes. 76 His thought was that by attribute we mean that which is not independent, but must be referred to something else; 77 by substance, we mean that which exists independently and is not referred to any other thing. 78 It seemed to follow that there could be only one substance.

79 Spinoza modified Descartes' doctrine in that he refused to regard mind and matter as substances at all. 80 He made them unequivocally attributes of the one and only substance, which he called God. 81 The thought which

influenced Spinoza had impressed many minds before his time, and it has influenced many since. 82 One need not follow him in naming the unitary something to which mind and matter are referred substance. 83 One may call it Being, or Reality, or the Unknowable, or Energy, or the Absolute, or, perhaps, still something else. 84 The doctrine has taken many forms, but you who reads with discrimination will see that the various forms have much in common.

85 They agree in maintaining that matter and mind, as they are revealed in our experience, are not to be regarded as, in the last analysis, two distinct kinds of thing. 86 They are, rather, modes or manifestations of one and the same thing, and this is not to be confounded with either. 87 Those who incline to this doctrine take issue with the materialist, who assimilates mental phenomena to physical; and they oppose the idealist, who assimilates physical phenomena to mental, and calls material things "ideas." 88 We have no right, they argue, to call that of which ideas and things are manifestations either mind or matter. It is to be distinguished from both.

89 To this doctrine the title of 'Monism' is often appropriated. In this chapter I have used the term in a broader sense, for both the materialist and the spiritualist maintain that there is in the universe but one kind of thing. 90 Nevertheless, when we hear a person called a monist without qualification, we may, perhaps, be justified in assuming, in the absence of further information, that you holds to some one of the forms of doctrine indicated above. 91 There may be no logical justification for thus narrowing the use of the term, but logical justification goes for little in such matters. 92 Various considerations have moved people to become monists in this sense of the word. Some have been influenced by the assumption-- one which people felt impelled to make early in the history of speculative thought-- 93 that the whole universe must be the expression of some unitary principle. 94 A rather different argument is well illustrated in the writings of Professor Höffding, a

learned and acute writer of our own time. It has influenced so many that it is worthwhile to delay upon it.

95 Professor Höffding holds that mental phenomena and physical phenomena must be regarded as parallel, and that we must not conceive of ideas and material things as interacting. He writes: 96 [1]-- "If it is contrary to the doctrine of the persistence of physical energy to suppose a transition from the one province to the other, and if, nevertheless, the two provinces exist in our experience as distinct, 97 then the two sets of phenomena must be unfolded simultaneously, each according to its laws, so that for every phenomenon in the world of consciousness there is a corresponding phenomenon in the world of matter, 98 and conversely-- so far as there is reason to suppose that conscious life is correlated with material phenomena.

99 The parallels already drawn point directly to such a relation; it would be an amazing accident, if, while the characteristic marks repeated themselves in this way, there were not at the foundation an inner connection. 100 Both the 'parallelism' and the 'proportionality' between the activity of consciousness and cerebral activity point to an 'identity' at bottom. 101 The difference which remains in spite of the points of agreement compels us to suppose that one and the same principle has found its expression in a double form. 102 We have no right to take mind and body for two beings or substances in reciprocal interaction. 103 We are, on the contrary, impelled to conceive the material interaction between the elements composing the brain and nervous system 'as an outer form of the inner ideal unity of consciousness'. 104 What we in our inner experience become conscious of as thought, feeling, and resolution, is thus represented in the material world by certain material processes of the brain, which as such are subject to the law of the persistence of energy, 105 although this law cannot be applied to the relation between cerebral and conscious processes. It is as though the same thing were said in two languages."

PERCEPTION

106 Some monists are in the habit of speaking of the one Being to which they refer phenomena of all sorts as the "Absolute." 107 The word is a vague one, and means very different things in different philosophies. It has been somewhat broadly defined as "the ultimate principle of explanation of the universe." 108 You who turns to one principle of explanation will conceive the Absolute in one way, and you who turns to another will, naturally, understand something else by the word. 109 Thus, the idealist may conceive of the Absolute as an all-inclusive Mind, of which finite minds are parts. 110 To Spencer, it is the Unknowable, a something behind the veil of phenomena. 111 Sometimes it means to a writer much the same thing that the word God means to other people; sometimes it has a significance at the farthest remove from this. 112 Indeed, the word is so vague and ambiguous, and has proved itself the mother of so many confusions, that it would seem a desirable thing to drop it out of philosophy altogether, and to substitute for it some less ambiguous expression.

113 It seems clear from the preceding pages, that, before one either accepts or rejects monism, one should very carefully determine just what one means by the word, and should scrutinise the considerations which may be urged in favour of the particular doctrine in question. 114 There are all sorts of monism, and people embrace them for all sorts of reasons. Let me beg the reader to bear in mind;--

115 (1) The monist may be a materialist; you may be an idealist; you may be neither. 116 In the last case, you may, with Spinoza, call the one Substance God; that is, you may be a Pantheist. 117 On the other hand, you may, with Spencer, call it the Unknowable, and be an Agnostic. 118 Other shades of opinion are open to you, if you cares to choose them.

119 (2) It does not seem wise to assent hastily to such statements as; "The universe is the manifestation of one unitary Being"; or: "Mind and matter are the expression of one and the same principle." 120 We find revealed in our experience mental phenomena and physical phenomena. In what

sense they are one, or whether they are one in any sense,-- 121 this is something to be determined by an examination of the phenomena and of the relations in which we find them. 122 It may turn out that the universe is one only in the sense that all phenomena belong to the one orderly system. 123 If we find that this is the case, we may still, if we choose, call our doctrine monism, but we should carefully distinguish such a monism from those represented by Höffding and Spencer and many others. 124 There seems little reason to use the word, when the doctrine has been so far modified.

DUALISM

125 The plain person finds the self in a world of physical things and of minds, and it seems to you that your experience directly testifies to the existence of both. 126 This means that the things of which you have experience appear to belong to two distinct classes. 127 It does not mean, of course, that you have only two kinds of experiences. The phenomena which are revealed to us are indefinitely varied; all physical phenomena are not just alike, and all mental phenomena are not just alike.

128 Nevertheless, amid all the bewildering variety that forces itself upon our attention, there stands out one broad distinction, that of the physical and the mental. 129 It is a distinction that the person who has done no reading in the philosophers is scarcely tempted to obliterate; 130 to you the world consists of two kinds of things widely different from each other; minds are not material things and material things are not minds. 131 We are justified in regarding this as the opinion of the plain person even when we recognise that, in your endeavour to make clear to yourself what you means by minds, you sometimes speaks as though you were talking about something material or semi-material.

132 Now, the materialist allows these two classes to run together; so does the idealist. The one says that everything is matter; the other, that everything is mind. 133 It would be foolish to maintain that nothing can be said for either

doctrine, for people of ability have embraced each. 134 But one may at least say that both seem to be refuted by our common experience of the world, an experience which, so far as it is permitted to testify at all, lifts up its voice in favour of 'Dualism'.

135 Dualism is sometimes defined as the doctrine that there are in the world two kinds of substances, matter and mind, which are different in kind and should be kept distinct. 136 There are dualists who prefer to avoid the use of the word substance, and to say that the world of our experiences consists of physical phenomena and of mental phenomena, and that these two classes of facts should be kept separate. 137 The dualist may maintain that we have a direct knowledge of matter and of mind, and you may content yourself with such a statement, doing little to make clear what we mean by matter and by mind. 138 In this case, your position is little different from that of the plain person who does not attempt to philosophise. Thomas Reid, belongs to this class. 139 On the other hand, the dualist may attempt to make clear, through philosophical reflection, what we mean by the matter and mind which experience seems to give us. He may conclude:--

140 (1) That you must hold, as did Sir William Hamilton, that we perceive directly only physical and mental phenomena, 141 but are justified in inferring that, since the phenomena are different, there must be two kinds of underlying substances to which the phenomena are referred. 142 Thus, you may distinguish between the two substances and their manifestations, as some monists distinguish between the one substance and its manifestations.

143 (2) Or you may conclude that it is futile to search for substances or realities of any sort 'behind' phenomena, arguing that such realities are never revealed in experience, and that no sound reason for their assumption can be adduced. 144 In this case, you may try to make plain what mind and matter are, by simply analysing our experiences of mind and matter and coming to a clearer comprehension of their nature.

PERCEPTION

145 As the reader has probably remarked, the philosophy presented in the earlier chapters of this book is 'dualistic' as well as 'realistic'. 146 That is to say, it refuses to rub out the distinction between physical phenomena and mental phenomena, either by dissolving the material world into ideas; 147 by calling ideas secretions or functions of the brain; or by declaring them one in a fictitious entity behind the veil and not supposed to be exactly identical with either. 148 And as it teaches that the only reality that it means anything to talk about must be found in experience, it is a dualism of the type described in the paragraph which immediately precedes.

149 Such a philosophy does not seem to do violence to the common experience of minds and of physical things shared by us all, whether we are philosophers or are not. 150 It only tries to make clear what we all know dimly and vaguely. This is, I think, a point in its favour. 151 However, people of great ability and of much learning have inclined to doctrines very different; and we have no right to make up our minds on such a subject as this without trying to give them an attentive and an impartial hearing.

SINGULAR ISM AND PLURALISM

152 There are those who apply to the various forms of monism the title 'Singularism', and who contrast with this 'Pluralism', 153 a word which is meant to cover the various doctrines which maintain that there is more than one ultimate principle or being in the universe. 154 It is argued that we should have some word under which we may bring such a doctrine, for example, as that of the Greek philosopher Empedocles (born about 490 B.C.). 155 This thinker made earth, water, fire, and air the four material principles or "roots" of things. He was not a monist, and we can certainly not call him a dualist.

156 Again. The term pluralism has been used to indicate the doctrine that individual finite minds are not parts or manifestations of one all-embracing Mind,-- of God or the

Absolute,-- but are relatively independent beings. 157 This doctrine has been urged in our own time, with eloquence and feeling, by Professor Howison. 158 Here we have a pluralism which is idealistic, for it admits in the universe but one 'kind' of thing, minds; and yet refuses to call itself monistic. 159 It will readily be seen that in this paragraph and in the one preceding the word is used in different senses.

160 I have added the above sentences to this chapter that the reader may have an explanation of the meaning of a word sometimes met with. 161 But the title of the chapter is "Monism and Dualism," and it is of this contrast that it is especially important to grasp the significance.

RATIONALISM, EMPIRICISM, CRITICISM, AND CRITICAL EMPIRICISM

George Stuart Fullerton

RATIONALISM

4 As the content of a philosophical doctrine must be determined by the 'initial assumptions' which a philosopher makes and by the 'method' which you adopts in your reasonings, 2 it is well to examine with some care certain broad differences in this respect which characterise different philosophers, and which help to explain how it is that the results of their reflections are so startlingly different. 3 I shall first speak of 'Rationalism', which I may somewhat loosely define as the doctrine that the reason can attain truths independently of observation-- 4 can go beyond experienced fact and the deductions which experience seems to justify us in making from experienced fact. 5 The definition cannot mean much to us until it is interpreted by a concrete example, and I shall turn to such. 6 It must, however, be borne in mind that the word "rationalism" is meant to cover a great variety of opinions, and we have said comparatively little about you when we have called a person a rationalist in philosophy. 7 People may agree in believing that the reason can go beyond experienced fact, and yet may differ regarding the particular truths which may be thus attained.

8 Now, when Descartes found himself discontented with the philosophy that he and others had inherited from the Middle Ages, and undertook a reconstruction, 9 he found it necessary to throw over a vast amount of what had passed as truth, if only with a view to building up again upon a firmer foundation. 10 It appeared to him that much was uncritically accepted as true in philosophy and in the sciences which a little reflection revealed to be either false or highly doubtful. 11 Accordingly, he decided to clear the ground by a sweeping doubt, and to begin his task quite independently. 12 In accordance with this principle, he rejected the testimony of the senses touching the existence of a world of external things. 13 Do not the senses sometimes deceive us? 14 And, since humans seem to be liable to error in their reasonings, even in a field so secure as that of mathematical demonstration, you resolved further to repudiate all the reasonings you had heretofore accepted. 15 You would not even assume yourself to be in your right mind and awake; might you not be the victim of a diseased fancy, or a person deluded by dreams? 16 Could anything whatever escape this all-devouring doubt? One truth seemed unshakable: your own existence, at least, emerged from this sea of uncertainties. 17 I may be deceived in thinking that there is an external world, and that I am awake and really perceive things; but I surely cannot be deceived unless I exist.

18 'Cogito, ergo sum'-- I think, hence I exist; this truth Descartes accepted as the first principle of the new and sounder philosophy which he sought. 19 As we read farther in Descartes we discover that he takes back again a great many of those things that he had at the outset rejected as uncertain. 20 Thus, he accepts an external world of material things. How does he establish its existence? 21 He cannot do it as the empiricist does it, by a reference to experienced fact, for he does not believe that the external world is directly given in our experience. 22 He thinks we are directly conscious only of our 'ideas' of it, and must somehow prove that it exists over against our ideas. 23 By his principles,

Descartes is compelled to fall back upon a curious roundabout argument to prove that there is a world. 24 He must first prove that God exists, and then argue that God would not deceive us into thinking that it exists when it does not.

25 Now, when we come to examine Descartes' reasonings in detail we find what appear to us some very uncritical assumptions. Thus, he proves the existence of God by the following argument:--

26 I exist, and I find in me the idea of God; of this idea I cannot be the author, for it represents something much greater than I, and its cause must be as great as the reality it represents. 27 In other words, nothing less than God can be the cause of the idea of God which I find in me, and, hence, I may infer that God exists.

28 Where did Descartes get this notion that every idea must have a cause which contains as much external reality as the idea does represented reality? 29 How does he prove his assumption? He simply appeals to what he calls "the natural light," which is for him a source of all sorts of information which cannot be derived from experience. 30 This "natural light" furnishes him with a vast number of "eternal truths", these he has not brought under the sickle of his sweeping doubt, and these help him to build up again the world he has overthrown, beginning with the one indubitable fact discussed above.

31 To the people of a later time many of Descartes' eternal truths are simply inherited philosophical prejudices, the results of the reflections of earlier thinkers, and in sad need of revision. I shall not criticise them in detail. 32 The important point for us to notice is that we have here a type of philosophy which depends upon truths revealed by the reason, independently of experience, to carry one beyond the sphere of experience. 33 I again remind the reader that there are all sorts of rationalists, in the philosophical sense of the word. Some trust the power of the unaided reason without reserve. 34 Thus Spinoza, the pantheist, made the magnificent but misguided attempt to deduce the whole system of things physical and things mental

from what he called the attributes of God, Extension and Thought. 35 On the other hand, one may be a good deal of an empiricist, and yet something of a rationalist, too.

36 Thus Professor Strong, in his recent brilliant book, "*Why the Mind has a Body*," maintains that we know intuitively that other minds than our own exist; 37 know it without gathering our information from experience, and without having to establish the fact in any way. 38 This seems, at least, akin to the doctrine of the "natural light," and yet no one can say that Professor Strong does not, in general, believe in a philosophy of observation and experiment.

EMPIRICISM

39 I suppose every one who has done some reading in the history of philosophy will, if your mother tongue be English, think of the name of John Locke when empiricism is mentioned. 40 Locke, in his "*Essay concerning Human Understanding*," undertakes "to inquire into the original, certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent." 41 His sober and cautious work, which was first published in 1690, was peculiarly English in character; and the spirit which it exemplifies animates also Locke's famous successors, George Berkeley (1684-1753), David Hume (1711-1776), and John Stuart Mill (1806-1873). 42 Although Locke was a realist, Berkeley an idealist, Hume a sceptic, and Mill what has been called a sensationalist; yet all were empiricists of a sort, and emphasised the necessity of founding our knowledge upon experience.

43 Now, Locke was familiar with the writings of Descartes, whose work he admired, but whose rationalism offended him. 44 The first book of the "Essay" is devoted to the proof that there are in the mind of human no "innate ideas" and no "innate principles." 45 That is to say, Locke tries to show that one must not seek, in the "natural light" to which Descartes turned, a distinct and independent source of information, 46 "Let us, then," he continues, "suppose the

mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished? 47 Whence comes it by that vast store which the busy and boundless fancy of human has painted on it, with an almost endless variety? 48 Whence has it all the materials of reason and knowledge? To this I answer in one word, from experience; 49 in that all our knowledge is founded, and from that it ultimately derives itself. 50 Our observation, employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. 51 These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring."

52 Thus, all we know and all we ever shall know of the world of matter and of minds must rest ultimately upon observation,-- observation of external things and of our own mind. 53 We must clip the erratic wing of a "reason" which seeks to soar beyond such knowledge; which leaves the solid earth, and hangs suspended in the void. 54 "But hold," exclaims the critical reader; "have we not seen that Locke, as well as Descartes, claims to know what he cannot prove by direct observation or even by a legitimate inference from what has been directly observed? 55 Does he not maintain that the mind has an immediate knowledge or experience only of its own ideas? How can he prove that there are material extended things outside causing these ideas? 56 And if he cannot prove it by an appeal to experience, to direct observation, is he not, in accepting the existence of the external world at all, just as truly as Descartes, a rationalist?"

57 The objection is well taken. On his own principles, Locke had no right to believe in an external world. He has stolen his world, so to speak; he has taken it by violence. 58 Nevertheless, as I pointed out in the section above referred to, Locke is not a rationalist of 'malice prepense'. 59 He 'tries' to be an empiricist. He believes in the external world because he thinks it is directly revealed to the senses-- he

inconsistently refers to experience as evidence of its existence.

60 It has often been claimed by those who do not sympathise with empiricism that the empiricists make assumptions much as others do, but have not the grace to admit it. 61 I think we must frankly confess that a person may try hard to be an empiricist and may not be wholly successful. 62 Moreover, reflection forces us to the conclusion that when we have defined empiricism as a doctrine which rests throughout upon an appeal to "experience" we have not said anything very definite.

63 What is 'experience'? What may we accept as directly revealed fact? 64 The answer to such questions is far from an easy one to give. It is a harder matter to discuss intelligently than any one can at all realise until you have spent some years in following the efforts of the philosophers to determine what is "revealed fact." 65 We are supposed to have experience of our own minds, of space, of time, of matter. What are these things as revealed in our experience? 66 We have seen in the earlier chapters of this book that one cannot answer such questions off-hand.

CRITICISM

67 I have in another chapter given a brief account of the philosophy of Immanuel Kant. He called his doctrine "Criticism," and he distinguished it from "Dogmatism" and "Empiricism." 68 Every philosophy that transcends experience, without first critically examining our faculty of knowledge and determining its right to spread its wings in this way, Kant calls "dogmatism." 69 The word seems rather an offensive one, in its usual signification, at least; and it is as well not to use it. 70 As Kant used the word, Descartes was a dogmatist; but let us rather call him a rationalist. He certainly had no intention of proceeding uncritically, as we shall see a little later. 71 If we call him a dogmatist we seem to condemn him in advance, by applying to him an abusive epithet.

72 Empiricism, according to Kant, confines human knowledge to

experience, and thus avoids the errors which beset the dogmatist. 73 But then, as Hume seemed to have shown, empiricism must run out into scepticism. 74 If all our knowledge has its foundations in experience, how can we expect to find in our possession any universal or necessary truths? 75 May not a later experience contradict an earlier? How can we be sure that what has been will be? 76 Can we 'know' that there is anything fixed and certain in our world?

77 Scepticism seemed a forlorn doctrine, and, casting about for a way of escape from it, Kant hit upon the expedient which I have described. 78 So long as we maintain that our knowledge has no other source than the experiences which the world imprints upon us, so to speak, from without, we are without the power of prediction, 79 for new experiences may annihilate any generalisations we have founded upon those already vouchsafed us; 80 but if we assume that the world upon which we gaze, the world of phenomena, is made what it is by the mind that perceives it, are we not in a different position? 81 Suppose, for example, we take the statement that there must be an adequate cause of all the changes that take place in the world, can a mere experience of what has been in the past guarantee that this law will hold good in the future? 82 But, when we realise that the world of which we are speaking is nothing more than a world of phenomena, of experiences, 83 and realise further that this whole world is constructed by the mind out of the raw materials furnished by the senses, may we not have a greater confidence in our law? 84 If it is the nature of the mind to connect the phenomena presented to it with one another as cause and effect, may we not maintain that no phenomenon can possibly make its appearance that defies the law in question? 85 How could it appear except under the conditions laid upon all phenomena? 86 If it is our nature to think the world as an orderly one, and if we can know no world save the one we construct ourselves, the orderliness of all the things we can know seems to be guaranteed to us.

PERCEPTION

87 It will be noticed that Kant's doctrine has a negative side. He limits our knowledge to phenomena, to experiences, and he is himself, in so far, an empiricist. 88 But in that he finds in experience an order, an arrangement of things, not derived from experience in the usual sense of the word, he is not an empiricist. 89 He has paid his own doctrine the compliment of calling it "criticism," as I have said.

90 Now, I beg the reader to be here, as elsewhere, on your guard against the associations which attach to words. 91 In calling Kant's doctrine "the critical philosophy," we are in some danger of uncritically assuming and leading others to believe uncritically that it is free from such defects as may be expected to attach to "dogmatism" and to empiricism. 92 Such a position should not be taken until one has made a most careful examination of each of the three types of doctrine, 93 of the assumptions which it makes, and of the rigour with which it draws inferences upon the basis of such assumptions. 94 That we may be the better able to withstand "undue influence," I call attention to the following points:--

95 (1) We must bear in mind that the attempt to make a critical examination into the foundations of our knowledge, and to determine its scope, is by no means a new thing. 96 Among the Greeks, Plato, Aristotle, the Stoics, the Epicureans, and the sceptics, all attacked the problem. 97 It did not, of course, present itself to these people in the precise form in which it presented itself to Kant, but each and all were concerned to find an answer to the question: 98 Can we know anything with certainty; and, if so, what? 99 They may have failed to be thoroughly critical, but they certainly made the attempt.

100 I shall omit mention of the long series of others, who, since that time, have carried on the tradition, and shall speak only of Descartes and Locke, whom I have above brought forward as representatives of the two types of doctrine that Kant contrasts with his own. 101 To see how strenuously Descartes endeavoured to subject his

knowledge to a critical scrutiny and to avoid unjustifiable assumptions of any sort, one has only to read that charming little work of genius, the "*Discourse on the Method of Rightly Conducting the Reason*." 102 In his youth Descartes was, as he informs us, an eager student; but, when he had finished the whole course of education usually prescribed, he found himself so full of doubts and errors that he did not feel that he had advanced in learning at all. 103 Yet he had been well tutored, and was considered as bright in mind as others. 104 He was led to judge his neighbour by himself, and to conclude that there existed no such certain science as he had been taught to suppose. 105 Having ripened with years and experience, Descartes set about the task of which I have spoken above, the task of sweeping away the whole body of his opinions and of attempting a general and systematic reconstruction. 106 So important a work should be, he thought, approached with circumspection; hence, he formulated certain Rules of Method. 107 "The first," he writes, "was never to accept anything for true which I did not clearly know to be such; 108 that is, carefully to avoid haste and prejudice, and to include nothing more in my judgments than what was presented to my mind so clearly and distinctly as to exclude all reason for doubt."

109 Such was our philosopher's design, and such the spirit in which he set about it. We have seen the result above. 110 It is as if Descartes had decided that a certain room full of people did not appear to be free from suspicious characters, and had cleared out every one, afterwards posting himself at the door to readmit only those who proved themselves worthy. 111 When we examine those who succeeded in passing muster, we discover he has favoured all his old friends. 112 He simply 'cannot' doubt them; are they not vouched for by the "natural light"? 113 Nevertheless, we must not forget that Descartes sifted his congregation with much travail of spirit. He did try to be critical.

114 As for John Locke, he reveals in the "Epistle to the Reader,"

which stands as a preface to the "Essay," the critical spirit in which his work was taken up. 115 "Were it fit to trouble thee," he writes, "with the history of this Essay, I should tell thee, that five or six friends meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand, by the difficulties that rose on every side. 116 After we had a while puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts, that we took a wrong course; 117 and that before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and to see what objects our understandings were, or were not, fitted to deal with."

118 This problem, proposed by himself to his little circle of friends, Locke attacked with earnestness, and as a result he brought out many years later the work which has since become so famous. 119 The book is literally a critique of the reason, although a very different critique from that worked out by Kant. 120 "If, by this inquiry into the nature of the understanding," says Locke, "I can discover the powers thereof, how far they reach, to what things they are in any degree proportionate, and where they fail us; 121 I suppose it may be of use to prevail with the busy mind of human to be more cautious in meddling with things exceeding its comprehension; 122 to stop when it is at the utmost extent of its tether; and to sit down in a quiet ignorance of those things which upon examination are found to be beyond the reach of our capacities."

123 To the difficulties of the task our author is fully alive: "The understanding, like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance, and make it its own object. 124 But whatever be the difficulties that lie in the way of this inquiry, whatever it be that keeps us so much in the dark to ourselves, 125 sure I am that all the light we can let in upon our own minds, all the acquaintance we can make with our own understandings, will not only be

very pleasant, but bring us great advantage, in directing our thoughts in the search, of other things."

126 (2) Thus, many people have attempted to produce a critical philosophy, and in much the same sense as that in which Kant uses the words. 127 Those who have come after them have decided that they were not sufficiently critical, that they have made unjustifiable assumptions. 128 When we come to read Kant, we will, if we have read the history of philosophy with profit, not forget to ask ourselves if he has not sinned in the same way. 129 For example, we will ask;-- (a) Was Kant right in maintaining that we find in experience synthetic judgments that are not founded upon experience, but yield such information as is beyond the reach of the empiricist? 130 There are those who think that the judgments to which he alludes in evidence of his contention-- the mathematical, for instance-- are not of this character.

131 (b) Was he justified in assuming that all the ordering of our world is due to the activity of mind, and that merely the raw material is "given" us through the senses? 132 There are many who demur against such a statement, and hold that it is, if not in all senses untrue, at least highly misleading, since it seems to argue that there is no really external world at all. 133 Moreover, they claim that the doctrine is neither self-evident nor susceptible of proper proof.

134 (c) Was Kant justified in assuming that, even if we attribute the "form" or arrangement of the world we know to the native activity of the mind, the necessity and universality of our knowledge is assured? 135 Let us grant that the proposition, whatever happens must have an adequate cause, is a "form of thought." 136 What guarantee have we that the "forms of thought" must ever remain changeless? 137 If it is an assumption for the empiricist to declare that what has been true in the past will be true in the future, that earlier experiences of the world will not be contradicted by later; 138 what is it for the Kantian to maintain that the order which you finds in your experience will

necessarily and always be the order of all future experiences? 139 Transferring an assumption to the field of mind does not make it less of an assumption.

140 Thus, it does not seem unreasonable to charge Kant with being a good deal of a rationalist. He tried to confine our knowledge to the field of experience, it is true; 141 but he made a number of assumptions as to the nature of experience which certainly do not shine by their own light, and which many thoughtful persons regard as incapable of justification. 142 Kant's famous successors in the German philosophy, Fichte (1762-1814), Schelling (1775-1854), Hegel (1770-1831), and Schopenhauer (1788-1860), all received their impulse from the "critical philosophy," and yet each developed own doctrine in a relatively independent way. 143 I cannot here take the space to characterise the systems of these people; I may merely remark that all of them contrast strongly in doctrine and method with the British philosophers mentioned in the last section, Locke, Berkeley, Hume, and Mill. 144 They are 'un-empirical', if one may use such a word; 145 and, to one accustomed to reading the English philosophy, they seem ever ready to spread their wings and hazard the boldest of flights without a proper realisation of the thinness of the atmosphere in which they must support themselves.

146 However, no matter what may be one's opinion of the actual results attained by these German philosophers, one must frankly admit that no one who wishes to understand clearly the development of speculative thought can afford to dispense with a careful reading of them. 147 Much even of the English philosophy of our own day must remain obscure to those who have not looked into their pages. 148 Thus, the thought of Kant and Hegel moulded the thought of Thomas Hill Green (1836-1882) and of the brothers Caird; and their influence has made itself widely felt both in England and in America. 149 One cannot criticise intelligently books written from their standpoint, unless one knows how the authors came by their

doctrine and out of what it has been developed.

CRITICAL EMPIRICISM

150 We have seen that the trouble with the rationalists seemed to be that they made an appeal to "eternal truths," which those who followed them could not admit to be eternal truths at all. 151 They proceeded on a basis of assumptions the validity of which was at once called in question. 152 Locke, the empiricist, repudiated all this, and then also made assumptions which others could not, and cannot, approve. 153 Kant did something of much the same sort; we cannot regard his "criticism" as wholly critical. 154 How can we avoid such errors? How walk cautiously, and go around the pit into which, as it seems to us, others have fallen? 155 I may as well tell the reader frankly that you sets your hope too high if you expects to avoid all error and to work out for yourself a philosophy in all respects unassailable. 156 The difficulties of reflective thought are very great, and we should carry with us a consciousness of that fact and a willingness to revise our most cherished conclusions. 157 Our initial difficulty seems to be that we must begin by assuming 'something', if only as material upon which to work. 158 We must begin our philosophising 'somewhere'. Where shall we begin? May we not fall into error at the very outset?

159 The doctrine set forth in the earlier chapters of this volume maintains that we must accept as our material the revelation of the mind and the world which seems to be made in our common experience, and which is extended and systematised in the sciences. 160 But it insists that we must regard such an acceptance as merely provisional, must subject our concepts to a careful criticism, and must always be on our guard against hasty assumptions. 161 It emphasises the value of the light which historical study casts upon the real meaning of the concepts which we all use and must use, but which have so often proved to be stones of stumbling in the path of those who have employed them.

PERCEPTION

162 Its watchword is analysis, always analysis; and a settled distrust of what have so often passed as "self-evident" truths. 163 It regards it as its task to analyse experience, while maintaining that only the satisfactory carrying out of such an analysis can reveal what experience really is, and clear our notions of it from misinterpretations. 164 No such attempt to give an account of experience can be regarded as fundamentally new in its method. Every philosopher, in own way, criticises experience, and seeks its interpretation. 165 But one may, warned by the example of one's predecessors, lay emphasis upon the danger of half-analyses and hasty assumptions, and counsel the observance of sobriety and caution. 166 For convenience, I have called the doctrine 'Critical Empiricism'. I warn the reader against the seductive title, and advise you not to allow it to influence you unduly in your judgment of the doctrine.

PRAGMATISM

167 It seems right that I should, before closing this chapter, say a few words about Pragmatism, which has been so much discussed in the last few years. 168 In 1878 Mr. Charles S. Peirce wrote an article for the 'Popular Science Monthly' in which he proposed as a maxim for the attainment of clearness of apprehension the following: 169 "Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. 170 Then, our conception of these effects is the whole of our conception of the object."

171 This thought has been taken up by others and given a development which Mr. Peirce regards with some suspicion. 172 He refers especially to the development it has received at the hands of Professor William James, in his two essays, "The Will to Believe" and "Philosophical Conceptions and Practical Results." 173 Professor James is often regarded as foremost among the pragmatists.

PERCEPTION

174 I shall not attempt to define pragmatism, for I do not believe that the doctrine has yet attained to that definiteness of formulation which warrants a definition. 175 We seem to have to do not so much with a clear-cut doctrine, the limits and consequences of which have been worked out in detail, as with a tendency which makes itself apparent in the works of various writers under somewhat different forms. 176 I may roughly describe it as the tendency to take that to be 'true' which is 'useful' or 'serviceable'. 177 It is well illustrated in the two essays to which reference is made above.

178 Thus, Professor James dwells upon the unsatisfactoriness and uncertainty of philosophical and scientific knowledge: 179 "Objective evidence and certitude are doubtless very fine ideals to play with, but where on this moonlit and dream-visited planet are they found?"

180 Now, among those things regarding which it appears impossible to attain to intellectual certitude, there are matters of great practical moment, and which affect deeply the conduct of life; 181 for example, the doctrines of religion. Here a merely sceptical attitude seems intolerable. 182 In such cases, argues Professor James, "we have the right to believe at our own risk any hypothesis that is live enough to tempt our will." 183 It is important to notice that there is no question here of a logical right. We are concerned with matters regarding which, according to Professor James, we cannot look for intellectual evidence. 184 It is assumed that we believe simply because we choose to believe-- we believe arbitrarily. 185 It is further important to notice that what is a "live" hypothesis to one person need not tempt the will of another person at all. 186 As our author points out, a Turk would naturally will to believe one thing and a Christian would will to believe another. 187 Each would will to believe what struck one as a satisfactory thing to believe.

188 What shall we say to this doctrine? I think we must say that it is clearly not a philosophical 'method of attaining to truth'. 189 Hence, it has not properly a place in this chapter among the attempts

which have been made to attain to the truth of things. 190 It is, in fact, not concerned with truths, but with assumptions, and with assumptions which are supposed to be made on the basis of no evidence. It is concerned with "seemings."

191 The distinction is a very important one. Our Turk cannot, by willing to believe it, make own hypothesis true; but can make it 'seem' true. 192 Why should you wish to make it seem true whether it is true or not? Why should you strive to attain to a feeling of subjective certainty, not by logically resolving your doubts, but by ignoring them? 193 The answer is given us by our author. You who lives in the midst of doubts, and refuses to cut your knot with the sword of belief, misses the good of life. 194 This is a practical problem, and one of no small moment.

195 In the last section of this book I have tried to indicate what it is wise for a person to do when you are confronted by doubts which you cannot resolve. 196 Into the general question whether even a false belief may not, under some circumstances, be more serviceable than no belief at all, I shall not enter. 197 The point I wish to emphasise is that there is all the difference in the world between 'producing a belief' and 'proving a truth'. 198 We are compelled to accept it as a fact that humans, under the influence of feeling, can believe in the absence of evidence, or, for that matter, can believe in spite of evidence. 199 But a truth cannot be established in the absence of evidence or in the face of adverse evidence. 200 And there is a very wide field in which it is made very clear to us that beliefs adopted in the absence of evidence are in danger of being false beliefs.

201 The pragmatist would join with the rest of us in condemning the Turk or the Christian who would simply will to believe in the rise or the fall of stocks, and would refuse to consult the state of the market. 202 Some hypotheses are, in the ordinary course of events, put to the test of verification. 203 We are then made painfully aware that beliefs and truths are quite distinct things, and may not be in harmony.

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204 Now, the pragmatist does not apply own principle to this field. You confines it to what may not inaptly be called the field of the unverifiable. 205 The Turk, who wills to believe in the hypothesis that appeals to the self as a pious Turk, is in no such danger of a rude awakening as is the person who wills to believe that stocks will go up or down. 206 But mark what this means: it means that 'you are not in danger of finding out what the truth really is'. It does not mean that you are in possession of the truth.

207 So I say, the doctrine which we are discussing is not a method of attaining to truth. 208 What it really attempts to do is to point out to us how it is prudent for us to act when we cannot discover what the truth is.

The Book of Divine Panagogue called

PSYCHE

PSYCHOLOGY
George Stuart Fullerton

PSYCHOLOGY AND PHILOSOPHY

1 I think I have said enough in about what we mean when we speak of psychology as a natural science and as an independent discipline. 2 Certainly there are many psychologists who would not care to be confused with the philosophers, and there are some that regard philosophy with suspicion. 3 Nevertheless, psychology is commonly regarded as belonging to the philosophical group. 4 That this is the case can scarcely be thought surprising when we see how the psychologist speaks of the relation of own science to philosophy.

5 "I have kept," writes Professor James, in that delightful book which has become the common property of us all, "close to the point of view of natural science throughout the book. 6 Every natural science assumes certain data uncritically, and declines to challenge the elements between which its own 'laws' obtain, and from which its own deductions are carried on. 7 Psychology, the science of finite individual minds, assumes as its data (1) 'thoughts and feelings', and (2) 'a physical world' in time and space with which they coexist, and which (3) 'they know'. 8 Of course, these data themselves are discussable; but the discussion of them (as of other elements) is called metaphysics and falls outside the province of this book."

9 This is an admirable statement of the scope of psychology as a natural science, and also of the relations of metaphysics to the sciences. 10 But it would not be fair to Professor James to take this sentence alone, and to assume that, in his opinion, it is easy to separate psychology altogether from philosophy. 11 "The reader," he tells us in the next paragraph, "will in vain seek for any closed-system in the book. 12 It is mainly a mass of descriptive details, running out into queries which only a metaphysics alive to the weight of her task can hope successfully to deal with." 13 And in the opening

sentence of the preface he informs us that some of his chapters are more "metaphysical" than is suitable for students going over the subject for the first time. 14 That the author is right in maintaining that it is not easy to draw a clear line between philosophy and psychology, and to declare the latter wholly independent, I think we must concede. 15 An independent science should be sure of the things with which it is dealing. Where these are vague and indefinite, and are the subject of constant dispute, it cannot march forward with assurance. 16 One is rather forced to go back and examine the data themselves. The beaten track of the special science has not been satisfactorily constructed. 17 We are forced to admit that the science of psychology has not yet emerged from the state in which a critical examination of its foundations is necessary, and that the construction of the beaten path is still in progress. 18 This I shall try to make clear by illustrations.

19 The psychologist studies the mind, and own ultimate appeal must be to introspection, to a direct observation of mental phenomena, and of their relations to external things. 20 Now, if the observation of mental phenomena were a simple and an easy thing; 21 if the mere fact that we are conscious of sensations and ideas implied that we are 'clearly' conscious of them and are in a position to describe them with accuracy, psychology would be a much more satisfactory science than it is. 22 But we are not thus conscious of our mental life. We can and do use our mental states without being able to describe them accurately. 23 In a sense, we are conscious of what is there, but our consciousness is rather dim and vague, and in our attempts to give an account of it we are in no little danger of giving a false account.

24 Thus, the psychologist assumes that we perceive both physical phenomena and mental-- the external world and the mind. 25 They takes it for granted that we perceive mental phenomena to be related to physical. They are hardly in a position to make this assumption, and then to set it aside as a thing they need not further

consider. 26 Do they not tell us, as a result of their investigations, that we can know the external world only as it is reflected in our sensations, 27 and thus seem to shut the mind up within the circle of mental phenomena merely, cutting off absolutely a direct knowledge of what is extra-mental? 28 If we can know only mental phenomena, the representatives of things, at first hand, how can we tell that they are representatives? 29 And what becomes of the assumption that we 'perceive' that mind is related to an external world?

30 It may be said, this problem the psychologist may leave to the metaphysician. Certainly, it is one of those problems that the metaphysician discusses. 31 But my contention is, that you who has given no thought to the matter may easily fall into error as to the very nature of mental phenomena. 32 For example, when we approach or recede from a physical object we have a series of experiences which are recognised as sensational. 33 When we imagine a tree or a house we are also experiencing a mental phenomenon. 34 All these experiences 'seem' plainly to have extension in some sense of the word. 35 We appear to perceive plainly part out of part. In so far, these mental things seem to resemble the physical things which we contrast with what is mental. 36 Shall we say that, because these things are mental and not physical, their apparent extension is a delusion? Shall we say that they really have no parts? 37 Such considerations have impelled psychologists of eminence to maintain, in flat contradiction to what seems to be the unequivocal testimony of direct introspection, 38 that the total content of consciousness at any moment must be looked upon as an indivisible, part-less unit. 39 We cannot, then, depend merely on direct introspection. It is too uncertain in its deliverances. 40 If we would make clear to ourselves what mental phenomena really are, and how they differ from physical phenomena, we must fall back upon the reflective analysis of our experience which occupies the metaphysician. 41 Until we have done this, we are in great danger

of error. We are actually uncertain of our materials.

42 Again. The psychologist speaks of the relation of mind and body. Some psychologists incline to be parallelists, some are warm advocates of interactionism. 43 Now, any theory of the relation of mind to body must depend on observation ultimately. 44 If we had not direct experience of a relation between the physical and the mental somewhere, no hypothesis on the subject would ever have emerged. 45 But our experiences are not perfectly clear and unequivocal to us. Their significance does not seem to be easily grasped. 46 To comprehend it one is forced to that reflective examination of experience which is characteristic of the philosopher. 47 Here it may again be said: Leave the matter to the meta-physician and go on with your psychological work. 48 I answer: The psychologist is not in the same position as the botanist or the zoölogist. 49 They are studying mind in its relation to body. It cannot but be unsatisfactory to them to leave that relation wholly vague; and, as a matter of fact, they usually takes up with one theory or another. 50 We have seen that they may easily adopt a theory that leads them to overlook the great difference between physical phenomena and mental phenomena, and to treat them as though they were the same. 51 This one may do in spite of all that introspection has to say about the gulf that separates them.

52 Psychology is, then, very properly classed among the philosophical sciences. 53 The psychologist is not sufficiently sure of own materials to be able to dispense with reflective thought, in many parts of own field. 54 Some day there may come to be a consensus of opinion touching fundamental facts, and the science may become more independent. A beaten track may be attained; but that has not yet been done.

THE DOUBLE AFFILIATION OF PSYCHOLOGY

55 In spite of what has been said above, we must not forget that psychology is a 'relatively' independent science. 56 One may be a useful psychologist without

knowing much about philosophy. 57 As in logic it is possible to write a text-book not greatly different in spirit and method from text-books concerned with the sciences not classed as philosophical, 58 so it is possible to make a useful study of mental phenomena without entering upon metaphysical analyses. 59 In science, as in common life, we can 'use' concepts without subjecting them to careful analysis.

60 Thus, our common experience reveals that mind and body are connected. 61 We may, for a specific purpose, leave the 'nature' of this connection vague, and may pay careful attention to the physiological conditions of mental phenomena, studying in detail the senses and the nervous system. 62 We may, further, endeavour to render our knowledge of mental phenomena more full and accurate by experimentation. 63 In doing this we may be compelled to make use of elaborate apparatus. Of such mechanical aids to investigation our psychological laboratories are full. 64 It is to such work as this that we owe what is called the "physiological" and the "experimental" psychology. 65 One can carry on such investigations without being a metaphysician. But one can scarcely carry them on without having a good knowledge of certain sciences not commonly supposed to be closely related to psychology at all. 66 Thus, one should be trained in chemistry and physics and physiology, and should have a working knowledge of laboratory methods. 67 Moreover, it is desirable to have a sufficient knowledge of mathematics to enable one to handle experimental data. 68 The consideration of such facts as these sometimes leads people to raise the question: Should psychology affiliate with philosophy or with the physical sciences? The issue is an illegitimate one. 69 Psychology is one of the philosophical sciences, and cannot dispense with reflection; 70 but that is no reason why it should not acknowledge a close relation to certain physical sciences as well. 71 Parts of the field can be isolated, and one may work as one works in the natural sciences generally; 72 but if one does nothing more, one's concepts

remain unanalysed, and, as we have seen in the previous section, there is some danger of actual misconception.

The Book of Divine Panagogue called

MORALS

AN ENQUIRY CONCERNING THE PRINCIPLES OF MORALS

David Hume

OF THE GENERAL PRINCIPLES OF MORALS

1 DISPUTES with people, pertinaciously obstinate in their principles, are, of all others, the most irksome; 2 except, perhaps, those with persons, entirely disingenuous, who really do not believe the opinions they defend, 3 but engage in the controversy, from affectation, from a spirit of opposition, or from a desire of showing wit and ingenuity, superior to the rest of humankind. 4 The same blind adherence to their own arguments is to be expected in both; the same contempt of their antagonists; and the same passionate vehemence, in enforcing sophistry and falsehood. 5 And as reasoning is not the source, whence either disputant derives own tenets; it is in vain to expect, that any logic, which speaks not to the affections, will ever engage you to embrace sounder principles.

6 Those who have denied the reality of moral distinctions, may be ranked among the disingenuous disputants; 7 nor is it conceivable, that any human creature could ever seriously believe, that all characters and actions were alike entitled to the affection and regard of everyone. 8 The difference, which Nature has placed between one human and another, is so wide, and this difference is still so much farther widened, by education, example, and habit, 9 that, where the opposite extremes come at once under our apprehension, there is no scepticism so scrupulous, and scarce any assurance so determined, as absolutely to deny all distinction between them. 10 Let a human's insensibility be ever so great, you must often be touched with the images of Right and Wrong; 11 and let your prejudices be ever so obstinate, you must observe, that others are susceptible of like impressions. 12 The only way, therefore, of converting an antagonist of this

kind, is to leave you to yourself. 13 For, finding that nobody keeps up the controversy with you, it is probable you will, at last, of yourself, from mere weariness, come over to the side of common sense and reason.

14 There has been a controversy started of late, much better worth examination, concerning the general foundation of Morals; whether they be derived from Reason, or from Sentiment; 15 whether we attain the knowledge of them by a chain of argument and induction, or by an immediate feeling and finer internal sense; 16 whether, like all sound judgement of truth and falsehood, they should be the same to every rational intelligent being; 17 or whether, like the perception of beauty and deformity, they be founded entirely on the particular fabric and constitution of the human species.

18 The ancient philosophers, though they often affirm, that virtue is nothing but conformity to reason, yet, in general, seem to consider morals as deriving their existence from taste and sentiment. 19 On the other hand, our modern enquirers, though they also talk much of the beauty of virtue, and deformity of vice, yet have commonly endeavoured to account for these distinctions by metaphysical reasonings, and by deductions from the most abstract principles of the understanding. 20 Such confusion reigned in these subjects, that an opposition of the greatest consequence could prevail between one system and another, and even in the parts of almost each individual system; and yet nobody, till very lately, was ever sensible of it. 21 The elegant Lord Shaftesbury, who first gave occasion to remark this distinction, and who, in general, adhered to the principles of the ancients, is not, himself, entirely free from the same confusion.

22 It must be acknowledged, that both sides of the question are susceptible of specious arguments. 23 Moral distinctions, it may be said, are discernible by pure reason: else, whence the many disputes that reign in common life, as well as in philosophy, with regard to this subject: 24 the long chain of proofs often produced on both sides; the examples cited, the

authorities appealed to, the analogies employed, the fallacies detected, the inferences drawn, and the several conclusions adjusted to their proper principles. 25 Truth is disputable; not taste: what exists in the nature of things is the standard of our judgement; what each human feels within own self is the standard of sentiment. 26 Propositions in geometry may be proved, systems in physics may be controverted; but the harmony of verse, the tenderness of passion, the brilliancy of wit, must give immediate pleasure. 27 No human reasons concerning another's beauty; but frequently concerning the justice or injustice of your actions. 28 In every criminal trial the first object of the prisoner is to disprove the facts alleged, and deny the actions imputed to oneself: 29 the second to prove, that, even if these actions were real, they might be justified, as innocent and lawful. 30 It is confessedly by deductions of the understanding, that the first point is ascertained: how can we suppose that a different faculty of the mind is employed in fixing the other? 31 On the other hand, those who would resolve all moral determinations into sentiment, may endeavour to show, that it is impossible for reason ever to draw conclusions of this nature. 32 To virtue, say they, it belongs to be amiable, and vice odious. This forms their very nature or essence. 33 But can reason or argumentation distribute these different epithets to any subjects, and pronounce beforehand, that this must produce love, and that hatred? 34 Or what other reason can we ever assign for these affections, but the original fabric and formation of the human mind, which is naturally adapted to receive them?

35 The end of all moral speculations is to teach us our duty; and, by proper representations of the deformity of vice and beauty of virtue, beget correspondent habits, and engage us to avoid the one, and embrace the other. 36 But is this ever to be expected from inferences and conclusions of the understanding, which of themselves have no hold of the affections or set in motion the active powers of humans? 37 They discover truths: but where

the truths which they discover are indifferent, and beget no desire or aversion, they can have no influence on conduct and behaviour. 38 What is honourable, what is fair, what is becoming, what is noble, what is generous, takes possession of the heart, and animates us to embrace and maintain it. 39 What is intelligible, what is evident, what is probable, what is true, procures only the cool assent of the understanding; and gratifying a speculative curiosity, puts an end to our researches. 40 Extinguish all the warm feelings and prepossessions in favour of virtue, and all disgust or aversion to vice: render humans totally indifferent towards these distinctions; and morality is no longer a practical study, nor has any tendency to regulate our lives and actions.

41 These arguments on each side (and many more might be produced) are so plausible, that I am apt to suspect, they may, the one as well as the other, be solid and satisfactory, and that reason and sentiment concur in almost all moral determinations and conclusions. 42 The final sentence, it is probable, which pronounces characters and actions amiable or odious, praise-worthy or blameable; 43 that which stamps on them the mark of honour or infamy, approbation or censure; that which renders morality an active principle and constitutes virtue our happiness, and vice our misery; 44 it is probable, I say, that this final sentence depends on some internal sense or feeling, which Nature has made universal in the whole species. For what else can have an influence of this nature? 45 But in order to pave the way for such a sentiment, and give a proper discernment of its object, it is often necessary, we find, that much reasoning should precede, that nice distinctions be made, 46 just conclusions drawn, distant comparisons formed, complicated relations examined, and general facts fixed and ascertained. 47 Some species of beauty, especially the natural kinds, on their first appearance, command our affection and approbation; 48 and where they fail of this effect, it is impossible for any reasoning to redress their influence, or adapt

them better to our taste and sentiment. 49 But in many orders of beauty, particularly those of the finer arts, it is requisite to employ much reasoning, in order to feel the proper sentiment; and a false relish may frequently be corrected by argument and reflection. 50 There are just grounds to conclude, that moral beauty partakes much of this latter species, and demands the assistance of our intellectual faculties, in order to give it a suitable influence on the human mind. 51 But though this question, concerning the general principles of morals, be curious and important, it is needless for us, at present, to employ farther care in our researches concerning it. 52 For if we can be so happy, in the course of this enquiry, as to discover the true origin of morals, it will then easily appear how far either sentiment or reason enters into all determinations of this nature. 53 In order to attain this purpose, we shall endeavour to follow a very simple method: we shall analyse that complication of mental qualities, which form what, in common life, we call Personal Merit: 54 we shall consider every attribute of the mind, which renders a human an object either of esteem and affection, or of hatred and contempt; 55 every habit or sentiment or faculty, which, if ascribed to any person, implies either praise or blame, and may enter into any panegyric or satire of your character and manners. 56 The quick sensibility, which, on this head, is so universal among humankind, gives a philosopher sufficient assurance, that you can never be considerably mistaken in framing the catalogue, or incur any danger of misplacing the objects of your contemplation: 57 you needs only enter into your own breast for a moment, and consider whether or not you should desire to have this or that quality ascribed to you, and whether such or such an imputation would proceed from a friend or an enemy. 58 The very nature of language guides us almost infallibly in forming a judgement of this nature; 59 and as every tongue possesses one set of words which are taken in a good sense, and another in the opposite, the least acquaintance with the

idiom suffices, without any reasoning, to direct us in collecting and arranging the estimable or blameable qualities of humans. 60 The only object of reasoning is to discover the circumstances on both sides, which are common to these qualities; 61 to observe that particular in which the estimable qualities agree on the one hand, and the blameable on the other; 62 and thence to reach the foundation of ethics, and find those universal principles, from which all censure or approbation is ultimately derived. 63 As this is a question of fact, not of abstract science, we can only expect success, by following the experimental method, and deducing general maxims from a comparison of particular instances. 64 The other scientific method, where a general abstract principle is first established, and is afterwards branched out into a variety of inferences and conclusions, may be more perfect in itself, 65 but suits less the imperfection of human nature, and is a common source of illusion and mistake in this as well as in other subjects.

66 Humans are now cured of their passion for hypotheses and systems in natural philosophy, and will hearken to no arguments but those which are derived from experience. 67 It is full time they should attempt a like reformation in all moral disquisitions; and reject every system of ethics, however subtle or ingenious, which is not founded on fact and observation.

68 We shall begin our enquiry on this head by the consideration of the social virtues, Benevolence and Justice. 69 The explication of them will probably give us an opening by which the others may be accounted for.

OF BENEVOLENCE

David Hume

PART 1

2 It may be esteemed, perhaps, a superfluous task to prove, that the benevolent or softer affections are estimable; and wherever they appear, engage the approbation and good-will of humankind. 2 The epithets SOCIABLE, GOOD-NATURED, HUMANE, MERCIFUL, GRATEFUL, FRIENDLY, GENEROUS,

BENEFICENT, or their equivalents, are known in all languages, and universally express the highest merit, which HUMAN NATURE is capable of attaining. 3 Where these amiable qualities are attended with birth and power and eminent abilities, and display themselves in the good government or useful instruction of humankind, they seem even to raise the possessors of them above the rank of HUMAN NATURE, and make them approach in some measure to the divine. 4 Exalted capacity, undaunted courage, prosperous success; these may only expose a hero or politician to the envy and ill-will of the public: 5 but as soon as the praises are added of humane and beneficent; when instances are displayed of lenity, tenderness or friendship; envy itself is silent, or joins the general voice of approbation and applause.

6 When Pericles, the great Athenian statesman and general, was on his death-bed, his surrounding friends, deeming him now insensible, began to indulge their sorrow for their expiring patron, 7 by enumerating his great qualities and successes, his conquests and victories, the unusual length of his administration, and his nine trophies erected over the enemies of the republic. 8 YOU FORGET, cries the dying hero, who had heard all, YOU FORGET THE MOST EMINENT OF MY PRAISES, WHILE YOU DWELL SO MUCH ON THOSE VULGAR ADVANTAGES, IN WHICH FORTUNE HAD A PRINCIPAL SHARE. 9 YOU HAVE NOT OBSERVED THAT NO CITIZEN HAS EVER YET WORNE MOURNING ON MY ACCOUNT. [Plut. in Pericle]

10 In people of more ordinary talents and capacity, the social virtues become, if possible, still more essentially requisite; 11 there being nothing eminent, in that case, to compensate for the want of them, or preserve the person from our severest hatred, as well as contempt. 12 A high ambition, an elevated courage, is apt, says Cicero, in less perfect characters, to degenerate into a turbulent ferocity. 13 The more social and softer virtues are there chiefly to be regarded. These are always good and amiable [Cic. de Officiis, lib. I].

14 The principal advantage, which Juvenal discovers in the extensive

capacity of the human species, is that it renders our benevolence also more extensive, and gives us larger opportunities of spreading our kindly influence than what are indulged to the inferior creation [Sat. XV. 139 and seq.]. 15 It must, indeed, be confessed, that by doing good only, can a human truly enjoy the advantages of being eminent. 16 Your exalted station, of itself but the more exposes you to danger and tempest. Your sole prerogative is to afford shelter to inferiors, who repose themselves under your cover and protection.

17 But I forget, that it is not my present business to recommend generousity and benevolence, or to paint, in their true colours, all the genuine charms of the social virtues. 18 These, indeed, sufficiently engage every heart, on the first apprehension of them; and it is difficult to abstain from some sally of panegyric, as often as they occur in discourse or reasoning. 19 But our object here being more the speculative, than the practical part of morals, it will suffice to remark, (what will readily, I believe, be allowed) that no qualities are more entitled to the general good-will and approbation of humankind 20 than beneficence and humanity, friendship and gratitude, natural affection and public spirit, or whatever proceeds from a tender sympathy with others, and a generous concern for our kind and species. 21 These wherever they appear seem to transfuse themselves, in a manner, into each beholder, and to call forth, in their own behalf, the same favourable and affectionate sentiments, which they exert on all around.

PART II

22 We may observe that, in displaying the praises of any humane, beneficent human, there is one circumstance which never fails to be amply insisted on, namely, the happiness and satisfaction, derived to society from your intercourse and good offices. 23 To your parents, we are apt to say, you endears yourself by your pious attachment and duteous care still more than by the connexions of Nature. 24 Your children never feel your authority, but when employed for their advantage. With you, the ties of love are consolidated by

beneficence and friendship. 25 The ties of friendship approach, in a fond observance of each obliging office, to those of love and inclination. 26 Your domestics and dependants have in you a sure resource; and no longer dread the power of fortune, but so far as she exercises it over you. 27 From you the hungry receive food, the naked clothing, the ignorant and slothful skill and industry. 28 Like the sun, an inferior minister of providence you cheers, invigorates, and sustains the surrounding world. 29 If confined to private life, the sphere of your activity is narrower; but your influence is all benign and gentle. 30 If exalted into a higher station, humankind and posterity reap the fruit of your labours.

31 As these topics of praise never fail to be employed, and with success, where we would inspire esteem for any one; 32 may it not thence be concluded, that the utility, resulting from the social virtues, forms, at least, a PART of their merit, and is one source of that approbation and regard so universally paid to them? 33 When we recommend even an animal or a plant as USEFUL and BENEFICIAL, we give it an applause and recommendation suited to its nature. 34 As, on the other hand, reflection on the baneful influence of any of these inferior beings always inspires us with the sentiment of aversion. 35 The eye is pleased with the prospect of corn-fields and loaded vine-yards; horses grazing, and flocks pasturing: but flies the view of briars and brambles, affording shelter to wolves and serpents. 36 A machine, a piece of furniture, a vestment, a house well contrived for use and conveniency, is so far beautiful, and is contemplated with pleasure and approbation. 37 An experienced eye is here sensible to many excellencies, which escape persons ignorant and uninstructed. 38 Can anything stronger be said in praise of a profession, such as merchandise or manufacture, than to observe the advantages which it procures to society; 39 and is not a monk and inquisitor enraged when we treat their order as useless or pernicious to humankind?

40 The historian exults in displaying the benefit arising from own labours. The writer of

romance alleviates or denies the bad consequences ascribed to own manner of composition. 41 In general, what praise is implied in the simple epithet USEFUL! What reproach in the contrary! 42 Your Gods, says Cicero, in opposition to the Epicureans, cannot justly claim any worship or adoration, with whatever imaginary perfections you may suppose them endowed. They are totally useless and inactive. 43 Even the Egyptians, whom you so much ridicule, never consecrated any animal but on account of its utility.

44 The sceptics assert, though absurdly, that the origin of all religious worship was derived from the utility of inanimate objects, as the sun and moon, to the support and well-being of humankind. 45 This is also the common reason assigned by historians, for the deification of eminent heroes and legislators.

46 To plant a tree, to cultivate a field, to beget children; meritorious acts, according to the religion of Zoroaster. 47 In all determinations of morality, this circumstance of public utility is ever principally in view; 48 and wherever disputes arise, either in philosophy or common life, concerning the bounds of duty, the question cannot, by any means, be decided with greater certainty, than by ascertaining, on any side, the true interests of humankind. 49 If any false opinion, embraced from appearances, has been found to prevail; as soon as farther experience and sounder reasoning have given us juster notions of human affairs, we retract our first sentiment, and adjust anew the boundaries of moral good and evil. 50 Giving alms to common beggars is naturally praised; because it seems to carry relief to the distressed and indigent: 51 but when we observe the encouragement thence arising to idleness and debauchery, we regard that species of charity rather as a weakness than a virtue. 52 Tyrannicide, or the assassination of usurpers and oppressive princes, was highly extolled in ancient times; because it both freed humankind from many of these monsters, and seemed to keep the others in awe, whom the sword or poniard could not reach. 53 But history and

experience having since convinced us, that this practice increases the jealousy and cruelty of princes, a Timoleon and a Brutus, though treated with indulgence on account of the prejudices of their times, are now considered as very improper models for imitation.

54 Liberality in princes is regarded as a mark of beneficence, 55 but when it occurs, that the homely bread of the honest and industrious is often thereby converted into delicious cates for the idle and the prodigal, we soon retract our heedless praises. 56 The regrets of a prince, for having lost a day, were noble and generous: but had you intended to have spent it in acts of generousity to your greedy courtiers, it was better lost than mis-employed after that manner.

57 Luxury, or a refinement on the pleasures and conveniences of life, had not long been supposed the source of every corruption in government, and the immediate cause of faction, sedition, civil wars, and the total loss of liberty. 58 It was, therefore, universally regarded as a vice, and was an object of declamation to all satirists, and severe moralists. 59 Those, who prove, or attempt to prove, that such refinements rather tend to the increase of industry, civility, and arts regulate anew our MORAL as well as POLITICAL sentiments, 60 and represent, as laudable or innocent, what had formerly been regarded as pernicious and blameable.

61 Upon the whole, then, it seems undeniable, THAT nothing can bestow more merit on any human creature than the sentiment of benevolence in an eminent degree; 62 and THAT a PART, at least, of its merit arises from its tendency to promote the interests of our species, and bestow happiness on human society. 63 We carry our view into the salutary consequences of such a character and disposition; and whatever has so benign an influence, and forwards so desirable an end, is beheld with complacency and pleasure. 64 The social virtues are never regarded without their beneficial tendencies, nor viewed as barren and unfruitful. 65 The happiness of humankind, the order of society, the harmony of families, the mutual support of friends, are always considered as

the result of their gentle dominion over the breasts of humans. 66 How considerable a PART of their merit we ought to ascribe to their utility, will better appear from future disquisitions; as well as the reason, why this circumstance has such a command over our esteem and approbation.

OF JUSTICE
David Hume

PART I

3 THAT Justice is useful to society, and consequently that PART of its merit, at least, must arise from that consideration, it would be a superfluous undertaking to prove. 2 That public utility is the SOLE origin of justice, and that reflections on the beneficial consequences of this virtue are the SOLE foundation of its merit; this proposition, being more curious and important, will better deserve our examination and enquiry.

3 Let us suppose that Nature has bestowed on the human race such profuse ABUNDANCE of all EXTERNAL conveniencies, 4 that, without any uncertainty in the event, without any care or industry on our part, every individual finds yourself fully provided with whatever your most voracious appetites can want, or luxurious imagination wish or desire. 5 Your natural beauty, we shall suppose, surpasses all acquired ornaments: the perpetual clemency of the seasons renders useless all clothes or covering: the raw herbage affords you the most delicious fare; the clear fountain, the richest beverage. 6 No labourious occupation required: no tillage: no navigation. Music, poetry, and contemplation form your sole business: conversation, mirth, and friendship your sole amusement. 7 It seems evident that, in such a happy state, every other social virtue would flourish, and receive tenfold increase; but the cautious, jealous virtue of justice would never once have been dreamed of. 8 For what purpose make a partition of goods, where every one has already more than enough? 9 Why give rise to property, where there cannot possibly be any injury? 10 Why call this object MINE, when upon

the seizing of it by another, I need but stretch out my hand to possess myself to what is equally valuable? 11 Justice, in that case, being totally useless, would be an idle ceremonial, and could never possibly have place in the catalogue of virtues.

12 We see, even in the present necessitous condition of humankind, that, wherever any benefit is bestowed by Nature in an unlimited abundance, we leave it always in common among the whole human race, and make no subdivisions of right and property. 13 Water and air, though the most necessary of all objects, are not challenged as the property of individuals; nor can any person commit injustice by the most lavish use and enjoyment of these blessings. 14 In fertile extensive countries, with few inhabitants, land is regarded on the same footing. 15 And no topic is so much insisted on by those, who defend the liberty of the seas, as the unexhausted use of them in navigation. 16 Were the advantages, procured by navigation, as inexhaustible, these reasoners had never had any adversaries to refute; nor had any claims ever been advanced of a separate, exclusive dominion over the ocean. 17 It may happen, in some countries, at some periods, that there be established a property in water, none in land; if the latter be in greater abundance than can be used by the inhabitants, and the former be found, with difficulty, and in very small quantities.

18 Again; suppose, that, though the necessities of human race continue the same as at present, yet the mind is so enlarged, and so replete with friendship and generousity, 19 that every human has the utmost tenderness for every human, and feels no more concern for your own interest than for that of your fellows; 20 it seems evident, that the use of justice would, in this case, be suspended by such an extensive benevolence, nor would the divisions and barriers of property and obligation have ever been thought of. 21 Why should I bind another, by a deed or promise, to do me any good office, when I know that you are already prompted, by the strongest inclination, to seek my happiness, and would, of yourself, perform

the desired service; 22 except the hurt, you thereby receives, be greater than the benefit accruing to me? In which case, you knows, that, from my innate humanity and friendship, I should be the first to oppose myself to your imprudent generousity. 23 Why raise landmarks between my neighbour's field and mine, when my heart has made no division between our interests; but shares all your joys and sorrows with the same force and vivacity as if originally my own? 24 Every human, upon this supposition, being a second self to another, would trust all own interests to the discretion of every human; without jealousy, without partition, without distinction. 25 And the whole human race would form only one family; where all would lie in common, and be used freely, without regard to property; 26 but cautiously too, with as entire regard to the necessities of each individual, as if our own interests were most intimately concerned.

27 In the present disposition of the human heart, it would, perhaps, be difficult to find complete instances of such enlarged affections; but still we may observe, that the case of families approaches towards it; 28 and the stronger the mutual benevolence is among the individuals, the nearer it approaches; till all distinction of property be, in a great measure, lost and confounded among them. 29 Between married persons, the cement of friendship is by the laws supposed so strong as to abolish all division of possessions; and has often, in reality, the force ascribed to it. 30 And it is observable, that, during the ardour of new enthusiasms, when every principle is inflamed into extravagance, the community of goods has frequently been attempted; 31 and nothing but experience of its inconveniences, from the returning or disguised selfishness of humans, could make the imprudent fanatics adopt anew the ideas of justice and of separate property. 32 So true is it, that this virtue derives its existence entirely from its necessary USE to the intercourse and social state of humankind.

33 To make this truth more evident, let us reverse the foregoing suppositions; and carrying everything to the opposite

extreme, consider what would be the effect of these new situations. 34 Suppose a society to fall into such want of all common necessaries, that the utmost frugality and industry cannot preserve the greater number from perishing, and the whole from extreme misery; 35 it will readily, I believe, be admitted, that the strict laws of justice are suspended, in such a pressing emergence, and give place to the stronger motives of necessity and self-preservation. 36 Is it any crime, after a shipwreck, to seize whatever means or instrument of safety one can lay hold of, without regard to former limitations of property? 37 Or if a city besieged were perishing with hunger; can we imagine, that people will see any means of preservation before them, and lose their lives, from a scrupulous regard to what, in other situations, would be the rules of equity and justice? 38 The use and tendency of that virtue is to procure happiness and security, by preserving order in society: 39 but where the society is ready to perish from extreme necessity, no greater evil can be dreaded from violence and injustice; and every person may now provide for own self by all the means, which prudence can dictate, or humanity permit. 40 The public, even in less urgent necessities, opens granaries, without the consent of proprietors; as justly supposing, that the authority of magistracy may, consistent with equity, extend so far: 41 but were any number of people to assemble, without the tie of laws or civil jurisdiction; would an equal partition of bread in a famine, though effected by power and even violence, be regarded as criminal or injurious?

42 Suppose likewise, that it should be a virtuous human's fate to fall into the society of ruffians, remote from the protection of laws and government; what conduct must you embrace in that melancholy situation? 43 You sees such a desperate rapaciousness prevail; such a disregard to equity, such contempt of order, such stupid blindness to future consequences, as must immediately have the most tragical conclusion, and must terminate in destruction to the greater number, and in a total dissolution of society to the rest.

44 You, meanwhile, can have no other expedient than to arm yourself, to whomever the sword you seizes, or the buckler, may belong: 45 To make provision of all means of defence and security: And your particular regard to justice being no longer of use to your own safety or that of others, you must consult the dictates of self-preservation alone, without concern for those who no longer merit your care and attention. 46 When any person, even in political society, renders yourself by your crimes, obnoxious to the public, you are punished by the laws in your goods and person; 47 that is, the ordinary rules of justice are, with regard to you, suspended for a moment, and it becomes equitable to inflict on you, for the BENEFIT of society, what otherwise you could not suffer without wrong or injury.

48 The rage and violence of public war; what is it but a suspension of justice among the warring parties, who perceive, that this virtue is now no longer of any USE or advantage to them? 49 The laws of war, which then succeed to those of equity and justice, are rules calculated for the ADVANTAGE and UTILITY of that particular state, in which people are now placed. 50 And were a civilised nation engaged with barbarians, who observed no rules even of war, the former must also suspend their observance of them, where they no longer serve to any purpose; 51 and must render every action or recounter as bloody and pernicious as possible to the first aggressors.

52 Thus, the rules of equity or justice depend entirely on the particular state and condition in which people are placed, and owe their origin and existence to that utility, which results to the public from their strict and regular observance. 53 Reverse, in any considerable circumstance, the condition of people: Produce extreme abundance or extreme necessity: Implant in the human breast perfect moderation and humanity, or perfect rapaciousness and malice: 54 By rendering justice totally USELESS, you thereby totally destroy its essence, and suspend its obligation upon humankind. 55 The common situation of society is a medium amidst all these extremes. We are

naturally partial to ourselves, and to our friends; but are capable of learning the advantage resulting from a more equitable conduct. 56 Few enjoyments are given us from the open and liberal hand of Nature; but by art, labour, and industry, we can extract them in great abundance. 57 Hence the ideas of property become necessary in all civil society: Hence justice derives its usefulness to the public: And hence alone arises its merit and moral obligation.

58 These conclusions are so natural and obvious, that they have not escaped even the poets, in their descriptions of the felicity attending the golden age or the reign of Saturn. 59 The seasons, in that first period of Nature, were so temperate, if we credit these agreeable fictions, that there was no necessity for humans to provide themselves with clothes and houses, as a security against the violence of heat and cold: 60 The rivers flowed with wine and milk: The oaks yielded honey; and Nature spontaneously produced Her greatest delicacies. Nor were these the chief advantages of that happy age. 61 Tempests were not alone removed from Nature; but those more furious tempests were unknown to human breasts, which now cause such uproar, and engender such confusion. 62 Avarice, ambition, cruelty, selfishness, were never heard of: Cordial affection, compassion, sympathy, were the only movements with which the mind was yet acquainted. 63 Even the punctilious distinction of MINE and THINE was banished from among the happy race of mortals, and carried with it the very notion of property and obligation, justice and injustice.

64 This POETICAL fiction of the GOLDEN AGE, is in some respects, of a piece with the PHILOSOPHICAL fiction of the STATE OF NATURE; 65 only that the former is represented as the most charming and most peaceable condition, which can possibly be imagined; whereas the latter is painted out as a state of mutual war and violence, attended with the most extreme necessity. 66 On the first origin of humankind, we are told, their ignorance and savage nature were so prevalent, that they could give

no mutual trust, but must each depend upon own self and own force or cunning for protection and security. 67 No law was heard of: No rule of justice known: No distinction of property regarded: Power was the only measure of right; and a perpetual war of all against all was the result of humans' untamed selfishness and barbarity. 68 Whether such a condition of human nature could ever exist, or if it did, could continue so long as to merit the appellation of a STATE, may justly be doubted. 69 Humans are necessarily born in a family-society, at least; and are trained up by their parents to some rule of conduct and behaviour. 70 But this must be admitted, that, if such a state of mutual war and violence was ever real, the suspension of all laws of justice, from their absolute inutility, is a necessary and infallible consequence.

71 The more we vary our views of human life, and the newer and more unusual the lights are in which we survey it, the more shall we be convinced, that the origin here assigned for the virtue of justice is real and satisfactory. 72 Were there a species of creatures intermingled with humans, which, though rational, were possessed of such inferior strength, both of body and mind, that they were incapable of all resistance, and could never, upon the highest provocation, make us feel the effects of their resentment; 73 the necessary consequence, I think, is that we should be bound by the laws of humanity to give gentle usage to these creatures, but should not, properly speaking, lie under any restraint of justice with regard to them, nor could they possess any right or property, exclusive of such arbitrary lords. 74 Our intercourse with them could not be called society, which supposes a degree of equality; but absolute command on the one side, and servile obedience on the other. 75 Whatever we covet, they must instantly resign: Our permission is the only tenure, by which they hold their possessions: Our compassion and kindness the only check, by which they curb our lawless will: 76 And as no inconvenience ever results from the exercise of a power, so firmly established in Nature, the restraints

of justice and property, being totally USELESS, would never have place in so unequal a confederacy. 77 This is plainly the situation of humans, with regard to animals; and how far these may be said to possess reason, I leave it to others to determine. 78 In many nations, the female sex are reduced to like slavery, and are rendered incapable of all property, in opposition to their lordly masters. 79 But though the males, when united, have in all countries bodily force sufficient to maintain this severe tyranny, 80 yet such are the insinuation, address, and charms of their fair companions, that women are commonly able to break the confederacy, and share with the other sex in all the rights and privileges of society. 81 Were the human species so framed by Nature as that each individual possessed within own self every faculty, requisite both for your own preservation and for the propagation of your kind: 82 Were all society and intercourse cut off between human and human, by the primary intention of the supreme Creator: 83 It seems evident, that so solitary a being would be as much incapable of justice, as of social discourse and conversation. 84 Where mutual regards and forbearance serve to no manner of purpose, they would never direct the conduct of any reasonable person. 85 The headlong course of the passions would be checked by no reflection on future consequences. 86 And as each person is here supposed to love yourself alone, and to depend only on yourself and your own activity for safety and happiness, you would, on every occasion, to the utmost of your power, challenge the preference above every other being, 87 to none of which you are bound by any ties, either of Nature or of interest. 88 But suppose the conjunction of the sexes to be established in Nature, a family immediately arises; and particular rules being found requisite for its subsistence, these are immediately embraced; though without comprehending the rest of humankind within their prescriptions. 89 Suppose that several families unite together into one society, which is totally disjoined from all others, the rules, which preserve peace and order,

enlarge themselves to the utmost extent of that society; but becoming then entirely useless, lose their force when carried one step farther. 90 But again suppose, that several distinct societies maintain a kind of intercourse for mutual convenience and advantage, the boundaries of justice still grow larger, in proportion to the largeness of humans' views, and the force of their mutual connexions. 91 History, experience, reason sufficiently instruct us in this natural progress of human sentiments, and in the gradual enlargement of our regards to justice, in proportion as we become acquainted with the extensive utility of that virtue.

PART II

92 If we examine the PARTICULAR laws, by which justice is directed, and property determined; we shall still be presented with the same conclusion. 93 The good of humankind is the only object of all these laws and regulations. 94 Not only is it requisite, for the peace and interest of society, that people's possessions should be separated; but the rules, which we follow, in making the separation, are such as can best be contrived to serve farther the interests of society.

95 We shall suppose that a creature, possessed of reason, but unacquainted with human nature, deliberates with the self what rules of justice or property would best promote public interest, and establish peace and security among humankind: 96 Your most obvious thought would be, to assign the largest possessions to the most extensive virtue, and give every one the power of doing good, proportioned to your inclination. 97 In a perfect theocracy, where a being, infinitely intelligent, governs by particular volitions, this rule would certainly have place, and might serve to the wisest purposes: 98 But were humankind to execute such a law; so great is the uncertainty of merit, both from its natural obscurity, and from the self-conceit of each individual, that no determinate rule of conduct would ever result from it; 99 and the total dissolution of society must be the immediate

consequence. 100 Fanatics may suppose, THAT DOMINION IS FOUNDED ON GRACE, and THAT SAINTS ALONE INHERIT THE EARTH; 101 but the civil magistrate very justly puts these sublime theorists on the same footing with common robbers, and teaches them by the severest discipline, 102 that a rule, which, in speculation, may seem the most advantageous to society, may yet be found, in practice, totally pernicious and destructive. 103 That there were RELIGIOUS fanatics of this kind in England, during the civil wars, we learn from history; 104 though it is probable, that the obvious TENDENCY of these principles excited such horror in humankind, as soon obliged the dangerous enthusiasts to renounce, or at least conceal their tenets. 105 Perhaps the LEVELLERS, who claimed an equal distribution of property, were a kind of POLITICAL fanatics, which arose from the religious species, and more openly avowed their pretensions; 106 as carrying a more plausible appearance, of being practicable in themselves, as well as useful to human society. 107 It must, indeed, be confessed, that Nature is so liberal to humankind, that, were all Her presents equally divided among the species, and improved by art and industry, every individual would enjoy all the necessaries, and even most of the comforts of life; 108 nor would ever be liable to any ills but such as might accidentally arise from the sickly frame and constitution of your body. 109 It must also be confessed, that, wherever we depart from this equality, we rob the poor of more satisfaction than we add to the rich, 110 and that the slight gratification of a frivolous vanity, in one individual, frequently costs more than bread to many families, and even provinces.

111 It may appear withal, that the rule of equality, as it would be highly USEFUL, is not altogether IMPRACTICABLE; 112 but has taken place, at least in an imperfect degree, in some republics; particularly that of Sparta; where it was attended, it is said, with the most beneficial consequences. 113 Not to mention that the Agrarian laws, so frequently claimed in Rome, and carried into execution

in many Greek cities, proceeded, all of them, from a general idea of the utility of this principle. 114 But historians, and even common sense, may inform us, that, however specious these ideas of PERFECT equality may seem, they are really, at bottom, IMPRACTICABLE; and were they not so, would be extremely PERNICIOUS to human society. 115 Render possessions ever so equal, humans' different degrees of art, care, and industry will immediately break that equality. 116 Or if you check these virtues, you reduce society to the most extreme indigence; and instead of preventing want and beggary in a few, render it unavoidable to the whole community. 117 The most rigorous inquisition too is requisite to watch every inequality on its first appearance; and the most severe jurisdiction, to punish and redress it. 118 But besides, that so much authority must soon degenerate into tyranny, and be exerted with great partialities; who can possibly be possessed of it, in such a situation as is here supposed? 119 Perfect equality of possessions, destroying all subordination, weakens extremely the authority of magistracy, and must reduce all power nearly to a level, as well as property.

120 We may conclude, therefore, that, in order to establish laws for the regulation of property, we must be acquainted with the nature and situation of human; 121 must reject appearances, which may be false, though specious; and must search for those rules, which are, on the whole, most USEFUL and BENEFICIAL. 122 Vulgar sense and slight experience are sufficient for this purpose; where people give not way to too selfish avidity, or too extensive enthusiasm. 123 Who sees not, for instance, that whatever is produced or improved by a human's art or industry ought, for ever, to be secured to you, in order to give encouragement to such USEFUL habits and accomplishments? 124 That the property ought also to descend to children and relations, for the same USEFUL purpose? 125 That it may be alienated by consent, in order to beget that commerce and intercourse, which is so BENEFICIAL to human society? 126 And that all contracts and

promises ought carefully to be fulfilled, in order to secure mutual trust and confidence, by which the general INTEREST of humankind is so much promoted?

127 Examine the writers on the laws of Nature; and you will always find, that, whatever principles they set out with, they are sure to terminate here at last, 128 and to assign, as the ultimate reason for every rule which they establish, the convenience and necessities of humankind. 129 A concession thus extorted, in opposition to systems, has more authority than if it had been made in prosecution of them. 130 What other reason, indeed, could writers ever give, why this must be MINE and that YOURS; since uninstructed nature surely never made any such distinction? 131 The objects which receive those appellations are, of themselves, foreign to us; they are totally disjoined and separated from us; and nothing but the general interests of society can form the connexion.

132 Sometimes the interests of society may require a rule of justice in a particular case; but may not determine any particular rule, among several, which are all equally beneficial. 133 In that case, the slightest analogies are laid hold of, in order to prevent that indifference and ambiguity, which would be the source of perpetual dissension. 134 Thus possession alone, and first possession, is supposed to convey property, where no body else has any preceding claim and pretension. 135 Many of the reasonings of lawyers are of this analogical nature, and depend on very slight connexions of the imagination. 136 Does any one scruple, in extraordinary cases, to violate all regard to the private property of individuals, and sacrifice to public interest a distinction which had been established for the sake of that interest? 137 The safety of the people is the supreme law: All other particular laws are subordinate to it, and dependent on it: 138 And if, in the COMMON course of things, they be followed and regarded; it is only because the public safety and interest COMMONLY demand so equal and impartial an administration.

139 Sometimes both UTILITY and ANALOGY fail, and leave the laws

of justice in total uncertainty. 140 Thus, it is highly requisite, that prescription or long possession should convey property; but what number of days or months or years should be sufficient for that purpose, it is impossible for reason alone to determine. 141 CIVIL LAWS here supply the place of the natural CODE, and assign different terms for prescription, according to the different UTILITIES, proposed by the legislator. 142 Bills of exchange and promissory notes, by the laws of most countries, prescribe sooner than bonds, and mortgages, and contracts of a more formal nature. 143 In general we may observe that all questions of property are subordinate to the authority of civil laws, which extend, restrain, modify, and alter the rules of natural justice, according to the particular CONVENIENCE of each community. 144 The laws have, or ought to have, a constant reference to the constitution of government, the manners, the climate, the religion, the commerce, the situation of each society. 145 A late author of genius, as well as learning, has prosecuted this subject at large, and has established, from these principles, a system of political knowledge, which abounds in ingenious and brilliant thoughts, and is not wanting in solidity.

146 WHAT IS A HUMAN'S PROPERTY? Anything which it is lawful for you, and for you alone, to use. 147 BUT WHAT RULE HAVE WE, BY WHICH WE CAN DISTINGUISH THESE OBJECTS? 148 Here we must have recourse to statutes, customs, precedents, analogies, and a hundred other circumstances; some of which are constant and inflexible, some variable and arbitrary. 149 But the ultimate point, in which they all professedly terminate, is the interest and happiness of human society. 150 Where this enters not into consideration, nothing can appear more whimsical, unnatural, and even superstitious, than all or most of the laws of justice and of property.

151 Those who ridicule vulgar superstitions, and expose the folly of particular regards to meats, days, places, postures, apparel, have an easy task; 152 while they consider all the qualities and

relations of the objects, and discover no adequate cause for that affection or antipathy, veneration or horror, which have so mighty an influence over a considerable part of humankind. 153 A Syrian would have starved rather than taste pigeon; an Egyptian would not have approached bacon: 154 But if these species of food be examined by the senses of sight, smell, or taste, or scrutinised by the sciences of chemistry, medicine, or physics, no difference is ever found between them and any other species, 155 nor can that precise circumstance be pitched on, which may afford a just foundation for the religious passion. 156 A fowl on Thursday is lawful food; on Friday abominable: Eggs in this house and in this diocese, are permitted during Lent; a hundred paces farther, to eat them is a damnable sin. 157 This earth or building, yesterday was profane; to-day, by the muttering of certain words, it has become holy and sacred. 158 Such reflections as these, in the mouth of a philosopher, one may safely say, are too obvious to have any influence; because they must always, to every human, occur at first sight; 159 and where they prevail not, of themselves, they are surely obstructed by education, prejudice, and passion, not by ignorance or mistake.

160 It may appear to a careless view, or rather a too abstracted reflection, that there enters a like superstition into all the sentiments of justice; 161 and that, if a person expose its object, or what we call property, to the same scrutiny of sense and science, you will not, by the most accurate enquiry, find any foundation for the difference made by moral sentiment. 162 I may lawfully nourish myself from this tree; but the fruit of another of the same species, ten paces off, it is criminal for me to touch. 163 Had I worn this apparel an hour ago, I had merited the severest punishment; but a person, by pronouncing a few magical syllables, has now rendered it fit for my use and service. 164 Were this house placed in the neighbouring territory, it had been immoral for me to dwell in it; but being built on this side the river, it is subject to a different municipal law, and by its becoming mine I

incur no blame or censure. 165 The same species of reasoning it may be thought, which so successfully exposes superstition, is also applicable to justice; 166 nor is it possible, in the one case more than in the other, to point out, in the object, that precise quality or circumstance, which is the foundation of the sentiment.

167 But there is this material difference between SUPERSTITION and JUSTICE, that the former is frivolous, useless, and burdensome; the latter is absolutely requisite to the well-being of humankind and existence of society. 168 When we abstract from this circumstance (for it is too apparent ever to be overlooked) it must be confessed, that all regards to right and property, seem entirely without foundation, as much as the grossest and most vulgar superstition. 169 Were the interests of society nowise concerned, it is as unintelligible why another's articulating certain sounds implying consent, should change the nature of my actions with regard to a particular object, 170 as why the reciting of a liturgy by a priest, in a certain habit and posture, should dedicate a heap of brick and timber, and render it, thenceforth and for ever, sacred. 171 These reflections are far from weakening the obligations of justice, or diminishing anything from the most sacred attention to property. 172 On the contrary, such sentiments must acquire new force from the present reasoning. For what stronger foundation can be desired or conceived for any duty, than to observe, that human society, or even human nature, could not subsist without the establishment of it; 173 and will still arrive at greater degrees of happiness and perfection, the more inviolable the regard is, which is paid to that duty?

174 The dilemma seems obvious: As justice evidently tends to promote public utility and to support civil society, the sentiment of justice is either derived from our reflecting on that tendency, 175 or like hunger, thirst, and other appetites, resentment, love of life, attachment to offspring, and other passions, arises from a simple original instinct in the human breast, which Nature has

implanted for like salutary purposes. 176 If the latter be the case, it follows, that property, which is the object of justice, is also distinguished by a simple original instinct, and is not ascertained by any argument or reflection. 177 But who is there that ever heard of such an instinct? Or is this a subject in which new discoveries can be made? 178 We may as well expect to discover, in the body, new senses, which had before escaped the observation of all humankind.

179 But farther, though it seems a very simple proposition to say, that Nature, by an instinctive sentiment, distinguishes property, 180 yet in reality we shall find, that there are required for that purpose ten thousand different instincts, and these employed about objects of the greatest intricacy and nicest discernment. 181 For when a definition of PROPERTY is required, that relation is found to resolve itself into any possession acquired by occupation, by industry, by prescription, by inheritance, by contract. 182 Can we think that Nature, by an original instinct, instructs us in all these methods of acquisition? 183 These words too, inheritance and contract, stand for ideas infinitely complicated; and to define them exactly, a hundred volumes of laws, and a thousand volumes of commentators, have not been found sufficient. 184 Does Nature, whose instincts in humans are all simple, embrace such complicated and artificial objects, and create a rational creature, without trusting anything to the operation of your reason? 185 But even though all this were admitted, it would not be satisfactory. Positive laws can certainly transfer property. It is by another original instinct, that we recognise the authority of kings and senates, and mark all the boundaries of their jurisdiction? 186 Judges too, even though their sentence be erroneous and illegal, must be allowed, for the sake of peace and order, to have decisive authority, and ultimately to determine property. 187 Have we original innate ideas of praetors and chancellors and juries? Who sees not, that all these institutions arise merely from the necessities of human society?

188 All birds of the same species in every age and country, built their nests alike: In this we see the force of instinct. 189 Humans, in different times and places, frame their houses differently: Here we perceive the influence of reason and custom. 190 A like inference may be drawn from comparing the instinct of generation and the institution of property. 191 How great soever the variety of municipal laws, it must be confessed, that their chief outlines pretty regularly concur; because the purposes, to which they tend, are everywhere exactly similar. 192 In like manner, all houses have a roof and walls, windows and chimneys; though diversified in their shape, figure, and materials. 193 The purposes of the latter, directed to the conveniences of human life, discover not more plainly their origin from reason and reflection, than do those of the former, which point all to a like end.

194 I need not mention the variations, which all the rules of property receive from the finer turns and connexions of the imagination, and from the subtilties and abstractions of law-topics and reasonings. 195 There is no possibility of reconciling this observation to the notion of original instincts. What alone will beget a doubt concerning the theory, on which I insist, is the influence of education and acquired habits, 196 by which we are so accustomed to blame injustice, that we are not, in every instance, conscious of any immediate reflection on the pernicious consequences of it. 197 The views the most familiar to us are apt, for that very reason, to escape us; and what we have very frequently performed from certain motives, we are apt likewise to continue mechanically, without recalling, on every occasion, the reflections, which first determined us. 198 The convenience, or rather necessity, which leads to justice is so universal, and everywhere points so much to the same rules, that the habit takes place in all societies; and it is not without some scrutiny, that we are able to ascertain its true origin. 199 The matter, however, is not so obscure, but that even in common life we have every moment recourse to the

principle of public utility, and ask, WHAT MUST BECOME OF THE WORLD, IF SUCH PRACTICES PREVAIL? HOW COULD SOCIETY SUBSIST UNDER SUCH DISORDERS? 200 Were the distinction or separation of possessions entirely useless, can any one conceive, that it ever should have obtained in society?

201 Thus we seem, upon the whole, to have attained a knowledge of the force of that principle here insisted on, and can determine what degree of esteem or moral approbation may result from reflections on public interest and utility. 202 The necessity of justice to the support of society is the sole foundation of that virtue; 203 and since no moral excellence is more highly esteemed, we may conclude that this circumstance of usefulness has, in general, the strongest energy, and most entire command over our sentiments. 204 It must, therefore, be the source of a considerable part of the merit ascribed to humanity, benevolence, friendship, public spirit, and other social virtues of that stamp; 205 as it is the sole source of the moral approbation paid to fidelity, justice, veracity, integrity, and those other estimable and useful qualities and principles. 206 It is entirely agreeable to the rules of philosophy, and even of common reason; where any principle has been found to have a great force and energy in one instance, to ascribe to it a like energy in all similar instances. This indeed is Newton's chief rule of philosophising.

OF POLITICAL SOCIETY

David Hume

4 Had every human sufficient SAGACITY to perceive, at all times, the strong interest which binds you to the observance of justice and equity, 2 and STRENGTH OF MIND sufficient to persevere in a steady adherence to a general and a distant interest, in opposition to the allurements of present pleasure and advantage; 3 there had never, in that case, been any such thing as government or political society, but each person, following your natural liberty, had lived in entire peace and harmony with all others. 4 What need of positive law where

natural justice is, of itself, a sufficient restraint? 5 Why create magistrates, where there never arises any disorder or iniquity? 6 Why abridge our native freedom, when, in every instance, the utmost exertion of it is found innocent and beneficial? 7 It is evident, that, if government were totally useless, it never could have place, and that the sole foundation of the duty of allegiance is the ADVANTAGE, which it procures to society, by preserving peace and order among humankind.

8 When a number of political societies are erected, and maintain a great intercourse together, a new set of rules are immediately discovered to be USEFUL in that particular situation; 9 and accordingly take place under the title of Laws of Nations. Of this kind are, the sacredness of the person of ambassadors, abstaining from poisoned arms, quarter in war, 10 with others of that kind, which are plainly calculated for the ADVANTAGE of states and kingdoms in their intercourse with each other. 11 The rules of justice, such as prevail among individuals, are not entirely suspended among political societies. 12 All princes pretend a regard to the rights of other princes; and some, no doubt, without hypocrisy. 13 Alliances and treaties are every day made between independent states, which would only be so much waste of parchment, if they were not found by experience to have SOME influence and authority. 14 But here is the difference between kingdoms and individuals. Human nature cannot by any means subsist, without the association of individuals; and that association never could have place, were no regard paid to the laws of equity and justice. 15 Disorder, confusion, the war of all against all, are the necessary consequences of such a licentious conduct. 16 But nations can subsist without intercourse. They may even subsist, in some degree, under a general war. 17 The observance of justice, though useful among them, is not guarded by so strong a necessity as among individuals; and the moral obligation holds proportion with the USEFULNESS.

18 All politicians will allow, and most philosophers, that reasons of state may, in particular

emergencies, dispense with the rules of justice, and invalidate any treaty or alliance, where the strict observance of it would be prejudicial, in a considerable degree, to either of the contracting parties. 19 But nothing less than the most extreme necessity, it is confessed, can justify individuals in a breach of promise, or an invasion of the properties of others. 20 In a confederated commonwealth, such as the Achaean republic of old, or the Swiss Cantons and United Provinces in modern times; as the league has here a peculiar UTILITY, 21 the conditions of union have a peculiar sacredness and authority, and a violation of them would be regarded as no less, or even as more criminal, than any private injury or injustice.

22 The long and helpless infancy of human requires the combination of parents for the subsistence of their young; and that combination requires the virtue of chastity or fidelity to the marriage bed. 23 Without such a UTILITY, it will readily be owned, that such a virtue would never have been thought of. 24 An infidelity of this nature is much more PERNICIOUS in WOMEN than in MEN. Hence the laws of chastity are much stricter over the one sex than over the other. 25 These rules have all a reference to generation; and yet women past child-bearing are no more supposed to be exempted from them than those in the flower of their youth and beauty. 26 GENERAL RULES are often extended beyond the principle whence they first arise; and this in all matters of taste and sentiment.

27 It is a vulgar story at Paris, that, during the rage of the Mississippi, a hump-backed fellow went every day into the Rue de Quincempoix, where the stock-jobbers met in great crowds, and was well paid for allowing them to make use of his hump as a desk, in order to sign their contracts upon it. 28 Would the fortune, which he raised by this expedient, make him a handsome fellow; though it be confessed, that personal beauty arises very much from ideas of utility?

29 The imagination is influenced by associations of ideas; which, though they arise at first from the judgement, are not easily altered

by every particular exception that occurs to us. 30 To which we may add, in the present case of chastity, that the example of the old would be pernicious to the young; 31 and that women, continually foreseeing that a certain time would bring them the liberty of indulgence, would naturally advance that period, and think more lightly of this whole duty, so requisite to society. 32 Those who live in the same family have such frequent opportunities of licence of this kind, that nothing could prevent purity of manners, were marriage allowed, among the nearest relations, or any intercourse of love between them ratified by law and custom. 33 Incest, therefore, being PERNICIOUS in a superior degree, has also a superior turpitude and moral deformity annexed to it.

34 What is the reason, why, by the Athenian laws, one might marry a half-sister by the father, but not by the mother? 35 Plainly this: The manners of the Athenians were so reserved, that a man was never permitted to approach the women's apartment, even in the same family, unless where he visited his own mother. 36 His step-mother and her children were as much shut up from him as the woman of any other family, and there was as little danger of any criminal correspondence between them. 37 Uncles and nieces, for a like reason, might marry at Athens; but neither these, nor half-brothers and sisters, could contract that alliance at Rome, where the intercourse was more open between the sexes. Public utility is the cause of all these variations.

38 To repeat, to a human's prejudice, anything that escaped you in private conversation, or to make any such use of your private letters, is highly blamed. 39 The free and social intercourse of minds must be extremely checked, where no such rules of fidelity are established. 40 Even in repeating stories, whence we can foresee no ill consequences to result, the giving of one's author is regarded as a piece of indiscretion, if not of immorality. 41 These stories, in passing from hand to hand, and receiving all the usual variations, frequently come about to the persons concerned, and produce animosities and quarrels among

people, whose intentions are the most innocent and inoffensive. 42 To pry into secrets, to open or even read the letters of others, to play the spy upon their words and looks and actions; what habits more inconvenient in society? What habits, of consequence, more blameable? 43 This principle is also the foundation of most of the laws of good manners; a kind of lesser morality, calculated for the ease of company and conversation. 44 Too much or too little ceremony are both blamed, and everything, which promotes ease, without an indecent familiarity, is useful and laudable.

45 Constancy in friendships, attachments, and familiarities, is commendable, and is requisite to support trust and good correspondence in society. 46 But in places of general, though casual concourse, where the pursuit of health and pleasure brings people promiscuously together, public conveniency has dispensed with this maxim; 47 and custom there promotes an unreserved conversation for the time, by indulging the privilege of dropping afterwards every indifferent acquaintance, without breach of civility or good manners. 48 Even in societies, which are established on principles the most immoral, and the most destructive to the interests of the general society, there are required certain rules, which a species of false honour, as well as private interest, engages the members to observe. 49 Robbers and pirates, it has often been remarked, could not maintain their pernicious confederacy, did they not establish a pew distributive justice among themselves, and recall those laws of equity, which they have violated with the rest of humankind. 50 I hate a drinking companion, says the Greek proverb, who never forgets. 51 The follies of the last debauch should be buried in eternal oblivion, in order to give full scope to the follies of the next.

52 Among nations, where an immoral gallantry, if covered with a thin veil of mystery, is, in some degree, authorised by custom, there immediately arise a set of rules, calculated for the conveniency of that attachment. 53 The famous court or parliament of

love in Provence formerly decided all difficult cases of this nature. 54 In societies for play, there are laws required for the conduct of the game; and these laws are different in each game. 55 The foundation, I own, of such societies is frivolous; and the laws are, in a great measure, though not altogether, capricious and arbitrary. 56 So far is there a material difference between them and the rules of justice, fidelity, and loyalty. 57 The general societies of people are absolutely requisite for the subsistence of the species; and the public conveniency, which regulates morals, is inviolably established in the nature of human, and of the world, in which you lives. 58 The comparison, therefore, in these respects, is very imperfect. We may only learn from it the necessity of rules, wherever people have any intercourse with each other. They cannot even pass each other on the road without rules. 59 Waggoners, coachmen, and postilions have principles, by which they give the way; and these are chiefly founded on mutual ease and convenience. 60 Sometimes also they are arbitrary, at least dependent on a kind of capricious analogy like many of the reasonings of lawyers. 61 To carry the matter farther, we may observe, that it is impossible for people so much as to murder each other without statutes, and maxims, and an idea of justice and honour. 62 War has its laws as well as peace; and even that sportive kind of war, carried on among wrestlers, boxers, cudgel-players, gladiators, is regulated by fixed principles. 63 Common interest and utility beget infallibly a standard of right and wrong among the parties concerned.

WHY UTILITY PLEASES.

David Hume

PART I

5 It seems so natural a thought to ascribe to their utility the praise, which we bestow on the social virtues, 2 that one would expect to meet with this principle everywhere in moral writers, as the chief foundation of their reasoning and enquiry. 3 In common life, we may observe, that the circumstance of utility is

always appealed to; 4 nor is it supposed, that a greater eulogy can be given to any person, than to display your usefulness to the public, and enumerate the services, which you have performed to humankind and society. 5 What praise, even of an inanimate form, if the regularity and elegance of its parts destroy not its fitness for any useful purpose! 6 And how satisfactory an apology for any disproportion or seeming deformity, if we can show the necessity of that particular construction for the use intended! 7 A ship appears more beautiful to an artist, or one moderately skilled in navigation, where its prow is wide and swelling beyond its poop, than if it were framed with a precise geometrical regularity, in contradiction to all the laws of mechanics. 8 A building, whose doors and windows were exact squares, would hurt the eye by that very proportion; as ill adapted to the figure of a human creature, for whose service the fabric was intended.

9 What wonder then, that a human, whose habits and conduct are hurtful to society, and dangerous or pernicious to every one who has an intercourse with you, should, on that account, be an object of disapprobation, and communicate to every spectator the strongest sentiment of disgust and hatred. 10 But perhaps the difficulty of accounting for these effects of usefulness, or its contrary, has kept philosophers from admitting them into their systems of ethics, 11 and has induced them rather to employ any other principle, in explaining the origin of moral good and evil. 12 But it is no just reason for rejecting any principle, confirmed by experience, that we cannot give a satisfactory account of its origin, nor are able to resolve it into other more general principles. 13 And if we would employ a little thought on the present subject, we need be at no loss to account for the influence of utility, and to deduce it from principles, the most known and avowed in human nature.

14 From the apparent usefulness of the social virtues, it has readily been inferred by sceptics, both ancient and modern, that all moral distinctions arise from education, 15 and were, at first, invented, and afterwards encouraged, by the art

of politicians, in order to render people tractable, and subdue their natural ferocity and selfishness, which incapacitated them for society. 16 This principle, indeed, of precept and education, must so far be owned to have a powerful influence, that it may frequently increase or diminish, beyond their natural standard, the sentiments of approbation or dislike; 17 and may even, in particular instances, create, without any natural principle, a new sentiment of this kind; as is evident in all superstitious practices and observances: 18 But that ALL moral affection or dislike arises from this origin, will never surely be allowed by any judicious enquirer. 19 Had Nature made no such distinction, founded on the original constitution of the mind, the words, HONOURABLE and SHAMEFUL, LOVELY and ODIOUS, NOBLE and DESPICABLE, had never had place in any language; 20 nor could politicians, had they invented these terms, ever have been able to render them intelligible, or make them convey any idea to the audience. So that nothing can be more superficial than this paradox of the sceptics; 21 and it were well, if, in the abstruser studies of logic and metaphysics, we could as easily obviate the cavils of that sect, as in the practical and more intelligible sciences of politics and morals.

22 The social virtues must, therefore, be allowed to have a natural beauty and amiableness, which, at first, antecedent to all precept or education, recommends them to the esteem of uninstructed humankind, and engages their affections. 23 And as the public utility of these virtues is the chief circumstance, whence they derive their merit, it follows, that the end, which they have a tendency to promote, must be some way agreeable to us, and take hold of some natural affection. 24 It must please, either from considerations of self-interest, or from more generous motives and regards.

25 It has often been asserted, that, as every person has a strong connexion with society, and perceives the impossibility of own solitary subsistence, 26 you becomes, on that account, favourable to all those habits or principles, which promote order in

society, and insure to you the quiet possession of so inestimable a blessing. 27 As much as we value our own happiness and welfare, as much must we applaud the practice of justice and humanity, by which alone the social confederacy can be maintained, and every person reap the fruits of mutual protection and assistance. 28 This deduction of morals from self-love, or a regard to private interest, is an obvious thought, and has not arisen wholly from the wanton sallies and sportive assaults of the sceptics. 29 To mention no others, Polybius, one of the gravest and most judicious, as well as most moral writers of antiquity, has assigned this selfish origin to all our sentiments of virtue. 30 But though the solid practical sense of that author, and his aversion to all vain subtilties, render his authority on the present subject very considerable; 31 yet is not this an affair to be decided by authority, and the voice of Nature and experience seems plainly to oppose the selfish theory.

32 We frequently bestow praise on virtuous actions, performed in very distant ages and remote countries; 33 where the utmost subtilty of imagination would not discover any appearance of self-interest, or find any connexion of our present happiness and security with events so widely separated from us. 34 A generous, a brave, a noble deed, performed by an adversary, commands our approbation; while in its consequences it may be acknowledged prejudicial to our particular interest. 35 Where private advantage concurs with general affection for virtue, we readily perceive and avow the mixture of these distinct sentiments, which have a very different feeling and influence on the mind. 36 We praise, perhaps, with more alacrity, where the generous humane action contributes to our particular interest: But the topics of praise, which we insist on, are very wide of this circumstance. 37 And we may attempt to bring over others to our sentiments, without endeavouring to convince them, that they reap any advantage from the actions which we recommend to their approbation and applause. 38 Frame the model of a praiseworthy character, consisting

of all the most amiable moral virtues: Give instances, in which these display themselves after an eminent and extraordinary manner: 39 You readily engage the esteem and approbation of all your audience, who never so much as enquire in what age and country the person lived, who possessed these noble qualities: 40 A circumstance, however, of all others, the most material to self-love, or a concern for our own individual happiness.

41 Once on a time, a statesman, in the shock and contest of parties, prevailed so far as to procure, by his eloquence, the banishment of an able adversary; 42 whom he secretly followed, offering him money for his support during his exile, and soothing him with topics of consolation in his misfortunes. 43 ALAS! cries the banished statesman, WITH WHAT REGRET MUST I LEAVE MY FRIENDS IN THIS CITY, WHERE EVEN ENEMIES ARE SO GENEROUS! 44 Virtue, though in an enemy, here pleased him: And we also give it the just tribute of praise and approbation; 45 nor do we retract these sentiments, when we hear, that the action passed at Athens, about two thousand years ago, and that the persons' names were Eschines and Demosthenes.

46 WHAT IS THAT TO ME? There are few occasions, when this question is not pertinent: 47 And had it that universal, infallible influence supposed, it would turn into ridicule every composition, and almost every conversation, which contain any praise or censure of people and manners. 48 It is but a weak subterfuge, when pressed by these facts and arguments, to say, that we transport ourselves, by the force of imagination, into distant ages and countries, 49 and consider the advantage, which we should have reaped from these characters, had we been contemporaries, and had any commerce with the persons. 50 It is not conceivable, how a REAL sentiment or passion can ever arise from a known IMAGINARY interest; 51 especially when our REAL interest is still kept in view, and is often acknowledged to be entirely distinct from the imaginary, and even sometimes opposite to it. 52 A person, brought to the brink of a precipice, cannot look down

without trembling; and the sentiment of IMAGINARY danger actuates you, in opposition to the opinion and belief of REAL safety. 53 But the imagination is here assisted by the presence of a striking object; and yet prevails not, except it be also aided by novelty, and the unusual appearance of the object. 54 Custom soon reconciles us to heights and precipices, and wears off these false and delusive terrors. 55 The reverse is observable in the estimates which we form of characters and manners; 56 and the more we habituate ourselves to an accurate scrutiny of morals, the more delicate feeling do we acquire of the most minute distinctions between vice and virtue. 57 Such frequent occasion, indeed, have we, in common life, to pronounce all kinds of moral determinations, that no object of this kind can be new or unusual to us; 58 nor could any FALSE views or prepossessions maintain their ground against an experience, so common and familiar. 59 Experience being chiefly what forms the associations of ideas, it is impossible that any association could establish and support itself, in direct opposition to that principle.

60 Usefulness is agreeable, and engages our approbation. This is a matter of fact, confirmed by daily observation. 61 But, USEFUL? For what? For somebody's interest, surely. Whose interest then? Not our own only: For our approbation frequently extends farther. 62 It must, therefore, be the interest of those, who are served by the character or action approved of; and these we may conclude, however remote, are not totally indifferent to us. 63 By opening up this principle, we shall discover one great source of moral distinctions.

PART II.

64 Self-love is a principle in human nature of such extensive energy, and the interest of each individual is, in general, so closely connected with that of the community, 65 that those philosophers were excusable, who fancied that all our concern for the public might be resolved into a concern for our own happiness and preservation. 66 They saw every

moment, instances of approbation or blame, satisfaction or displeasure towards characters and actions; they denominated the objects of these sentiments, VIRTUES, or VICES; 67 they observed, that the former had a tendency to increase the happiness, and the latter the misery of humankind; 68 they asked, whether it were possible that we could have any general concern for society, or any disinterested resentment of the welfare or injury of others; 69 they found it simpler to consider all these sentiments as modifications of self-love; 70 and they discovered a pretence, at least, for this unity of principle, in that close union of interest, which is so observable between the public and each individual.

71 But notwithstanding this frequent confusion of interests, it is easy to attain what natural philosophers, after Lord Bacon, have affected to call the experimentum crucis, or that experiment which points out the right way in any doubt or ambiguity. 72 We have found instances, in which private interest was separate from public; in which it was even contrary: And yet we observed the moral sentiment to continue, notwithstanding this disjunction of interests. 73 And wherever these distinct interests sensibly concurred, we always found a sensible increase of the sentiment, and a more warm affection to virtue, and detestation of vice, 74 or what we properly call, GRATITUDE and REVENGE. Compelled by these instances, we must renounce the theory, which accounts for every moral sentiment by the principle of self-love. 75 We must adopt a more public affection, and allow, that the interests of society are not, even on their own account, entirely indifferent to us.

76 Usefulness is only a tendency to a certain end; and it is a contradiction in terms, that anything pleases as means to an end, where the end itself no wise affects us. 77 If usefulness, therefore, be a source of moral sentiment, and if this usefulness be not always considered with a reference to self; 78 it follows, that everything, which contributes to the happiness of society, recommends itself directly to our

approbation and good-will. 79 Here is a principle, which accounts, in great part, for the origin of morality: And what need we seek for abstruse and remote systems, when there occurs one so obvious and natural?

80 Have we any difficulty to comprehend the force of humanity and benevolence? 81 Or to conceive, that the very aspect of happiness, joy, prosperity, gives pleasure; that of pain, suffering, sorrow, communicates uneasiness? 82 The human countenance, says Horace, borrows smiles or tears from the human countenance. 83 Reduce a person to solitude, and one loses all enjoyment, except either of the sensual or speculative kind; 84 and that because the movements of one's heart are not forwarded by correspondent movements in own fellow-creatures. 85 The signs of sorrow and mourning, though arbitrary, affect us with melancholy; but the natural symptoms, tears and cries and groans, never fail to infuse compassion and uneasiness. 86 And if the effects of misery touch us in so lively a manner; can we be supposed altogether insensible or indifferent towards its causes; when a malicious or treacherous character and behaviour are presented to us?

87 We enter, I shall suppose, into a convenient, warm, well-contrived apartment: We necessarily receive a pleasure from its very survey; because it presents us with the pleasing ideas of ease, satisfaction, and enjoyment. 88 The hospitable, good-humoured, humane landlord appears. This circumstance surely must embellish the whole; 89 nor can we easily forbear reflecting, with pleasure, on the satisfaction which results to every one from his intercourse and good-offices. 90 His whole family, by the freedom, ease, confidence, and calm enjoyment, diffused over their countenances, sufficiently express their happiness. 91 I have a pleasing sympathy in the prospect of so much joy, and can never consider the source of it, without the most agreeable emotions. 92 He tells me, that an oppressive and powerful neighbour had attempted to dispossess him of his inheritance, and had long disturbed all his innocent and social pleasures. 93 I feel an immediate

indignation arise in me against such violence and injury. 94 But it is no wonder, he adds, that a private wrong should proceed from a man, who had enslaved provinces, depopulated cities, and made the field and scaffold stream with human blood.

95 I am struck with horror at the prospect of so much misery, and am actuated by the strongest antipathy against its author. 96 In general, it is certain, that, wherever we go, whatever we reflect on or converse about, everything still presents us with the view of human happiness or misery, and excites in our breast a sympathetic movement of pleasure or uneasiness. 97 In our serious occupations, in our careless amusements, this principle still exerts its active energy.

98 A person who enters the theatre, is immediately struck with the view of so great a multitude, participating of one common amusement; 99 and experiences, from their very aspect, a superior sensibility or disposition of being affected with every sentiment, which you shares with your fellow-creatures. 100 You observes the actors to be animated by the appearance of a full audience, and raised to a degree of enthusiasm, which they cannot command in any solitary or calm moment. 101 Every movement of the theatre, by a skillful poet, is communicated, as it were by magic, to the spectators; 102 who weep, tremble, resent, rejoice, and are inflamed with all the variety of passions, which actuate the several personages of the drama. 103 Where any event crosses our wishes, and interrupts the happiness of the favourite characters, we feel a sensible anxiety and concern. 104 But where their sufferings proceed from the treachery, cruelty, or tyranny of an enemy, our breasts are affected with the liveliest resentment against the author of these calamities. 105 It is here esteemed contrary to the rules of art to represent anything cool and indifferent. 106 A distant friend, or a confident, who has no immediate interest in the catastrophe, ought, if possible, to be avoided by the poet; as communicating a like indifference to the audience, and checking the progress of the

passions. 107 Few species of poetry are more entertaining than PASTORAL; 108 and every one is sensible, that the chief source of its pleasure arises from those images of a gentle and tender tranquility, which it represents in its personages, and of which it communicates a like sentiment to the reader. 109 Sannazarius, who transferred the scene to the sea-shore, though he presented the most magnificent object in Nature, is confessed to have erred in his choice. 110 The idea of toil, labour, and danger, suffered by the fishermen, is painful; by an unavoidable sympathy, which attends every conception of human happiness or misery.

111 When I was twenty, says a French poet, Ovid was my favourite: Now I am forty, I declare for Horace. 112 We enter, to be sure, more readily into sentiments, which resemble those we feel every day: 113 But no passion, when well represented, can be entirely indifferent to us; because there is none, of which every human has not, within you, at least the seeds and first principles. 114 It is the business of poetry to bring every affection near to us by lively imagery and representation, and make it look like truth and reality: 115 A certain proof, that, wherever that reality is found, our minds are disposed to be strongly affected by it. 116 Any recent event or piece of news, by which the fate of states, provinces, or many individuals is affected, is extremely interesting even to those whose welfare is not immediately engaged. 117 Such intelligence is propagated with celerity, heard with avidity, and enquired into with attention and concern. 118 The interest of society appears, on this occasion, to be in some degree the interest of each individual. 119 The imagination is sure to be affected; though the passions excited may not always be so strong and steady as to have great influence on the conduct and behaviour.

120 The perusal of a history seems a calm entertainment; but would be no entertainment at all, did not our hearts beat with correspondent movements to those which are described by the historian. 121 Thucydides and Guicciardin support with difficulty our

attention; while the former describes the trivial encounters of the small cities of Greece, and the latter the harmless wars of Pisa. 122 The few persons interested and the small interest fill not the imagination, and engage not the affections. 123 The deep distress of the numerous Athenian army before Syracuse; the danger which so nearly threatens Venice; these excite compassion; these move terror and anxiety. 124 The indifferent, uninteresting style of Suetonius, equally with the masterly pencil of Tacitus, may convince us of the cruel depravity of Nero or Tiberius: But what a difference of sentiment! 125 While the former coldly relates the facts; and the latter sets before our eyes the venerable figures of a Soranus and a Thrasea, intrepid in their fate, and only moved by the melting sorrows of their friends and kindred. 126 What sympathy then touches every human heart! What indignation against the tyrant, whose causeless fear or unprovoked malice gave rise to such detestable barbarity!

127 If we bring these subjects nearer: If we remove all suspicion of fiction and deceit: What powerful concern is excited, and how much superior, in many instances, to the narrow attachments of self-love and private interest! 128 Popular sedition, party zeal, a devoted obedience to factious leaders; these are some of the most visible, though less laudable effects of this social sympathy in human nature. 129 The frivolousness of the subject too, we may observe, is not able to detach us entirely from what carries an image of human sentiment and affection.

130 When a person stutters, and pronounces with difficulty, we even sympathise with this trivial uneasiness, and suffer for you. 131 And it is a rule in criticism, that every combination of syllables or letters, which gives pain to the organs of speech in the recital, appears also from a species of sympathy harsh and disagreeable to the ear. 132 Nay, when we run over a book with our eye, we are sensible of such unharmonious composition; 133 because we still imagine, that a person recites it to us, and suffers from the pronunciation of these jarring

sounds. So delicate is our sympathy! 134 Easy and unconstrained postures and motions are always beautiful: An air of health and vigour is agreeable: Clothes which warm, without burthening the body; which cover, without imprisoning the limbs, are well-fashioned. 135 In every judgement of beauty, the feelings of the person affected enter into consideration, and communicate to the spectator similar touches of pain or pleasure. 136 What wonder, then, if we can pronounce no judgement concerning the character and conduct of humans, without considering the tendencies of their actions, and the happiness or misery which thence arises to society? 137 What association of ideas would ever operate, were that principle here totally unactive. 138 If any person from a cold insensibility, or narrow selfishness of temper, is unaffected with the images of human happiness or misery, you must be equally indifferent to the images of vice and virtue: 139 As, on the other hand, it is always found, that a warm concern for the interests of our species is attended with a delicate feeling of all moral distinctions; a strong resentment of injury done to humans; a lively approbation of their welfare.

140 In this particular, though great superiority is observable of one person above another; yet none are so entirely indifferent to the interest of their fellow-creatures, 141 as to perceive no distinctions of moral good and evil, in consequence of the different tendencies of actions and principles. 142 How, indeed, can we suppose it possible in any one, who wears a human heart, that if there be subjected to your censure, one character or system of conduct, which is beneficial, and another which is pernicious to your species or community, 143 you will not so much as give a cool preference to the former, or ascribe to it the smallest merit or regard? 144 Let us suppose such a person ever so selfish; let private interest have ingrossed ever so much your attention; 145 yet in instances, where that is not concerned, you must unavoidably feel SOME propensity to the good of humankind, and make it an

object of choice, if everything else be equal.

146 Would any person, who is walking along, tread as willingly on another's gouty toes, whom you have no quarrel with, as on the hard flint and pavement? 147 There is here surely a difference in the case. We surely take into consideration the happiness and misery of others, in weighing the several motives of action, 148 and incline to the former, where no private regards draw us to seek our own promotion or advantage by the injury of our fellow-creatures. 149 And if the principles of humanity are capable, in many instances, of influencing our actions, they must, at all times, have some authority over our sentiments, and give us a general approbation of what is useful to society, and blame of what is dangerous or pernicious. 150 The degrees of these sentiments may be the subject of controversy; but the reality of their existence, one should think, must be admitted in every theory or system.

151 A creature, absolutely malicious and spiteful, were there any such in Nature, must be worse than indifferent to the images of vice and virtue. 152 All your sentiments must be inverted, and directly opposite to those, which prevail in the human species. 153 Whatever contributes to the good of humankind, as it crosses the constant bent of your wishes and desires, must produce uneasiness and disapprobation; 154 and on the contrary, whatever is the source of disorder and misery in society, must, for the same reason, be regarded with pleasure and complacency.

155 Timon, who probably from his affected spleen more than an inveterate malice, was denominated the man-hater, embraced Alcibiades with great fondness. 156 GO ON, MY BOY! Cried he, ACQUIRE THE CONFIDENCE OF THE PEOPLE: YOU WILL ONE DAY, I FORESEE, BE THE CAUSE OF GREAT CALAMITIES TO THEM. 157 Could we admit the two principles of the Manicheans, it is an infallible consequence, that their sentiments of human actions, as well as of everything else, must be totally opposite, 158 and that every instance of justice and humanity, from its necessary tendency, must please the one

deity and displease the other. 159 All humankind so far resemble the good principle, that, where interest or revenge or envy perverts not our disposition, we are always inclined, from our natural philanthropy, to give the preference to the happiness of society, and consequently to virtue above its opposite. 160 Absolute, unprovoked, disinterested malice has never perhaps place in any human breast; or if it had, must there pervert all the sentiments of morals, as well as the feelings of humanity. 161 If the cruelty of Nero be allowed entirely voluntary, and not rather the effect of constant fear and resentment; it is evident that Tigellinus, preferably to Seneca or Burrhus, must have possessed his steady and uniform approbation.

162 A states-person or patriot, who serves our own country in our own time, has always a more passionate regard paid to the self, than one whose beneficial influence operated on distant ages or remote nations; 163 where the good, resulting from own generous humanity, being less connected with us, seems more obscure, and affects us with a less lively sympathy. 164 We may own the merit to be equally great, though our sentiments are not raised to an equal height, in both cases. 165 The judgement here corrects the inequalities of our internal emotions and perceptions; in like manner, as it preserves us from error, in the several variations of images, presented to our external senses. 166 The same object, at a double distance, really throws on the eye a picture of but half the bulk; yet we imagine that it appears of the same size in both situations; 167 because we know that on our approach to it, its image would expand on the eye, and that the difference consists not in the object itself, but in our position with regard to it. 168 And, indeed, without such a correction of appearances, both in internal and external sentiment, people could never think or talk steadily on any subject; 169 while their fluctuating situations produce a continual variation on objects, and throw them into such different and contrary lights and positions.

170 The more we converse with humankind, and the greater social

intercourse we maintain, the more shall we be familiarised to these general preferences and distinctions, without which our conversation and discourse could scarcely be rendered intelligible to each other. 171 Every human's interest is peculiar to oneself, and the aversions and desires, which result from it, cannot be supposed to affect others in a like degree. 172 General language, therefore, being formed for general use, must be moulded on some more general views, and must affix the epithets of praise or blame, in conformity to sentiments, which arise from the general interests of the community. 173 And if these sentiments, in most humans, be not so strong as those, which have a reference to private good; yet still they must make some distinction, even in persons the most depraved and selfish; 174 and must attach the notion of good to a beneficent conduct, and of evil to the contrary.

175 Sympathy, we shall allow, is much fainter than our concern for ourselves, and sympathy with persons remote from us much fainter than that with persons near and contiguous; 176 but for this very reason it is necessary for us, in our calm judgements and discourse concerning the characters of humans, to neglect all these differences, and render our sentiments more public and social. 177 Besides, that we ourselves often change our situation in this particular, we every day meet with persons who are in a situation different from us, 178 and who could never converse with us were we to remain constantly in that position and point of view, which is peculiar to ourselves. 179 The intercourse of sentiments, therefore, in society and conversation, makes us form some general unalterable standard, by which we may approve or disapprove of characters and manners. 180 And though the heart takes not part entirely with those general notions, nor regulates all its love and hatred by the universal abstract differences of vice and virtue, without regard to self, or the persons with whom we are more intimately connected; 181 yet have these moral differences a considerable influence, and being sufficient, at least for discourse,

serve all our purposes in company, in the pulpit, on the theatre, and in the schools.

182 Thus, in whatever light we take this subject, the merit, ascribed to the social virtues, appears still uniform, and arises chiefly from that regard, which the natural sentiment of benevolence engages us to pay to the interests of humankind and society. 183 If we consider the principles of the human make, such as they appear to daily experience and observation, we must, A PRIORI, conclude it impossible for such a creature as human to be totally indifferent to the well or ill-being of own fellow-creatures, 184 and not readily, of yourself, to pronounce, where nothing gives you any particular bias, that what promotes their happiness is good, what tends to their misery is evil, without any farther regard or consideration. 185 Here then are the faint rudiments, at least, or outlines, of a GENERAL distinction between actions; and in proportion as the humanity of the person is supposed to increase, 186 your connexion with those who are injured or benefited, and your lively conception of their misery or happiness; your consequent censure or approbation acquires proportionable vigour.

187 There is no necessity, that a generous action, barely mentioned in an old history or remote gazette, should communicate any strong feelings of applause and admiration. 188 Virtue, placed at such a distance, is like a fixed star, which, though to the eye of reason it may appear as luminous as the sun in your meridian, is so infinitely removed as to affect the senses, neither with light nor heat. 189 Bring this virtue nearer, by our acquaintance or connexion with the persons, or even by an eloquent recital of the case; our hearts are immediately caught, our sympathy enlivened, and our cool approbation converted into the warmest sentiments of friendship and regard. 190 These seem necessary and infallible consequences of the general principles of human nature, as discovered in common life and practice.

191 Again; reverse these views and reasonings: Consider the matter a posteriori; and weighing the

consequences, enquire if the merit of social virtue be not, in a great measure, derived from the feelings of humanity, with which it affects the spectators. 192 It appears to be matter of fact, that the circumstance of UTILITY, in all subjects, is a source of praise and approbation: 193 That it is constantly appealed to in all moral decisions concerning the merit and demerit of actions: 194 That it is the SOLE source of that high regard paid to justice, fidelity, honour, allegiance, and chastity: 195 That it is inseparable from all the other social virtues, humanity, generousity, charity, affability, lenity, mercy, and moderation: 196 And, in a word, that it is a foundation of the chief part of morals, which has a reference to humankind and our fellow-creatures.

197 It appears also, that, in our general approbation of characters and manners, the useful tendency of the social virtues moves us not by any regards to self-interest, but has an influence much more universal and extensive. 198 It appears that a tendency to public good, and to the promoting of peace, harmony, and order in society, does always, by affecting the benevolent principles of our frame, engage us on the side of the social virtues. 199 And it appears, as an additional confirmation, that these principles of humanity and sympathy enter so deeply into all our sentiments, and have so powerful an influence, as may enable them to excite the strongest censure and applause. 200 The present theory is the simple result of all these inferences, each of which seems founded on uniform experience and observation. 201 Were it doubtful, whether there were any such principle in our nature as humanity or a concern for others, 202 yet when we see, in numberless instances, that whatever has a tendency to promote the interests of society, is so highly approved of, we ought thence to learn the force of the benevolent principle; 203 since it is impossible for anything to please as means to an end, where the end is totally indifferent. 204 On the other hand, were it doubtful, whether there were, implanted in our nature, any general principle

of moral blame and approbation, 205 yet when we see, in numberless instances, the influence of humanity, we ought thence to conclude, that it is impossible, but that everything which promotes the interest of society must communicate pleasure, and what is pernicious give uneasiness. 206 But when these different reflections and observations concur in establishing the same conclusion, must they not bestow an undisputed evidence upon it? 207 It is however hoped, that the progress of this argument will bring a farther confirmation of the present theory, by showing the rise of other sentiments of esteem and regard from the same or like principles.

OF QUALITIES USEFUL TO OURSELVES

David Hume

PART I

6 IT seems evident, that where a quality or habit is subjected to our examination, if it appear in any respect prejudicial to the person possessed of it, or such as incapacitates you for business and action, it is instantly blamed, and ranked among your faults and imperfections. 2 Indolence, negligence, want of order and method, obstinacy, fickleness, rashness, credulity; these qualities were never esteemed by any one indifferent to a character; much less, extolled as accomplishments or virtues. 3 The prejudice, resulting from them, immediately strikes our eye, and gives us the sentiment of pain and disapprobation. 4 No quality, it is allowed, is absolutely either blameable or praiseworthy. It is all according to its degree.

5 A due medium, says the Peripatetics, is the characteristic of virtue. But this medium is chiefly determined by utility. 6 A proper celerity, for instance, and dispatch in business, is commendable. When defective, no progress is ever made in the execution of any purpose: 7 When excessive, it engages us in precipitate and ill-concerted measures and enterprises: 8 By such reasonings, we fix the proper and commendable mediocrity in all moral and prudential disquisitions;

and never lose view of the advantages, which result from any character or habit. 9 Now as these advantages are enjoyed by the person possessed of the character, it can never be SELF-LOVE which renders the prospect of them agreeable to us, the spectators, and prompts our esteem and approbation. 10 No force of imagination can convert us into another person, and make us fancy, that we, being that person, reap benefit from those valuable qualities, which belong to you. 11 Or if it did, no celerity of imagination could immediately transport us back, into ourselves, and make us love and esteem the person, as different from us. 12 Views and sentiments, so opposite to known truth and to each other, could never have place, at the same time, in the same person. 13 All suspicion, therefore, of selfish regards, is here totally excluded. It is a quite different principle, which actuates our bosom, and interests us in the felicity of the person whom we contemplate. 14 Where your natural talents and acquired abilities give us the prospect of elevation, advancement, a figure in life, prosperous success, a steady command over fortune, and the execution of great or advantageous undertakings; 15 we are struck with such agreeable images, and feel a complacency and regard immediately arise towards you. 16 The ideas of happiness, joy, triumph, prosperity, are connected with every circumstance of your character, and diffuse over our minds a pleasing sentiment of sympathy and humanity.

17 Let us suppose a person originally framed so as to have no manner of concern for own fellow-creatures, but to regard the happiness and misery of all sensible beings with greater indifference than even two contiguous shades of the same colour. 18 Let us suppose, if the prosperity of nations were laid on the one hand, and their ruin on the other, and you were desired to choose; that you would stand like the schoolman's ass, irresolute and undetermined, between equal motives; 19 or rather, like the same ass between two pieces of wood or marble, without any inclination or propensity to either side. 20 The consequence, I believe, must be

allowed just, that such a person, being absolutely unconcerned, either for the public good of a community or the private utility of others, 21 would look on every quality, however pernicious, or however beneficial, to society, or to its possessor, with the same indifference as on the most common and uninteresting object.

22 But if, instead of this fancied monster, we suppose a PERSON to form a judgement or determination in the case, there is to you a plain foundation of preference, where everything else is equal; 23 and however cool your choice may be, if your heart be selfish, or if the persons interested be remote from you; there must still be a choice or distinction between what is useful, and what is pernicious. 24 Now this distinction is the same in all its parts, with the MORAL DISTINCTION, whose foundation has been so often, and so much in vain, enquired after. 25 The same endowments of the mind, in every circumstance, are agreeable to the sentiment of morals and to that of humanity; 26 the same temper is susceptible of high degrees of the one sentiment and of the other; and the same alteration in the objects, by their nearer approach or by connexions, enlivens the one and the other. 27 By all the rules of philosophy, therefore, we must conclude, that these sentiments are originally the same; since, in each particular, even the most minute, they are governed by the same laws, and are moved by the same objects.

28 Why do philosophers infer, with the greatest certainty, that the moon is kept in its orbit by the same force of gravity, that makes bodies fall near the surface of the earth, 29 but because these effects are, upon computation, found similar and equal? And must not this argument bring as strong conviction, in moral as in natural disquisitions? 30 To prove, by any long detail, that all the qualities, useful to the possessor, are approved of, and the contrary censured, would be superfluous. 31 The least reflection on what is every day experienced in life, will be sufficient. 32 We shall only mention a few instances, in order to remove, if possible, all doubt and hesitation.

33 The quality, the most necessary for the execution of any useful enterprise, is discretion; by which we carry on a safe intercourse with others, 34 give due attention to our own and to their character, weigh each circumstance of the business which we undertake, and employ the surest and safest means for the attainment of any end or purpose. 35 To a Cromwell, perhaps, or a De Retz, discretion may appear an alderman-like virtue, as Dr. Swift calls it; 36 and being incompatible with those vast designs, to which their courage and ambition prompted them, it might really, in them, be a fault or imperfection. 37 But in the conduct of ordinary life, no virtue is more requisite, not only to obtain success, but to avoid the most fatal miscarriages and disappointments. 38 The greatest parts without it, as observed by an elegant writer, may be fatal to their owner; as Polyphemus, deprived of his eye, was only the more exposed, on account of his enormous strength and stature.

39 The best character, indeed, were it not rather too perfect for human nature, is that which is not swayed by temper of any kind; 40 but alternately employs enterprise and caution, as each is useful to the particular purpose intended. 41 Such is the excellence which St. Evremond ascribes to Mareschal Turenne, who displayed every campaign, as he grew older, more temerity in his military enterprises; 42 and being now, from long experience, perfectly acquainted with every incident in war, he advanced with greater firmness and security, in a road so well known to him. 43 Fabius, says Machiavel, was cautious; Scipio enterprising: And both succeeded, because the situation of the Roman affairs, during the command of each, was peculiarly adapted to his genius; but both would have failed, had these situations been reversed. 44 You are happy, whose circumstances suit your temper; but you are more excellent, who can suit your temper to any circumstances.

45 What need is there to display the praises of industry, and to extol its advantages, in the acquisition of power and riches, or in raising what we call a FORTUNE in the world? 46 The tortoise, according

to the fable, by his perseverance, gained the race of the hare, though possessed of much superior swiftness. 47 A person's time, when well husbanded, is like a cultivated field, of which a few acres produce more of what is useful to life, than extensive provinces, even of the richest soil, when over-run with weeds and brambles. 48 But all prospect of success in life, or even of tolerable subsistence, must fail, where a reasonable frugality is wanting. 49 The heap, instead of increasing, diminishes daily, and leaves its possessor so much more unhappy, as, not having been able to confine own expences to a large revenue, you will still less be able to live contentedly on a small one. 50 The souls of humans, according to Plato, inflamed with impure appetites, and losing the body, which alone afforded means of satisfaction, hover about the earth, and haunt the places, where their bodies are deposited; possessed with a longing desire to recover the lost organs of sensation. 51 So may we see worthless prodigals, having consumed their fortune in wild debauches, thrusting themselves into every plentiful table, and every party of pleasure, hated even by the vicious, and despised even by fools.

52 The one extreme of frugality is avarice, which, as it both deprives a human of all use of your riches, and checks hospitality and every social enjoyment, is justly censured on a double account. 53 PRODIGALITY, the other extreme, is commonly more hurtful to a person; 54 and each of these extremes is blamed above the other, according to the temper of the person who censures, and according to your greater or less sensibility to pleasure, either social or sensual. 55 Qualities often derive their merit from complicated sources. Honesty, fidelity, truth, are praised for their immediate tendency to promote the interests of society; 56 but after those virtues are once established upon this foundation, they are also considered as advantageous to the person, and as the source of that trust and confidence, which can alone give a person any consideration in life. 57 One becomes contemptible, no less than odious, when you forgets the

duty, which, in this particular, you owes to yourself as well as to society.

58 Perhaps, this consideration is one CHIEF source of the high blame, which is thrown on any instance of failure among women in point of CHASTITY. 59 The greatest regard, which can be acquired by that sex, is derived from their fidelity; 60 and a woman becomes cheap and vulgar, loses her rank, and is exposed to every insult, who is deficient in this particular. The smallest failure is here sufficient to blast her character. 61 A female has so many opportunities of secretly indulging these appetites, that nothing can give us security but her absolute modesty and reserve; and where a breach is once made, it can scarcely ever be fully repaired. 62 If a man behave with cowardice on one occasion, a contrary conduct reinstates him in his character. 63 But by what action can a woman, whose behaviour has once been dissolute, be able to assure us, that she has formed better resolutions, and has self-command enough to carry them into execution?

64 All humans, it is allowed, are equally desirous of happiness; but few are successful in the pursuit: 65 One considerable cause is the want of strength of mind, which might enable them to resist the temptation of present ease or pleasure, and carry them forward in the search of more distant profit and enjoyment. 66 Our affections, on a general prospect of their objects, form certain rules of conduct, and certain measures of preference of one above another: 67 and these decisions, though really the result of our calm passions and propensities, (for what else can pronounce any object eligible or the contrary?) are yet said, by a natural abuse of terms, to be the determinations of pure REASON and reflection. 68 But when some of these objects approach nearer to us, or acquire the advantages of favourable lights and positions, which catch the heart or imagination; 69 our general resolutions are frequently confounded, a small enjoyment preferred, and lasting shame and sorrow entailed upon us. 70 And however poets may employ their wit and eloquence, in celebrating

present pleasure, and rejecting all distant views to fame, health, or fortune; 71 it is obvious, that this practice is the source of all dissoluteness and disorder, repentance and misery. 72 A person of a strong and determined temper adheres tenaciously to own general resolutions, and is neither seduced by the allurements of pleasure, nor terrified by the menaces of pain; 73 but keeps still in view those distant pursuits, by which you, at once, ensures your happiness and your honour.

74 Self-satisfaction, at least in some degree, is an advantage, which equally attends the fool and the wise person: 75 But it is the only one; nor is there any other circumstance in the conduct of life, where they are upon an equal footing. 76 Business, books, conversation; for all of these, a fool is totally incapacitated, and except condemned by own station to the coarsest drudgery, remains a useless burthen upon the earth. 77 Accordingly, it is found, that people are extremely jealous of their character in this particular; and many instances are seen of profligacy and treachery, the most avowed and unreserved; none of bearing patiently the imputation of ignorance and stupidity. 78 Dicaearchus, the Macedonian general, who, as Polybius tells us, openly erected one altar to impiety, another to injustice, in order to bid defiance to humankind; 79 even he, I am well assured, would have started at the epithet of FOOL, and have meditated revenge for so injurious an appellation. 80 Except the affection of parents, the strongest and most indissoluble bond in human nature, no connexion has strength sufficient to support the disgust arising from this character. 81 Love itself, which can subsist under treachery, ingratitude, malice, and infidelity, is immediately extinguished by it, when perceived and acknowledged; nor are deformity and old age more fatal to the dominion of that passion. 82 So dreadful are the ideas of an utter incapacity for any purpose or undertaking, and of continued error and misconduct in life!

83 When it is asked, whether a quick or a slow apprehension be most valuable? Whether one, that,

at first view, penetrates far into a subject, but can perform nothing upon study; 84 or a contrary character, which must work out everything by dint of application? Whether a clear head or a copious invention? Whether a profound genius or a sure judgement? 85 In short, what character, or peculiar turn of understanding, is more excellent than another? 86 It is evident, that we can answer none of these questions, without considering which of those qualities capacitates a person best for the world, and carries you farthest in any undertaking.

87 If refined sense and exalted sense be not so USEFUL as common sense, their rarity, their novelty, and the nobleness of their objects make some compensation, and render them the admiration of humankind: 88 As gold, though less serviceable than iron, acquires from its scarcity a value which is much superior. 89 The defects of judgement can be supplied by no art or invention; but those of memory frequently may, both in business and in study, by method and industry, and by diligence in committing everything to writing; 90 and we scarcely ever hear a short memory given as a reason for a person's failure in any undertaking. 91 But in ancient times, when no person could make a figure without the talent of speaking, and when the audience were too delicate to bear such crude, undigested harangues as our extemporary orators offer to public assemblies; 92 the faculty of memory was then of the utmost consequence, and was accordingly much more valued than at present. 93 Scarce any great genius is mentioned in antiquity, who is not celebrated for this talent; and Cicero enumerates it among the other sublime qualities of Caesar himself. 94 Particular customs and manners alter the usefulness of qualities: they also alter their merit. Particular situations and accidents have, in some degree, the same influence. 95 You will always be more esteemed, who possesses those talents and accomplishments, which suit your station and profession, than you whom fortune has misplaced in the part which she has assigned you.

96 The private or selfish virtues are, in this respect, more arbitrary

than the public and social. In other respects they are, perhaps, less liable to doubt and controversy. 97 In this kingdom, such continued ostentation, of late years, has prevailed among people in ACTIVE life with regard to PUBLIC SPIRIT, and among those in SPECULATIVE with regard to BENEVOLENCE; 98 and so many false pretensions to each have been, no doubt, detected, that people of the world are apt, without any bad intention, to discover a sullen incredulity on the head of those moral endowments, and even sometimes absolutely to deny their existence and reality. 99 In like manner I find, that, of old, the perpetual cant of the STOICS and CYNICS concerning VIRTUE, their magnificent professions and slender performances, bred a disgust in humankind; 100 and Lucian, who, though licentious with regard to pleasure, is yet in other respects a very moral writer, cannot sometimes talk of virtue, so much boasted without betraying symptoms of spleen and irony. 101 But surely this peevish delicacy, whence-ever it arises can never be carried so far as to make us deny the existence of every species of merit, and all distinction of manners and behaviour. 102 Besides DISCRETION, CAUTION, ENTERPRISE, INDUSTRY, ASSIDUITY, FRUGALITY, ECONOMY, GOOD-SENSE, PRUDENCE, DISCERNMENT; besides these endowments, I say, whose very names force an avowal of their merit, 103 there are many others, to which the most determined scepticism cannot for a moment refuse the tribute of praise and approbation. 104 TEMPERANCE, SOBRIETY, PATIENCE, CONSTANCY, PERSEVERANCE, FORETHOUGHT, CONSIDERATENESS, SECRECY, ORDER, INSINUATION, ADDRESS, PRESENCE OF MIND, QUICKNESS OF CONCEPTION, FACILITY OF EXPRESSION, these, and a thousand more of the same kind, no human will ever deny to be excellencies and perfections. 105 As their merit consists in their tendency to serve the person, possessed of them, without any magnificent claim to public and social desert, we are the less jealous of their pretensions, and readily admit them into the catalogue of laudable qualities. 106 We are not sensible that, by this concession, we have paved the

way for all the other moral excellencies, 107 and cannot consistently hesitate any longer, with regard to disinterested benevolence, patriotism, and humanity.

108 It seems, indeed, certain, that first appearances are here, as usual, extremely deceitful, 109 and that it is more difficult, in a speculative way, to resolve into self-love the merit which we ascribe to the selfish virtues above mentioned, than that even of the social virtues, justice and beneficence. 110 For this latter purpose, we need but say, that whatever conduct promotes the good of the community is loved, praised, and esteemed by the community, on account of that utility and interest, of which every one partakes; 111 and though this affection and regard be, in reality, gratitude, not self-love, yet a distinction, even of this obvious nature, may not readily be made by superficial reasoners; and there is room, at least, to support the cavil and dispute for a moment. 112 But as qualities, which tend only to the utility of their possessor, without any reference to us, or to the community, are yet esteemed and valued; 113 by what theory or system can we account for this sentiment from self-love, or deduce it from that favourite origin? 114 There seems here a necessity for confessing that the happiness and misery of others are not spectacles entirely indifferent to us; 115 but that the view of the former, whether in its causes or effects, like sunshine or the prospect of well-cultivated plains (to carry our pretensions no higher), communicates a secret joy and satisfaction; 116 the appearance of the latter, like a lowering cloud or barren landscape, throws a melancholy damp over the imagination. 117 And this concession being once made, the difficulty is over; and a natural unforced interpretation of the phenomena of human life will afterwards, we may hope, prevail among all speculative enquirers.

PART II.

118 It may not be improper, in this place, to examine the influence of bodily endowments, and of the goods of fortune, over our sentiments of regard and esteem,

and to consider whether these phenomena fortify or weaken the present theory. 119 It will naturally be expected, that the beauty of the body, as is supposed by all ancient moralists, will be similar, in some respects, to that of the mind; 120 and that every kin of esteem, which is paid to a person, will have something similar in its origin, whether it arise from your mental endowments, or from the situation of your exterior circumstances.

121 It is evident, that one considerable source of BEAUTY in all animals is the advantage which they reap from the particular structure of their limbs and members, suitably to the particular manner of life, to which they are by nature destined. 122 The just proportions of a horse, described by Xenophon and Virgil, are the same that are received at this day by our modern jockeys; 123 because the foundation of them is the same, namely, experience of what is detrimental or useful in the animal. 124 Broad shoulders, a lank belly, firm joints, taper legs; all these are beautiful in our species, because signs of force and vigour. 125 Ideas of utility and its contrary, though they do not entirely determine what is handsome or deformed, are evidently the source of a considerable part of approbation or dislike.

126 In ancient times, bodily strength and dexterity, being of greater USE and importance in war, was also much more esteemed and valued, than at present. 127 Not to insist on Homer and the poets, we may observe, that historians scruple not to mention FORCE OF BODY among the other accomplishments even of Epaminondas, whom they acknowledge to be the greatest hero, statesman, and general of all the Greeks. 128 A like praise is given to Pompey, one of the greatest of the Romans. This instance is similar to what we observed above with regard to memory.

129 What derision and contempt, with both sexes, attend IMPOTENCE; while the unhappy object is regarded as one deprived of so capital a pleasure in life, and at the same time, as disabled from communicating it to others.

130 BARRENNESS in women, being also a species of INUTILITY, is a reproach, but not in the same degree: of which the reason is very obvious, according to the present theory. 131 There is no rule in painting or statuary more indispensible than that of balancing the figures, and placing them with the greatest exactness on their proper centre of gravity. 132 A figure, which is not justly balanced, is ugly; because it conveys the disagreeable ideas of fall, harm, and pain. 133 A disposition or turn of mind, which qualifies a person to rise in the world and advance own fortune, is entitled to esteem and regard, as has already been explained. 134 It may, therefore, naturally be supposed, that the actual possession of riches and authority will have a considerable influence over these sentiments.

135 Let us examine any hypothesis by which we can account for the regard paid to the rich and powerful; 136 we shall find none satisfactory, but that which derives it from the enjoyment communicated to the spectator by the images of prosperity, happiness, ease, plenty, authority, and the gratification of every appetite. 137 Self-love, for instance, which some affect so much to consider as the source of every sentiment, is plainly insufficient for this purpose. 138 Where no good-will or friendship appears, it is difficult to conceive on what we can found our hope of advantage from the riches of others; 139 though we naturally respect the rich, even before they discover any such favourable disposition towards us. 140 We are affected with the same sentiments, when we lie so much out of the sphere of their activity, that they cannot even be supposed to possess the power of serving us. 141 A prisoner of war, in all civilised nations, is treated with a regard suited to own condition; and riches, it is evident, go far towards fixing the condition of any person. 142 If birth and quality enter for a share, this still affords us an argument to our present purpose. 143 For what is it we call a person of birth, but one who is descended from a long succession of rich and powerful ancestors, and who acquires our esteem by

own connexion with persons whom we esteem? 144 Your ancestors, therefore, though dead, are respected, in some measure, on account of their riches; and consequently, without any kind of expectation. 145 But not to go so far as prisoners of war or the dead, to find instances of this disinterested regard for riches; we may only observe, with a little attention, those phenomena which occur in common life and conversation. 146 A person, who is yourself, we shall suppose, of a competent fortune, and of no profession, being introduced to a company of strangers, naturally treats them with different degrees of respect, as you are informed of their different fortunes and conditions; 147 though it is impossible that you can so suddenly propose, and perhaps you would not accept of, any pecuniary advantage from them. 148 A traveller is always admitted into company, and meets with civility, in proportion as own train and equipage speak the self a person of great or moderate fortune. 149 In short, the different ranks of people are, in a great measure, regulated by riches; and that with regard to superiors as well as inferiors, strangers as well as acquaintance. 150 What remains, therefore, but to conclude, that, as riches are desired for ourselves only as the means of gratifying our appetites, 151 either at present or in some imaginary future period, they beget esteem in others merely from their having that influence. 152 This indeed is their very nature or offence: they have a direct reference to the commodities, conveniences, and pleasures of life. 153 The bill of a banker, who is broke, or gold in a desert island, would otherwise be full as valuable. 154 When we approach a person who is, as we say, at own ease, we are presented with the pleasing ideas of plenty, satisfaction, cleanliness, warmth; 155 a cheerful house, elegant furniture, ready service, and whatever is desirable in meat, drink, or apparel. 156 On the contrary, when a poor person appears, the disagreeable images of want, penury, hard labour, dirty furniture, coarse or ragged clothes, nauseous meat and distasteful liquor, immediately strike our

fancy. 157 What else do we mean by saying that one is rich, the other poor? 158 And as regard or contempt is the natural consequence of those different situations in life, it is easily seen what additional light and evidence this throws on our preceding theory, with regard to all moral distinctions.

159 A person who has cured oneself of all ridiculous pre-possessions, and is fully, sincerely, and steadily convinced, from experience as well as philosophy, that the difference of fortune makes less difference in happiness than is vulgarly imagined; 160 such a one does not measure out degrees of esteem according to the rent-rolls of own acquaintance. 161 You may, indeed, externally pay a superior deference to the great lord above the vassal; because riches are the most convenient, being the most fixed and determinate, source of distinction. 162 But your internal sentiments are more regulated by the personal characters of people, than by the accidental and capricious favours of fortune.

163 In most countries of Europe, family, that is, hereditary riches, marked with titles and symbols from the sovereign, is the chief source of distinction. In England, more regard is paid to present opulence and plenty. 164 Each practice has its advantages and disadvantages. Where birth is respected, unactive, spiritless minds remain in haughty indolence, and dream of nothing but pedigrees and genealogies: 165 the generous and ambitious seek honour and authority, and reputation and favour. 166 Where riches are the chief idol, corruption, venality, rapine prevail: arts, manufactures, commerce, agriculture flourish. 167 The former prejudice, being favourable to military virtue, is more suited to monarchies. The latter, being the chief spur to industry, agrees better with a republican government. 168 And we accordingly find that each of these forms of government, by varying the utility of those customs, has commonly a proportionable effect on the sentiments of humankind.

OF QUALITIES IMMEDIATELY AGREEABLE TO OURSELVES

David Hume

7 Whoever has passed an evening with serious melancholy people, and has observed how suddenly the conversation was animated, and what sprightliness diffused itself over the countenance, discourse, and behaviour of every one, on the accession of a good-humoured, lively companion; 2 such a one will easily allow that cheerfulness carries great merit with it, and naturally conciliates the good-will of humankind. 3 No quality, indeed, more readily communicates itself to all around; because no one has a greater propensity to display itself, in jovial talk and pleasant entertainment. 4 The flame spreads through the whole circle; and the most sullen and morose are often caught by it. 5 That the melancholy hate the merry, even though Horace says it, I have some difficulty to allow; 6 because I have always observed that, where the jollity is moderate and decent, serious people are so much the more delighted, 7 as it dissipates the gloom with which they are commonly oppressed, and gives them an unusual enjoyment.

8 From this influence of cheerfulness, both to communicate itself and to engage approbation, we may perceive that there is another set of mental qualities, 9 which, without any utility or any tendency to farther good, either of the community or of the possessor, diffuse a satisfaction on the beholders, and procure friendship and regard. 10 Their immediate sensation, to the person possessed of them, is agreeable. Others enter into the same humour, and catch the sentiment, by a contagion or natural sympathy; 11 and as we cannot forbear loving whatever pleases, a kindly emotion arises towards the person who communicates so much satisfaction. 12 You are a more animating spectacle; your presence diffuses over us more serene complacency and enjoyment; 13 our imagination, entering into your feelings and disposition, is affected in a more agreeable manner than if a melancholy, dejected, sullen, anxious temper were presented to us. 14 Hence the

affection and probation which attend the former: the aversion and disgust with which we regard the latter.

15 Few men would envy the character which Caesar gives of Cassius:

> 16 He loves no play,
> As thou do'st, Anthony:
> he hears no music:
> Seldom he smiles;
> and smiles in such a sort,
> As if he mock'd himself, and
> scorn'd his spirit
> That could be mov'd to smile at
> any thing.

17 Not only such people, as Caesar adds, are commonly DANGEROUS, but also, having little enjoyment within themselves, they can never become agreeable to others, or contribute to social entertainment. 18 In all polite nations and ages, a relish for pleasure, if accompanied with temperance and decency, is esteemed a considerable merit, even in the greatest people; and becomes still more requisite in those of inferior rank and character. 19 It is an agreeable representation, which a French writer gives of the situation of his own mind in this particular, 20 VIRTUE I LOVE, says he, WITHOUT AUSTERITY: PLEASURE WITHOUT EFFEMINACY: AND LIFE, WITHOUT FEARING ITS END.

21 Who is not struck with any signal instance of greatness of mind or dignity of character; with elevation of sentiment, disdain of slavery, and with that noble pride and spirit, which arises from conscious virtue? 22 The sublime, says Longinus, is often nothing but the echo or image of magnanimity; 23 and where this quality appears in any one, even though a syllable be not uttered, it excites our applause and admiration; 24 as may be observed of the famous silence of Ajax in the Odyssey, which expresses more noble disdain and resolute indignation than any language can convey.

25 WERE I Alexander, said Parmenio, I WOULD ACCEPT OF THESE OFFERS MADE BY DARIUS. 26 SO WOULD I TOO, replied Alexander, WERE I PARMENIO. This saying is admirable, says Longinus, from a like principle. 27 GO! cries the same hero to his soldiers, when they refused to follow him to the Indies, GO TELL YOUR COUNTRYMEN, THAT YOU LEFT Alexander COMPLETING THE

CONQUEST OF THE WORLD. 28 'Alexander,' said the Prince of Conde, who always admired this passage, 'abandoned by his soldiers, among barbarians, not yet fully subdued, 29 felt in himself such a dignity and right of empire, that he could not believe it possible that any one would refuse to obey him. 30 Whether in Europe or in Asia, among Greeks or Persians, all was indifferent to him: wherever he found people, he fancied he should find subjects.'

31 The confident of Medea in the tragedy recommends caution and submission; and enumerating all the distresses of that unfortunate heroine, 32 asks her, what she has to support her against her numerous and implacable enemies. MYSELF, replies she; MYSELF I SAY, AND IT IS ENOUGH. 33 Boileau justly recommends this passage as an instance of true sublime.

34 When Phocion, the modest, the gentle Phocion, was led to execution, he turned to one of his fellow-sufferers, who was lamenting his own hard fate, IS IT NOT GLORY ENOUGH FOR YOU, says he, THAT YOU DIE WITH PHOCION?

35 Place in opposition the picture which Tacitus draws of Vitellius, fallen from empire, prolonging his ignominy from a wretched love of life, delivered over to the merciless rabble; 36 tossed, buffeted, and kicked about; constrained, by their holding a poniard under his chin, to raise his head, and expose himself to every contumely. 37 What abject infamy! What low humiliation! Yet even here, says the historian, he discovered some symptoms of a mind not wholly degenerate. 38 To a tribune, who insulted him, he replied, I AM STILL YOUR EMPEROR.

39 We never excuse the absolute want of spirit and dignity of character, or a proper sense of what is due to one's self, in society and the common intercourse of life. 40 This vice constitutes what we properly call MEANNESS; when a person can submit to the basest slavery, in order to gain own ends; 41 fawn upon those who abuse you; and degrade yourself by intimacies and familiarities with undeserving inferiors. 42 A certain degree of generous pride or self-value is so requisite, that the

absence of it in the mind displeases, after the same manner as the want of a nose, eye, or any of the most material feature of the face or member of the body. 43 The utility of courage, both to the public and to the person possessed of it, is an obvious foundation of merit. 44 But to any one who duly considers of the matter, it will appear that this quality has a peculiar lustre, which it derives wholly from itself, and from that noble elevation inseparable from it. 45 Its figure, drawn by painters and by poets, displays, in each feature, a sublimity and daring confidence; 46 which catches the eye, engages the affections, and diffuses, by sympathy, a like sublimity of sentiment over every spectator.

47 Under what shining colours does Demosthenes represent Philip; where the orator apologises for his own administration, and justifies that pertinacious love of liberty, with which he had inspired the Athenians. 48 'I beheld Philip,' says he, 'he with whom was your contest, resolutely, while in pursuit of empire and dominion, exposing himself to every wound; 49 his eye gored, his neck wrested, his arm, his thigh pierced, what ever part of his body fortune should seize on, that cheerfully relinquishing; provided that, with what remained, he might live in honour and renown. 50 And shall it be said that he, born in Pella, a place heretofore mean and ignoble, should be inspired with so high an ambition and thirst of fame: while you, Athenians.' 51 These praises excite the most lively admiration; but the views presented by the orator, carry us not, we see, beyond the hero himself, nor ever regard the future advantageous consequences of his valour.

52 The material temper of the Romans, inflamed by continual wars, had raised their esteem of courage so high, that, in their language, it was called VIRTUE, by way of excellence and of distinction from all other moral qualities. 53 THE Suevi, in the opinion of Tacitus, tus, DRESSED THEIR HAIR WITH A LAUDIBLE INTENT: NOT FOR THE PURPOSE OF LOVING OR BEING LOVES; THEY DORNED THEMSELVES ONLY FOR THEIR ENEMIES, AND IN ORDER TO APPEAR MORE TERRIBLE. 54 A sentiment of the historian, which

would sound a little oddly in other nations and other ages.

55 The Scythians, according to Herodotus, after scalping their enemies, dressed the skin like leather, and used it as a towel; and whoever had the most of those towels was most esteemed among them. 56 So much had martial bravery, in that nation, as well as in many others, destroyed the sentiments of humanity; a virtue surely much more useful and engaging. 57 It is indeed observable, that, among all uncultivated nations, who have not as yet had full experience of the advantages attending beneficence, justice, and the social virtues, courage is the predominant excellence; 58 what is most celebrated by poets, recommended by parents and instructors, and admired by the public in general.

59 The ethics of Homer are, in this particular, very different from those of Fenelon, his elegant imitator; 60 and such as were well suited to an age, when one hero, as remarked by Thucydides, could ask another, without offence, whether he were a robber or not. 61 Such also very lately was the system of ethics which prevailed in many barbarous parts of Ireland; if we may credit Spencer, in his judicious account of the state of that kingdom. 62 Of the same class of virtues with courage is that undisturbed philosophical tranquillity, superior to pain, sorrow, anxiety, and each assault of adverse fortune. 63 Conscious of his own virtue, say the philosophers, the sage elevates himself above every accident of life; 64 and securely placed in the temple of wisdom, looks down on inferior mortals engaged in pursuit of honours, riches, reputation, and every frivolous enjoyment. 65 These pretentious, no doubt, when stretched to the utmost, are by far too magnificent for human nature. They carry, however, a grandeur with them, which seizes the spectator, and strikes him with admiration. 66 And the nearer we can approach in practice to this sublime tranquillity and indifference (for we must distinguish it from a stupid insensibility), the more secure enjoyment shall we attain within ourselves, and the more greatness of mind shall we discover to the

world. 67 The philosophical tranquillity may, indeed, be considered only as a branch of magnanimity.

68 Who admires not Socrates; his perpetual serenity and contentment, amidst the greatest poverty and domestic vexations; 69 his resolute contempt of riches, and his magnanimous care of preserving liberty, while he refused all assistance from his friends and disciples, and avoided even the dependence of an obligation?

70 Epictetus had not so much as a door to his little house or hovel; and therefore, soon lost his iron lamp, the only furniture which he had worth taking. 71 But resolving to disappoint all robbers for the future, he supplied its place with an earthen lamp, of which he very peacefully kept possession ever after.

72 Among the ancients, the heroes in philosophy, as well as those in war and patriotism, have a grandeur and force of sentiment, which astonishes our narrow souls, and is rashly rejected as extravagant and supernatural. 73 They, in their turn, I allow, would have had equal reason to consider as romantic and incredible, the degree of humanity, clemency, order, tranquillity, and other social virtues, 74 to which, in the administration of government, we have attained in modern times, had any one been then able to have made a fair representation of them. 75 Such is the compensation, which human nature, or rather education, has made in the distribution of excellencies and virtues, in those different ages.

76 The merit of benevolence, arising from its utility, and its tendency to promote the good of humankind has been already explained, and is, no doubt, the source of a CONSIDERABLE part of that esteem, which is so universally paid to it. 77 But it will also be allowed, that the very softness and tenderness of the sentiment, its engaging endearments, its fond expressions, its delicate attentions, and all that flow of mutual confidence and regard, which enters into a warm attachment of love and friendship: 78 it will be allowed, I say, that these feelings, being delightful in themselves, are necessarily

communicated to the spectators, and melt them into the same fondness and delicacy. 79 The tear naturally starts in our eye on the apprehension of a warm sentiment of this nature: our breast heaves, our heart is agitated, and every humane tender principle of our frame is set in motion, and gives us the purest and most satisfactory enjoyment.

80 When poets form descriptions of Elysian fields, where the blessed inhabitants stand in no need of each other's assistance, they yet represent them as maintaining a constant intercourse of love and friendship, and sooth our fancy with the pleasing image of these soft and gentle passions. 81 The idea of tender tranquillity in a pastoral Arcadia is agreeable from a like principle, as has been observed above. 82 Who would live amidst perpetual wrangling, and scolding, and mutual reproaches? 83 The roughness and harshness of these emotions disturb and displease us: we suffer by contagion and sympathy; 84 nor can we remain indifferent spectators, even though certain that no pernicious consequences would ever follow from such angry passions.

85 As a certain proof that the whole merit of benevolence is not derived from its usefulness, we may observe, that in a kind way of blame, we say, a person is TOO GOOD; 86 when you exceeds your part in society, and carries your attention for others beyond the proper bounds. 87 In like manner, we say, a person is too HIGH-SPIRITED, TOO INTREPID, TOO INDIFFERENT ABOUT FORTUNE: reproaches, which really, at bottom, imply more esteem than many panegyrics. 88 Being accustomed to rate the merit and demerit of characters chiefly by their useful or pernicious tendencies, we cannot forbear applying the epithet of blame, when we discover a sentiment, which rises to a degree, that is hurtful; 89 but it may happen, at the same time, that its noble elevation, or its engaging tenderness so seizes the heart, as rather to increase our friendship and concern for the person.

90 The amours and attachments of Harry the 4th of France, during the civil wars of the league, frequently

hurt his interest and his cause; 91 but all the young, at least, and amorous, who can sympathise with the tender passions, will allow that this very weakness, for they will readily call it such, chiefly endears that hero, and interests them in his fortunes.

92 The excessive bravery and resolute inflexibility of Charles the 12th ruined his own country, and infested all his neighbours; 93 but have such splendour and greatness in their appearance, as strikes us with admiration; 94 and they might, in some degree, be even approved of, if they betrayed not sometimes too evident symptoms of madness and disorder.

95 The Athenians pretended to the first invention of agriculture and of laws: and always valued themselves extremely on the benefit thereby procured to the whole race of humankind. 96 They also boasted, and with reason, of their war like enterprises; particularly against those innumerable fleets and armies of Persians, which invaded Greece during the reigns of Darius and Xerxes. 97 But though there be no comparison in point of utility, between these peaceful and military honours; 98 yet we find, that the orators, who have writ such elaborate panegyrics on that famous city, have chiefly triumphed in displaying the warlike achievements. 99 Lysias, Thucydides, Plato, and Isocrates discover, all of them, the same partiality; which, though condemned by calm reason and reflection, appears so natural in the mind of human.

100 It is observable, that the great charm of poetry consists in lively pictures of the sublime passions, magnanimity, courage, disdain of fortune; 101 or those of the tender affections, love and friendship; which warm the heart, and diffuse over it similar sentiments and emotions. 102 And though all kinds of passion, even the most disagreeable, such as grief and anger, are observed, when excited by poetry, to convey a satisfaction, from a mechanism of Nature, not easy to be explained: 103 Yet those more elevated or softer affections have a peculiar influence, and please from more than one cause or principle. 104 Not to mention that they alone interest us in the

fortune of the persons represented, or communicate any esteem and affection for their character. 105 And can it possibly be doubted, that this talent itself of poets, to move the passions, this pathetic and sublime of sentiment, is a very considerable merit; 106 and being enhanced by its extreme rarity, may exalt the person possessed of it, above every character of the age in which one lives?

107 The prudence, address, steadiness, and benign government of Augustus, adorned with all the splendour of his noble birth and imperial crown, 108 render him but an unequal competitor for fame with Virgil, who lays nothing into the opposite scale but the divine beauties of his poetical genius. 109 The very sensibility to these beauties, or a delicacy of taste, is itself a beauty in any character; as conveying the purest, the most durable, and most innocent of all enjoyments. 110 These are some instances of the several species of merit, that are valued for the immediate pleasure which they communicate to the person possessed of them. 111 No views of utility or of future beneficial consequences enter into this sentiment of approbation; yet is it of a kind similar to that other sentiment, which arises from views of a public or private utility. 112 The same social sympathy, we may observe, or fellow-feeling with human happiness or misery, gives rise to both; and this analogy, in all the parts of the present theory, may justly be regarded as a confirmation of it.

OF QUALITIES IMMEDIATELY AGREEABLE TO OTHERS.

David Hume

8 AS the mutual shocks, in SOCIETY, and the oppositions of interest and self-love have constrained humankind to establish the laws of JUSTICE, in order to preserve the advantages of mutual assistance and protection: 2 in like manner, the eternal contrarieties, in COMPANY, of humans' pride and self-conceit, have introduced the rules of Good Manners or Politeness, in order to facilitate the intercourse of minds, and an undisturbed commerce and conversation. 3 Among well-bred

people, a mutual deference is affected; contempt of others disguised; authority concealed; attention given to each in own turn; 4 and an easy stream of conversation maintained, without vehemence, without interruption, without eagerness for victory, and without any airs of superiority. 5 These attentions and regards are immediately AGREEABLE to others, abstracted from any consideration of utility or beneficial tendencies: 6 they conciliate affection, promote esteem, and extremely enhance the merit of the person who regulates own behaviour by them. 7 Many of the forms of breeding are arbitrary and casual; but the thing expressed by them is still the same. 8 A Spaniard goes out of his own house before his guest, to signify that he leaves him master of all. In other countries, the landlord walks out last, as a common mark of deference and regard.

9 But, in order to render a person perfect GOOD COMPANY, you must have Wit and Ingenuity as well as good manners. 10 What wit is, it may not be easy to define; but it is easy surely to determine that it is a quality immediately AGREEABLE to others, 11 and communicating, on its first appearance, a lively joy and satisfaction to every one who has any comprehension of it. 12 The most profound metaphysics, indeed, might be employed in explaining the various kinds and species of wit; 13 and many classes of it, which are now received on the sole testimony of taste and sentiment, might, perhaps, be resolved into more general principles. 14 But this is sufficient for our present purpose, that it does affect taste and sentiment, and bestowing an immediate enjoyment, is a sure source of approbation and affection. 15 In countries where people pass most of their time in conversation, and visits, and assemblies, these COMPANIONABLE qualities, so to speak, are of high estimation, and form a chief part of personal merit. 16 In countries where people live a more domestic life, and either are employed in business, or amuse themselves in a narrower circle of acquaintance, the more solid qualities are chiefly regarded. 17 Thus, I have often observed, that, among the French, the first

questions with regard to a stranger are, ARE YOU POLITE? HAVE YOU WIT? In England, the chief praise bestowed is always that of a GOOD-NATURED, SENSIBLE FELLOW. 18 In conversation, the lively spirit of dialogue is AGREEABLE, even to those who desire not to have any share in the discourse: hence the teller of long stories, or the pompous declaimer, is very little approved of. 19 But most people desire likewise their turn in the conversation, and regard, with a very evil eye, that LOQUACITY which deprives them of a right they are naturally so jealous of.

20 There is a sort of harmless LIARS, frequently to be met with in company, who deal much in the marvellous. 21 Their usual intention is to please and entertain; but as humans are most delighted with what they conceive to be truth, these people mistake extremely the means of pleasing, and incur universal blame. 22 Some indulgence, however, to lying or fiction is given in HUMOROUS stories; because it is there really agreeable and entertaining, and truth is not of any importance.

23 Eloquence, genius of all kinds, even good sense, and sound reasoning, when it rises to an eminent degree, and is employed upon subjects of any considerable dignity and nice discernment; 24 all these endowments seem immediately agreeable, and have a merit distinct from their usefulness. 25 Rarity, likewise, which so much enhances the price of every thing, must set an additional value on these noble talents of the human mind.

26 Modesty may be understood in different senses, even abstracted from chastity, which has been already treated of. 27 It sometimes means that tenderness and nicety of honour, that apprehension of blame, that dread of intrusion or injury towards others, that Pudor, which is the proper guardian of every kind of virtue, and a sure preservative against vice and corruption. 28 But its most usual meaning is when it is opposed to IMPUDENCE and ARROGANCE, and expresses a diffidence of our own judgement, and a due attention and regard for others. 29 In young

people chiefly, this quality is a sure sign of good sense; and is also the certain means of augmenting that endowment, by preserving their ears open to instruction, and making them still grasp after new attainments. 30 But it has a further charm to every spectator; by flattering every human's vanity, and presenting the appearance of a docile pupil, who receives, with proper attention and respect, every word they utter.

31 Humans have, in general, a much greater propensity to overvalue than undervalue themselves; notwithstanding the opinion of Aristotle. 32 This makes us more jealous of the excess on the former side, and causes us to regard, with a peculiar indulgence, all tendency to modesty and self-diffidence; as esteeming the danger less of falling into any vicious extreme of that nature. 33 It is thus in countries where humans' bodies are apt to exceed in corpulency, personal beauty is placed in a much greater degree of slenderness, than in countries where that is the most usual defect. 34 Being so often struck with instances of one species of deformity, people think they can never keep at too great a distance from it, and wish always to have a leaning to the opposite side.

35 In like manner, were the door opened to self-praise, and were Montaigne's maxim observed, that one should say as frankly, I HAVE SENSE, I HAVE LEARNING, I HAVE COURAGE, BEAUTY, OR WIT, as it is sure we often think so; 36 were this the case, I say, every one is sensible that such a flood of impertinence would break in upon us, as would render society wholly intolerable. 37 For this reason custom has established it as a rule, in common societies, that people should not indulge themselves in self-praise, or even speak much of themselves; 38 and it is only among intimate friends or people of very humanly behaviour, that one is allowed to do oneself justice.

39 Nobody finds fault with Maurice, Prince of Orange, for his reply to one who asked him, whom he esteemed the first general of the age, THE MARQUIS OF SPINOLA, said he, IS THE SECOND. 40 Though it is observable, that the self-praise implied is here better implied, than

if it had been directly expressed, without any cover or disguise.

41 You must be a very superficial thinker, who imagines that all instances of mutual deference are to be understood in earnest, and that a person would be more esteemable for being ignorant of your own merits and accomplishments. 42 A small bias towards modesty, even in the internal sentiment, is favourably regarded, especially in young people; 43 and a strong bias is required in the outward behaviour; but this excludes not a noble pride and spirit, which may openly display itself in its full extent, when one lies under calumny or oppression of any kind.

44 The generous contumacy of Socrates, as Cicero calls it, has been highly celebrated in all ages; and when joined to the usual modesty of his behaviour, forms a shining character. 45 Iphicrates, the Athenian, being accused of betraying the interests of his country, asked his accuser, WOULD YOU, says he, HAVE, ON A LIKE OCCASION, BEEN GUILTY OF THAT CRIME? 46 BY NO MEANS, replied the other. AND CAN YOU THEN IMAGINE, cried the hero, that Iphicrates WOULD BE GUILTY?-- 47 In short, a generous spirit and self-value, well founded, decently disguised, and courageously supported under distress and calumny, is a great excellency, 48 and seems to derive its merit from the noble elevation of its sentiment, or its immediate agreeableness to its possessor.

49 In ordinary characters, we approve of a bias towards modesty, which is a quality immediately agreeable to others: 50 the vicious excess of the former virtue, namely, insolence or haughtiness, is immediately disagreeable to others; 51 the excess of the latter is so to the possessor. Thus are the boundaries of these duties adjusted. 52 A desire of fame, reputation, or a character with others, is so far from being blameable, that it seems inseparable from virtue, genius, capacity, and a generous or noble disposition. 53 An attention even to trivial matters, in order to please, is also expected and demanded by society; 54 and no one is surprised, if you find a person in company to observe a

greater elegance of dress and more pleasant flow of conversation, than when you passes your time at home, and with your own family. 55 Wherein, then, consists Vanity, which is so justly regarded as a fault or imperfection. 56 It seems to consist chiefly in such an intemperate display of our advantages, honours, and accomplishments; 57 in such an importunate and open demand of praise and admiration, as is offensive to others, and encroaches too far on their secret vanity and ambition. 58 It is besides a sure symptom of the want of true dignity and elevation of mind, which is so great an ornament in any character. 59 For why that impatient desire of applause; as if you were not justly entitled to it, and might not reasonably expect that it would for ever at tend you? 60 Why so anxious to inform us of the great company which you have kept; the obliging things which were said to you; the honours, the distinctions which you met with; 61 as if these were not things of course, and what we could readily, of ourselves, have imagined, without being told of them?

62 Decency, or a proper regard to age, sex, character, and station in the world, may be ranked among the qualities which are immediately agreeable to others, and which, by that means, acquire praise and approbation. 63 An effeminate behaviour in a man, a rough manner in a woman; these are ugly because unsuitable to each character, and different from the qualities which we expect in the sexes. 64 It is as if a tragedy abounded in comic beauties, or a comedy in tragic. 65 The disproportions hurt the eye, and convey a disagreeable sentiment to the spectators, the source of blame and disapprobation. 66 This is that INDECORUM, which is explained so much at large by Cicero in his Offices.

67 Among the other virtues, we may also give Cleanliness a place; since it naturally renders us agreeable to others, and is no inconsiderable source of love and affection. 68 No one will deny, that a negligence in this particular is a fault; and as faults are nothing but smaller vices, and this fault can have no other origin than the uneasy sensation which it excites

in others; 69 we may, in this instance, seemingly so trivial, clearly discover the origin of moral distinctions, about which the learned have involved themselves in such mazes of perplexity and error.

70 But besides all the AGREEABLE qualities, the origin of whose beauty we can, in some degree, explain and account for, there still remains something mysterious and inexplicable, which conveys an immediate satisfaction to the spectator, but how, or why, or for what reason, he cannot pretend to determine. 71 There is a manner, a grace, an ease, a genteelness, an I-know-not-what, which some people possess above others, 72 which is very different from external beauty and comeliness, and which, however, catches our affection almost as suddenly and powerfully. 73 And though this MANNER be chiefly talked of in the passion between the sexes, where the concealed magic is easily explained, 74 yet surely much of it prevails in all our estimation of characters, and forms no inconsiderable part of personal merit. 75 This class of accomplishments, therefore, must be trusted entirely to the blind, but sure testimony of taste and sentiment; 76 and must be considered as a part of ethics, left by Nature to baffle all the pride of philosophy, and make her sensible of Her narrow boundaries and slender acquisitions.

77 We approve others, because of their wits, politeness, modesty, decency, or any agreeable quality which they possesses; 78 although you be not of our acquaintance, nor has ever given us any entertainment, by means of these accomplishments. 79 The idea, which we form of their effect on your acquaintance, has an agreeable influence on our imagination, and gives us the sentiment of approbation. 80 This principle enters into all the judgements which we form concerning manners and characters.

CONCLUSION

David Hume

PART I.

9 IT may justly appear surprising that any person in so late an age, should find it requisite to prove, by elaborate reasoning, that Personal Merit consists altogether in the possession of mental qualities, USEFUL or AGREEABLE to the PERSON HIMSELF or to OTHERS. 2 It might be expected that this principle would have occurred even to the first rude, unpractised enquirers concerning morals, and been received from its own evidence, without any argument or disputation. 3 Whatever is valuable in any kind, so naturally classes itself under the division of USEFUL or AGREEABLE, the UTILE or the DULCE, 4 that it is not easy to imagine why we should ever seek further, or consider the question as a matter of nice research or inquiry. 5 And as every thing useful or agreeable must possess these qualities with regard either to the PERSON HIMSELF or to OTHERS, the complete delineation or description of merit seems to be performed as naturally as a shadow is cast by the sun, or an image is reflected upon water. 6 If the ground, on which the shadow is cast, be not broken and uneven; nor the surface from which the image is reflected, disturbed and confused; a just figure is immediately presented, without any art or attention. 7 And it seems a reasonable presumption, that systems and hypotheses have perverted our natural understanding, when a theory, so simple and obvious, could so long have escaped the most elaborate examination.

8 But however the case may have fared with philosophy, in common life these principles are still implicitly maintained; 9 nor is any other topic of praise or blame ever recurred to, when we employ any panegyric or satire, any applause or censure of human action and behaviour. 10 If we observe people, in every intercourse of business or pleasure, in every discourse and conversation, we shall find them nowhere, except the schools, at any loss upon this subject. 11 What so natural, for instance, as the following dialogue?

MORALS

You are very happy, we shall suppose one to say, addressing oneself to another, that you have given your daughter to Cleanthes. 12 You are a person of honour and humanity. Every one, who has any intercourse with you, is sure of FAIR and KIND treatment. 13 I congratulate you too, says another, on the promising expectations of this son-in-law; whose assiduous application to the study of the laws, whose quick penetration and early knowledge both of people and business, prognosticate the greatest honours and advancement. 14 You surprise me, replies a third, when you talk of Cleanthes as a man of business and application. I met him lately in a circle of the gayest company, and he was the very life and soul of our conversation: 15 so much wit with good manners; so much gallantry without affectation; so much ingenious knowledge so genteelly delivered, I have never before observed in any one. 16 You would admire him still more, says a fourth, if you knew him more familiarly. 17 That cheerfulness, which you might remark in him, is not a sudden flash struck out by company: it runs through the whole tenor of his life, and preserves a perpetual serenity on his countenance, and tranquillity in his soul. 18 He has met with severe trials, misfortunes as well as dangers; and by his greatness of mind, was still superior to Mall of them. 19 The image, gentlemen, which you have here delineated of Cleanthes, cried I, is that of accomplished merit. Each of you has given a stroke of the pencil to his figure; and you have unawares exceeded all the pictures drawn by Gratian or Castiglione. 20 A philosopher might select this character as a model of perfect virtue.

21 And as every quality which is useful or agreeable to ourselves or others is, in common life, allowed to be a part of personal merit; so no other will ever be received, where people judge of things by their natural, unprejudiced reason, without the delusive glosses of superstition and false religion. 22 Celibacy, fasting, penance, mortification, self-denial, humility, silence, solitude, and the whole train of monkish virtues; for what reason are they everywhere

rejected by people of sense, but because they serve to no manner of purpose; 23 neither advance a person's fortune in the world, nor render you a more valuable member of society; neither qualify you for the entertainment of company, nor increase your power of self-enjoyment? 24 We observe, on the contrary, that they cross all these desirable ends; stupify the understanding and harden the heart, obscure the fancy and sour the temper. 25 We justly, therefore, transfer them to the opposite column, and place them in the catalogue of vices; nor has any superstition force sufficient among people of the world, to pervert entirely these natural sentiments. 26 A gloomy, hair-brained enthusiast, after own death, may have a place in the calendar; but will scarcely ever be admitted, when alive, into intimacy and society, except by those who are as delirious and dismal as the self.

27 It seems a happiness in the present theory, that it enters not into that vulgar dispute concerning the DEGREES of benevolence or self-love, which prevail in human nature; 28 a dispute which is never likely to have any issue, both because people, who have taken part, are not easily convinced, 29 and because the phenomena, which can be produced on either side, are so dispersed, so uncertain, and subject to so many interpretations, that it is scarcely possible accurately to compare them, or draw from them any determinate inference or conclusion. 30 It is sufficient for our present purpose, if it be allowed, what surely, without the greatest absurdity cannot be disputed, that there is some benevolence, however small, infused into our bosom; 31 some spark of friendship for human kind; some particle of the dove kneaded into our frame, along with the elements of the wolf and serpent. 32 Let these generous sentiments be supposed ever so weak; let them be insufficient to move even a hand or finger of our body, they must still direct the determinations of our mind, 33 and where everything else is equal, produce a cool preference of what is useful and serviceable to humankind, above what is

pernicious and dangerous. 34 A MORAL DISTINCTION, therefore, immediately arises; a general sentiment of blame and approbation; a tendency, however faint, to the objects of the one, and a proportionable aversion to those of the other. 35 Nor will those reasoners, who so earnestly maintain the predominant selfishness of human kind, be any wise scandalised at hearing of the weak sentiments of virtue implanted in our human nature. 36 On the contrary, they are found as ready to maintain the one tenet as the other; and their spirit of satire (for such it appears, rather than of corruption) naturally gives rise to both opinions; which have, indeed, a great and almost an indissoluble connexion together.

37 Avarice, ambition, vanity, and all passions vulgarly, though improperly, comprised under the denomination of SELF-LOVE, 38 are here excluded from our theory concerning the origin of morals, not because they are too weak, but because they have not a proper direction for that purpose. 39 The notion of morals implies some sentiment common to all humankind, which recommends the same object to general approbation, and makes every human, or most people, agree in the same opinion or decision concerning it. 40 It also implies some sentiment, so universal and comprehensive as to extend to all humankind, 41 and render the actions and conduct, even of the persons the most remote, an object of applause or censure, according as they agree or disagree with that rule of right which is established. 42 These two requisite circumstances belong alone to the sentiment of humanity here insisted on. 43 The other passions produce in every breast, many strong sentiments of desire and aversion, affection and hatred; 44 but these neither are felt so much in common, nor are so comprehensive, as to be the foundation of any general system and established theory of blame or approbation.

45 When a person denominates another own ENEMY, own RIVAL, own ANTAGONIST, own ADVERSARY, you are understood to speak the language of self-love, and to express sentiments, peculiar

to yourself, and arising from your particular circumstances and situation. 46 But when you bestows on any person the epithets of VICIOUS or ODIOUS or DEPRAVED, you then speaks another language, and expresses sentiments, in which you expects all your audience are to concur with you. 47 You must here, therefore, depart from your private and particular situation, and must choose a point of view, common to you with others; 48 you must move some universal principle of the human frame, and touch a string to which all humankind have an accord and symphony. 49 If you mean, therefore, to express that this person possesses qualities, whose tendency is pernicious to society, you have chosen this common point of view, and has touched the principle of humanity, in which every human, in some degree, concurs. 50 While the human heart is compounded of the same elements as at present, it will never be wholly indifferent to public good, nor entirely unaffected with the tendency of characters and manners. 51 And though this affection of humanity may not generally be esteemed so strong as vanity or ambition, yet, being common to all humans, it can alone be the foundation of morals, or of any-general system of blame or praise. 52 One person's ambition is not another's ambition, nor will the same event or object satisfy both; 53 but the humanity of one person is the humanity of every one, and the same object touches this passion in all human creatures.

54 But the sentiments, which arise from humanity, are not only the same in all human creatures, and produce the same approbation or censure; but they also comprehend all human creatures; 55 nor is there any one whose conduct or character is not, by their means, an object to every one of censure or approbation. 56 On the contrary, those other passions, commonly denominated selfish, both produce different sentiments in each individual, according to one’s own particular situation; 57 and also contemplate the greater part of humankind with the utmost indifference and unconcern. 58 Whoever has a high regard and esteem for me flatters my vanity;

whoever expresses contempt mortifies and displeases me; 59 but as my name is known but to a small part of humankind, there are few who come within the sphere of this passion, or excite, on its account, either my affection or disgust. 60 But if you represent a tyrannical, insolent, or barbarous behaviour, in any country or in any age of the world, I soon carry my eye to the pernicious tendency of such a conduct, and feel the sentiment of repugnance and displeasure towards it. 61 No character can be so remote as to be, in this light, wholly indifferent to me. 62 What is beneficial to society or to a person must still be preferred. 63 And every quality or action, of every human being, must, by this means, be ranked under some class or denomination, expressive of general censure or applause.

64 What more, therefore, can we ask to distinguish the sentiments, dependent on humanity, from those connected with any other passion, or to satisfy us, why the former are the origin of morals, not the latter? 65 Whatever conduct gains my approbation, by touching my humanity, procures also the applause of all humankind, by affecting the same principle in them; 66 but what serves my avarice or ambition pleases these passions in me alone, and affects not the avarice and ambition of the rest of humankind. 67 There is no circumstance of conduct in any person, provided it have a beneficial tendency, that is not agreeable to my humanity, however remote the person; 68 but every person, so far removed as neither to cross nor serve my avarice and ambition, is regarded as wholly indifferent by those passions. 69 The distinction, therefore, between these species of sentiment being so great and evident, language must soon be moulded upon it, 70 and must invent a peculiar set of terms, in order to express those universal sentiments of censure or approbation, which arise from humanity, or from views of general usefulness and its contrary. 71 Virtue and Vice become then known; morals are recognised; certain general ideas are framed of human conduct and behaviour; such measures are expected from

people in such situations. 72 This action is determined to be conformable to our abstract rule; that other, contrary. 73 And by such universal principles are the particular sentiments of self-love frequently controlled and limited.

74 From instances of popular tumults, seditions, factions, panics, and of all passions, which are shared with a multitude, we may learn the influence of society in exciting and supporting any emotion; 75 while the most ungovernable disorders are raised, we find, by that means, from the slightest and most frivolous occasions.

76 Solon was no very cruel, though, perhaps, an unjust legislator, who punished neuters in civil wars; and few, I believe, would, in such cases, incur the penalty, were their affection and discourse allowed sufficient to absolve them. 77 No selfishness, and scarce any philosophy, have there force sufficient to support a total coolness and indifference; and you must be more or less than human, who kindles not in the common blaze. 78 What wonder then, that moral sentiments are found of such influence in life; though springing from principles, which may appear, at first sight, somewhat small and delicate? 79 But these principles, we must remark, are social and universal; they form, in a manner, the PARTY of humankind against vice or disorder, its common enemy. 80 And as the benevolent concern for others is diffused, in a greater or less degree, over all humans, and is the same in all, it occurs more frequently in discourse, is cherished by society and conversation, 81 and the blame and approbation, consequent on it, are thereby roused from that lethargy into which they are probably lulled, in solitary and uncultivated nature. 82 Other passions, though perhaps originally stronger, yet being selfish and private, are often overpowered by its force, and yield the dominion of our breast to those social and public principles.

83 Another spring of our constitution, that brings a great addition of force to moral sentiments, is the love of fame; 84 which rules, with such uncontrolled authority, in all generous minds, and is often the

grand object of all their designs and undertakings. 85 By our continual and earnest pursuit of a character, a name, a reputation in the world, we bring our own deportment and conduct frequently in review, and consider how they appear in the eyes of those who approach and regard us. 86 This constant habit of surveying ourselves, as it were, in reflection, keeps alive all the sentiments of right and wrong, and begets, in noble natures, a certain reverence for themselves as well as others, which is the surest guardian of every virtue. 87 The animal conveniences and pleasures sink gradually in their value; while every inward beauty and moral grace is studiously acquired, and the mind is accomplished in every perfection, which can adorn or embellish a rational creature. 88 Here is the most perfect morality with which we are acquainted: here is displayed the force of many sympathies. 89 Our moral sentiment is itself a feeling chiefly of that nature, and our regard to a character with others seems to arise only from a care of preserving a character with ourselves; 90 and in order to attain this end, we find it necessary to prop our tottering judgement on the correspondent approbation of humankind.

91 But, that we may accommodate matters, and remove if possible every difficulty, let us allow all these reasonings to be false. 92 Let us allow that, when we resolve the pleasure, which arises from views of utility, into the sentiments of humanity and sympathy, we have embraced a wrong hypothesis. 93 Let us confess it necessary to find some other explication of that applause, which is paid to objects, whether inanimate, animate, or rational, if they have a tendency to promote the welfare and advantage of humankind. 94 However difficult it be to conceive that an object is approved of on account of its tendency to a certain end, while the end itself is totally indifferent: let us swallow this absurdity, and consider what are the consequences. 95 The preceding delineation or definition of Personal Merit must still retain its evidence and authority: 96 it must still be allowed that every quality of the mind, which is

USEFUL or AGREEABLE to the PERSON or to OTHERS, communicates a pleasure to the spectator, engages their esteem, and is admitted under the honourable denomination of virtue or merit. 97 Are not justice, fidelity, honour, veracity, allegiance, chastity, esteemed solely on account of their tendency to promote the good of society? 98 Is not that tendency inseparable from humanity, benevolence, lenity, generousity, gratitude, moderation, tenderness, friendship, and all the other social virtues? 99 Can it possibly be doubted that industry, discretion, frugality, secrecy, order, perseverance, forethought, judgement, and this whole class of virtues and accomplishments, of which many pages would not contain the catalogue; 100 can it be doubted, I say, that the tendency of these qualities to promote the interest and happiness of their possessor, is the sole foundation of their merit? 101 Who can dispute that a mind, which supports a perpetual serenity and cheerfulness, a noble dignity and undaunted spirit, a tender affection and good-will to all around; 102 as it has more enjoyment within itself, is also a more animating and rejoicing spectacle, than if dejected with melancholy, tormented with anxiety, irritated with rage, or sunk into the most abject baseness and degeneracy? 103 And as to the qualities, immediately AGREEABLE to OTHERS, they speak sufficiently for themselves; 104 and you must be unhappy, indeed, either in your own temper, or in your situation and company, who has never perceived the charms of a facetious wit or flowing affability, of a delicate modesty or decent genteelness of address and manner.

105 I am sensible, that nothing can be more unphilosophical than to be positive or dogmatical on any subject; 106 and that, even if excessive scepticism could be maintained, it would not be more destructive to all just reasoning and inquiry. 107 I am convinced that, where humans are the most sure and arrogant, they are commonly the most mistaken, 108 and have there given reins to passion, without that proper deliberation and suspense, which

can alone secure them from the grossest absurdities. 109 Yet, I must confess, that this enumeration puts the matter in so strong a light, that I cannot, at PRESENT, be more assured of any truth, which I learn from reasoning and argument, 110 than that personal merit consists entirely in the usefulness or agreeableness of qualities to the person possessed of them, or to others, who have any intercourse with you. 111 But when I reflect that, though the bulk and figure of the earth have been measured and delineated, though the motions of the tides have been accounted for, the order and economy of the heavenly bodies subjected to their proper laws, 112 and Infinite itself reduced to calculation; yet men still dispute concerning the foundation of their moral duties. 113 When I reflect on this, I say, I fall back into diffidence and scepticism, 114 and suspect that an hypothesis, so obvious, had it been a true one, would, long ere now, have been received by the unanimous suffrage and consent of humankind.

PART II.

115 Having explained the moral APPROBATION attending merit or virtue, there remains nothing but briefly to consider our interested OBLIGATION to it, 116 and to inquire whether every human, who has any regard to one's own happiness and welfare, will not best find own account in the practice of every moral duty. 117 If this can be clearly ascertained from the foregoing theory, we shall have the satisfaction to reflect, that we have advanced principles, which not only, it is hoped, will stand the test of reasoning and inquiry, 118 but may contribute to the amendment of humans' lives, and their improvement in morality and social virtue. 119 And though the philosophical truth of any proposition by no means depends on its tendency to promote the interests of society; 120 yet a person has but a bad grace, who delivers a theory, however true, which, one must confess, leads to a practice dangerous and pernicious. 121 Why rake into those corners of Nature which spread a nuisance all around? Why

dig up the pestilence from the pit in which it is buried? 122 The ingenuity of your researches may be admired, but your systems will be detested; and humankind will agree, if they cannot refute them, to sink them, at least, in eternal silence and oblivion. 123 Truths which are pernicious to society, if any such there be, will yield to errors which are salutary and ADVANTAGEOUS.

124 But what philosophical truths can be more advantageous to society, than those here delivered, which represent virtue in all her genuine and most engaging charms, and makes us approach her with ease, familiarity, and affection? 125 The dismal dress falls off, with which many divines, and some philosophers, have covered her; and nothing appears but gentleness, humanity, beneficence, affability; 126 nay, even at proper intervals, play, frolic, and gaiety. She talks not of useless austerities and rigours, suffering and self-denial. 127 She declares that her sole purpose is to make her votaries and all humankind, during every instant of their existence, if possible, cheerful and happy; 128 nor does she ever willingly part with any pleasure but in hopes of ample compensation in some other period of their lives. 129 The sole trouble which she demands, is that of just calculation, and a steady preference of the greater happiness. 130 And if any austere pretenders approach her, enemies to joy and pleasure, she either rejects them as hypocrites and deceivers; or, if she admit them in her train, they are ranked, however, among the least favoured of her votaries.

131 And, indeed, to drop all figurative expression, what hopes can we ever have of engaging humankind to a practice which we confess full of austerity and rigour? 132 Or what theory of morals can ever serve any useful purpose, unless it can show, by a particular detail, that all the duties which it recommends, are also the true interest of each individual? 133 The peculiar advantage of the foregoing system seems to be, that it furnishes proper mediums for that purpose. 134 That the virtues which are immediately USEFUL or AGREEABLE to the person

possessed of them, are desirable in a view to self-interest, it would surely be superfluous to prove. 135 Moralists, indeed, may spare themselves all the pains which they often take in recommending these duties. 136 To what purpose collect arguments to evince that temperance is advantageous, and the excesses of pleasure hurtful, when it appears that these excesses are only denominated such, because they are hurtful; 137 and that, if the unlimited use of strong liquors, for instance, no more impaired health or the faculties of mind and body than the use of air or water, it would not be a whit more vicious or blameable?

138 It seems equally superfluous to prove, that the COMPANIONABLE virtues of good manners and wit, decency and genteelness, are more desirable than the contrary qualities. 139 Vanity alone, without any other consideration, is a sufficient motive to make us wish for the possession of these accomplishments. 140 No human was ever willingly deficient in this particular. All our failures here proceed from bad education, want of capacity, or a perverse and unpliable disposition. 141 Would you have your company coveted, admired, followed; rather than hated, despised, avoided? Can any one seriously deliberate in the case? 142 As no enjoyment is sincere, without some reference to company and society; so no society can be agreeable, or even tolerable, where a person feels own presence unwelcome, and discovers all around you symptoms of disgust and aversion.

143 But why, in the greater society or confederacy of humankind, should not the case be the same as in particular clubs and companies 144 Why is it more doubtful, that the enlarged virtues of humanity, generousity, beneficence, are desirable with a view of happiness and self-interest, than the limited endowments of ingenuity and politeness? 145 Are we apprehensive lest those social affections interfere, in a greater and more immediate degree than any other pursuits, with private utility, and cannot be gratified, without some important sacrifice of honour and advantage? 146 If so, we are but ill-instructed in the nature of the human passions, and

are more influenced by verbal distinctions than by real differences. 147 Whatever contradiction may vulgarly be supposed between the SELFISH and SOCIAL sentiments or dispositions, they are really no more opposite than selfish and ambitious, selfish and revengeful, selfish and vain. 148 It is requisite that there be an original propensity of some kind, in order to be a basis to self-love, by giving a relish to the objects of its pursuit; and none more fit for this purpose than benevolence or humanity. 149 The goods of fortune are spent in one gratification or another: the miser who accumulates own annual income, and lends it out at interest, has really spent it in the gratification of own avarice. 150 And it would be difficult to show why a person is more a loser by a generous action, than by any other method of expense; since the utmost which you can attain by the most elaborate selfishness, is the indulgence of some affection.

151 Now if life, without passion, must be altogether insipid and tiresome; let a human suppose that you have full power of modelling your own disposition, 152 and let you deliberate what appetite or desire you would choose for the foundation of your happiness and enjoyment. 153 Every affection, you would observe, when gratified by success, gives a satisfaction proportioned to its force and violence; 154 but besides this advantage, common to all, the immediate feeling of benevolence and friendship, humanity and kindness, is sweet, smooth, tender, and agreeable, independent of all fortune and accidents. 155 These virtues are besides attended with a pleasing consciousness or remembrance, and keep us in humour with ourselves as well as others; while we retain the agreeable reflection of having done our part towards humankind and society. 156 And though all humans show a jealousy of our success in the pursuits of avarice and ambition; yet are we almost sure of their good-will and good wishes, 157 so long as we persevere in the paths of virtue, and employ ourselves in the execution of generous plans and purposes. 158 What other passion is there where we shall find so

many advantages united; an agreeable sentiment, a pleasing consciousness, a good reputation? 159 But of these truths, we may observe, people are, of themselves, pretty much convinced; nor are they deficient in their duty to society, 160 because they would not wish to be generous, friendly, and humane; but because they do not feel themselves such.

161 Treating vice with the greatest candour, and making it all possible concessions, we must acknowledge that there is not, in any instance, the smallest pretext for giving it the preference above virtue, with a view of self-interest; 162 except, perhaps, in the case of justice, where a person, taking things in a certain light, may often seem to be a loser by own integrity. 163 And though it is allowed that, without a regard to property, no society could subsist; 164 yet according to the imperfect way in which human affairs are conducted, a sensible knave, in particular incidents, may think that an act of iniquity or infidelity will make a considerable addition to own fortune, without causing any considerable breach in the social union and confederacy. 165 That HONESTY IS THE BEST POLICY, may be a good general rule, but is liable to many exceptions; and you, it may perhaps be thought, conducts yourself with most wisdom, who observes the general rule, and takes advantage of all the exceptions. 166 I must confess that, if a person think that this reasoning much requires an answer, it would be a little difficult to find any which will to you appear satisfactory and convincing. 167 If your heart rebel not against such pernicious maxims, if you feel no reluctance to the thoughts of villainy or baseness, you have indeed lost a considerable motive to virtue; and we may expect that this practice will be answerable to your speculation. 168 But in all ingenuous natures, the antipathy to treachery and roguery is too strong to be counter-balanced by any views of profit or pecuniary advantage. 169 Inward peace of mind, consciousness of integrity, a satisfactory review of our own conduct; these are circumstances, very requisite to happiness, 170 and will be cherished and

cultivated by every honest person, who feels the importance of them. 171 Such a one has, besides, the frequent satisfaction of seeing knaves, with all their pretended cunning and abilities, betrayed by their own maxims; 172 and while they purpose to cheat with moderation and secrecy, a tempting incident occurs, their nature is frail, and they give into the snare; 173 whence they can never extricate themselves, without a total loss of reputation, and the forfeiture of all future trust and confidence with humankind. 174 But were they ever so secret and successful, the honest person, if you have any tincture of philosophy, or even common observation and reflection, will discover that they themselves are, in the end, the greatest dupes, 175 and have sacrificed the invaluable enjoyment of a character, with themselves at least, for the acquisition of worthless toys and gewgaws. 176 How little is requisite to supply the necessities of Nature? 177 And in a view to pleasure, what comparison between the unbought satisfaction of conversation, society, study, even health and the common beauties of Nature, but above all the peaceful reflection on one's own conduct; 178 what comparison, I say, between these and the feverish, empty amusements of luxury and expense? 179 These natural pleasures, indeed, are really without price; both because they are below all price in their attainment, and above it in their enjoyment.

CONCERNING MORAL SENTIMENT

David Hume

10 IF the foregoing hypothesis be received, it will now be easy for us to determine the question first started, concerning the general principles of morals; 2 and though we postponed the decision of that question, lest it should then involve us in intricate speculations, which are unfit for moral discourses, 3 we may resume it at present, and examine how far either REASON or SENTIMENT enters into all decisions of praise or censure.

4 One principal foundation of moral praise being supposed to lie in the usefulness of any quality or action, it is evident that REASON must enter for a considerable share in all decisions of this kind; 5 since nothing but that faculty can instruct us in the tendency of qualities and actions, and point out their beneficial consequences to society and to their possessor. 6 In many cases this is an affair liable to great controversy: doubts may arise; opposite interests may occur; and a preference must be given to one side, from very nice views, and a small overbalance of utility. 7 This is particularly remarkable in questions with regard to justice; as is, indeed, natural to suppose, from that species of utility which attends this virtue. 8 Were every single instance of justice, like that of benevolence, useful to society; this would be a more simple state of the case, and seldom liable to great controversy. 9 But as single instances of justice are often pernicious in their first and immediate tendency, and as the advantage to society results only from the observance of the general rule, 10 and from the concurrence and combination of several persons in the same equitable conduct; the case here becomes more intricate and involved. 11 The various circumstances of society; the various consequences of any practice; the various interests which may be proposed; these, on many occasions, are doubtful, and subject to great discussion and inquiry. 12 The object of municipal laws is to fix all the questions with regard to justice: the debates of civilians; the reflections of politicians; the precedents of history and public records, are all directed to the same purpose. 13 And a very accurate REASON or JUDGEMENT is often requisite, to give the true determination, amidst such intricate doubts arising from obscure or opposite utilities.

14 But though reason, when fully assisted and improved, be sufficient to instruct us in the pernicious or useful tendency of qualities and actions; it is not alone sufficient to produce any moral blame or approbation. 15 Utility is only a tendency to a certain end; and were the end

totally indifferent to us, we should feel the same indifference towards the means. 16 It is requisite a SENTIMENT should here display itself, in order to give a preference to the useful above the pernicious tendencies. 17 This SENTIMENT can be no other than a feeling for the happiness of humankind, and a resentment of their misery; since these are the different ends which virtue and vice have a tendency to promote. 18 Here therefore REASON instructs us in the several tendencies of actions, and HUMANITY makes a distinction in favour of those which are useful and beneficial.

19 This partition between the faculties of understanding and sentiment, in all moral decisions, seems clear from the preceding hypothesis. 20 But I shall suppose that hypothesis false: it will then be requisite to look out for some other theory that may be satisfactory; 21 and I dare venture to affirm that none such will ever be found, so long as we suppose reason to be the sole source of morals. 22 To prove this, it will be proper to weigh the five following considerations.

I. It is easy for a false hypothesis to maintain some appearance of truth, while it keeps wholly in generals, makes use of undefined terms, and employs comparisons, instead of instances. 23 This is particularly remarkable in that philosophy, which ascribes the discernment of all moral distinctions to reason alone, without the concurrence of sentiment. 24 It is impossible that, in any particular instance, this hypothesis can so much as be rendered intelligible, whatever specious figure it may make in general declamations and discourses. 25 Examine the crime of INGRATITUDE, for instance; which has place, wherever we observe good-will, expressed and known, together with good-offices performed, on the one side, and a return of ill-will or indifference, with ill-offices or neglect on the other: 26 anatomise all these circumstances, and examine, by your reason alone, in what consists the demerit or blame. You never will come to any issue or conclusion.

27 Reason judges either of MATTER OF FACT or of RELATIONS. Enquire

then, first, where is that matter of fact which we here call crime; 28 point it out; determine the time of its existence; describe its essence or its nature; explain the sense or faculty to which it discovers itself. 29 It resides in the mind of the person who is ungrateful. You must, therefore, feel it, and be conscious of it. 30 But nothing is there, except the passion of ill-will or absolute indifference. You cannot say that these, of themselves, always, and in all circumstances, are crimes. 31 No, they are only crimes when directed towards persons who have before expressed and displayed good-will towards us. 32 Consequently, we may infer, that the crime of ingratitude is not any particular individual FACT; 33 but arises from a complication of circumstances, which, being presented to the spectator, excites the SENTIMENT of blame, by the particular structure and fabric of own mind. 34 This representation, you say, is false. Crime, indeed, consists not in a particular FACT, of whose reality we are assured by reason; 35 but it consists in certain MORAL RELATIONS, discovered by reason, in the same manner as we discover by reason the truths of geometry or algebra.

36 But what are the relations, I ask, of which you here talk? In the case stated above, I see first good-will and good-offices in one person; then ill-will and ill-offices in the other. 37 Between these, there is a relation of CONTRARIETY. Does the crime consist in that relation? 38 But suppose a person bore me ill-will or did me ill-offices; and I, in return, were indifferent towards him, or did him good offices. Here is the same relation of CONTRARIETY; and yet my conduct is often highly laudable. 39 Twist and turn this matter as much as you will, you can never rest the morality on relation; but must have recourse to the decisions of sentiment.

40 When it is affirmed that two and three are equal to the half of ten, this relation of equality I understand perfectly. 41 I conceive, that if ten be divided into two parts, of which one has as many units as the other; and if any of these parts be compared to two added to three, it will contain as many units as that compound

number. 42 But when you draw thence a comparison to moral relations, I own that I am altogether at a loss to understand you. 43 A moral action, a crime, such as ingratitude, is a complicated object. Does the morality consist in the relation of its parts to each other? How? After what manner? 44 Specify the relation: be more particular and explicit in your propositions, and you will easily see their falsehood. 45 No, say you, the morality consists in the relation of actions to the rule of right; and they are denominated good or ill, according as they agree or disagree with it. 46 What then is this rule of right? In what does it consist? How is it determined? 47 By reason, you say, which examines the moral relations of actions. So that moral relations are determined by the comparison of action to a rule. 48 And that rule is determined by considering the moral relations of objects. Is not this fine reasoning? All this is metaphysics, you cry. 49 That is enough; there needs nothing more to give a strong presumption of falsehood. 50 Yes, reply I, here are metaphysics surely; but they are all on your side, who advance an abstruse hypothesis, which can never be made intelligible, nor quadrate with any particular instance or illustration. 51 The hypothesis which we embrace is plain. It maintains that morality is determined by sentiment. 52 It defines virtue to be WHATEVER MENTAL ACTION OR QUALITY GIVES TO A SPECTATOR THE PLEASING SENTIMENT OF APPROBATION; and vice the contrary. 53 We then proceed to examine a plain matter of fact, to wit, what actions have this influence. 54 We consider all the circumstances in which these actions agree, and thence endeavour to extract some general observations with regard to these sentiments. 55 If you call this metaphysics, and find anything abstruse here, you need only conclude that your turn of mind is not suited to the moral sciences.

56 II. When a person, at any time, deliberates concerning own conduct (as, whether you had better, in a particular emergence, assist a fellow or a benefactor), 57 you must consider these separate relations, with all the

circumstances and situations of the persons, in order to determine the superior duty and obligation; 58 and in order to determine the proportion of lines in any triangle, it is necessary to examine the nature of that figure, and the relation which its several parts bear to each other. 59 But notwithstanding this appearing similarity in the two cases, there is, at bottom, an extreme difference between them. 60 A speculative reasoner concerning triangles or circles considers the several known and given relations of the parts of these figures; and thence infers some unknown relation, which is dependent on the former.

61 But in moral deliberations we must be acquainted beforehand with all the objects, and all their relations to each other; and from a comparison of the whole, fix our choice or approbation. 62 No new fact to be ascertained; no new relation to be discovered. All the circumstances of the case are supposed to be laid before us, ere we can fix any sentence of blame or approbation. 63 If any material circumstance be yet unknown or doubtful, we must first employ our inquiry or intellectual faculties to assure us of it; and must suspend for a time all moral decision or sentiment. 64 While we are ignorant whether a person were aggressor or not, how can we determine whether the person who killed someone be criminal or innocent? 65 But after every circumstance, every relation is known, the understanding has no further room to operate, nor any object on which it could employ itself. 66 The approbation or blame which then ensues, cannot be the work of the judgement, but of the heart; and is not a speculative proposition or affirmation, but an active feeling or sentiment. 67 In the disquisitions of the understanding, from known circumstances and relations, we infer some new and unknown. 68 In moral decisions, all the circumstances and relations must be previously known; and the mind, from the contemplation of the whole, feels some new impression of affection or disgust, esteem or contempt, approbation or blame. 69 Hence the great difference between a mistake of

FACT and one of RIGHT; and hence the reason why the one is commonly criminal and not the other.

70 When Oedipus killed Laius, he was ignorant of the relation, and from circumstances, innocent and involuntary, formed erroneous opinions concerning the action which he committed. 71 But when Nero killed Agrippina, all the relations between himself and the person, and all the circumstances of the fact, were previously known to him; 72 but the motive of revenge, or fear, or interest, prevailed in his savage heart over the sentiments of duty and humanity. 73 And when we express that detestation against him to which he himself, in a little time, became insensible, it is not that we see any relations, of which he was ignorant; 74 but that, for the rectitude of our disposition, we feel sentiments against which he was hardened from flattery and a long perseverance in the most enormous crimes.

75 In these sentiments then, not in a discovery of relations of any kind, do all moral determinations consist. 76 Before we can pretend to form any decision of this kind, everything must be known and ascertained on the side of the object or action. 77 Nothing remains but to feel, on our part, some sentiment of blame or approbation; whence we pronounce the action criminal or virtuous.

78 III. This doctrine will become still more evident, if we compare moral beauty with natural, to which in many particulars it bears so near a resemblance. 79 It is on the proportion, relation, and position of parts, that all natural beauty depends; 80 but it would be absurd thence to infer, that the perception of beauty, like that of truth in geometrical problems, consists wholly in the perception of relations, and was performed entirely by the understanding or intellectual faculties. 81 In all the sciences, our mind from the known relations investigates the unknown. 82 But in all decisions of taste or external beauty, all the relations are beforehand obvious to the eye; 83 and we thence proceed to feel a sentiment of complacency or disgust, according

to the nature of the object, and disposition of our organs.

84 Euclid has fully explained all the qualities of the circle; but has not in any proposition said a word of its beauty. 85 The reason is evident. The beauty is not a quality of the circle. It lies not in any part of the line, whose parts are equally distant from a common centre. 86 It is only the effect which that figure produces upon the mind, whose peculiar fabric of structure renders it susceptible of such sentiments. 87 In vain would you look for it in the circle, or seek it, either by your senses or by mathematical reasoning, in all the properties of that figure.

88 Attend to Palladio and Perrault, while they explain all the parts and proportions of a pillar. 89 They talk of the cornice, and frieze, and base, and entablature, and shaft, and architrave; and give the description and position of each of these members. 90 But should you ask the description and position of its beauty, they would readily reply, that the beauty is not in any of the parts or members of a pillar, but results from the whole, 91 when that complicated figure is presented to an intelligent mind, susceptible to those finer sensations. 92 Till such a spectator appear, there is nothing but a figure of such particular dimensions and proportions: from own sentiments alone arise its elegance and beauty.

93 Again; attend to Cicero, while he paints the crimes of a Verres or a Catiline. You must acknowledge that the moral turpitude results, 94 in the same manner, from the contemplation of the whole, when presented to a being whose organs have such a particular structure and formation. 95 The orator may paint rage, insolence, barbarity on the one side; meekness, suffering, sorrow, innocence on the other. 96 But if you feel no indignation or compassion arise in you from this complication of circumstances, you would in vain ask, in what consists the crime or villainy, which you so vehemently exclaims against? 97 At what time, or on what subject it first began to exist? 98 And what has a few months afterwards become of it, when every disposition and thought of all the actors is totally altered or

annihilated? 99 No satisfactory answer can be given to any of these questions, upon the abstract hypothesis of morals; 100 and we must at last acknowledge, that the crime or immorality is no particular fact or relation, which can be the object of the understanding, but arises entirely from the sentiment of disapprobation, 101 which, by the structure of human nature, we unavoidably feel on the apprehension of barbarity or treachery.

102 IV. Inanimate objects may bear to each other all the same relations which we observe in moral agents; though the former can never be the object of love or hatred, nor are consequently susceptible of merit or iniquity. 103 A young tree, which over-tops and destroys its parent, stands in all the same relations with Nero, when he murdered Agrippina; and if morality consisted merely in relations, would no doubt be equally criminal.

104 V. It appears evident that-- the ultimate ends of human actions can never, in any case, be accounted for by reason, but recommend themselves entirely to the sentiments and affections of humankind, without any dependance on the intellectual faculties. 105 Ask a person WHY WE USES EXERCISE; you will answer, BECAUSE WE DESIRES TO KEEP OUR HEALTH. If you then enquire, WHY Y'ALL DESIRES HEALTH, you will readily reply, BECAUSE SICKNESS IS PAINFUL. 106 If you push your enquiries farther, and desire a reason WHY WE HATES PAIN, it is impossible you can ever give any. This is an ultimate end, and is never referred to any other object. 107 Perhaps to your second question, WHY WE DESIRES HEALTH, you may also reply, that IT IS NECESSARY FOR THE EXERCISE OF YOUR CALLING. 108 If you ask, WHY WE ARE ANXIOUS ON THAT HEAD, you will answer, BECAUSE WE DESIRES TO GET MONEY. If you demand WHY? IT IS THE INSTRUMENT OF PLEASURE, says you. 109 And beyond this it is an absurdity to ask for a reason. It is impossible there can be a progress IN INFINITUM; 110 and that one thing can always be a reason why another is desired. 111 Something

must be desirable on its own account, and because of its immediate accord or agreement with human sentiment and affection.

112 Now as virtue is an end, and is desirable on its own account, without fee and reward, merely for the immediate satisfaction which it conveys; 113 it is requisite that there should be some sentiment which it touches, some internal taste or feeling, or whatever you may please to call it, which distinguishes moral good and evil, and which embraces the one and rejects the other. 114 Thus the distinct boundaries and offices of REASON and of TASTE are easily ascertained. The former conveys the knowledge of truth and falsehood: the latter gives the sentiment of beauty and deformity, vice and virtue. 115 The one discovers objects as they really stand in Nature, without addition and diminution: 116 the other has a productive faculty, and gilding or staining all natural objects with the colours, borrowed from internal sentiment, raises in a manner a new creation. 117 Reason being cool and disengaged, is no motive to action, and directs only the impulse received from appetite or inclination, by showing us the means of attaining happiness or avoiding misery: 118 Taste, as it gives pleasure or pain, and thereby constitutes happiness or misery, becomes a motive to action, and is the first spring or impulse to desire and volition. 119 From circumstances and relations, known or supposed, the former leads us to the discovery of the concealed and unknown: 120 after all circumstances and relations are laid before us, the latter makes us feel from the whole a new sentiment of blame or approbation. 121 The standard of the one, being founded on the nature of things, is eternal and inflexible, even by the will of the Supreme Being: 122 the standard of the other arising from the eternal frame and constitution of animals, is ultimately derived from that Supreme Will, which bestowed on each being its peculiar nature, and arranged the several classes and orders of existence.

MORALS

OF SELF-LOVE
David Hume

11 THERE is a principle, supposed to prevail among many, which is utterly incompatible with all virtue or moral sentiment; 2 and as it can proceed from nothing but the most depraved disposition, so in its turn it tends still further to encourage that depravity. 3 This principle is, that all BENEVOLENCE is mere hypocrisy, friendship a cheat, public spirit a farce, fidelity a snare to procure trust and confidence; 4 and that while all of us, at bottom, pursue only our private interest, we wear these fair disguises, in order to put others off their guard, and expose them the more to our wiles and machinations. 5 What heart one must be possessed of who possesses such principles, and who feels no internal sentiment that belies so pernicious a theory, it is easy to imagine: 6 and also what degree of affection and benevolence you can bear to a species whom you represents under such odious colours, and supposes so little susceptible of gratitude or any return of affection. 7 Or if we should not ascribe these principles wholly to a corrupted heart, we must at least account for them from the most careless and precipitate examination.

8 Superficial reasoners, indeed, observing many false pretences among humankind, and feeling, perhaps, no very strong restraint in their own disposition, might draw a general and a hasty conclusion that all is equally corrupted, 9 and that humans, different from all other animals, and indeed from all other species of existence, admit of no degrees of good or bad, but are, in every instance, the same creatures under different disguises and appearances. 10 There is another principle, somewhat resembling the former; which has been much insisted on by philosophers, and has been the foundation of many a system; 11 that, whatever affection one may feel, or imagine you feels for others, no passion is, or can be disinterested; 12 that the most generous friendship, however sincere, is a modification of self-love; 13 and that, even unknown to ourselves, we seek only our own

gratification, while we appear the most deeply engaged in schemes for the liberty and happiness of humankind. 14 By a turn of imagination, by a refinement of reflection, by an enthusiasm of passion, we seem to take part in the interests of others, and imagine ourselves divested of all selfish considerations: 15 but, at bottom, the most generous patriot and most niggardly miser, the bravest hero and most abject coward, have, in every action, an equal regard to their own happiness and welfare. 16 Whoever concludes from the seeming tendency of this opinion, that those, who make profession of it, cannot possibly feel the true sentiments of benevolence, or have any regard for genuine virtue, will often find oneself, in practice, very much mistaken.

17 Probity and honour were no strangers to Epicurus and his sect. 18 Atticus and Horace seem to have enjoyed from Nature, and cultivated by reflection, as generous and friendly dispositions as any disciple of the austerer schools. 19 And among the modern, Hobbes and Locke, who maintained the selfish system of morals, lived irreproachable lives; 20 though the former lay not under any restraint of religion which might supply the defects of his philosophy. 21 An epicurean or a Hobbist readily allows, that there is such a thing as a friendship in the world, without hypocrisy or disguise; 22 though he may attempt, by a philosophical chemistry, to resolve the elements of this passion, if I may so speak, into those of another, 23 and explain every affection to be self-love, twisted and moulded, by a particular turn of imagination, into a variety of appearances. 24 But as the same turn of imagination prevails not in every human, nor gives the same direction to the original passion; 25 this is sufficient even according to the selfish system to make the widest difference in human characters, and denominate one human virtuous and humane, another vicious and meanly interested.

26 I esteem the person whose self-love, by whatever means, is so directed as to give you a concern for others, and render you serviceable to society: 27 as I hate or despise you, who has no regard

to any thing beyond your own gratifications and enjoyments. 28 In vain would you suggest that these characters, though seemingly opposite, are at bottom the same, and that a very inconsiderable turn of thought forms the whole difference between them. 29 Each character, notwithstanding these inconsiderable differences, appears to me, in practice, pretty durable and untransmutable. 30 And I find not in this more than in other subjects, that the natural sentiments arising from the general appearances of things are easily destroyed by subtile reflections concerning the minute origin of these appearances. 31 Does not the lively, cheerful colour of a countenance inspire me with complacency and pleasure; 32 even though I learn from philosophy that all difference of complexion arises from the most minute differences of thickness, in the most minute parts of the skin; 33 by means of which a superficies is qualified to reflect one of the original colours of light, and absorb the others?

34 But though the question concerning the universal or partial selfishness of human be not so material as is usually imagined to morality and practice, 35 it is certainly of consequence in the speculative science of human nature, and is a proper object of curiosity and enquiry. 36 It may not, therefore, be unsuitable, in this place, to bestow a few reflections upon it. 37 The most obvious objection to the selfish hypothesis is, that, as it is contrary to common feeling and our most unprejudiced notions, there is required the highest stretch of philosophy to establish so extraordinary a paradox. 38 To the most careless observer there appear to be such dispositions as benevolence and generousity; such affections as love, friendship, compassion, gratitude. 39 These sentiments have their causes, effects, objects, and operations, marked by common language and observation, and plainly distinguished from those of the selfish passions. 40 And as this is the obvious appearance of things, it must be admitted, till some hypothesis be discovered, which by penetrating deeper into human nature, may prove the former

affections to be nothing but modifications of the latter. 41 All attempts of this kind have hitherto proved fruitless, and seem to have proceeded entirely from that love of SIMPLICITY which has been the source of much false reasoning in philosophy. 42 I shall not here enter into any detail on the present subject. Many able philosophers have shown the insufficiency of these systems. And I shall take for granted what, I believe, the smallest reflection will make evident to every impartial enquirer.

43 But the nature of the subject furnishes the strongest presumption, that no better system will ever, for the future, be invented, 44 in order to account for the origin of the benevolent from the selfish affections, and reduce all the various emotions of the human mind to a perfect simplicity. 45 The case is not the same in this species of philosophy as in physics. Many an hypothesis in Nature, contrary to first appearances, has been found, on more accurate scrutiny, solid and satisfactory. 46 Instances of this kind are so frequent that a judicious, as well as witty philosopher, has ventured to affirm, if there be more than one way in which any phenomenon may be produced, 47 that there is general presumption for its arising from the causes which are the least obvious and familiar. 48 But the presumption always lies on the other side, in all enquiries concerning the origin of our passions, and of the internal operations of the human mind. 49 The simplest and most obvious cause which can there be assigned for any phenomenon, is probably the true one. 50 When a philosopher, in the explication of own system, is obliged to have recourse to some very intricate and refined reflections, and to suppose them essential to the production of any passion or emotion, we have reason to be extremely on our guard against so fallacious an hypothesis. 51 The affections are not susceptible of any impression from the refinements of reason or imagination; 52 and it is always found that a vigorous exertion of the latter faculties, necessarily, from the narrow capacity of the human mind, destroys all activity

in the former. 53 Our predominant motive or intention is, indeed, frequently concealed from ourselves when it is mingled and confounded with other motives which the mind, from vanity or self-conceit, is desirous of supposing more prevalent: 54 but there is no instance that a concealment of this nature has ever arisen from the abstruseness and intricacy of the motive. 55 A person that has lost a friend and patron may flatter oneself that all own grief arises from generous sentiments, without any mixture of narrow or interested considerations: 56 but a person that grieves for a valuable friend, who needed your patronage and protection; how can we suppose, that your passionate tenderness arises from some metaphysical regards to a self-interest, which has no foundation or reality? 57 We may as well imagine that minute wheels and springs, like those of a watch, give motion to a loaded waggon, as account for the origin of passion from such abstruse reflections.

58 Animals are found susceptible of kindness, both to their own species and to ours; nor is there, in this case, the least suspicion of disguise or artifice. 59 Shall we account for all THEIR sentiments, too, from refined deductions of self-interest? 60 Or if we admit a disinterested benevolence in the inferior species, by what rule of analogy can we refuse it in the superior?

61 Love between the sexes begets a complacency and good-will, very distinct from the gratification of an appetite. 62 Tenderness to their offspring, in all sensible beings, is commonly able alone to counter-balance the strongest motives of self-love, and has no manner of dependance on that affection. 63 What interest can a fond mother have in view, who loses her health by assiduous attendance on her sick child, and afterwards languishes and dies of grief, when freed, by its death, from the slavery of that attendance? 64 Is gratitude no affection of the human breast, or is that a word merely, without any meaning or reality? 65 Have we no satisfaction in one human's company above another's, and no desire of the welfare of our friend, even though

absence or death should prevent us from all participation in it? 66 Or what is it commonly, that gives us any participation in it, even while alive and present, but our affection and regard to you?

67 These and a thousand other instances are marks of a general benevolence in human nature, where no REAL interest binds us to the object. 68 And how an IMAGINARY interest known and avowed for such, can be the origin of any passion or emotion, seems difficult to explain. 69 No satisfactory hypothesis of this kind has yet been discovered; nor is there the smallest probability that the future industry of humans will ever be attended with more favourable success. 70 But farther, if we consider rightly of the matter, we shall find that the hypothesis which allows of a disinterested benevolence, distinct from self-love, has really more SIMPLICITY in it, 71 and is more conformable to the analogy of Nature than that which pretends to resolve all friendship and humanity into this latter principle. 72 There are bodily wants or appetites acknowledged by every one, which necessarily precede all sensual enjoyment, and carry us directly to seek possession of the object. 73 Thus, hunger and thirst have eating and drinking for their end; 74 and from the gratification of these primary appetites arises a pleasure, which may become the object of another species of desire or inclination that is secondary and interested.

75 In the same manner there are mental passions by which we are impelled immediately to seek particular objects, such as fame or power, or vengeance without any regard to interest; 76 and when these objects are attained a pleasing enjoyment ensues, as the consequence of our indulged affections. 77 Nature must, by the internal frame and constitution of the mind, give an original propensity to fame, ere we can reap any pleasure from that acquisition, or pursue it from motives of self-love, and desire of happiness. 78 If I have no vanity, I take no delight in praise: if I be void of ambition, power gives me no enjoyment: if I be not angry, the punishment of an adversary is totally indifferent to me. 79 In all

these cases there is a passion which points immediately to the object, and constitutes it our good or happiness; 80 as there are other secondary passions which afterwards arise, and pursue it as a part of our happiness, when once it is constituted such by our original affections. 81 Were there no appetite of any kind antecedent to self-love, that propensity could scarcely ever exert itself; 82 because we should, in that case, have felt few and slender pains or pleasures, and have little misery or happiness to avoid or to pursue.

83 Now where is the difficulty in conceiving, that this may likewise be the case with benevolence and friendship, 84 and that, from the original frame of our temper, we may feel a desire of another's happiness or good, which, by means of that affection, becomes our own good, and is afterwards pursued, from the combined motives of benevolence and self-enjoyments? 85 Who sees not that vengeance, from the force alone of passion, may be so eagerly pursued, as to make us knowingly neglect every consideration of ease, interest, or safety; 86 and, like some vindictive animals, infuse our very souls into the wounds we give an enemy; 87 and what a malignant philosophy must it be, that will not allow to humanity and friendship the same privileges which are undisputably granted to the darker passions of enmity and resentment; 88 such a philosophy is more like a satyr than a true delineation or description of human nature; and may be a good foundation for paradoxical wit and raillery, but is a very bad one for any serious argument or reasoning.

SOME FARTHER CONSIDERATIONS WITH REGARD TO JUSTICE

David Hume

12 The intention of this Appendix is to give some more particular explication of the origin and nature of Justice, and to mark some differences between it and the other virtues. 2 The social virtues of humanity and benevolence exert their influence immediately by a direct tendency or instinct, 3 which chiefly keeps in view the simple object, moving

the affections, and comprehends not any scheme or system, nor the consequences resulting from the concurrence, imitation, or example of others. 4 A parent flies to the relief of own child; transported by that natural sympathy which actuates one, and which affords no leisure to reflect on the sentiments or conduct of the rest of humankind in like circumstances. 5 A generous person cheerfully embraces an opportunity of serving own friend; because you then feels yourself under the dominion of the beneficent affections, 6 nor are you concerned whether any other person in the universe were ever before actuated by such noble motives, or will ever afterwards prove their influence. 7 In all these cases the social passions have in view a single individual object, and pursue the safety or happiness alone of the person loved and esteemed. 8 With this they are satisfied: in this they acquiesce. And as the good, resulting from their benign influence, is in itself complete and entire, 9 it also excites the moral sentiment of approbation, without any reflection on farther consequences, and without any more enlarged views of the concurrence or imitation of the other members of society. 10 On the contrary, were the generous friend or disinterested patriot to stand alone in the practice of beneficence, this would rather enhance your value in our eyes, and join the praise of rarity and novelty to your other more exalted merits.

11 The case is not the same with the social virtues of justice and fidelity. They are highly useful, or indeed absolutely necessary to the well-being of humankind: 12 but the benefit resulting from them is not the consequence of every individual single act; but arises from the whole scheme or system concurred in by the whole, or the greater part of the society. 13 General peace and order are the attendants of justice or a general abstinence from the possessions of others; 14 but a particular regard to the particular right of one individual citizen may frequently considered in itself, be productive of pernicious consequences. 15 The result of the individual acts is here, in many instances, directly

opposite to that of the whole system of actions; and the former may be extremely hurtful, while the latter is, to the highest degree, advantageous. 16 Riches, inherited from a parent, are, in a bad person's hand, the instrument of mischief. 17 The right of succession may, in one instance, be hurtful. Its benefit arises only from the observance of the general rule; 18 and it is sufficient, if compensation be thereby made for all the ills and inconveniences which flow from particular characters and situations.

19 Cyrus, young and unexperienced, considered only the individual case before him, and reflected on a limited fitness and convenience, when he assigned the long coat to the tall boy, and the short coat to the other of smaller size. 20 His governor instructed him better, while he pointed out more enlarged views and consequences, and informed his pupil of the general, inflexible rules, necessary to support general peace and order in society.

21 The happiness and prosperity of humankind, arising from the social virtue of benevolence and its subdivisions, may be compared to a wall, built by many hands, 22 which still rises by each stone that is heaped upon it, and receives increase proportional to the diligence and care of each workman. 23 The same happiness, raised by the social virtue of justice and its subdivisions, may be compared to the building of a vault, where each individual stone would, of itself, fall to the ground; 24 nor is the whole fabric supported but by the mutual assistance and combination of its corresponding parts.

25 All the laws of Nature, which regulate property, as well as all civil laws, are general, and regard alone some essential circumstances of the case, without taking into consideration the characters, situations, and connexions of the person concerned, 26 or any particular consequences which may result from the determination of these laws in any particular case which offers. 27 They deprive, without scruple, a beneficent person of all own possessions, if acquired by mistake, without a good title; in order to bestow them on a selfish

miser, who has already heaped up immense stores of superfluous riches. 28 Public utility requires that property should be regulated by general inflexible rules; 29 and though such rules are adopted as best serve the same end of public utility, it is impossible for them to prevent all particular hardships, or make beneficial consequences result from every individual case. 30 It is sufficient, if the whole plan or scheme be necessary to the support of civil society, and if the balance of good, in the main, do thereby preponderate much above that of evil. 31 Even the general laws of the universe, though planned by infinite wisdom, cannot exclude all evil or inconvenience in every particular operation.

32 It has been asserted by some, that justice arises from Human Conventions, and proceeds from the voluntary choice, consent, or combination of humankind. 33 If by CONVENTION be here meant a PROMISE (which is the most usual sense of the word) nothing can be more absurd than this position. 34 The observance of promises is itself one of the most considerable parts of justice, and we are not surely bound to keep our word because we have given our word to keep it. 35 But if by convention be meant a sense of common interest, which sense each human feels in your own breast, 36 which you remarks in your fellows, and which carries you, in concurrence with others, into a general plan or system of actions, which tends to public utility; 37 it must be owned, that, in this sense, justice arises from human conventions. 38 For if it be allowed (what is, indeed, evident) that the particular consequences of a particular act of justice may be hurtful to the public as well as to individuals; 39 it follows that every person, in embracing that virtue, must have an eye to the whole plan or system, and must expect the concurrence of your fellows in the same conduct and behaviour. 40 Did all your views terminate in the consequences of each act of your own, your benevolence and humanity, as well as your self-love, might often prescribe to you measures of conduct very different from those which are agreeable to the strict rules of right and justice.

41 Thus, two people pull the oars of a boat by common convention for common interest, without any promise or contract; 42 thus gold and silver are made the measures of exchange; thus speech and words and language are fixed by human convention and agreement. 43 Whatever is advantageous to two or more persons, if all perform their part; 44 but what loses all advantage if only one perform, can arise from no other principle, there would otherwise be no motive for any one of them to enter into that scheme of conduct.

45 The word NATURAL is commonly taken in so many senses and is of so loose a signification, that it seems vain to dispute whether justice be natural or not. 46 If self-love, if benevolence be natural to human; if reason and forethought be also natural; then may the same epithet be applied to justice, order, fidelity, property, society. 47 Humans' inclination, their necessities, lead them to combine; their understanding and experience tell them that this combination is impossible where each governs oneself by no rule, and pays no regard to the possessions of others: 48 and from these passions and reflections conjoined, as soon as we observe like passions and reflections in others, the sentiment of justice, throughout all ages, has infallibly and certainly had place to some degree or other in every individual of the human species. 49 In so sagacious an animal, what necessarily arises from the exertion of your intellectual faculties may justly be esteemed natural.

50 Among all civilised nations it has been the constant endeavour to remove everything arbitrary and partial from the decision of property, 51 and to fix the sentence of judges by such general views and considerations as may be equal to every member of society. 52 For besides, that nothing could be more dangerous than to accustom the bench, even in the smallest instance, to regard private friendship or enmity; 53 it is certain, that humans, where they imagine that there was no other reason for the preference of their adversary but personal favour, are apt to entertain the strongest ill-will against the magistrates and

judges. 54 When natural reason, therefore, points out no fixed view of public utility by which a controversy of property can be decided, positive laws are often framed to supply its place, and direct the procedure of all courts of judicature. 55 Where these too fail, as often happens, precedents are called for; and a former decision, though given itself without any sufficient reason, justly becomes a sufficient reason for a new decision. 56 If direct laws and precedents be wanting, imperfect and indirect ones are brought in aid; 57 and the controverted case is ranged under them by analogical reasonings and comparisons, and similitudes, and correspondencies, which are often more fanciful than real. 58 In general, it may safely be affirmed that jurisprudence is, in this respect, different from all the sciences; and that in many of its nicer questions, there cannot properly be said to be truth or falsehood on either side. 59 If one pleader bring the case under any former law or precedent, by a refined analogy or comparison; the opposite pleader is not at a loss to find an opposite analogy or comparison: 60 and the preference given by the judge is often founded more on taste and imagination than on any solid argument. 61 Public utility is the general object of all courts of judicature; and this utility too requires a stable rule in all controversies: 62 but where several rules, nearly equal and indifferent, present themselves, it is a very slight turn of thought which fixes the decision in favour of either party.

63 We may just observe, before we conclude this subject, that after the laws of justice are fixed by views of general utility, the injury, the hardship, the harm, which result to any individual from a violation of them, enter very much into consideration, 64 and are a great source of that universal blame which attends every wrong or iniquity. 65 By the laws of society, this coat, this horse is mine, and OUGHT to remain perpetually in my possession: I reckon on the secure enjoyment of it: 66 by depriving me of it, you disappoint my expectations, and doubly displease me, and offend every

bystander. 67 It is a public wrong, so far as the rules of equity are violated: it is a private harm, so far as an individual is injured. 68 And though the second consideration could have no place, were not the former previously established: for otherwise the distinction of MINE and THINE would be unknown in society: 69 yet there is no question but the regard to general good is much enforced by the respect to particular. 70 What injures the community, without hurting any individual, is often more lightly thought of. 71 But where the greatest public wrong is also conjoined with a considerable private one, no wonder the highest disapprobation attends so iniquitous a behaviour.

OF SOME VERBAL DISPUTES.

David Hume

13 Nothing is more usual than for philosophers to encroach upon the province of grammarians; and to engage in disputes of words, while they imagine that they are handling controversies of the deepest importance and concern. 2 It was in order to avoid altercations, so frivolous and endless, that I endeavoured to state with the utmost caution the object of our present enquiry; 3 and proposed simply to collect, on the one hand, a list of those mental qualities which are the object of love or esteem, and form a part of personal merit; 4 and on the other hand, a catalogue of those qualities which are the object of censure or reproach, and which detract from the character of the person possessed of them; 5 subjoining some reflections concerning the origin of these sentiments of praise or blame. 6 On all occasions, where there might arise the least hesitation, I avoided the terms VIRTUE and VICE; 7 because some of those qualities, which I classed among the objects of praise, receive, in the English language, the appellation of TALENTS, rather than of virtues; 8 as some of the blameable or censurable qualities are often called defects, rather than vices. 9 It may now, perhaps, be expected that before we conclude this moral enquiry, we should exactly separate the one from the other; 10 should mark the precise

boundaries of virtues and talents, vices and defects; and should explain the reason and origin of that distinction. 11 But in order to excuse myself from this undertaking, which would, at last, prove only a grammatical enquiry, I shall subjoin the four following reflections, which shall contain all that I intend to say on the present subject.

12 First, I do not find that in the English, or any other modern tongue, the boundaries are exactly fixed between virtues and talents, vices and defects, or that a precise definition can be given of the one as contradistinguished from the other. 13 Were we to say, for instance, that the esteemable qualities alone, which are voluntary, are entitled to the appellations of virtues; we should soon recollect the qualities of courage, equanimity, patience, self-command; 14 with many others, which almost every language classes under this appellation, though they depend little or not at all on our choice. 15 Should we affirm that the qualities alone, which prompt us to act our part in society, are entitled to that honourable distinction; 16 it must immediately occur that these are indeed the most valuable qualities, and are commonly denominated the SOCIAL virtues; 17 but that this very epithet supposes that there are also virtues of another species. 18 Should we lay hold of the distinction between INTELLECTUAL and MORAL endowments, and affirm the last alone to be the real and genuine virtues, because they alone lead to action; 19 we should find that many of those qualities, usually called intellectual virtues, such as prudence, penetration, discernment, discretion, had also a considerable influence on conduct. 20 The distinction between the heart and the head may also be adopted: the qualities of the first may be defined such as in their immediate exertion are accompanied with a feeling of sentiment; and these alone may be called the genuine virtues: 21 but industry, frugality, temperance, secrecy, perseverance, and many other laudable powers or habits, generally stilled virtues are exerted without any immediate sentiment in the person possessed of them,

and are only known to you by their effects. 22 It is fortunate, amidst all this seeming perplexity, that the question, being merely verbal, cannot possibly be of any importance. 23 A moral, philosophical discourse needs not enter into all these caprices of language, which are so variable in different dialects, and in different ages of the same dialect. 24 But on the whole, it seems to me, that though it is always allowed, that there are virtues of many different kinds, 25 yet, when a person is called virtuous, or is denominated a person of virtue, we chiefly regard your social qualities, which are, indeed, the most valuable. 26 It is, at the same time, certain, that any remarkable defect in courage, temperance, economy, industry, understanding, dignity of mind, would bereave even a very good-natured, honest person of this honourable appellation. 27 Who did ever say, except by way of irony, that such a one was a person of great virtue, but an egregious blockhead?

28 But, Secondly, it is no wonder that languages should not be very precise in marking the boundaries between virtues and talents, vices and defects; since there is so little distinction made in our internal estimation of them. 29 It seems indeed certain, that the SENTIMENT of conscious worth, the self-satisfaction proceeding from a review of a human's own conduct and character; 30 it seems certain, I say, that this sentiment, which, though the most common of all others, has no proper name in our language, arises from the endowments of courage and capacity, industry and ingenuity, as well as from any other mental excellencies. 31 Who, on the other hand, is not deeply mortified with reflecting on own folly and dissoluteness, and feels not a secret sting or compunction whenever your memory presents any past occurrence, where you behaved with stupidity of ill-manners? 32 No time can efface the cruel ideas of a person's own foolish conduct, or of affronts, which cowardice or impudence has brought upon you. 33 They still haunt your solitary hours, damp your most aspiring thoughts, and show you, even to yourself, in the

most contemptible and most odious colours imaginable. 34 What is there too we are more anxious to conceal from others than such blunders, infirmities, and meannesses, or more dread to have exposed by raillery and satire? 35 And is not the chief object of vanity, our bravery or learning, our wit or breeding, our eloquence or address, our taste or abilities? 36 These we display with care, if not with ostentation; and we commonly show more ambition of excelling in them, than even in the social virtues themselves, which are, in reality, of such superior excellence. 37 Good-nature and honesty, especially the latter, are so indispensably required, that, though the greatest censure attends any violation of these duties, no eminent praise follows such common instances of them, as seem essential to the support of human society. 38 And hence the reason, in my opinion, why, though humans often extol so liberally the qualities of their heart, they are shy in commending the endowments of their head: 39 because the latter virtues, being supposed more rare and extraordinary, are observed to be the more usual objects of pride and self-conceit; and when boasted of, beget a strong suspicion of these sentiments.

40 It is hard to tell, whether you hurt a person's character most by calling one a knave or a coward, and whether a beastly glutton or drunkard be not as odious and contemptible, as a selfish, ungenerous miser. 41 Give me my choice, and I would rather, for my own happiness and self-enjoyment, have a friendly, humane heart, than possess all the other virtues of Demosthenes and Philip united: 42 but I would rather pass with the world for one endowed with extensive genius and intrepid courage, and should thence expect stronger instances of general applause and admiration. 43 The figure which a person makes in life, the reception which you meets with in company, the esteem paid you by your acquaintance; 44 all these advantages depend as much upon your good sense and judgement, as upon any other part of your character. 45 Had a person the best

intentions in the world, and were the farthest removed from all injustice and violence, you would never be able to make yourself be much regarded, without a moderate share, at least, of parts and understanding.

46 What is it then we can here dispute about? If sense and courage, temperance and industry, wisdom and knowledge confessedly form a considerable part of PERSONAL MERIT: 47 if a person, possessed of these qualities, is both better satisfied with oneself, and better entitled to the good-will, esteem, and services of others, than one entirely destitute of them; 48 if, in short, the SENTIMENTS are similar which arise from these endowments and from the social virtues; 49 is there any reason for being so extremely scrupulous about a WORD, or disputing whether they be entitled to the denomination of virtues? 50 It may, indeed, be pretended, that the sentiment of approbation, which those accomplishments produce, besides its being INFERIOR, is also somewhat DIFFERENT from that which attends the virtues of justice and humanity. 51 But this seems not a sufficient reason for ranking them entirely under different classes and appellations. 52 The character of Caesar and that of Cato, as drawn by Sallust, are both of them virtuous, in the strictest and most limited sense of the word; but in a different way: nor are the sentiments entirely the same which arise from them. 53 The one produces love, the other esteem: the one is amiable, the other awful: we should wish to meet the one character in a friend; the other we should be ambitious of in ourselves. 54 In like manner the approbation, which attends temperance or industry or frugality, may be somewhat different from that which is paid to the social virtues, without making them entirely of a different species. 55 And, indeed, we may observe, that these endowments, more than the other virtues, produce not, all of them, the same kind of approbation. 56 Good sense and genius beget esteem and regard: wit and humour excite love and affection.

57 Most people, I believe, will naturally, without premeditation,

assent to the definition of the elegant and judicious poet: Virtue (for mere good-nature is a fool) Is sense and spirit with humanity. 58 What pretensions has a person to our generous assistance or good offices, who has dissipated own wealth in profuse expenses, idle vanities, chimerical projects, dissolute pleasures or extravagant gaming? 59 These vices (for we scruple not to call them such) bring misery unpitied, and contempt on every one addicted to them.

60 Achaeus, a wise and prudent prince, fell into a fatal snare, which cost him his crown and life, after having used every reasonable precaution to guard himself against it. 61 On that account, says the historian, he is a just object of regard and compassion: his betrayers alone of hatred and contempt. 62 The precipitate flight and improvident negligence of Pompey, at the beginning of the civil wars, appeared such notorious blunders to Cicero, as quite palled his friendship towards that great man. 63 In the same manner, says he, as want of cleanliness, decency, or discretion in a mistress are found to alienate our affections. 64 For so he expresses himself, where he talks, not in the character of a philosopher, but in that of a statesman and man of the world, to his friend Atticus. 65 But the same Cicero, in imitation of all the ancient moralists, when he reasons as a philosopher, enlarges very much his ideas of virtue, and comprehends every laudable quality or endowment of the mind, under that honourable appellation. 66 This leads to the THIRD reflection, which we proposed to make, to wit, that the ancient moralists, the best models, made no material distinction among the different species of mental endowments and defects, 67 but treated all alike under the appellation of virtues and vices, and made them indiscriminately the object of their moral reasonings. 68 The prudence explained in Cicero's Offices is that sagacity, which leads to the discovery of truth, and preserves us from error and mistake. MAGNANIMITY, TEMPERANCE, DECENCY, are there also at large discoursed of. 69 And as that

eloquent moralist followed the common received division of the four cardinal virtues, our social duties form but one head, in the general distribution of his subject.

70 We need only peruse the titles of chapters in Aristotle's Ethics to be convinced that he ranks courage, temperance, magnificence, magnanimity, modesty, prudence, and a humanly openness, among the virtues, as well as justice and friendship. 71 To SUSTAIN and to ABSTAIN, that is, to be patient and continent, appeared to some of the ancients a summary comprehension of all morals.

72 Epictetus has scarcely ever mentioned the sentiment of humanity and compassion, but in order to put his disciples on their guard against it. 73 The virtue of the Stoics seems to consist chiefly in a firm temper and a sound understanding. 74 With them, as with Solomon and the eastern moralists, folly and wisdom are equivalent to vice and virtue.

75 People will praise thee, says David, when thou dost well unto thyself. I hate a wise person, says the Greek poet, who is not wise to oneself.

76 Plutarch is no more cramped by systems in his philosophy than in his history. 77 Where he compares the great men of Greece and Rome, he fairly sets in opposition all their blemishes and accomplishments of whatever kind, and omits nothing considerable, which can either depress or exalt their characters. 78 His moral discourses contain the same free and natural censure of humans and manners.

79 The character of Hannibal, as drawn by Livy, is esteemed partial, but allows him many eminent virtues. 80 Never was there a genius, says the historian, more equally fitted for those opposite offices of commanding and obeying; 81 and it were, therefore, difficult to determine whether he rendered himself DEARER to the general or to the army. 82 To none would Hasdrubal entrust more willingly the conduct of any dangerous enterprise; under none did the soldiers discover more courage and confidence. 83 Great boldness in facing danger; great prudence in the midst of it. No

labour could fatigue his body or subdue his mind. 84 Cold and heat were indifferent to him: meat and drink he sought as supplies to the necessities of Nature, not as gratifications of his voluptuous appetites. 85 Waking or rest he used indiscriminately, by night or by day.-- These great Virtues were balanced by great Vices; 86 inhuman cruelty; perfidy more than punic; no truth, no faith, no regard to oaths, promises, or religion.

87 The character of Alexander the Sixth, to be found in Guicciardin, is pretty similar, but juster; and is a proof that even the moderns, where they speak naturally, hold the same language with the ancients. 88 In this pope, says he, there was a singular capacity and judgement: admirable prudence; a wonderful talent of persuasion; and in all momentous enterprises a diligence and dexterity incredible. 89 But these VIRTUES were infinitely overbalanced by his VICES; no faith, no religion, insatiable avarice, exorbitant ambition, and a more than barbarous cruelty.

90 Polybius, reprehending Timaeus for his partiality against Agathocles, whom he himself allows to be the most cruel and impious of all tyrants, 91 says: if he took refuge in Syracuse, as asserted by that historian, flying the dirt and smoke and toil of his former profession of a potter; 92 and if proceeding from such slender beginnings, he became master, in a little time, of all Sicily; brought the Carthaginian state into the utmost danger; and at last died in old age, and in possession of sovereign dignity: 93 must he not be allowed something prodigious and extraordinary, and to have possessed great talents and capacity for business and action? 94 His historian, therefore, ought not to have alone related what tended to his reproach and infamy; but also what might redound to his Praise and Honour.

95 In general, we may observe, that the distinction of voluntary or involuntary was little regarded by the ancients in their moral reasonings; where they frequently treated the question as very doubtful, WHETHER VIRTUE COULD BE TAUGHT OR NOT?

96 They justly considered that cowardice, meanness, levity, anxiety, impatience, folly, and many other qualities of the mind, might appear ridiculous and deformed, contemptible and odious, though independent of the will. 97 Nor could it be supposed, at all times, in every human's power to attain every kind of mental more than of exterior beauty.

98 And here there occurs the FOURTH reflection which I purposed to make, in suggesting the reason why modern philosophers have often followed a course in their moral enquiries so different from that of the ancients. 99 In later times, philosophy of all kinds, especially ethics, have been more closely united with theology than ever they were observed to be among the heathens; 100 and as this latter science admits of no terms of composition, but bends every branch of knowledge to its own purpose, without much regard to the phenomena of Nature, or to the unbiased sentiments of the mind, 101 hence reasoning, and even language, have been warped from their natural course, and distinctions have been endeavoured to be established where the difference of the objects was, in a manner, imperceptible. 102 Philosophers, or rather divines under that disguise, treating all morals as on a like footing with civil laws, 103 guarded by the sanctions of reward and punishment, were necessarily led to render this circumstance, of VOLUNTARY or INVOLUNTARY, the foundation of their whole theory. 104 Every one may employ TERMS in what sense you pleases: but this, in the mean time, must be allowed, that SENTIMENTS are every day experienced of blame and praise, which have objects beyond the dominion of the will or choice, 105 and of which it behoves us, if not as moralists, as speculative philosophers at least, to give some satisfactory theory and explication.

106 A blemish, a fault, a vice, a crime; these expressions seem to denote different degrees of censure and disapprobation; which are, however, all of them, at the bottom, pretty nearly all the same kind of species. 107 The explication of one will easily lead

us into a just conception of the others; and it is of greater consequence to attend to things than to verbal appellations. 108 That we owe a duty to ourselves is confessed even in the most vulgar system of morals; and it must be of consequence to examine that duty, in order to see whether it bears any affinity to that which we owe to society. 109 It is probable that the approbation attending the observance of both is of a similar nature, and arises from similar principles, whatever appellation we may give to either of these excellencies.

The Book of Divine Panagogue called

KNOWLEDGE

A TREATISE
CONCERNING THE PRINCIPLES OF
HUMAN KNOWLEDGE
George Berkeley

INTRODUCTION

1 Philosophy being nothing else but THE STUDY OF WISDOM AND TRUTH, 2 it may with reason be expected that those who have spent most time and pains in it should enjoy a greater calm and serenity of mind, 3 a greater clearness and evidence of knowledge, and be less disturbed with doubts and difficulties than other people. 4 Yet so it is, we see the illiterate bulk of humankind that walk the high-road of plain common sense, and are governed by the dictates of Nature, for the most part easy and undisturbed. 5 To them nothing THAT IS FAMILIAR appears unaccountable or difficult to comprehend. 6 They complain not of any want of evidence in their senses, and are out of all danger of becoming SCEPTICS. 7 But no sooner do we depart from sense and instinct to follow the light of a superior principle, to reason, meditate, and reflect on the nature of things, 8 but a thousand scruples spring up in our minds concerning those things which before we seemed fully to comprehend. 9 Prejudices and errors of sense do from all parts discover themselves to our view; and, endeavouring to correct these by reason, we are insensibly drawn into uncouth paradoxes, difficulties, and inconsistencies, 10 which multiply and grow upon us as we advance in speculation, till at length, having wandered through many intricate mazes, we find ourselves just where we were, or, which is worse, sit down in a forlorn Scepticism.

11 The cause of this is thought to be the obscurity of things, or the natural weakness and imperfection of our understandings. 12 It is said, the faculties we have are few, and those designed by Nature for the SUPPORT and comfort of life, and not to penetrate into the INWARD ESSENCE and constitution of things. 13 Besides, the mind of human being finite, when it treats of things which partake of infinity, it is not to be wondered at if it run into absurdities and contradictions,

14 out of which it is impossible it should ever extricate itself, it being of the nature of infinite not to be comprehended by that which is finite.

15 But, perhaps, we may be too partial to ourselves in placing the fault originally in our faculties, and not rather in the wrong use we make of them. 16 IT IS A HARD THING TO SUPPOSE THAT RIGHT DEDUCTIONS FROM TRUE PRINCIPLES SHOULD EVER END IN CONSEQUENCES WHICH CANNOT BE MAINTAINED or made consistent. 17 We should believe that God has dealt more bountifully with the sons of humans than to give them a strong desire for that knowledge which He had placed quite out of their reach. 18 This were not agreeable to the wonted indulgent methods of Providence, which, whatever appetites it may have implanted in the creatures, doth usually furnish them with such means as, if rightly made use of, will not fail to satisfy them. 19 Upon the whole, I am inclined to think that the far greater part, if not all, of those difficulties which have hitherto amused philosophers, 20 and blocked up the way to knowledge, are entirely owing to ourselves--that we have first raised a dust and then complain we cannot see.

21 My purpose therefore is, to try if I can discover what those Principles are which have introduced all that doubtfulness and uncertainty, those absurdities and contradictions, into the several sects of philosophy; 22 insomuch that the wisest people have thought our ignorance incurable, conceiving it to arise from the natural dullness and limitation of our faculties. 23 And surely it is a work well deserving our pains to make a strict inquiry concerning the First Principles of Human Knowledge, to sift and examine them on all sides, 24 especially since there may be some grounds to suspect that those lets and difficulties, which stay and embarrass the mind in its search after truth, 25 do not spring from any darkness and intricacy in the objects, or natural defect in the understanding, so much as from false Principles which have been insisted on, and might have been avoided.

26 How difficult and discouraging soever this attempt may seem,

when I consider how many great and extraordinary people have gone before me in the like designs, yet I am not without some hopes-- 27 upon the consideration that the largest views are not always the clearest, and that you who is short-sighted will be obliged to draw the object nearer, and may, perhaps, by a close and narrow survey, discern that which had escaped far better eyes.

A CHIEF SOURCE OF ERROR IN ALL PARTS OF KNOWLEDGE

28 In order to prepare the mind of the reader for the easier conceiving what follows, it is proper to premise somewhat, by way of Introduction, concerning the nature and abuse of Language. 29 But the unravelling this matter leads me in some measure to anticipate my design, by taking notice of what seems to have had a chief part in rendering speculation intricate and perplexed, 30 and to have occasioned innumerable errors and difficulties in almost all parts of knowledge. And that is the opinion that the mind has a power of framing ABSTRACT IDEAS or notions of things. 31 You who is not a perfect stranger to the writings and disputes of philosophers must needs acknowledge that no small part of them are spent about abstract ideas. 32 These are in a more especial manner thought to be the object of those sciences which go by the name of LOGIC and METAPHYSICS, and of all that which passes under the notion of the most abstracted and sublime learning, 33 in all which one shall scarce find any question handled in such a manner as does not suppose their existence in the mind, and that it is well acquainted with them.

PROPER ACCEPTATION OF ABSTRACTION

34 It is agreed on all hands that the qualities or modes of things do never REALLY EXIST EACH OF THEM APART BY ITSELF, and separated from all others, but are mixed, as it were, and blended together, several in the same object. 35 But, we are told, the mind being able to consider each quality singly, or abstracted from

those other qualities with which it is united, does by that means frame to itself abstract ideas. 36 For example, there is perceived by sight an object extended, coloured, and moved: 37 this mixed or compound idea the mind resolving into its simple, constituent parts, and viewing each by itself, exclusive of the rest, does frame the abstract ideas of extension, colour, and motion. 38 Not that it is possible for colour or motion to exist without extension; but only that the mind can frame to itself by ABSTRACTION the idea of colour exclusive of extension, and of motion exclusive of both colour and extension.

OF GENERALISING

39 Again, the mind having observed that in the particular extensions perceived by sense there is something COMMON and alike IN ALL, 40 and some other things peculiar, as this or that figure or magnitude, which distinguish them one from another; 41 it considers apart or singles out by itself that which is common, making thereof a most abstract idea of extension, which is neither line, surface, nor solid, nor has any figure or magnitude, but is an idea entirely prescinded from all these. 42 So likewise the mind, by leaving out of the particular colours perceived by sense that which distinguishes them one from another, and retaining that only which is COMMON TO ALL, makes an idea of colour in abstract which is neither red, nor blue, nor white, nor any other determinate colour. 43 And, in like manner, by considering motion abstractedly not only from the body moved, but likewise from the figure it describes, and all particular directions and velocities, 44 the abstract idea of motion is framed; which equally corresponds to all particular motions whatsoever that may be perceived by sense.

OF COMPOUNDING

45 And as the mind frames to itself abstract ideas of qualities or MODES, so does it, by the same precision or mental separation, attain abstract ideas of the more

compounded BEINGS which include several coexistent qualities. 46 For example, the mind having observed that Peter, James, and John resemble each other in certain common agreements of shape and other qualities, 47 leaves out of the complex or compounded idea it has of Peter, James, and any other particular person, that which is peculiar to each, retaining only what is common to all, 48 and so makes an abstract idea wherein all the particulars equally partake--abstracting entirely from and cutting off all those circumstances and differences which might determine it to any particular existence. 49 And after this manner it is said we come by the abstract idea of HUMAN, or, if you please, humanity, or human nature; 50 wherein it is true there is included colour, because there is no human but has some colour, 51 but then it can be neither white, nor black, nor any particular colour, because there is no one particular colour wherein all humans partake. 52 So likewise there is included stature, but then it is neither tall stature, nor low stature, nor yet middle stature, but something abstracted from all these. 53 And so of the rest. Moreover, their being a great variety of other creatures that partake in some parts, but not all, of the complex idea of HUMAN, 54 the mind, leaving out those parts which are peculiar to humans, and retaining those only which are common to all the living creatures, 55 frames the idea of ANIMAL, which abstracts not only from all particular humans, but also all birds, beasts, fishes, and insects. 56 The constituent parts of the abstract idea of animal are body, life, sense, and spontaneous motion. 57 By BODY is meant body without any particular shape or figure, there being no one shape or figure common to all animals, without covering, either of hair, or feathers, or scales, nor yet naked: 58 hair, feathers, scales, and nakedness being the distinguishing properties of particular animals, and for that reason left out of the ABSTRACT IDEA. 59 Upon the same account the spontaneous motion must be neither walking, nor flying, nor creeping; it is nevertheless a motion, but what that motion is it is not easy to conceive.

TWO OBJECTIONS TO THE EXISTENCE OF ABSTRACT IDEAS

60 Whether others have this wonderful faculty of ABSTRACTING THEIR IDEAS, they best can tell: 61 for myself, I find indeed I have a faculty of imagining, or representing to myself, the ideas of those particular things I have perceived, and of variously compounding and dividing them. 62 I can imagine a person with two heads, or the upper parts of a person joined to the body of a horse. 63 I can consider the hand, the eye, the nose, each by itself abstracted or separated from the rest of the body. 64 But then whatever hand or eye I imagine, it must have some particular shape and colour. 65 Likewise the idea of human that I frame to myself must be either of a white, or a black, or a tawny, a straight, or a crooked, a tall, or a low, or a middle-sized human. 66 I cannot by any effort of thought conceive the abstract idea above described. And it is equally impossible for me to form the abstract idea of motion distinct from the body moving, 67 and which is neither swift nor slow, curvilinear nor rectilinear; and the like may be said of all other abstract general ideas whatsoever. 68 To be plain, I own myself able to abstract IN ONE SENSE, as when I consider some particular parts or qualities separated from others, with which, though they are united in some object, yet it is possible they may really exist without them. 69 But I deny that I can abstract from one another, or conceive separately, those qualities which it is impossible should exist so separated; 70 or that I can frame a general notion, by abstracting from particulars in the manner aforesaid-- which last are the two proper acceptations of ABSTRACTION. 71 And there are grounds to think most people will acknowledge themselves to be in my case. 72 The generality of people which are simple and illiterate never pretend to ABSTRACT NOTIONS. It is said they are difficult and not to be attained without pains and study; 73 we may therefore reasonably conclude that, if such there be, they are confined only to the learned.

74 I proceed to examine what can be alleged in DEFENCE OF THE

DOCTRINE OF ABSTRACTION, and try if I can discover what it is that inclines the people of speculation to embrace an opinion so remote from common sense as that seems to be. 75 There has been a late deservedly esteemed philosopher who, no doubt, has given it very much countenance, 76 by seeming to think the having abstract general ideas is what puts the widest difference in point of understanding betwixt human and beast. 77 "The having of general ideas," saith he, "is that which puts a perfect distinction betwixt human and brutes, and is an excellency which the faculties of brutes do by no means attain unto. 78 For, it is evident we observe no foot-steps in them of making use of general signs for universal ideas; 79 from which we have reason to imagine that they have not the FACULTY OF ABSTRACTING, or making general ideas, since they have no use of words or any other general signs." 80 And a little after: "Therefore, I think, we may suppose that it is in this that the species of brutes are discriminated from humans, and it is that proper difference wherein they are wholly separated, and which at last widens to so wide a distance. 81 For, if they have any ideas at all, and are not bare machines (as some would have them), we cannot deny them to have some reason. 82 It seems as evident to me that they do, some of them, in certain instances reason as that they have sense; but it is only in particular ideas, just as they receive them from their senses. 83 They are the best of them tied up within those narrow bounds, and have not (as I think) the faculty to enlarge them by any kind of ABSTRACTION."

84 Essay on Human Understanding, II. xi. 10 and 11. I readily agree with this learned author, that the faculties of brutes can by no means attain to ABSTRACTION. 85 But then if this be made the distinguishing property of that sort of animals, I fear a great many of those that pass for humans must be reckoned into their number. 86 The reason that is here assigned why we have no grounds to think brutes have abstract general ideas is, that we observe in them no use of words or any other general signs; 87 which

is built on this supposition-- that the making use of words implies the having general ideas. From which it follows that people who use language are able to ABSTRACT or generalise their ideas. 88 That this is the sense and arguing of the author will further appear by his answering the question he in another place puts: 89 "Since all things that exist are only particulars, how come we by general terms?" His answer is: "Words become general by being made the signs of general ideas." Essay on Human Understanding, IV. iii. 6. 90 But it seems that a word becomes general by being made the sign, not of an ABSTRACT general idea, but of several particular ideas, any one of which it indifferently suggests to the mind. 91 For example, when it is said "the change of motion is proportional to the impressed force," or that "whatever has extension is divisible," these propositions are to be understood of motion and extension in general; 92 and nevertheless it will not follow that they suggest to my thoughts an idea of motion without a body moved, or any determinate direction and velocity, 93 or that I must conceive an abstract general idea of extension, which is neither line, surface, nor solid, neither great nor small, black, white, nor red, nor of any other determinate colour. 94 It is only implied that whatever particular motion I consider, whether it be swift or slow, perpendicular, horizontal, or oblique, or in whatever object, the axiom concerning it holds equally true. 95 As does the other of every particular extension, it matters not whether line, surface, or solid, whether of this or that magnitude or figure.

EXISTENCE OF GENERAL IDEAS ADMITTED

96 By observing how ideas become general we may the better judge how words are made so. 97 And here it is to be noted that I do not deny absolutely there are general ideas, but only that there are any ABSTRACT GENERAL IDEAS; 98 for, in the passages we have quoted wherein there is mention of general ideas, it is always supposed that they are formed by ABSTRACTION. 99 Now, if we will

annex a meaning to our words, and speak only of what we can conceive, I believe we shall acknowledge that an idea which, considered in itself, is particular, becomes general by being made to represent or stand for all other particular ideas of the SAME SORT. 100 To make this plain by an example, suppose a geometrician is demonstrating the method of cutting a line in two equal parts. He draws, for instance, a black line of an inch in length: 101 this, which in itself is a particular line, is nevertheless with regard to its signification general, since, as it is there used, it represents all particular lines whatsoever; 102 so that what is demonstrated of it is demonstrated of all lines, or, in other words, of a line in general. 103 And, as that particular line becomes general by being made a sign, so the name LINE, which taken absolutely is PARTICULAR, by being a sign is made GENERAL. 104 And as the former owes its generality not to its being the sign of an abstract or general line, but of ALL PARTICULAR right lines that may possibly exist, 105 so the latter must be thought to derive its generality from the same cause, namely, the VARIOUS PARTICULAR lines which it indifferently denotes.

ABSTRACT GENERAL IDEAS NECESSARY, ACCORDING TO LOCKE

106 To give the reader a yet clearer view of the nature of abstract ideas, and the uses they are thought necessary to, I shall add one more passage out of the Essay on Human Understanding, which is as follows: 107 "ABSTRACT IDEAS are not so obvious or easy to children or the yet unexercised mind as particular ones. If they seem so to grown people it is only because by constant and familiar use they are made so. 108 For, when we nicely reflect upon them, we shall find that general ideas are fictions and contrivances of the mind, that carry difficulty with them, and do not so easily offer themselves as we are apt to imagine. 109 For example, does it not require some pains and skill to form the general idea of a triangle (which is yet none of the most abstract, comprehensive, and

difficult); 110 for it must be neither oblique nor rectangle, neither equilateral, equicrural, nor scalenon, but ALL AND NONE of these at once? 111 In effect, it is something imperfect that cannot exist, an idea wherein some parts of several different and INCONSISTENT ideas are put together. 112 It is true the mind in this imperfect state has need of such ideas, and makes all the haste to them it can, for the CONVENIENCY OF COMMUNICATION AND ENLARGEMENT OF KNOWLEDGE, to both which it is naturally very much inclined. 113 But yet one has reason to suspect such ideas are marks of our imperfection. 114 At least this is enough to show that the most abstract and general ideas are not those that the mind is first and most easily acquainted with, nor such as its earliest knowledge is conversant about."-- 115 If any person has the faculty of framing in own mind such an idea of a triangle as is here described, it is in vain to pretend to dispute you out of it, nor would I go about it. 116 All I desire is that the reader would fully and certainly inform yourself whether you have such an idea or no. And this, methinks, can be no hard task for anyone to perform. 117 What more easy than for anyone to look a little into own thoughts, and there try whether you have, or can attain to have, an idea that shall correspond with the description that is here given of the general idea of a triangle, 118 which is NEITHER OBLIQUE NOR RECTANGLE, EQUILATERAL, EQUICRURAL NOR SCALENON, BUT ALL AND NONE OF THESE AT ONCE?

BUT THEY ARE NOT NECESSARY FOR COMMUNICATION

119 Much is here said of the difficulty that abstract ideas carry with them, and the pains and skill requisite to the forming them. 120 And it is on all hands agreed that there is need of great toil and labour of the mind, to emancipate our thoughts from particular objects, and raise them to those sublime speculations that are conversant about abstract ideas. 121 From all which the natural consequence should seem to be, that so DIFFICULT a thing as the

forming abstract ideas was not necessary for COMMUNICATION, which is so EASY and familiar to ALL SORTS OF PEOPLE. 122 But, we are told, if they seem obvious and easy to grown people, IT IS ONLY BECAUSE BY CONSTANT AND FAMILIAR USE THEY ARE MADE SO. 123 Now, I would fain know at what time it is people are employed in surmounting that difficulty, and furnishing themselves with those necessary helps for discourse. 124 It cannot be when they are grown up, for then it seems they are not conscious of any such painstaking; it remains therefore to be the business of their childhood.

125 And surely the great and multiplied labour of framing abstract notions will be found a hard task for that tender age. 126 Is it not a hard thing to imagine that a couple of children cannot prate together of their sugar-plums and rattles and the rest of their little trinkets, 127 till they have first tacked together numberless inconsistencies, and so framed in their minds ABSTRACT GENERAL IDEAS, and annexed them to every common name they make use of?

NOR FOR THE ENLARGEMENT OF KNOWLEDGE

128 Nor do I think them a whit more needful for the ENLARGEMENT OF KNOWLEDGE than for COMMUNICATION. 129 It is, I know, a point much insisted on, that all knowledge and demonstration are about universal notions, to which I fully agree: 130 but then it doth not appear to me that those notions are formed by ABSTRACTION in the manner PREMISED--UNIVERSALITY, 131 so far as I can comprehend, not consisting in the absolute, POSITIVE nature or conception of anything, but in the RELATION it bears to the particulars signified or represented by it; 132 by virtue whereof it is that things, names, or notions, being in their own nature PARTICULAR, are rendered UNIVERSAL. 133 Thus, when I demonstrate any proposition concerning triangles, it is to be supposed that I have in view the universal idea of a triangle; 134 which ought not to be understood as if I could frame an idea of a triangle which was neither equilateral, nor scalenon, nor equicrural; 135 but only that the

particular triangle I consider, whether of this or that sort it matters not, doth equally stand for and represent all rectilinear triangles whatsoever, and is in that sense UNIVERSAL. 136 All which seems very plain and not to include any difficulty in it.

OBJECTION.-- ANSWER

137 But here it will be demanded, HOW WE CAN KNOW ANY PROPOSITION TO BE TRUE OF ALL PARTICULAR TRIANGLES, EXCEPT we have first seen it DEMONSTRATED OF THE ABSTRACT IDEA OF A TRIANGLE which equally agrees to all? 138 For, because a property may be demonstrated to agree to some one particular triangle, it will not thence follow that it equally belongs to any other triangle, which in all respects is not the same with it. 139 For example, having demonstrated that the three angles of an isosceles rectangular triangle are equal to two right ones, I cannot therefore conclude this affection agrees to all other triangles which have neither a right angle nor two equal sides. 140 It seems therefore that, to be certain this proposition is universally true, we must either make a particular demonstration for every particular triangle, which is impossible, 141 or once for all demonstrate it of the ABSTRACT IDEA OF A TRIANGLE, in which all the particulars do indifferently partake and by which they are all equally represented. 142 To which I answer, that, though the idea I have in view whilst I make the demonstration be, for instance, that of an isosceles rectangular triangle whose sides are of a determinate length, 143 I may nevertheless be certain it extends to all other rectilinear triangles, of what sort or bigness soever. 144 And that because neither the right angle, nor the equality, nor determinate length of the sides are at all concerned in the demonstration. 145 It is true the diagram I have in view includes all these particulars, but then there is not the least mention made of them in the proof of the proposition. 146 It is not said the three angles are equal to two right ones, because one of them is a right angle, or because the sides

comprehending it are of the same length. 147 Which sufficiently shows that the right angle might have been oblique, and the sides unequal, and for all that the demonstration have held good. 148 And for this reason it is that I conclude that to be true of any obliquangular or scalenon which I had demonstrated of a particular right-angled equicrural triangle, and not because I demonstrated the proposition of the abstract idea of a triangle. 149 And here it must be acknowledged that a person may consider a figure merely as triangular, without attending to the particular qualities of the angles, or relations of the sides. 150 So far you may abstract; but this will never prove that you can frame an abstract, general, inconsistent idea of a triangle. 151 In like manner we may consider Peter so far forth as human, or so far forth as animal without framing the fore-mentioned abstract idea, either of human or of animal, inasmuch as all that is perceived is not considered.

ADVANTAGE OF INVESTIGATING THE DOCTRINE OF ABSTRACT GENERAL IDEAS

152 It were an endless as well as an useless thing to trace the SCHOOLMEN, those great masters of abstraction, 153 through all the manifold inextricable labyrinths of error and dispute which their doctrine of abstract natures and notions seems to have led them into. 154 What bickerings and controversies, and what a learned dust have been raised about those matters, 155 and what mighty advantage has been from thence derived to humankind, are things at this day too clearly known to need being insisted on. 156 And it had been well if the ill effects of that doctrine were confined to those only who make the most avowed profession of it. 157 When people consider the great pains, industry, and parts that have for so many ages been laid out on the cultivation and advancement of the sciences, and that notwithstanding all this the far greater part of them remains full of darkness and uncertainty, 158 and disputes that are like never to have an end, and even those that are thought to be

supported by the most clear and cogent demonstrations contain in them paradoxes which are perfectly irreconcilable to the understandings of people, 159 and that, taking all together, a very small portion of them does supply any real benefit to humankind, otherwise than by being an innocent diversion and amusement-- 160 I say the consideration of all this is apt to throw them into a despondency and perfect contempt of all study. But this may perhaps cease upon a view of the false principles that have obtained in the world, 161 amongst all which there is none, methinks, has a more wide and extended sway over the thoughts of speculative people than this of abstract general ideas.

162 I come now to consider the SOURCE OF THIS PREVAILING NOTION, and that seems to me to be LANGUAGE. 163 And surely nothing of less extent than reason itself could have been the source of an opinion so universally received. 164 The truth of this appears as from other reasons so also from the plain confession of the ablest patrons of abstract ideas, who acknowledge that they are made in order to naming; 165 from which it is a clear consequence that if there had been no such things as speech or universal signs there never had been any thought of abstraction. See III. vi. 39, and elsewhere of the Essay on Human Understanding. 166 Let us examine the manner wherein words have contributed to the origin of that mistake.-- First then, it is thought that every name has, or ought to have, ONE ONLY precise and settled signification, which inclines people to think there are certain ABSTRACT, 167 DETERMINATE IDEAS that constitute the true and only immediate signification of each general name; and that it is by the mediation of these abstract ideas that a general name comes to signify any particular thing. 168 Whereas, in truth, there is no such thing as one precise and definite signification annexed to any general name, they all signifying indifferently a great number of particular ideas. 168 All which doth evidently follow from what has been already said, and will clearly appear to anyone by a little

reflexion. 169 To this it will be OBJECTED that every name that has a definition is thereby restrained to one certain signification. 170 For example, a TRIANGLE is defined to be A PLAIN SURFACE COMPREHENDED BY THREE RIGHT LINES, by which that name is limited to denote one certain idea and no other. 171 To which I answer, that in the definition it is not said whether the surface be great or small, black or white, nor whether the sides are long or short, equal or unequal, nor with what angles they are inclined to each other; 172 in all which there may be great variety, and consequently there is NO ONE SETTLED IDEA which limits the signification of the word TRIANGLE. 173 It is one thing for to keep a name constantly to the same definition, and another to make it stand everywhere for the same idea; the one is necessary, the other useless and impracticable.

174 SECONDLY, But, to give a farther account how WORDS came to PRODUCE THE DOCTRINE OF ABSTRACT IDEAS, 175 it must be observed that it is a received opinion that language has NO OTHER END but the communicating our ideas, and that every significant name stands for an idea. 176 This being so, and it being withal certain that names which yet are not thought altogether insignificant do not always mark out PARTICULAR conceivable ideas, it is straightway concluded that THEY STAND FOR ABSTRACT NOTIONS. 177 That there are many names in use amongst speculative people which do not always suggest to others determinate, particular ideas, or in truth anything at all, is what nobody will deny. 178 And a little attention will discover that it is not necessary (even in the strictest reasonings) significant names which stand for ideas should, every time they are used, excite in the understanding the ideas they are made to stand for-- 179 in reading and discoursing, names being for the most part used as letters are in ALGEBRA, in which, though a particular quantity be marked by each letter, 180 yet to proceed right it is not requisite that in every step each letter suggest to your thoughts that particular

quantity it was appointed to stand for.

SOME OF THE ENDS OF LANGUAGE

181 Besides, the communicating of ideas marked by words is not the chief and only end of language, as is commonly supposed. 182 There are other ends, as the raising of some passion, the exciting to or deterring from an action, the putting the mind in some particular disposition-- 183 to which the former is in many cases barely subservient, and sometimes entirely omitted, when these can be obtained without it, as I think does not unfrequently happen in the familiar use of language. 184 I entreat the reader to reflect with yourself, and see if it doth not often happen, either in hearing or reading a discourse, that the passions of fear, love, hatred, admiration, disdain, and the like, arise immediately in your mind upon the perception of certain words, without any ideas coming between. 185 At first, indeed, the words might have occasioned ideas that were fitting to produce those emotions; 186 but, if I mistake not, it will be found that, when language is once grown familiar, the hearing of the sounds or sight of the characters is oft immediately attended with those passions which at first were wont to be produced by the intervention of ideas that are now quite omitted. 187 May we not, for example, be affected with the promise of a GOOD THING, though we have not an idea of what it is? 188 Or is not the being threatened with danger sufficient to excite a dread, though we think not of any particular evil likely to befall us, nor yet frame to ourselves an idea of danger in abstract? 189 If any one shall join ever so little reflexion of your own to what has been said, I believe that it will evidently appear to you that general names are often used in the propriety of language 190 without the speaker's designing them for marks of ideas in your own, which you would have them raise in the mind of the hearer. 191 Even proper names themselves do not seem always spoken with a design to bring into our view the ideas of those individuals that are

supposed to be marked by them. 192 For example, when a schoolman tells me "Aristotle has said it," all I conceive he means by it is to dispose me to embrace his opinion with the deference and submission which custom has annexed to that name. 193 And this effect is often so instantly produced in the minds of those who are accustomed to resign their judgment to authority of that philosopher, as it is impossible any idea either of your person, writings, or reputation should go before. 194 Innumerable examples of this kind may be given, but why should I insist on those things which every one's experience will, I doubt not, plentifully suggest unto you?

CAUTION IN THE USE OF LANGUAGE NECESSARY

195 We have, I think, shown the impossibility of ABSTRACT IDEAS. We have considered what has been said for them by their ablest patrons; and endeavored to show they are of no use for those ends to which they are thought necessary. 196 And lastly, we have traced them to the source from whence they flow, which appears evidently to be language.-- 197 It cannot be denied that words are of excellent use, in that by their means all that stock of knowledge which has been purchased by the joint labours of inquisitive people in all ages and nations may be drawn into the view and made the possession of one single person. 198 But at the same time it must be owned that most parts of knowledge have been strangely perplexed and darkened by the abuse of words, and general ways of speech wherein they are delivered. 199 Since therefore words are so apt to impose on the understanding, whatever ideas I consider, I shall endeavour to take them bare and naked into my view, 200 keeping out of my thoughts so far as I am able, those names which long and constant use has so strictly united with them; from which I may expect to derive the following advantages:

201 FIRST, I shall be sure to get clear of all controversies PURELY VERBAL-- the springing up of which weeds in almost all the sciences has been a main

hindrance to the growth of true and sound knowledge.

202 SECONDLY, this seems to be a sure way to extricate myself out of that fine and subtle net of ABSTRACT IDEAS which has so miserably perplexed and entangled the minds of humans; 203 and that with this peculiar circumstance, that by how much the finer and more curious was the wit of any person, by so much the deeper was you likely to be ensnared and faster held therein.

204 THIRDLY, so long as I confine my thoughts to my own ideas divested of words, I do not see how I can easily be mistaken. 205 The objects I consider, I clearly and adequately know. I cannot be deceived in thinking I have an idea which I have not. 206 It is not possible for me to imagine that any of my own ideas are alike or unlike that are not truly so. 207 To discern the agreements or disagreements there are between my ideas, to see what ideas are included in any compound idea and what not, 208 there is nothing more requisite than an attentive perception of what passes in my own understanding.

209 But the attainment of all THESE ADVANTAGES doth PRESUPPOSE AN ENTIRE DELIVERANCE FROM THE DECEPTION OF WORDS, which I dare hardly promise myself; 210 so difficult a thing it is to dissolve an union so early begun, and confirmed by so long a habit as that betwixt words and ideas. Which difficulty seems to have been very much increased by the doctrine of ABSTRACTION. 211 For, so long as humans thought abstract ideas were annexed to their words, it doth not seem strange that they should use words for ideas-- 212 it being found an impracticable thing to lay aside the word, and RETAIN THE ABSTRACT IDEA IN THE MIND, WHICH IN ITSELF WAS PERFECTLY INCONCEIVABLE. 213 This seems to me the principal cause why those people who have so emphatically recommended to others the laying aside all use of words in their meditations, and contemplating their bare ideas, have yet failed to perform it themselves. 214 Of late many have been very sensible of the absurd opinions and insignificant disputes which grow out of the abuse of words. 215 And, in order to remedy these evils, they advise well, that

we attend to the ideas signified, and draw off our attention from the words which signify them. 216 But, how good soever this advice may be they have given others, it is plain they could not have a due regard to it themselves, 217 so long as they thought the only immediate use of words was to signify ideas, and that the immediate signification of every general name was a DETERMINATE ABSTRACT IDEA.

218 But, THESE BEING KNOWN TO BE MISTAKES, A HUMAN MAY with greater ease PREVENT OWN BEING IMPOSED ON BY WORDS. 219 You that knows you have no other than particular ideas, will not puzzle yourself in vain to find out and conceive the abstract idea annexed to any name. 220 And you that knows names do not always stand for ideas will spare yourself the labour of looking for ideas where there are none to be had. 221 It were, therefore, to be wished that everyone would use your utmost endeavours to obtain a clear view of the ideas you would consider, separating from them all that dress and incumbrance of words which so much contribute to blind the judgment and divide the attention. 222 In vain do we extend our view into the heavens and pry into the entrails of the earth, in vain do we consult the writings of learned people and trace the dark footsteps of antiquity-- 223 we need only draw the curtain of words, to hold the fairest tree of knowledge, whose fruit is excellent, and within the reach of our hand.

224 Unless we take care TO CLEAR THE FIRST PRINCIPLES OF KNOWLEDGE FROM THE embarras and DELUSION OF WORDS, we may make infinite reasonings upon them to no purpose; 225 we may draw consequences from consequences, and be never the wiser. 226 The farther we go, we shall only lose ourselves the more irrecoverably, and be the deeper entangled in difficulties and mistakes.

227 Whoever therefore designs to read the following sheets, I entreat you to make my words the occasion of your own thinking, and endeavour to attain the same train of thoughts in reading that I had in writing them. 228 By this means it will be easy for you to discover the truth or falsity of

what I say. 229 You will be out of all danger of being deceived by my words, and I do not see how you can be led into an error by considering your own naked, undisguised ideas.

OF THE PRINCIPLES OF HUMAN KNOWLEDGE

George Berkeley

OBJECTS OF HUMAN KNOWLEDGE

1

2 It is evident to any one who takes a survey of the objects of human knowledge, that they are either IDEAS actually imprinted on the senses; or else such as are perceived by attending to the passions and operations of the mind; 2 or lastly, ideas formed by help of memory and imagination--either compounding, dividing, or barely representing those originally perceived in the aforesaid ways.

3 By sight I have the ideas of light and colours, with their several degrees and variations. 4 By touch I perceive hard and soft, heat and cold, motion and resistance, and of all these more and less either as to quantity or degree. 5 Smelling furnishes me with odours; the palate with tastes; and hearing conveys sounds to the mind in all their variety of tone and composition. 6 And as several of these are observed to accompany each other, they come to be marked by one name, and so to be reputed as one thing. 7 Thus, for example a certain colour, taste, smell, figure and consistence having been observed to go together, are accounted one distinct thing, signified by the name APPLE. 8 Other collections of ideas constitute a stone, a tree, a book, and the like sensible things--which as they are pleasing or disagreeable excite the passions of love, hatred, joy, grief, and so forth.

MIND—SPIRIT—SOUL

9 But, besides all that endless variety of ideas or objects of knowledge, there is likewise something which knows or perceives them, and exercises divers operations, as willing, imagining, remembering, about them. 10 This perceiving, active

being is what I call MIND, SPIRIT, SOUL, or MYSELF. By which words I do not denote any one of my ideas, but a thing entirely distinct from them, WHEREIN THEY EXIST, or, which is the same thing, whereby they are perceived-- 11 for the existence of an idea consists in being perceived.

HOW FAR THE ASSENT OF THE VULGAR CONCEDED

12 That neither our thoughts, nor passions, nor ideas formed by the imagination, exist WITHOUT the mind, is what EVERYBODY WILL ALLOW. 13 And it seems no less evident that the various sensations or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than IN a mind perceiving them. 14 I think an intuitive knowledge may be obtained of this by any one that shall attend to WHAT IS MEANT BY THE TERM EXIST, when applied to sensible things. 15 The table I write on I say exists, that is, I see and feel it; and if I were out of my study I should say it existed-- meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. 16 There was an odour, that is, it was smelt; there was a sound, that is, it was heard; a colour or figure, and it was perceived by sight or touch. 17 This is all that I can understand by these and the like expressions. For as to what is said of the absolute existence of unthinking things without any relation to their being perceived, that seems perfectly unintelligible. 18 Their ESSE is PERCIPI, nor is it possible they should have any existence out of the minds or thinking things which perceive them.

THE VULGAR OPINION INVOLVES A CONTRADICTION

19 It is indeed an opinion STRANGELY prevailing amongst humans, that houses, mountains, rivers, and in a word all sensible objects, have an existence, natural or real, distinct from their being perceived by the understanding. 20 But, with how great an assurance and acquiescence soever this principle may be entertained in the

world, yet whoever shall find in own heart to call it in question may, if I mistake not, perceive it to involve a manifest contradiction. 21 For, what are the fore-mentioned objects but the things we perceive by sense? And what do we PERCEIVE BESIDES OUR OWN IDEAS OR SENSATIONS? 22 And is it not plainly repugnant that any one of these, or any combination of them, should exist unperceived?

CAUSE OF THIS PREVALENT ERROR

23 If we thoroughly examine this tenet it will, perhaps, be found at bottom to depend on the doctrine of ABSTRACT IDEAS. 24 For can there be a nicer strain of abstraction than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived?

25 Light and colours, heat and cold, extension and figures-- in a word the things we see and feel-- what are they but so many sensations, notions, ideas, or impressions on the sense? 26 And is it possible to separate, even in thought, any of these from perception? 27 For my part, I might as easily divide a thing from itself. I may, indeed, divide in my thoughts, or conceive apart from each other, those things which, perhaps I never perceived by sense so divided. 28 Thus, I imagine the trunk of a human body without the limbs, or conceive the smell of a rose without thinking on the rose itself. 29 So far, I will not deny, I can abstract-- if that may properly be called ABSTRACTION which extends only to the conceiving separately such objects as it is possible may really exist or be actually perceived asunder. 30 But my conceiving or imagining power does not extend beyond the possibility of real existence or perception. 31 Hence, as it is impossible for me to see or feel anything without an actual sensation of that thing, so is it impossible for me to conceive in my thoughts any sensible thing or object distinct from the sensation or perception of it.

32 Note: "In truth the object and the sensation are the same thing,

and cannot therefore be abstracted from each other-- Edit 1710."

33 Some truths there are so near and obvious to the mind that a person need only open own eyes to see them. 34 Such I take this important one to be, viz., that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence without a mind, that their BEING (ESSE) is to be perceived or known; 35 that consequently so long as they are not actually perceived by me, or do not exist in my mind or that of any other CREATED SPIRIT, they must either have no existence at all, OR ELSE SUBSIST IN THE MIND OF SOME ETERNAL SPIRIT-- 36 it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit. 37 To be convinced of which, the reader need only reflect, and try to separate in your own thoughts the being of a sensible thing from its being perceived.

38 Note: "To make this appear with all the light and evidence of an axiom, it seems sufficient if I can but awaken the reflection of the reader, that you may take an impartial view of your own meaning, 39 and in turn your thoughts upon the subject itself, free and disengaged from all embarrass of words and prepossession in favour of received mistakes."-- Edit 1710

SECOND ARGUMENT

40 From what has been said it follows there is NOT ANY OTHER SUBSTANCE THAN SPIRIT, or that which perceives. 41 But, for the fuller proof of this point, let it be considered the sensible qualities are colour, figure, motion, smell, taste, etc, the ideas perceived by sense. 42 Now, for an idea to exist in an unperceiving thing is a manifest contradiction, for TO HAVE AN IDEA IS ALL ONE AS TO PERCEIVE; 43 that therefore wherein colour, figure, and the like qualities exist must perceive them; hence it is clear there can be no UNTHINKING substance or SUBSTRATUM of those ideas.

OBJECTION -- ANSWER

44 But, say you, though the ideas themselves do not exist without the mind, yet there may be things LIKE them, whereof they are copies or resemblances, which things exist without the mind in an unthinking substance. 45 I ANSWER, an idea can be like nothing but an idea; a colour or figure can be like nothing but another colour or figure. 46 If we look but never so little into our thoughts, we shall find it impossible for us to conceive a likeness except only between our ideas. 47 Again, I ask whether those supposed originals or external things, of which our ideas are the pictures or representations, be themselves perceivable or no? 48 If they are, THEN THEY ARE IDEAS and we have gained our point; 49 but if you say they are not, I appeal to any one whether it be sense to assert a colour is like something which is invisible; hard or soft, like something which is intangible; and so of the rest.

THE PHILOSOPHICAL NOTION OF MATTER INVOLVES A CONTRADICTION

50 Some there are who make a DISTINCTION betwixt PRIMARY and SECONDARY qualities. 51 By the former they mean extension, figure, motion, rest, solidity or impenetrability, and number; by the latter they denote all other sensible qualities, as colours, sounds, tastes, and so forth. 52 The ideas we have of these they acknowledge not to be the resemblances of anything existing without the mind, or unperceived, 53 but they will have our ideas of the primary qualities to be patterns or images of things which exist without the mind, in an unthinking substance which they call MATTER. 54 By MATTER, therefore, we are to understand an inert, senseless substance, in which extension, figure, and motion DO ACTUALLY SUBSIST.

55 But it is evident from what we have already shown, that extension, figure, and motion are ONLY IDEAS EXISTING IN THE MIND, 56 and that an idea can be like nothing but another idea, and that consequently neither they nor

their archetypes can exist in an UNPERCEIVING substance. 57 Hence, it is plain that the very notion of what is called MATTER or CORPOREAL SUBSTANCE, involves a contradiction in it.

58 Note: "Insomuch that I should not think it necessary to spend more time in exposing its absurdity. 59 But because the tenet of the existence of matter seems to have taken so deep a root in the minds of philosophers, and draws after it so many ill consequences, 60 I choose rather to be thought prolix and tedious, than omit anything that might conduce to the full discovery and extirpation of the prejudice."--Edit 1710.

ARGUMENTUM AD HOMINEM

61 They who assert that figure, motion, and the rest of the primary or original qualities do exist without the mind in unthinking substances, do at the same time acknowledge that colours, sounds, heat cold, and suchlike secondary qualities, do not-- 62 which they tell us are sensations existing IN THE MIND ALONE, that depend on and are occasioned by the different size, texture, and motion of the minute particles of matter. 63 This they take for an undoubted truth, which they can demonstrate beyond all exception. 64 Now, if it be certain that those original qualities ARE INSEPARABLY UNITED WITH THE OTHER SENSIBLE QUALITIES, and not, even in thought, capable of being abstracted from them, it plainly follows that they exist only in the mind. 65 But I desire any one to reflect and try whether he can, by any abstraction of thought, conceive the extension and motion of a body without all other sensible qualities. 66 For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some colour or other sensible quality which is ACKNOWLEDGED to exist only in the mind. 67 In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable. 68 Where therefore the other sensible qualities are, there must these be also, to wit, in the mind and nowhere else.

A SECOND ARGUMENT
AD HOMINEM

69 Again, GREAT and SMALL, SWIFT and SLOW, ARE ALLOWED TO EXIST NOWHERE WITHOUT THE MIND, being entirely RELATIVE, and changing as the frame or position of the organs of sense varies. 70 The extension therefore which exists without the mind is neither great nor small, the motion neither swift nor slow, that is, they are nothing at all. 71 But, say you, they are extension in general, and motion in general: thus we see how much the tenet of extended movable substances existing without the mind depends on the strange doctrine of ABSTRACT IDEAS. 72 And here I cannot but remark how nearly the vague and indeterminate description of Matter or corporeal substance, which the modern philosophers are run into by their own principles, 73 resembles that antiquated and so much ridiculed notion of MATERIA PRIMA, to be met with in Aristotle and his followers. 74 Without extension solidity cannot be conceived; since therefore it has been shown that extension exists not in an unthinking substance, the same must also be true of solidity.

75 That NUMBER is entirely THE CREATURE OF THE MIND, even though the other qualities be allowed to exist without, 76 will be evident to whoever considers that the same thing bears a different denomination of number as the mind views it with different respects. 77 Thus, the same extension is one, or three, or thirty-six, according as the mind considers it with reference to a yard, a foot, or an inch. 78 Number is so visibly relative, and dependent on humans' understanding, that it is strange to think how any one should give it an absolute existence without the mind. 79 We say one book, one page, one line, etc.; all these are equally units, though some contain several of the others. 80 And in each instance, it is plain, the unit relates to some particular combination of ideas arbitrarily put together by the mind.

81 UNITY I know some will have to be A SIMPLE OR UNCOMPOUNDED IDEA, accompanying all other ideas into the mind. 82 That I have any such idea answering the word

UNITY I do not find; and if I had, methinks I could not miss finding it: 83 on the contrary, it should be the most familiar to my understanding, since it is said to accompany all other ideas, and to be perceived by all the ways of sensation and reflexion. 84 To say no more, it is an ABSTRACT IDEA.

A THIRD ARGUMENT AD HOMINEM

85 I shall farther add, that, after the same manner as modern philosophers prove certain sensible qualities to have no existence in Matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever. 86 Thus, for instance, it is said that heat and cold are affections only of the mind, and not at all patterns of real beings, existing in the corporeal substances which excite them, for that the same body which appears cold to one hand seems warm to another. 87 Now, why may we not as well argue that figure and extension are not patterns or resemblances of qualities existing in Matter, 88 because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot therefore be the images of anything SETTLED AND DETERMINATE WITHOUT THE MIND?

89 Again, it is proved that SWEETNESS is not really in the sapid thing, because the thing remaining unaltered the sweetness is changed into bitter, as in case of a fever or otherwise vitiated palate. 90 Is it not as reasonable to say that MOTION is not without the mind, since if the succession of ideas in the mind become swifter, the motion, it is acknowledged, shall appear slower without any alteration in any external object?

NOT CONCLUSIVE AS TO EXTENSION

91 In short, let any one consider those arguments which are thought manifestly to prove that colours and taste exist only in the mind, and you shall find they may with equal force be brought to prove the same thing of extension, figure, and motion. 92 Though it must be confessed this method of arguing

does not so much prove that there is no extension or colour in an outward object, as that we do not know by SENSE which is the TRUE extension or colour of the object. 93 But the arguments foregoing plainly show it to be impossible that any colour or extension at all, or other sensible quality whatsoever, should exist in an UNTHINKING subject without the mind, or in truth, that there should be any such thing as an outward object.

94 But let us examine a little the received opinion.-- It is said EXTENSION is a MODE or accident OF MATTER, and that Matter is the SUBSTRATUM that supports it. 95 Now I desire that you would explain to me what is meant by Matter's SUPPORTING extension. Say you, I have no idea of Matter and therefore cannot explain it. 96 I answer, though you have no positive, yet, if you have any meaning at all, you must at least have a relative idea of Matter; 97 though you know not what it is, yet you must be supposed to know what relation it bears to accidents, and what is meant by its supporting them. 98 It is evident SUPPORT cannot here be taken in its usual or literal sense-- as when we say that pillars support a building; in what sense therefore must it be taken?

99 Note: "For my part, I am not able to discover any sense at all that can be applicable to it."--Edit 1710.

PHILOSOPHICAL MEANING OF "MATERIAL SUBSTANCE" DIVISIBLE INTO TWO PARTS

100 If we inquire into what the most accurate philosophers declare themselves to mean by MATERIAL SUBSTANCE, 101 we shall find them acknowledge they have no other meaning annexed to those sounds but the idea of BEING IN GENERAL, together WITH THE RELATIVE NOTION OF ITS SUPPORTING ACCIDENTS. 102 The general idea of Being appeareth to me the most abstract and incomprehensible of all other; and as for its supporting accidents, this, as we have just now observed, cannot be understood in the common sense of those words; 103 it must therefore be taken in some other sense, but what that is

they do not explain. 104 So that when I consider the TWO PARTS or branches which make the signification of the words MATERIAL SUBSTANCE, I am convinced there is no distinct meaning annexed to them. 105 But why should we trouble ourselves any farther, in discussing this material SUBSTRATUM or support of figure and motion, and other sensible qualities? 106 Does it not suppose they have an existence without the mind? And is not this a direct repugnancy, and altogether inconceivable?

THE EXISTENCE OF EXTERNAL BODIES WANTS PROOF

107 But, though it were possible that solid, figured, movable substances may exist without the mind, corresponding to the ideas we have of bodies, yet HOW IS IT POSSIBLE FOR US TO KNOW THIS? 108 Either we must know it by sense or by reason. As for our senses, by them we have the knowledge ONLY OF OUR SENSATIONS, ideas, or those things that are immediately perceived by sense, call them what you will: 109 but they do not inform us that things exist without the mind, or unperceived, like to those which are perceived. 110 This the materialists themselves acknowledge. It remains therefore that if we have any knowledge at all of external things, it must be by REASON, inferring their existence from what is immediately perceived by sense. 111 But what reason can induce us to believe the existence of bodies without the mind, from what we perceive, since the very patrons of Matter themselves do not pretend there is ANY NECESSARY CONNEXION BETWIXT THEM AND OUR IDEAS? 112 I say it is granted on all hands (and what happens in dreams, phrensies, and the like, puts it beyond dispute) 113 that IT IS POSSIBLE WE MIGHT BE AFFECTED WITH ALL THE IDEAS WE HAVE NOW, THOUGH THERE WERE NO BODIES EXISTING WITHOUT RESEMBLING THEM.

114 Hence, it is evident the supposition of external bodies is not necessary for the producing our ideas; 115 since it is granted they are produced sometimes, and might possibly be produced always in the same order, we see

them in at present, without their concurrence.

THE EXISTENCE OF EXTERNAL BODIES AFFORDS NO EXPLICATION OF THE MANNER IN WHICH OUR IDEAS ARE PRODUCED

116 But, though we might possibly have all our sensations without them, yet perhaps it may be thought EASIER to conceive and explain the MANNER of their production, by supposing external bodies in their likeness rather than otherwise; 117 and so it might be at least probable there are such things as bodies that excite their ideas in our minds. 118 But neither can this be said; for, though we give the materialists their external bodies, they by their own confession are never the nearer knowing how our ideas are produced; 119 since they own themselves unable to comprehend in what manner BODY CAN ACT UPON SPIRIT, or how it is possible it should imprint any idea in the mind. 120 Hence it is evident the production of ideas or sensations in our minds can be no reason why we should suppose Matter or corporeal substances, SINCE THAT IS ACKNOWLEDGED TO REMAIN EQUALLY INEXPLICABLE WITH OR WITHOUT THIS SUPPOSITION. 121 If therefore it were possible for bodies to exist without the mind, yet to hold they do so, must needs be a very precarious opinion; 122 since it is to suppose, without any reason at all, that God has created innumerable beings THAT ARE ENTIRELY USELESS, AND SERVE TO NO MANNER OF PURPOSE.

DILEMMA

123 In short, if there were external bodies, it is impossible we should ever come to know it; and if there were not, we might have the very same reasons to think there were that we have now. 124 Suppose--what no one can deny possible--an intelligence without the help of external bodies, to be affected with the same train of sensations or ideas that you are, imprinted in the same order and with like vividness in your mind. 125 I ask whether that intelligence has not all the reason to believe the existence of corporeal substances, represented by your ideas, and exciting them in

your mind, that you can possibly have for believing the same thing? 126 Of this there can be no question-- which one consideration were enough to make any reasonable person suspect the strength of whatever arguments be may think yourself to have, for the existence of bodies without the mind.

127 Were it necessary to add any FURTHER PROOF AGAINST THE EXISTENCE OF MATTER after what has been said, I could instance several of those errors and difficulties (not to mention impieties) which have sprung from that tenet. 128 It has occasioned numberless controversies and disputes in philosophy, and not a few of far greater moment in religion. 129 But I shall not enter into the detail of them in this place, as well because I think arguments A POSTERIORI are unnecessary for confirming what has been, 130 if I mistake not, sufficiently demonstrated A PRIORI, as because I shall hereafter find occasion to speak somewhat of them.

131 I am afraid I have given cause to think I am needlessly prolix in handling this subject. 132 For, to what purpose is it to dilate on that which may be demonstrated with the utmost evidence in a line or two, to any one that is capable of the least reflexion? 133 It is but looking into your own thoughts, and so trying whether you can conceive it possible for a sound, or figure, or motion, or colour to exist without the mind or unperceived. 134 This easy trial may perhaps make you see that what you contend for is a downright contradiction. Insomuch that I am content to put the whole upon this issue:-- 135 If you can but CONCEIVE it possible for one extended movable substance, or, in general, for any one idea, or anything like an idea, to exist otherwise than in a mind perceiving it, I shall readily give up the cause. 136 And, as for all that COMPAGES of external bodies you contend for, I shall grant you its existence, THOUGH (1.) YOU CANNOT EITHER GIVE ME ANY REASON WHY YOU BELIEVE IT EXISTS, OR (2.) ASSIGN ANY USE TO IT WHEN IT IS SUPPOSED TO EXIST. 137 I say, the bare possibility of your opinions being true shall pass for an argument that it is so.

138 But, say you, surely there is nothing easier than for me to imagine trees, for instance, in a park, or books existing in a closet, and nobody by to perceive them. 139 I answer, you may so, there is no difficulty in it; but what is all this, I beseech you, more than framing in your mind certain ideas which you call BOOKS and TREES, and the same time omitting to frame the idea of any one that may perceive them? 140 BUT DO NOT YOU YOURSELF PERCEIVE OR THINK OF THEM ALL THE WHILE? This therefore is nothing to the purpose; it only shows you have the power of imagining or forming ideas in your mind: 141 but it does not show that you can conceive it possible the objects of your thought may exist without the mind. 142 To make out this, IT IS NECESSARY THAT YOU CONCEIVE THEM EXISTING UNCONCEIVED OR UNTHOUGHT OF, WHICH IS A MANIFEST REPUGNANCY. 143 When we do our utmost to conceive the existence of external bodies, we are all the while only contemplating our own ideas. 144 But the mind taking no notice of itself, is deluded to think it can and does conceive bodies existing unthought of or without the mind, though at the same time they are apprehended by or exist in itself. 145 A little attention will discover to any one the truth and evidence of what is here said, and make it unnecessary to insist on any other proofs against the existence of material substance.

THE ABSOLUTE EXISTENCE OF UNTHINKING THINGS ARE WORDS WITHOUT A MEANING

146 It is very obvious, upon the least inquiry into our thoughts, to know whether it is possible for us to understand what is meant by the ABSOLUTE EXISTENCE OF SENSIBLE OBJECTS IN THEMSELVES, OR WITHOUT THE MIND. 147 To me it is evident those words mark out either a direct contradiction, or else nothing at all. 148 And to convince others of this, I know no readier or fairer way than to entreat they would calmly attend to their own thoughts; 149 and if by this attention the emptiness or repugnancy of those expressions does appear, surely nothing more is requisite for the conviction. 150 It is on this therefore that I insist,

to wit, that the ABSOLUTE existence of unthinking things are words without a meaning, or which include a contradiction. 151 This is what I repeat and inculcate, and earnestly recommend to the attentive thoughts of the reader.

THIRD ARGUMENT-- REFUTATION OF LOCKE

152 All our ideas, sensations, notions, or the things which we perceive, by whatsoever names they may be distinguished, are visibly inactive-- there is nothing of power or agency included in them. 153 So that ONE IDEA or object of thought CANNOT PRODUCE or make ANY ALTERATION IN ANOTHER. 154 To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. 155 For, since they and every part of them exist only in the mind, it follows that there is nothing in them but what is perceived: 156 but whoever shall attend to own ideas, whether of sense or reflexion, will not perceive in them any power or activity; there is, therefore, no such thing contained in them. 157 A little attention will discover to us that the very being of an idea implies passiveness and inertness in it, insomuch that it is impossible for an idea to do anything, or, strictly speaking, to be the cause of anything: neither can it be the resemblance or pattern of any active being. 158 Whence it plainly follows that extension, figure, and motion cannot be the cause of our sensations. 159 To say, therefore, that these are the effects of powers resulting from the configuration, number, motion, and size of corpuscles, must certainly be false.

CAUSE OF IDEAS

160 We perceive a continual succession of ideas, some are anew excited, others are changed or totally disappear. 161 There is therefore some cause of these ideas, whereon they depend, and which produces and changes them. 162 That this cause cannot be any quality or idea or combination of ideas, is clear from the preceding section. 163 It must therefore be a substance; but it has been shown that there is no corporeal or material substance: it remains

therefore that the CAUSE OF IDEAS is an incorporeal active substance or Spirit.

NO IDEA OF SPIRIT

164 A spirit is one simple, undivided, active being-- as it perceives ideas it is called the UNDERSTANDING, and as it produces or otherwise operates about them it is called the WILL. 165 Hence there can be no idea formed of a soul or spirit; for all ideas whatever, being passive and inert, they cannot represent unto us, by way of image or LIKENESS, that which acts. 166 A little attention will make it plain to any one, that to have an idea which shall be like that active principle of motion and change of ideas is absolutely impossible. 167 Such is the nature of SPIRIT, or that which acts, that it cannot be of itself perceived, BUT ONLY BY THE EFFECTS WHICH IT PRODUCETH. 168 If any person shall doubt of the truth of what is here delivered, let you but reflect and try if you can frame the idea of any power or active being, 169 and whether you have ideas of two principal powers, marked by the names WILL and UNDERSTANDING, distinct from each other as well as from a third idea of Substance or Being in general, 170 with a relative notion of its supporting or being the subject of the aforesaid powers-- which is signified by the name SOUL or SPIRIT. 171 This is what some hold; but, so far as I can see, the words WILL, SOUL, SPIRIT, do not stand for different ideas, or, in truth, for any idea at all, 172 but for something which is very different from ideas, and which, being an agent, cannot be like unto, or represented by, any idea whatsoever. 173 Though it must be owned at the same time that we have some notion of soul, spirit, and the operations of the mind: such as willing, loving, hating-- inasmuch as we know or understand the meaning of these words.

174 I find I can excite ideas in my mind at pleasure, and vary and shift the scene as oft as I think fit. 175 It is no more than willing, and straightway this or that idea arises in my fancy; and by the same power it is obliterated and makes

way for another. 176 This making and unmaking of ideas doth very properly denominate the mind active. Thus much is certain and grounded on experience; 177 but when we think of unthinking agents or of exciting ideas exclusive of volition, we only amuse ourselves with words.

IDEAS OF SENSATION DIFFER FROM THOSE OF REFLECTION OR MEMORY

178 But, whatever power I may have over MY OWN thoughts, I find the ideas actually perceived by Sense have not a like dependence on my will. 179 When in broad daylight I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view; 180 and so likewise as to the hearing and other senses; the ideas imprinted on them are not creatures of my will. There is THEREFORE SOME OTHER WILL OR SPIRIT that PRODUCES THEM.

LAWS OF NATURE

181 The ideas of Sense are more strong, lively, and DISTINCT than those of the imagination; 182 they have likewise a steadiness, order, and coherence, and are not excited at random, as those which are the effects of human wills often are, 183 but in a regular train or series, the admirable connexion whereof sufficiently testifies the wisdom and benevolence of its Author. 184 Now THE SET RULES OR ESTABLISHED METHODS WHEREIN THE MIND WE DEPEND ON EXCITES IN US THE IDEAS OF SENSE, ARE CALLED THE LAWS OF NATURE; 185 and these we learn by experience, which teaches us that such and such ideas are attended with such and such other ideas, in the ordinary course of things.

KNOWLEDGE OF THEM NECESSARY FOR THE CONDUCT OF WORLDLY AFFAIRS

186 This gives us a sort of foresight which enables us to regulate our actions for the benefit of life. 187 And without this we should be eternally at a loss; we could not know how to act anything that

might procure us the least pleasure, or remove the least pain of sense. 188 That food nourishes, sleep refreshes, and fire warms us; that to sow in the seed-time is the way to reap in the harvest; and in general that to obtain such or such ends, such or such means are conducive-- 189 all this we know, NOT BY DISCOVERING ANY NECESSARY CONNEXION BETWEEN OUR IDEAS, but only by the observation of the settled Laws of Nature, without which we should be all in uncertainty and confusion, 190 and a grown human no more know how to manage the self in the affairs of life than an infant just born.

191 And yet THIS consistent UNIFORM WORKING, which so evidently displays the goodness and wisdom of that Governing Spirit whose Will constitutes the Laws of Nature, is so far from leading our thoughts to Him, that it rather SENDS THEM A WANDERING AFTER SECOND CAUSES. 192 For, when we perceive certain ideas of Sense constantly followed by other ideas and WE KNOW THIS IS NOT OF OUR OWN DOING, we forthwith attribute power and agency to the ideas themselves, and make one the cause of another, than which nothing can be more absurd and unintelligible. 193 Thus, for example, having observed that when we perceive by sight a certain round luminous figure we at the same time perceive by touch the idea or sensation called HEAT, we do from thence conclude the sun to be the cause of heat. 194 And in like manner perceiving the motion and collision of bodies to be attended with sound, we are inclined to think the latter the effect of the former.

OF REAL THINGS AND IDEAS OR CHIMERAS

195 The ideas imprinted on the Senses by the Author of Nature are called REAL THINGS; 196 and those excited in the imagination being less regular, vivid, and constant, are more properly termed IDEAS, or IMAGES OF THINGS, which they copy and represent. 197 But then our sensations, be they never so vivid and distinct, are nevertheless IDEAS, that is, they exist in the mind, or are perceived by it, as truly as the ideas of its own

framing. 198 The ideas of Sense are allowed to have more reality in them, that is, to be more (1) STRONG, (2) ORDERLY, and (3) COHERENT than the creatures of the mind; but this is no argument that they exist without the mind. 199 They are also (4) LESS DEPENDENT ON THE SPIRIT, or thinking substance which perceives them, in that they are excited by the will of another and more powerful spirit; 200 yet still they are IDEAS, and certainly no IDEA, whether faint or strong, can exist otherwise than in a mind perceiving it.

FIRST GENERAL OBJECTION--ANSWER

201 Before we proceed any farther it is necessary we spend some time in answering objections which may probably be made against the principles we have hitherto laid down. 202 In doing of which, if I seem too prolix to those of quick apprehensions, I hope it may be pardoned, since all humans do not equally apprehend things of this nature, and I am willing to be understood by every one.

203 FIRST, then, it will be objected that by the foregoing principles ALL THAT IS REAL AND SUBSTANTIAL IN NATURE IS BANISHED OUT OF THE WORLD, and instead thereof a chimerical scheme of ideas takes place. 204 All things that exist, exist only in the mind, that is, they are purely notional. 205 What therefore becomes of the sun, moon and stars? What must we think of houses, rivers, mountains, trees, stones; nay, even of our own bodies? Are all these but so many chimeras and illusions on the fancy? 206 To all which, and whatever else of the same sort may be objected, I ANSWER, that by the principles premised we are not deprived of any one thing in Nature. 207 Whatever we see, feel, hear, or anywise conceive or understand remains as secure as ever, and is as real as ever. 208 There is a RERUM NATURA, and the distinction between realities and chimeras retains its full force. 209 This is evident where we have shown what is meant by REAL THINGS in opposition to CHIMERAS

or ideas of our own framing; but then they both equally exist in the mind, and in that sense they are alike IDEAS.

THE EXISTENCE OF MATTER, AS UNDERSTOOD BY PHILOSOPHERS, DENIED

210 I do not argue against the existence of any one thing that we can apprehend either by sense or reflexion. 211 That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. 212 The only thing whose existence we deny IS THAT WHICH PHILOSOPHERS CALL MATTER or corporeal substance. 213 And in doing of this there is no damage done to the rest of humankind, who, I dare say, will never miss it. 214 The Atheist indeed will want the colour of an empty name to support own impiety; and the Philosophers may possibly find they have lost a great handle for trifling and disputation.

READILY EXPLAINED

215 If any person thinks this detracts from the existence or reality of things, you are very far from understanding what has been premised in the plainest terms I could think of. 216 Take here an abstract of what has been said:-- There are spiritual substances, minds, or human souls, which will or excite ideas in themselves at pleasure; 217 but these are faint, weak, and unsteady in respect of others they perceive by sense-- which, being impressed upon them according to certain rules or Laws of Nature, speak themselves the effects of a mind more powerful and wise than human spirits. 218 These latter are said to have more REALITY in them than the former:-- by which is meant that they are more affecting, orderly, and distinct, and that they are not fictions of the mind perceiving them. 219 And in this sense the sun that I see by day is the real sun, and that which I imagine by night is the idea of the former. 220 In the sense here given of REALITY it is evident that every vegetable, star, mineral, and in general each part of the mundane system, is as much a REAL BEING by our principles as by any other. 221 Whether others mean anything by the term

REALITY different from what I do, I entreat them to look into their own thoughts and see.

THE PHILOSOPHIC, NOT THE VULGAR SUBSTANCE, TAKEN AWAY

222 I will be urged that thus much at least is true, to wit, that we take away all corporeal substances. 223 To this my answer is, that if the word SUBSTANCE be taken in the vulgar sense-- for a combination of sensible qualities, such as extension, solidity, weight, and the like-- this we cannot be accused of taking away: 224 but if it be taken in a philosophic sense-- for the SUPPORT of accidents or QUALITIES WITHOUT THE MIND-- then indeed I acknowledge that we take it away, if one may be said to take away that which never had any existence, not even in the imagination.

225 But, say you, it sounds very harsh to say we eat and drink ideas, and are clothed with ideas. 226 I acknowledge it does so-- the word IDEA not being used in common discourse to signify the several combinations of sensible qualities which are called THINGS; 227 and it is certain that any expression which varies from the familiar use of language will seem harsh and ridiculous. 228 But this doth not concern the truth of the proposition, which in other words is no more than to say, we are fed and clothed with those things which we perceive immediately by our senses. 229 The hardness or softness, the colour, taste, warmth, figure, or suchlike qualities, which combined together constitute the several sorts of victuals and apparel, have been shown to exist only in the mind that perceives them; 230 and this is all that is meant by calling them IDEAS; which word if it was as ordinarily used as THING, would sound no harsher nor more ridiculous than it. 231 I am not for disputing about the propriety, but the truth of the expression. 232 If therefore you agree with me that we eat and drink and are clad with the immediate objects of sense, which cannot exist unperceived or without the mind, I shall readily grant it is more proper or conformable to custom that they

should be called things rather than ideas.

THE TERM IDEA PREFERABLE TO THING

233 If it be demanded why I make use of the word IDEA, and do not rather in compliance with custom call them THINGS. 234 I answer, I do it for two reasons:-- first, because the term THING in contra-distinction to IDEA, is generally supposed to denote somewhat existing without the mind; 235 secondly, because THING has a more comprehensive signification than IDEA, including SPIRIT or thinking things as well as IDEAS. 236 Since therefore the objects of sense exist only in the mind, and are withal thoughtless and inactive, I chose to mark them by the word IDEA, which implies those properties.

THE EVIDENCE OF THE SENSES NOT DISCREDITED

237 But, say what we can, some one perhaps may be apt to reply, you will still believe your senses, and never suffer any arguments, how plausible soever, to prevail over the certainty of them. 238 Be it so; assert the evidence of sense as high as you please, we are willing to do the same. 239 That what I see, hear, and feel DOTH EXIST, THAT IS to say, IS PERCEIVED BY ME, I no more doubt than I do of my own being. 240 But I do not see how the testimony of sense can be alleged as a proof for the existence of anything which is not perceived by sense. 241 We are not for having any person turn SCEPTIC and disbelieve your senses; on the contrary, we give them all the stress and assurance imaginable; 242 nor are there any principles more opposite to Scepticism than those we have laid down, as shall be hereafter clearly shown.

SECOND OBJECTION-- ANSWER

243 Secondly, it will be OBJECTED that there is a great difference betwixt real fire for instance, and the idea of fire, betwixt dreaming or imagining oneself burnt, and actually being so: 244 if you

suspect it to be only the idea of fire which you see, do but put your hand into it and you will be convinced with a witness. This and the like may be urged in opposition to our tenets. 245 To all which the ANSWER is evident from what has been already said; and I shall only add in this place, that if real fire be very different from the idea of fire, so also is the real pain that it occasions very different from the idea of the same pain, 246 and yet nobody will pretend that real pain either is, or can possibly be, in an unperceiving thing, or without the mind, any more than its idea.

THIRD OBJECTION--ANSWER

247 Thirdly, it will be objected that we see things actually without or at distance from us, and which consequently do not exist in the mind; 248 it being absurd that those things which are seen at the distance of several miles should be as near to us as our own thoughts. 249 In answer to this, I desire it may be considered that in a DREAM we do oft perceive things as existing at a great distance off, and yet for all that, those things are acknowledged to have their existence only in the mind.

250 But, for the fuller clearing of this point, it may be worthwhile to consider how it is that we perceive distance and things placed at a distance by sight. 251 For, that we should in truth see EXTERNAL space, and bodies actually existing in it, some nearer, others farther off, seems to carry with it some opposition to what has been said of their existing nowhere without the mind. 252 The consideration of this difficulty it was that gave birth to my "Essay towards a New Theory of Vision," which was published not long since, 253 wherein it is shown (1) that DISTANCE or outness is NEITHER IMMEDIATELY of itself PERCEIVED by sight, nor yet apprehended or judged of by lines and angles, or anything that has a necessary connexion with it; 254 but (2) that it is ONLY SUGGESTED to our thoughts by certain visible ideas and sensations attending vision, which in their own nature have no manner of similitude or relation

either with distance or things placed at a distance; 255 but, by a connexion taught us BY EXPERIENCE, they come to signify and suggest them to us, after the same manner that WORDS of any language suggest the ideas they are made to stand for; 256 insomuch that a human BORN blind and afterwards made to see, would not, at first sight, think the things you saw to be without your mind, or at any distance from you.

257 The ideas of sight and touch make two species entirely distinct and heterogeneous. THE FORMER ARE MARKS AND PROGNOSTICS OF THE LATTER. 258 That the proper objects of sight neither exist without mind, nor are the images of external things, was shown even in that treatise. 259 Though throughout the same the contrary be supposed true of tangible objects-- not that to suppose that vulgar error was necessary for establishing the notion therein laid down, but because it was beside my purpose to examine and refute it in a discourse concerning VISION. 260 So that in strict truth the ideas of sight, when we apprehend by them distance and things placed at a distance, do not suggest or mark out to us things ACTUALLY existing at a distance, 261 but only admonish us what ideas of touch will be imprinted in our minds at such and such distances of time, and in consequence of such or such actions. 262 It is, I say, evident from what has been said in the foregoing parts of this Treatise, and elsewhere of the Essay concerning Vision, 263 that visible ideas are the Language whereby the governing Spirit on whom we depend informs us what tangible ideas you are about to imprint upon us, in case we excite this or that motion in our own bodies. 264 But for a fuller information in this point I refer to the Essay itself.

FOURTH OBJECTION, FROM PERPETUAL ANNIHILATION AND CREATION.-- ANSWER

265 Fourthly, it will be objected that from the foregoing principles it follows things are every moment annihilated and created anew. 266 The objects of sense exist only when they are perceived; the trees therefore are in the garden, or the

chairs in the parlour, no longer than while there is somebody by to perceive them. 267 Upon SHUTTING MY EYES all the furniture in the room is reduced to nothing, and barely upon opening them it is again created. 268 In ANSWER to all which, I refer the reader to what has been said in Chapter-1, verses 15-25, and desire you will consider whether you means anything by the actual existence of an idea distinct from its being perceived. 269 For my part, after the nicest inquiry I could make, I am not able to discover that anything else is meant by those words; and I once more entreat the reader to sound your own thoughts, and not suffer yourself to be imposed on by words. 270 If you can conceive it possible either for your ideas or their archetypes to exist without being perceived, then I give up the cause; 271 but if you cannot, you will acknowledge it is unreasonable for you to stand up in defence of you knows not what, and pretend to charge on me as an absurdity the not assenting to those propositions which at bottom have no meaning in them.

ARGUMENTUM AD HOMINEM

272 It will not be amiss to observe how far the received principles of philosophy are themselves chargeable with those pretended absurdities. 273 (1) It is thought strangely absurd that upon closing my eyelids all the visible objects around me should be reduced to nothing; 274 and yet is not this what philosophers commonly acknowledge, when they agree on all hands that light and colours, which alone are the proper and immediate objects of sight, are mere sensations that exist no longer than they are perceived? 275 (2) Again, it may to some perhaps seem very incredible that things should be every moment creating, yet this very notion is commonly taught in the schools. 276 For the SCHOOLMEN, though they acknowledge the existence of Matter, and that the whole mundane fabric is framed out of it, 277 are nevertheless of opinion that it cannot subsist without the divine conservation, which by them is expounded to be a continual creation. 278 (3) Further, a little thought will discover to us that

though we allow the existence of Matter or corporeal substance, 279 yet it will unavoidably follow, FROM THE PRINCIPLES WHICH ARE NOW GENERALLY ADMITTED, that the PARTICULAR bodies, of what kind soever, do none of them exist whilst they are not perceived. 280 For, it is evident that the Matter philosophers contend for is an incomprehensible somewhat, WHICH HAS NONE OF THOSE PARTICULAR QUALITIES WHEREBY THE BODIES FALLING UNDER OUR SENSES ARE DISTINGUISHED ONE FROM ANOTHER. 281 (4) But, to make this more plain, it must be remarked that the infinite divisibility of Matter is now universally allowed, at least by the most approved and considerable philosophers, who on the received principles demonstrate it beyond all exception. 282 Hence, it follows there is an infinite number of parts in each particle of Matter which are not perceived by sense. 283 The reason therefore that any particular body seems to be of a finite magnitude, or exhibits only a finite number of parts to sense, is, not because it contains no more, since in itself it contains an infinite number of parts, BUT BECAUSE THE SENSE IS NOT ACUTE ENOUGH TO DISCERN THEM. 284 In proportion therefore as the sense is rendered more acute, it perceives a greater number of parts in the object, that is, the object appears greater, and its figure varies, 285 those parts in its extremities which were before unperceivable appearing now to bound it in very different lines and angles from those perceived by an obtuser sense.

286 And at length, after various changes of size and shape, when the sense becomes infinitely acute the body shall seem infinite. During all which there is no alteration in the body, but only in the sense. 287 EACH BODY THEREFORE, CONSIDERED IN ITSELF, IS INFINITELY EXTENDED, AND CONSEQUENTLY VOID OF ALL SHAPE OR FIGURE. 288 From which it follows that, though we should grant the existence of Matter to be never so certain, yet it is withal as certain, 289 the materialists themselves are by their own principles forced to acknowledge, that neither the particular bodies perceived by sense, nor anything like them, exists without the mind. 290 Matter, I say, and each particle

thereof, is according to them infinite and shapeless, 291 AND IT IS THE MIND THAT FRAMES ALL THAT VARIETY OF BODIES WHICH COMPOSE THE VISIBLE WORLD, ANY ONE WHEREOF DOES NOT EXIST LONGER THAN IT IS PERCEIVED.

292 If we consider it, the objection proposed in the Fourth-Objection will not be found reasonably charged on the principles we have premised, so as in truth to make any objection at all against our notions. 293 For, though we hold indeed the objects of sense to be nothing else but ideas which cannot exist unperceived; 294 yet we may not hence conclude they have no existence except only while they are perceived by US, since THERE MAY BE SOME OTHER SPIRIT THAT PERCEIVES THEM THOUGH WE DO NOT. 295 Wherever bodies are said to have no existence without the mind, I would not be understood to mean this or that particular mind, but ALL MINDS WHATSOEVER. 296 It does not therefore follow from the foregoing principles that bodies are annihilated and created every moment, or exist not at all during the intervals between our perception of them.

FIFTH OBJECTION--ANSWER

297 Fifthly, it may perhaps be OBJECTED that if extension and figure exist only in the mind, it follows that the mind is extended and figured; 298 since extension is a mode or attribute which (to speak with the schools) is predicated of the subject in which it exists.

299 I ANSWER, (1) Those qualities are in the mind ONLY AS THEY ARE PERCEIVED BY IT-- that is, not by way of MODE or ATTRIBUTE, but only by way of IDEA; 300 and it no more follows the soul or mind is extended, because extension exists in it alone, than it does that it is red or blue, because those colours are ON ALL HANDS acknowledged to exist in it, and nowhere else.

301 (2) As to what philosophers say of subject and mode, that seems very groundless and unintelligible. 302 For instance, in this proposition "a die is hard, extended, and square," they will

have it that the word die denotes a subject or substance, distinct from the hardness, extension, and figure which are predicated of it, and in which they exist. 303 This I cannot comprehend: to me a die seems to be nothing distinct from those things which are termed its modes or accidents. 304 And, to say a die is hard, extended, and square is not to attribute those qualities to a subject distinct from and supporting them, but only an explication of the meaning of the word DIE.

SIXTH OBJECTION FROM NATURAL PHILOSOPHY--ANSWER

305 Sixth, you will say there have been a great many things explained by matter and motion; 306 take away these and you destroy the whole corpuscular philosophy, and undermine those mechanical principles which have been applied with so much success to account for the PHENOMENA. 307 In short, whatever advances have been made, either by ancient or modern philosophers, in the study of Nature do all proceed on the supposition that corporeal substance or Matter doth really exist. 308 To this I ANSWER that there is not any one PHENOMENON explained on that supposition which may not as well be explained without it, as might easily be made appear by an INDUCTION OF PARTICULARS. 309 To explain the PHENOMENA, is all one as to show why, upon such and such occasions, we are affected with such and such ideas. 310 But (1) how Matter should operate on a Spirit, or produce any idea in it, is what no philosopher will pretend to explain; it is therefore evident there can be no use of Matter in natural philosophy. 311 Besides, (2) they who attempt to account for things do it not by CORPOREAL SUBSTANCE, but by figure, motion, and other qualities, which are in truth no more than mere ideas, and, therefore, cannot be the cause of anything, as has been already shown in Chapter-1. Verses 224-229.

SEVENTH OBJECTION--
ANSWER

312 Seventhly, it will upon this be demanded whether it does not seem ABSURD TO TAKE AWAY NATURAL CAUSES, AND ASCRIBE EVERYTHING TO THE IMMEDIATE OPERATION OF SPIRITS? 313 We must no longer say upon these principles that fire heats, or water cools, but that a Spirit heats, and so forth. Would not a person be deservedly laughed at, who should talk after this manner? 314 I ANSWER, you would so; in such things we ought to THINK WITH THE LEARNED, AND SPEAK WITH THE VULGAR. 315 They who to demonstration are convinced of the truth of the Copernican system do nevertheless say "the sun rises," "the sun sets," or "comes to the meridian"; 316 and if they affected a contrary style in common talk it would without doubt appear very ridiculous. 317 A little reflexion on what is here said will make it manifest that the common use of language would receive no manner of alteration or disturbance from the admission of our tenets.

318 IN THE ORDINARY AFFAIRS OF LIFE, ANY PHRASES MAY BE RETAINED, so long as they excite in us proper sentiments, 319 or dispositions to act in such a manner as is necessary for our WELL-BEING, how false soever they may be if taken in a strict and SPECULATIVE SENSE. 320 Nay, this is unavoidable, since, propriety being regulated by CUSTOM, language is suited to the RECEIVED opinions, which are not always the truest. 321 Hence it is impossible, even in the most rigid, philosophic reasonings, so far to alter the bent and genius of the tongue we speak, as never to give a handle for cavillers to pretend difficulties and inconsistencies. 322 But, a fair and ingenuous reader will collect the sense from the scope and tenor and connexion of a discourse, making allowances for those inaccurate modes of speech which use has made inevitable.

323 As to the OPINION THAT THERE ARE NO CORPOREAL CAUSES, this has been heretofore maintained by some of the Schoolmen, as it is of late by others among the modern philosophers, 324 who though they allow Matter to exist, yet will have God alone to be the immediate efficient cause of all things. 325 These people saw that amongst all

the objects of sense there was none which had any power or activity included in it; 326 and that by consequence this was likewise true of whatever bodies they supposed to exist without the mind, like unto the immediate objects of sense. 327 But then, that they should suppose an innumerable multitude of created beings, which they acknowledge are not capable of producing any one effect in Nature, and which therefore are made to no manner of purpose, since God might have done everything as well without them: 328 this I say, though we should allow it possible, must yet be a very unaccountable and extravagant supposition.

EIGHTH OBJECTION--TWOFOLD ANSWER

329 In the eighth place, the universal concurrent assent of humankind may be thought by some an invincible argument in behalf of Matter, or the existence of external things. 330 Must we suppose the whole world to be mistaken? And if so, what cause can be assigned of so widespread and predominant an error? 331 I answer, FIRST, that, upon a narrow inquiry, it will not perhaps be found so many as is imagined do really believe the existence of Matter or things without the mind. 332 Strictly speaking, to believe that which involves a contradiction, or has no meaning in it, is impossible; and whether the foregoing expressions are not of that sort, I refer it to the impartial examination of the reader. 333 In one sense, indeed, people may be said to believe that Matter exists, that is, they ACT as if the immediate cause of their sensations, which affects them every moment, and is so nearly present to them, were some senseless unthinking being. 334 But, that they should clearly apprehend any meaning marked by those words, and form thereof a settled SPECULATIVE opinion, is what I am not able to conceive. 335 This is not the only instance wherein people impose upon themselves, by imagining they believe those propositions which they have often heard, though at bottom they have no meaning in them.

336 But SECONDLY, though we should grant a notion to be never

so universally and steadfastly adhered to, 337 yet this is weak argument of its truth to whoever considers what a vast number of prejudices and false opinions are everywhere embraced with the utmost tenaciousness, by the unreflecting (which are the far greater) part of humankind. 338 There was a time when the antipodes and motion of the earth were looked upon as monstrous absurdities even by people of learning: 339 and if it be considered what a small proportion they bear to the rest of humankind, we shall find that at this day those notions have gained but a very inconsiderable footing in the world.

NINTH OBJECTION--ANSWER

340 But it is demanded that we assign A CAUSE OF THIS PREJUDICE, and account for its obtaining in the world. 341 To this I ANSWER, that humans knowing they perceived several ideas, WHEREOF THEY THEMSELVES WERE NOT THE AUTHORS-- as not being excited from within nor depending on the operation of their wills-- 342 this made them maintain those ideas, or objects of perception had an EXISTENCE INDEPENDENT OF AND WITHOUT THE MIND, without ever dreaming that a contradiction was involved in those words. 343 But, philosophers having plainly seen that the immediate objects of perception do not exist without the mind, THEY IN SOME DEGREE CORRECTED the mistake of the vulgar; 344 but at the same time run into another which seems no less absurd, to wit, that there are certain objects really existing without the mind, 345 or having a subsistence distinct from being perceived, OF WHICH OUR IDEAS ARE ONLY IMAGES or resemblances, imprinted by those objects on the mind. 346 And this notion of the philosophers owes its origin to the same cause with the former, namely, their being conscious that they were not the authors of their own sensations, 347 which they evidently knew were imprinted from without, and which therefore must have some cause distinct from the minds on which they are imprinted.

348 BUT WHY THEY SHOULD SUPPOSE THE IDEAS OF SENSE TO BE EXCITED IN US BY THINGS IN THEIR LIKENESS, and not rather have recourse to SPIRIT which alone can act, may be accounted for, 349 FIRST, because they were not aware of the repugnancy there is, (1) as well in supposing things like unto our ideas existing without, as in (2) attributing to them POWER OR ACTIVITY. 350 SECONDLY, because the Supreme Spirit which excites those ideas in our minds, is not marked out and limited to our view by any particular finite collection of sensible ideas, as human agents are by their size, complexion, limbs, and motions. 351 And thirdly, because His operations are regular and uniform. Whenever the course of Nature is interrupted by a miracle, humans are ready to own the presence of a superior agent. 352 But, when we see things go on in the ordinary course they do not excite in us any reflexion; 353 their order and concatenation, though it be an argument of the greatest wisdom, power, and goodness in their creator, is yet so constant and familiar to us that we do not think them the immediate effects of a Free Spirit; 354 especially since inconsistency and mutability in acting, though it be an imperfection, is looked on as a mark of freedom.

TENTH OBJECTION--ANSWER

355 Tenthly, it will be objected that the notions we advance are inconsistent with several sound truths in philosophy and mathematics. 356 For example, the motion of the earth is now universally admitted by astronomers as a truth grounded on the clearest and most convincing reasons. But, on the foregoing principles, there can be no such thing. 357 For, motion being only an idea, it follows that if it be not perceived it exists not; but the motion of the earth is not perceived by sense. 358 I answer, that tenet, if rightly understood, will be found to agree with the principles we have premised; for, the question whether the earth moves or no amounts in reality to no more than this, to wit, 359 whether we have reason to

conclude, from what has been observed by astronomers, that if we were placed in such and such circumstances, and such or such a position and distance both from the earth and sun, 360 we should perceive the former to move among the choir of the planets, and appearing in all respects like one of them; and this, by the established rules of Nature which we have no reason to mistrust, is reasonably collected from the phenomena.

361 We may, from the experience we have had of the train and succession of ideas in our minds, often make, I will not say uncertain conjectures, but sure and well--grounded predictions concerning the ideas we shall be affected with pursuant to a great train of actions, 362 and be enabled to pass a right judgment of what would have appeared to us, in case we were placed in circumstances very different from those we are in at present. 363 Herein consists the knowledge of Nature, which may preserve its use and certainty very consistently with what has been said. 364 It will be easy to apply this to whatever objections of the like sort may be drawn from the magnitude of the stars, or any other discoveries in astronomy or Nature.

ELEVENTH OBJECTION

365 In the eleventh place, it will be demanded to what purpose serves that curious organisation of plants, and the animal mechanism in the parts of animals; 366 might not vegetables grow, and shoot forth leaves of blossoms, and animals perform all their motions as well without as with all that variety of internal parts so elegantly contrived and put together; 367 which, being ideas, have nothing powerful or operative in them, nor have any necessary connexion with the effects ascribed to them? 368 If it be a Spirit that immediately produces every effect by a fiat or act of own will, we must think all that is fine and artificial in the works, whether of human or Nature, to be made in vain. 369 By this doctrine, though an artist has made the spring and wheels, and every movement of a watch, and adjusted them in such a

manner as one knew would produce the motions one designed, 370 yet you must think all this done to no purpose, and that it is an Intelligence which directs the index, and points to the hour of the day. 371 If so, why may not the Intelligence do it, without own being at the pains of making the movements and putting them together? 372 Why does not an empty case serve as well as another? 373 And how comes it to pass that whenever there is any fault in the going of a watch, there is some corresponding disorder to be found in the movements, which being mended by a skillful hand all is right again? 374 The like may be said of all the clockwork of Nature, great part whereof is so wonderfully fine and subtle as scarce to be discerned by the best microscope. 375 In short, it will be asked, how, upon our principles, any tolerable account can be given, or any final cause assigned of an innumerable multitude of bodies and machines, 376 framed with the most exquisite art, which in the common philosophy have very apposite uses assigned them, and serve to explain abundance of phenomena?

ANSWER

377 To all which I answer, first, that though there were some difficulties relating to the administration of Providence, and the uses by it assigned to the several parts of Nature, which I could not solve by the foregoing principles, 378 yet this objection could be of small weight against the truth and certainty of those things which may be proved a priori, with the utmost evidence and rigor of demonstration. 379 Secondly, but neither are the received principles free from the like difficulties; 380 for, it may still be demanded to what end God should take those roundabout methods of effecting things by instruments and machines, which no one can deny might have been effected by the mere command of God's will without all that apparatus; 381 nay, if we narrowly consider it, we shall find the objection may be retorted with greater force on those who hold

the existence of those machines without of mind; 382 for it has been made evident that solidity, bulk, figure, motion, and the like have no activity or efficacy in them, so as to be capable of producing any one effect in Nature. 383 Whoever therefore supposes them to exist (allowing the supposition possible) when they are not perceived does it manifestly to no purpose; 384 since the only use that is assigned to them, as they exist unperceived, is that they produce those perceivable effects which in truth cannot be ascribed to anything but Spirit.

FOURTHLY

385 But, to come nigher the difficulty, it must be observed that though the fabrication of all those parts and organs be not absolutely necessary to the producing any effect, yet it is necessary to the producing of things in a constant regular way according to the Laws of Nature. 386 There are certain general laws that run through the whole chain of natural effects; these are learned by the observation and study of Nature, 387 and are by people applied as well to the framing artificial things for the use and ornament of life as to the explaining various phenomena-- 388 which explication consists only in showing the conformity any particular phenomenon has to the general Laws of Nature, or, which is the same thing, in discovering the uniformity there is in the production of natural effects; 389 as will be evident to whoever shall attend to the several instances wherein philosophers pretend to account for appearances. 390 That there is a great and conspicuous use in these regular constant methods of working observed by the Supreme Agent has been shown in verses 186-190 above. 391 And it is no less visible that a particular size, figure, motion, and disposition of parts are necessary, though not absolutely to the producing any effect, yet to the producing it according to the standing mechanical Laws of Nature. 392 Thus, for instance, it cannot be denied that God, or the Intelligence that sustains and rules

the ordinary course of things, might if He were minded to produce a miracle, cause all the motions on the dial-plate of a watch, though nobody had ever made the movements and put them in it: 393 but yet, if He will act agreeably to the rules of mechanism, by Him for wise ends established and maintained in the creation, 394 it is necessary that those actions of the watchmaker, whereby you makes the movements and rightly adjusts them, precede the production of the aforesaid motions; 395 as also that any disorder in them be attended with the perception of some corresponding disorder in the movements, which being once corrected all is right again.

396 It may indeed on some occasions be necessary that the Author of Nature display His overruling power in producing some appearance out of the ordinary series of things. 397 Such exceptions from the general rules of Nature are proper to surprise and awe humans into an acknowledgement of the Divine Being; but then they are to be used but seldom, otherwise there is a plain reason why they should fail of that effect. 398 Besides, God seems to choose the convincing our reason of His attributes by the works of Nature, 399 which discover so much harmony and contrivance in their make, and are such plain indications of wisdom and beneficence in their Author, rather than to astonish us into a belief of His Being by anomalous and surprising events.

400 To set this matter in a yet clearer light, I shall observe that what has been objected in the Eleventh-Objection amounts in reality to no more than this:-- 401 ideas are not anyhow and at random produced, there being a certain order and connexion between them, like to that of cause and effect; 402 there are also several combinations of them made in a very regular and artificial manner, which seem like so many instruments in the hand of Nature that, 403 being hid as it were behind the scenes, have a secret operation in producing those appearances which are seen on the theatre of the world, being themselves discernible only to the curious eye of the philosopher.

404 But, since one idea cannot be the cause of another, to what purpose is that connexion? 405 And, since those instruments, being barely inefficacious perceptions in the mind, are not subservient to the production of natural effects, it is demanded why they are made; 406 or, in other words, what reason can be assigned why God should make us, upon a close inspection into His works, behold so great variety of ideas so artfully laid together, and so much according to rule; 407 it not being credible that He would be at the expense (if one may so speak) of all that art and regularity to no purpose.

408 To all which my answer is, first, that the connexion of ideas does not imply the relation of cause and effect, but only of a mark or sign with the thing signified. 409 The fire which I see is not the cause of the pain I suffer upon my approaching it, but the mark that forewarns me of it. 410 In like manner the noise that I hear is not the effect of this or that motion or collision of the ambient bodies, but the sign thereof.

411 Secondly, the reason why ideas are formed into machines, that is, artificial and regular combinations, is the same with that for combining letters into words. 412 That a few original ideas may be made to signify a great number of effects and actions, it is necessary they be variously combined together. 413 And, to the end their use be permanent and universal, these combinations must be made by rule, and with wise contrivance. 414 By this means abundance of information is conveyed unto us, concerning what we are to expect from such and such actions and what methods are proper to be taken for the exciting such and such ideas; 415 which in effect is all that I conceive to be distinctly meant when it is said that, by discerning a figure, texture, and mechanism of the inward parts of bodies, whether natural or artificial, we may attain to know the several uses and properties depending thereon, or the nature of the thing.

PROPER EMPLOYMENT OF THE NATURAL PHILOSOPHER

416 Hence, it is evident that those things which, under the notion of a cause co-operating or concurring to the production of effects, are altogether inexplicable, and run us into great absurdities, may be very naturally explained, 417 and have a proper and obvious use assigned to them, when they are considered only as marks or signs for our information. 418 And it is the searching after and endeavouring to understand those signs instituted by the Author of Nature, that ought to be the employment of the natural philosopher; 419 and not the pretending to explain things by corporeal causes, which doctrine seems to have too much estranged the minds of humans from that active principle, that supreme and wise Spirit "in whom we live, move, and have our being."

TWELFTH OBJECTION-- ANSWER

420 In the twelfth place, it may perhaps be objected that-- though it be clear from what has been said that there can be no such thing as an inert, senseless, extended, solid, figured, movable substance existing without the mind, such as philosophers describe Matter-- 421 yet, if any person shall leave out of own idea of matter the positive ideas of extension, figure, solidity and motion, and say that you means only by that word an inert, senseless substance, that exists without the mind or unperceived, 422 which is the occasion of our ideas, or at the presence whereof God is pleased to excite ideas in us: it doth not appear but that Matter taken in this sense may possibly exist. 423 In answer to which I say, first, that it seems no less absurd to suppose a substance without accidents, than it is to suppose accidents without a substance. 424 But secondly, though we should grant this unknown substance may possibly exist, yet where can it be supposed to be? 425 That it exists not in the mind is agreed; and that it exists not in place is no less certain-- since all place or extension exists only in the mind, as has been already proved. It remains

therefore that it exists nowhere at all.

MATTER SUPPORTS NOTHING, AN ARGUMENT AGAINST ITS EXISTENCE

426 Let us examine a little the description that is here given us of matter. It neither acts, nor perceives, nor is perceived; 427 for this is all that is meant by saying it is an inert, senseless, unknown substance; which is a definition entirely made up of negatives, excepting only the relative notion of its standing under or supporting. 428 But then it must be observed that it supports nothing at all, and how nearly this comes to the description of a nonentity I desire may be considered. 429 But, say you, it is the unknown occasion, at the presence of which ideas are excited in us by the will of God. 430 Now, I would fain know how anything can be present to us, which is neither perceivable by sense nor reflexion, nor capable of producing any idea in our minds, nor is at all extended, nor has any form, nor exists in any place. 431 The words "to be present," when thus applied, must needs be taken in some abstract and strange meaning, and which I am not able to comprehend.

432 Again, let us examine what is meant by occasion. So far as I can gather from the common use of language, that word signifies either the agent which produces any effect, or else something that is observed to accompany or go before it in the ordinary course of things. 433 But when it is applied to Matter as above described, it can be taken in neither of those senses; for Matter is said to be passive and inert, and so cannot be an agent or efficient cause. 434 It is also unperceivable, as being devoid of all sensible qualities, and so cannot be the occasion of our perceptions in the latter sense: as when the burning my finger is said to be the occasion of the pain that attends it. 435 What therefore can be meant by calling matter an occasion? The term is either used in no sense at all, or else in some very distant from its received signification.

436 You will Perhaps say that Matter, though it be not perceived by us, is nevertheless perceived by

God, to whom it is the occasion of exciting ideas in our minds. 437 For, say you, since we observe our sensations to be imprinted in an orderly and constant manner, it is but reasonable to suppose there are certain constant and regular occasions of their being produced. 438 That is to say, that there are certain permanent and distinct parcels of Matter, corresponding to our ideas, which, though they do not excite them in our minds, or anywise immediately affect us, as being altogether passive and unperceivable to us, 439 they are nevertheless to God, by whom they art perceived, as it were so many occasions to remind Him when and what ideas to imprint on our minds; that so things may go on in a constant uniform manner.

440 In answer to this, I observe that, as the notion of Matter is here stated, the question is no longer concerning the existence of a thing distinct from Spirit and idea, from perceiving and being perceived; 441 but whether there are not certain ideas of I know not what sort, in the mind of God which are so many marks or notes that direct Him how to produce sensations in our minds in a constant and regular method-- 442 much after the same manner as a musician is directed by the notes of music to produce that harmonious train and composition of sound which is called a tune, though they who hear the music do not perceive the notes, and may be entirely ignorant of them. 443 But, this notion of Matter seems too extravagant to deserve a confutation. Besides, it is in effect no objection against what we have advanced, viz. that there is no senseless unperceived substance.

THE ORDER OF OUR PERCEPTIONS SHOWS THE GOODNESS OF GOD, BUT AFFORDS NO PROOF OF THE EXISTENCE OF MATTER

444 If we follow the light of reason, we shall, from the constant uniform method of our sensations, collect the goodness and wisdom of the Spirit who excites them in our minds; but this is all that I can see reasonably concluded from thence. 445 To me, I say, it is evident that the being of a spirit infinitely wise, good, and powerful is abundantly sufficient to explain

all the appearances of Nature. 446 But, as for inert, senseless Matter, nothing that I perceive has any the least connexion with it, or leads to the thoughts of it. 447 And I would fain see any one explain any the meanest phenomenon in Nature by it, or show any manner of reason, though in the lowest rank of probability, that you can have for its existence, or even make any tolerable sense or meaning of that supposition. 448 For, as to its being an occasion, we have, I think, evidently shown that with regard to us it is no occasion. 449 It remains therefore that it must be, if at all, the occasion to God of exciting ideas in us; and what this amounts to we have just now seen.

450 It is worthwhile to reflect a little on the motives which induced humans to suppose the existence of material substance; 451 that so having observed the gradual ceasing and expiration of those motives or reasons, we may proportionably withdraw the assent that was grounded on them.

452 First, therefore, it was thought that colour, figure, motion, and the rest of the sensible qualities or accidents, did really exist without the mind; 453 and for this reason it seemed needful to suppose some unthinking substratum or substance wherein they did exist, since they could not be conceived to exist by themselves. 454 Afterwards, in process of time, humans being convinced that colours, sounds, and the rest of the sensible, secondary qualities had no existence without the mind, they stripped this substratum or material substance of those qualities, leaving only the primary ones, figure, motion, and suchlike, 455 which they still conceived to exist without the mind, and consequently to stand in need of a material support. 456 But, it having been shown that none even of these can possibly exist otherwise than in a Spirit or Mind which perceives them it follows that we have no longer any reason to suppose the being of Matter; 457 nay, that it is utterly impossible there should be any such thing, so long as that word is taken to denote an unthinking substratum of qualities or accidents wherein they exist without the mind.

458 But though it be allowed by the materialists themselves that Matter

was thought of only for the sake of supporting accidents, 459 and, the reason entirely ceasing, one might expect the mind should naturally, and without any reluctance at all, quit the belief of what was solely grounded thereon; 460 yet the prejudice is riveted so deeply in our thoughts, that we can scarce tell how to part with it, 461 and are therefore inclined, since the thing itself is indefensible, at least to retain the name, which we apply to I know not what abstracted and indefinite notions of being, or occasion, though without any show of reason, at least so far as I can see. 462 For, what is there on our part, or what do we perceive, amongst all the ideas, sensations, notions which are imprinted on our minds, either by sense or reflexion, from whence may be inferred the existence of an inert, thoughtless, unperceived occasion? 463 And, on the other hand, on the part of an All-sufficient Spirit, what can there be that should make us believe or even suspect He is directed by an inert occasion to excite ideas in our minds?

ABSURDITY OF CONTENDING FOR THE EXISTENCE OF MATTER AS THE OCCASION OF IDEAS

464 It is a very extraordinary instance of the force of prejudice, and much to be lamented, that the mind of human retains so great a fondness, against all the evidence of reason, 465 for a stupid thoughtless somewhat, by the interposition whereof it would as it were screen itself from the Providence of God, and remove it farther off from the affairs of the world. 466 But, though we do the utmost we can to secure the belief of Matter, though, when reason forsakes us, we endeavour to support our opinion on the bare possibility of the thing, 467 and though we indulge ourselves in the full scope of an imagination not regulated by reason to make out that poor possibility, yet the upshot of all is, that there are certain unknown Ideas in the mind of God; 468 for this, if anything, is all that I conceive to be meant by occasion with regard to God. And this at the bottom is no longer contending for the thing, but for the name.

469 Whether therefore there are such Ideas in the mind of God, and whether they may be called by the name Matter, I shall not dispute. 470 But, if you stick to the notion of an unthinking substance or support of extension, motion, and other sensible qualities, then to me it is most evidently impossible there should be any such thing, 471 since it is a plain repugnancy that those qualities should exist in or be supported by an unperceiving substance.

THAT A SUBSTRATUM NOT PERCEIVED, MAY EXIST, UNIMPORTANT

472 But, say you, though it be granted that there is no thoughtless support of extension and the other qualities or accidents which we perceive, 473 yet there may perhaps be some inert, unperceiving substance or substratum of some other qualities, as incomprehensible to us as colours are to a human born blind, because we have not a sense adapted to them. 474 But, if we had a new sense, we should possibly no more doubt of their existence than a blind person made to see does of the existence of light and colours. 475 I answer, first, if what you mean by the word Matter be only the unknown support of unknown qualities, it is no matter whether there is such a thing or no, since it no way concerns us; 476 and I do not see the advantage there is in disputing about what we know not what, and we know not why.

477 But, secondly, if we had a new sense it could only furnish us with new ideas or sensations; and then we should have the same reason against their existing in an unperceiving substance that has been already offered with relation to figure, motion, colour and the like. 478 Qualities, as has been shown, are nothing else but sensations or ideas, which exist only in a mind perceiving them; 479 and this is true not only of the ideas we are acquainted with at present, but likewise of all possible ideas whatsoever.

480 But, you will insist, what if I have no reason to believe the existence of Matter? 481 What if I cannot assign any use to it or explain anything by it, or even

conceive what is meant by that word? 482 Yet still it is no contradiction to say that Matter exists, and that this Matter is in general a substance, or occasion of ideas; 483 though indeed to go about to unfold the meaning or adhere to any particular explication of those words may be attended with great difficulties. 484 I answer, when words are used without a meaning, you may put them together as you please without danger of running into a contradiction. 485 You may say, for example, that twice two is equal to seven, so long as you declare you do not take the words of that proposition in their usual acceptation but for marks of you know not what. 486 And, by the same reason, you may say there is an inert thoughtless substance without accidents which is the occasion of our ideas. And we shall understand just as much by one proposition as the other.

487 In the last place, you will say, what if we give up the cause of material Substance, and stand to it that Matter is an unknown somewhat-- neither substance nor accident, spirit nor idea, inert, thoughtless, indivisible, immovable, unextended, existing in no place.

488 For, say you, whatever may be urged against substance or occasion, or any other positive or relative notion of Matter, has no place at all, so long as this negative definition of Matter is adhered to. 489 I answer, you may, if so it shall seem good, use the word "Matter" in the same sense as other people use "nothing," and so make those terms convertible in your style. 490 For, after all, this is what appears to me to be the result of that definition, the parts whereof when I consider with attention, either collectively or separate from each other, 491 I do not find that there is any kind of effect or impression made on my mind different from what is excited by the term nothing.

492 You will reply, perhaps, that in the fore-said definition is included what doth sufficiently distinguish it from nothing-- the positive abstract idea of quiddity, entity, or existence. 493 I own, indeed, that those who pretend to the faculty of framing abstract general ideas do talk as if they had such an idea,

which is, say they, the most abstract and general notion of all; that is, to me, the most incomprehensible of all others. 494 That there are a great variety of spirits of different orders and capacities, whose faculties both in number and extent are far exceeding those the Author of my being has bestowed on me, I see no reason to deny. 495 And for me to pretend to determine by my own few, stinted narrow inlets of perception, what ideas the inexhaustible power of the Supreme Spirit may imprint upon them were certainly the utmost folly and presumption-- 496 since there may be, for aught that I know, innumerable sorts of ideas or sensations, as different from one another, and from all that I have perceived, as colours are from sounds. 497 But, how ready soever I may be to acknowledge the scantiness of my comprehension with regard to the endless variety of spirits and ideas that may possibly exist, 498 yet for any one to pretend to a notion of Entity or Existence, abstracted from spirit and idea, from perceived and being perceived, is, I suspect, a downright repugnancy and trifling with words.-- 499 It remains that we consider the objections which may possibly be made on the part of Religion.

OBJECTIONS DERIVED FROM THE SCRIPTURES ANSWERED

500 Some there are who think that, though the arguments for the real existence of bodies which are drawn from Reason be allowed not to amount to demonstration, 501 yet the Holy Scriptures are so clear in the point as will sufficiently convince every good Christian that bodies do really exist, and are something more than mere ideas; 502 there being in Holy Writ innumerable facts related which evidently suppose the reality of timber and stone, mountains and rivers, and cities, and human bodies. 503 To which I answer that no sort of writings whatever, sacred or profane, which use those and the like words in the vulgar acceptation, or so as to have a meaning in them, are in danger of having their truth called in question by our doctrine. 504 That

all those things do really exist, that there are bodies, even corporeal substances, when taken in the vulgar sense, has been shown to be agreeable to our principles; 505 and the difference betwixt things and ideas, realities and chimeras, has been distinctly explained. And I do not think that either what philosophers call Matter, or the existence of objects without the mind, is anywhere mentioned in Scripture.

NO OBJECTION AS TO LANGUAGE TENABLE

506 Again, whether there can be or be not external things, it is agreed on all hands that the proper use of words is the marking our conceptions, or things only as they are known and perceived by us; 507 whence it plainly follows that in the tenets we have laid down there is nothing inconsistent with the right use and significancy of language, and that discourse, of what kind soever, so far as it is intelligible, remains undisturbed. 508 But all this seems so manifest, from what has been largely set forth in the premises, that it is needless to insist any farther on it. 509 But, secondly it will be urged that miracles do, at least, lose much of their stress and import by our principles. 510 What must we think of Moses' rod? Was it not really turned into a serpent; or was there only a change of ideas in the minds of the spectators? 511 And, can it be supposed that our Saviour did no more at the marriage-feast in Cana than impose on the sight, and smell, and taste of the guests, so as to create in them the appearance or idea only of wine? 512 The same may be said of all other miracles; which, in consequence of the foregoing principles, must be looked upon only as so many cheats, or illusions of fancy. 513 To this I reply, that the rod was changed into a real serpent, and the water into real wine. That this does not in the least contradict what I have elsewhere said will be evident from verses 201-214 in this chapter. 514 But this business of real and imaginary has been already so plainly and fully explained, and so often referred to, 515 and the difficulties about it are

so easily answered from what has gone before, that it were an affront to the reader's understanding to resume the explication of it in its place. 516 I shall only observe that if at table all who were present should see, and smell, and taste, and drink wine, and find the effects of it, with me there could be no doubt of its reality; 517 so that at bottom the scruple concerning real miracles has no place at all on ours, but only on the received principles, and consequently makes rather for than against what has been said.

CONSEQUENCES OF THE PRECEDING TENETS

518 Having done with the Objections, which I endeavoured to propose in the clearest light, and gave them all the force and weight I could, we proceed in the next place to take a view of our tenets in their Consequences. 519 Some of these appear at first sight-- as that several difficult and obscure questions, on which abundance of speculation has been thrown away, are entirely banished from philosophy. 520 "Whether corporeal substance can think," "whether Matter be infinitely divisible," and "how it operates on spirit"-- these and like inquiries have given infinite amusement to philosophers in all ages; 521 but depending on the existence of Matter, they have no longer any place on our principles. 522 Many other advantages there are, as well with regard to religion as the sciences, which it is easy for any one to deduce from what has been premised; but this will appear more plainly in the sequel.

THE REMOVAL OF MATTER GIVES CERTAINTY TO KNOWLEDGE

523 From the principles we have laid down it follows human knowledge may naturally be reduced to two heads-- that of ideas and that of spirits. Of each of these I shall treat in order.

524 And first as to ideas or unthinking things. Our knowledge of these has been very much obscured and confounded, and we have been led into very dangerous errors, by supposing a twofold existence of the objects of sense--

525 the one intelligible or in the mind, the other real and without the mind; whereby unthinking things are thought to have a natural subsistence of their own distinct from being perceived by spirits. 526 This, which, if I mistake not, has been shown to be a most groundless and absurd notion, is the very root of Scepticism; 527 for, so long as humans thought that real things subsisted without the mind, and that their knowledge was only so far forth real as it was conformable to real things, it follows they could not be certain they had any real knowledge at all. 528 For how can it be known that the things which are perceived are conformable to those which are not perceived, or exist without the mind?

529 Colour, figure, motion, extension, and the like, considered only as so many sensations in the mind, are perfectly known, there being nothing in them which is not perceived. 530 But, if they are looked on as notes or images, referred to things or archetypes existing without the mind, then are we involved all in scepticism. 531 We see only the appearances, and not the real qualities of things. 532 What may be the extension, figure, or motion of anything really and absolutely, or in itself, it is impossible for us to know, but only the proportion or relation they bear to our senses. 533 Things remaining the same, our ideas vary, and which of them, or even whether any of them at all, represent the true quality really existing in the thing, it is out of our reach to determine. 534 So that, for aught we know, all we see, hear, and feel may be only phantom and vain chimera, and not at all agree with the real things existing in rerum natura. 535 All this scepticism follows from our supposing a difference between things and ideas, and that the former have a subsistence without the mind or unperceived. 536 It were easy to dilate on this subject, and show how the arguments urged by sceptics in all ages depend on the supposition of external objects.

IF THERE BE EXTERNAL MATTER, NEITHER THE NATURE NOR EXISTENCE OF THINGS CAN BE KNOWN

537 So long as we attribute a real existence to unthinking things, distinct from their being perceived, it is not only impossible for us to know with evidence the nature of any real unthinking being, but even that it exists. 538 Hence it is that we see philosophers distrust their senses, and doubt of the existence of heaven and earth, of everything they see or feel, even of their own bodies. 539 And, after all their labour and struggle of thought, they are forced to own we cannot attain to any self-evident or demonstrative knowledge of the existence of sensible things. 540 But, all this doubtfulness, which so bewilders and confounds the mind and makes philosophy ridiculous in the eyes of the world, vanishes if we annex a meaning to our words, 541 and not amuse ourselves with the terms "absolute," "external," "exist," and such-like, signifying we know not what. 542 I can as well doubt of my own being as of the being of those things which I actually perceive by sense; 543 it being a manifest contradiction that any sensible object should be immediately perceived by sight or touch, and at the same time have no existence in Nature, since the very existence of an unthinking being consists in being perceived.

OF THING OR BEING

544 Nothing seems of more importance towards erecting a firm system of sound and real knowledge, which may be proof against the assaults of Scepticism, than to lay the beginning in a distinct explication of what is meant by thing, reality, existence; 545 for in vain shall we dispute concerning the real existence of things, or pretend to any knowledge thereof, so long as we have not fixed the meaning of those words. 546 Thing or Being is the most general name of all; it comprehends under it two kinds entirely distinct and heterogeneous, and which have nothing common but the name. viz. spirits and ideas. 547 The former are active, indivisible

substances: the latter are inert, fleeting, dependent beings, which subsist not by themselves, but are supported by, or exist in minds or spiritual substances. 548 We comprehend our own existence by inward feeling or reflexion, and that of other spirits by reason. 549 We may be said to have some knowledge or notion of our own minds, of spirits and active beings, whereof in a strict sense we have not ideas. 550 In like manner, we know and have a notion of relations between things or ideas--which relations are distinct from the ideas or things related, inasmuch as the latter may be perceived by us without our perceiving the former. 551 To me it seems that ideas, spirits, and relations are all in their respective kinds the object of human knowledge and subject of discourse; 552 and that the term idea would be improperly extended to signify everything we know or have any notion of.

EXTERNAL THINGS EITHER IMPRINTED BY OR PERCEIVED BY SOME OTHER MIND

553 Ideas imprinted on the senses are real things, or do really exist; 554 this we do not deny, but we deny they can subsist without the minds which perceive them, or that they are resemblances of any archetypes existing without the mind; 555 since the very being of a sensation or idea consists in being perceived, and an idea can be like nothing but an idea. Again, the things perceived by sense may be termed external, with regard to their origin-- 556 in that they are not generated from within by the mind itself, but imprinted by a Spirit distinct from that which perceives them. 557 Sensible objects may likewise be said to be "without the mind" in another sense, namely when they exist in some other mind; thus, when I shut my eyes, the things I saw may still exist, but it must be in another mind.

SENSIBLE QUALITIES REAL

558 It were a mistake to think that what is here said derogates in the least from the reality of things. 559 It is acknowledged, on the received principles, that extension, motion, and in a word all sensible qualities have need of a support, as not being able to subsist by themselves. 560 But the objects perceived by sense are allowed to be nothing but combinations of those qualities, and consequently cannot subsist by themselves. 561 Thus far it is agreed on all hand. So that in denying the things perceived by sense an existence independent of a substance of support wherein they may exist, 562 we detract nothing from the received opinion of their reality, and are guilty of no innovation in that respect. 563 All the difference is that, according to us, the unthinking beings perceived by sense have no existence distinct from being perceived, and cannot therefore exist in any other substance than those unextended indivisible substances or spirits which act and think and perceive them; 564 whereas philosophers vulgarly hold that the sensible qualities do exist in an inert, extended, unperceiving substance which they call Matter, to which they attribute a natural subsistence, exterior to all thinking beings, 565 or distinct from being perceived by any mind whatsoever, even the eternal mind of the Creator, wherein they suppose only ideas of the corporeal substances created by Him; if indeed they allow them to be at all created.

OBJECTIONS OF ATHEISTS OVERTURNED

566 For, as we have shown the doctrine of Matter or corporeal substance to have been the main pillar and support of Scepticism, so likewise upon the same foundation have been raised all the impious schemes of Atheism and Irreligion. 567 Nay, so great a difficulty has it been thought to conceive Matter produced out of nothing, 568 that the most celebrated among the ancient philosophers, even of those who maintained the being of a God,

have thought Matter to be uncreated and co-eternal with Him. 569 How great a friend material substance has been to Atheists in all ages were needless to relate. 570 All their monstrous systems have so visible and necessary a dependence on it that, when this corner-stone is once removed, the whole fabric cannot choose but fall to the ground, 571 insomuch that it is no longer worthwhile to bestow a particular consideration on the absurdities of every wretched sect of Atheists.

AND OF FATALISTS ALSO

572 That impious and profane persons should readily fall in with those systems which favour their inclinations, by deriding immaterial substance, and supposing the soul to be divisible and subject to corruption as the body; 573 which exclude all freedom, intelligence, and design from the formation of things, and instead thereof make a self--existent, stupid, unthinking substance the root and origin of all beings; 574 that they should hearken to those who deny a Providence, or inspection of a Superior Mind over the affairs of the world, 575 attributing the whole series of events either to blind chance or fatal necessity arising from the impulse of one body or another-- all this is very natural. 576 And, on the other hand, when people of better principles observe the enemies of religion lay so great a stress on unthinking Matter, and all of them use so much industry and artifice to reduce everything to it, 577 methinks they should rejoice to see them deprived of their grand support, and driven from that only fortress, without which your Epicureans, Hobbists, and the like, have not even the shadow of a pretence, but become the most cheap and easy triumph in the world.

OF IDOLATORS

578 The existence of Matter, or bodies unperceived, has not only been the main support of Atheists and Fatalists, but on the same principle doth Idolatry likewise in

all its various forms depend. 579 Did humans but consider that the sun, moon, and stars, and every other object of the senses are only so many sensations in their minds, which have no other existence but barely being perceived, 580 doubtless they would never fall down and worship their own ideas, but rather address their homage to that ETERNAL INVISIBLE MIND which produces and sustains all things.

AND SOCINIANS

581 The same absurd principle, by mingling itself with the articles of our faith, has occasioned no small difficulties to Christians. 582 For example, about the Resurrection, how many scruples and objections have been raised by Socinians and others? 583 But do not the most plausible of them depend on the supposition that a body is denominated the same, with regard not to the form or that which is perceived by sense, but the material substance, which remains the same under several forms? 584 Take away this material substance, about the identity whereof all the dispute is, and mean by body what every plain ordinary person means by that word, 585 to wit, that which is immediately seen and felt, which is only a combination of sensible qualities or ideas, and then their most unanswerable objections come to nothing.

SUMMARY OF THE CONSEQUENCES OF EXPELLING MATTER

586 Matter being once expelled out of Nature drags with it so many sceptical and impious notions, such an incredible number of disputes and puzzling questions, 587 which have been thorns in the sides of divines as well as philosophers, and made so much fruitless work for humankind, 588 that if the arguments we have produced against it are not found equal to demonstration (as to me they evidently seem), yet I am sure all friends to knowledge, peace, and religion have reason to wish they were.

589 Beside the external existence of the objects of perception, another great source of errors and difficulties with regard to ideal

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knowledge is the doctrine of abstract ideas, such as it has been set forth in Chapter-1. 590 The plainest things in the world, those we are most intimately acquainted with and perfectly know, when they are considered in an abstract way, appear strangely difficult and incomprehensible. 591 Time, place, and motion, taken in particular or concrete, are what everybody knows, but, having passed through the hands of a metaphysician, they become too abstract and fine to be apprehended by people of ordinary sense. 592 Bid your servant meet you at such a time in such a place, and one shall never stay to deliberate on the meaning of those words; in conceiving that particular time and place, or the motion by which one is to get thither, one finds not the least difficulty. 593 But if time be taken exclusive of all those particular actions and ideas that diversify the day, merely for the continuation of existence or duration in abstract, then it will perhaps gravel even a philosopher to comprehend it.

DILEMMA

594 For my own part, whenever I attempt to frame a simple idea of time, abstracted from the succession of ideas in my mind, which flows uniformly and is participated by all beings, I am lost and embrangled in inextricable difficulties. 595 I have no notion of it at all, only I hear others say it is infinitely divisible, and speak of it in such a manner as leads me to entertain odd thoughts of my existence; 596 since that doctrine lays one under an absolute necessity of thinking, either that you passes away innumerable ages without a thought, or else that you are annihilated every moment of your life, both which seem equally absurd. 597 Time therefore being nothing, abstracted from the succession of ideas in our minds, it follows that the duration of any finite spirit must be estimated by the number of ideas or actions succeeding each other in that same spirit or mind. 598 Hence, it is a plain consequence that the soul always thinks; and in truth whoever shall go about to divide in own thoughts, or abstract the

existence of a spirit from its cogitation, will, I believe, find it no easy task.

599 So likewise when we attempt to abstract extension and motion from all other qualities, and consider them by themselves, we presently lose sight of them, and run into great extravagances. 600 All which depend on a twofold abstraction; first, it is supposed that extension, for example, may be abstracted from all other sensible qualities; 601 and secondly, that the entity of extension may be abstracted from its being perceived. 602 But, whoever shall reflect, and take care to understand what you says, will, if I mistake not, acknowledge that all sensible qualities are alike sensations and alike real; 603 that where the extension is, there is the colour, too, in your mind, and that their archetypes can exist only in some other mind; 604 and that the objects of sense are nothing but those sensations combined, blended, or (if one may so speak) concreted together; none of all which can be supposed to exist unperceived.

605 What it is for a human to be happy, or an object good, every one may think you knows. 606 But to frame an abstract idea of happiness, prescinded from all particular pleasure, or of goodness from everything that is good, this is what few can pretend to. 607 So likewise a person may be just and virtuous without having precise ideas of justice and virtue. 608 The opinion that those and the like words stand for general notions, abstracted from all particular persons and actions, seems to have rendered morality very difficult, and the study thereof of small use to humankind. 609 And in effect the doctrine of abstraction has not a little contributed towards spoiling the most useful parts of knowledge.

OF NATURAL PHILOSOPHY AND MATHEMATICS

610 The two great provinces of speculative science conversant about ideas received from sense, are Natural Philosophy and Mathematics; 611 with regard to each of these I shall make some

observations. And first I shall say somewhat of Natural Philosophy. 612 On this subject it is that the sceptics triumph. All that stock of arguments they produce to depreciate our faculties and make humankind appear ignorant and low, are drawn principally from this head, 613 namely, that we are under an invincible blindness as to the true and real nature of things. 614 This they exaggerate, and love to enlarge on. We are miserably bantered, say they, by our senses, and amused only with the outside and show of things. 615 The real essence, the internal qualities and constitution of every the meanest object, is hid from our view; something there is in every drop of water, every grain of sand, which it is beyond the power of human understanding to fathom or comprehend. 616 But, it is evident from what has been shown that all this complaint is groundless, and that we are influenced by false principles to that degree as to mistrust our senses, and think we know nothing of those things which we perfectly comprehend.

617 One great inducement to our pronouncing ourselves ignorant of the nature of things is the current opinion that everything includes within itself the cause of its properties; 618 or that there is in each object an inward essence which is the source whence its discernible qualities flow, and whereon they depend. 619 Some have pretended to account for appearances by occult qualities, but of late they are mostly resolved into mechanical causes, to wit, the figure, motion, weight, and suchlike qualities, of insensible particles; 620 whereas, in truth, there is no other agent or efficient cause than spirit, it being evident that motion, as well as all other ideas, is perfectly inert. 621 Hence, to endeavour to explain the production of colours or sounds, by figure, motion, magnitude, and the like, must needs be labour in vain. And accordingly we see the attempts of that kind are not at all satisfactory. 622 Which may be said in general of those instances wherein one idea or quality is assigned for the cause of another. 623 I need not say how many hypotheses and speculations are left out, and how much the study

of Nature is abridged by this doctrine.

ATTRACTION SIGNIFIES THE EFFECT, NOT THE MANNER OR CAUSE

624 The great mechanical principle now in vogue is attraction. 625 That a stone falls to the earth, or the sea swells towards the moon, may to some appear sufficiently explained thereby. But how are we enlightened by being told this is done by attraction? 626 Is it that that word signifies the manner of the tendency, and that it is by the mutual drawing of bodies instead of their being impelled or protruded towards each other? 627 But, nothing is determined of the manner or action, and it may as truly (for aught we know) be termed "impulse," or "protrusion," as "attraction." 628 Again, the parts of steel we see cohere firmly together, and this also is accounted for by attraction; 629 but, in this as in the other instances, I do not perceive that anything is signified besides the effect itself; for as to the manner of the action whereby it is produced, or the cause which produces it, these are not so much as aimed at.

630 Indeed, if we take a view of the several phenomena, and compare them together, we may observe some likeness and conformity between them. 631 For example, in the falling of a stone to the ground, in the rising of the sea towards the moon, in cohesion, crystallisation, etc, there is something alike, namely, an union or mutual approach of bodies. 632 So that any one of these or the like phenomena may not seem strange or surprising to a person who has nicely observed and compared the effects of Nature. 633 For that only is thought so which is uncommon, or a thing by itself, and out of the ordinary course of our observation. 634 That bodies should tend towards the centre of the earth is not thought strange, because it is what we perceive every moment of our lives. 635 But, that they should have a like gravitation towards the centre of the moon may seem odd and unaccountable to most people, because it is discerned only in the tides. 636 But a philosopher, whose thoughts take in a larger compass of Nature, having observed a

certain similitude of appearances, as well in the heavens as the earth, 637 that argue innumerable bodies to have a mutual tendency towards each other, which you denotes by the general name "attraction," whatever can be reduced to that you thinks justly accounted for. 638 Thus you explains the tides by the attraction of the terraqueous globe towards the moon, which to you does not appear odd or anomalous, but only a particular example of a general rule or Law of Nature.

639 If therefore we consider the difference there is betwixt natural philosophers and other people, with regard to their knowledge of the phenomena, we shall find it consists not in an exacter knowledge of the efficient cause that produces them-- 640 for that can be no other than the will of a spirit-- but only in a greater largeness of comprehension, whereby analogies, harmonies, and agreements are discovered in the works of Nature, and the particular effects explained, 641 that is, reduced to general rules, which rules, grounded on the analogy and uniformness observed in the production of natural effects, are most agreeable and sought after by the mind; 642 for that they extend our prospect beyond what is present and near to us, and enable us to make very probable conjectures touching things that may have happened at very great distances of time and place, as well as to predict things to come; 643 which sort of endeavour towards omniscience is much affected by the mind.

CAUTION AS TO THE USE OF ANALOGIES

644 But we should proceed warily in such things, for we are apt to lay too great stress on analogies, and, to the prejudice of truth, humour that eagerness of the mind whereby it is carried to extend its knowledge into general theorems. 645 For example, in the business of gravitation or mutual attraction, because it appears in many instances, some are straightway for pronouncing it universal; 646 and that to attract and be attracted by every other body is an essential quality inherent in all bodies

whatsoever. 647 Whereas it is evident the fixed stars have no such tendency towards each other; and, so far is that gravitation from being essential to bodies that in some instances a quite contrary principle seems to show itself; as in the perpendicular growth of plants, and the elasticity of the air. 648 There is nothing necessary or essential in the case, but it depends entirely on the will of the Governing Spirit, who causes certain bodies to cleave together or tend towards each other according to various laws, 649 whilst He keeps others at a fixed distance; and to some He gives a quite contrary tendency to fly asunder just as He sees convenient.

650 After what has been premised, I think we may lay down the following conclusions. First, it is plain philosophers amuse themselves in vain, when they inquire for any natural efficient cause, distinct from a mind or spirit. 651 Secondly, considering the whole creation is the workmanship of a wise and good Agent, it should seem to become philosophers to employ their thoughts (contrary to what some hold) about the final causes of things; 652 and I confess I see no reason why pointing out the various ends to which natural things are adapted, and for which they were originally with unspeakable wisdom contrived, should not be thought one good way of accounting for them, and altogether worthy a philosopher. 653 Thirdly, from what has been premised no reason can be drawn why the history of Nature should not still be studied, and observations and experiments made, which, that they are of use to humankind, and enable us to draw any general conclusions, 654 is not the result of any immutable habitudes or relations between things themselves, but only of God's goodness and kindness to humans in the administration of the world. 655 Fourthly, by a diligent observation of the phenomena within our view, we may discover the general Laws of Nature, and from them deduce the other phenomena; 656 I do not say demonstrate, for all deductions of that kind depend on a supposition that the Author of Nature always operates uniformly, and in a

constant observance of those rules we take for principles: which we cannot evidently know.

THREE ANALOGIES

657 Those people who frame general rules from the phenomena and afterwards derive the phenomena from those rules, seem to consider signs rather than causes. 658 A person may well understand natural signs without knowing their analogy, or being able to say by what rule a thing is so or so. 659 And, as it is very possible to write improperly, through too strict an observance of general grammar rules; so, in arguing from general Laws of Nature, it is not impossible we may extend the analogy too far, and by that means run into mistakes.

660 As in reading other books a wise person will choose to fix own thoughts on the sense and apply it to use, rather than lay them out in grammatical remarks on the language; 661 so, in perusing the volume of Nature, it seems beneath the dignity of the mind to affect an exactness in reducing each particular phenomenon to general rules, or showing how it follows from them. 662 We should propose to ourselves nobler views, namely, to recreate and exalt the mind with a prospect of the beauty, order. extent, and variety of natural things: 663 hence, by proper inferences, to enlarge our notions of the grandeur, wisdom, and beneficence of the Creator; 664 and lastly, to make the several parts of the creation, so far as in us lies, subservient to the ends they were designed for, God's glory, and the sustentation and comfort of ourselves and fellow-creatures.

665 The best key for the aforesaid analogy or natural Science will be easily acknowledged to be a certain celebrated Treatise of Mechanics. 666 In the entrance of which justly admired treatise, Time, Space, and Motion are distinguished into absolute and relative, true and apparent, mathematical and vulgar; 667 which distinction, as it is at large explained by the author, does suppose these quantities to have an existence without the mind; 668 and that they are ordinarily

conceived with relation to sensible things, to which nevertheless in their own nature they bear no relation at all.

669 As for Time, as it is there taken in an absolute or abstracted sense, for the duration or perseverance of the existence of things, I have nothing more to add concerning it after what has been already said on that subject. 670 For the rest, this celebrated author holds there is an absolute Space, which, being unperceivable to sense, remains in itself similar and immovable; 671 and relative space to be the measure thereof, which, being movable and defined by its situation in respect of sensible bodies, is vulgarly taken for immovable space. 672 Place he defines to be that part of space which is occupied by any body; and according as the space is absolute or relative so also is the place. 673 Absolute Motion is said to be the translation of a body from absolute place to absolute place, as relative motion is from one relative place to another. 674 And, because the parts of absolute space do not fall under our senses, instead of them we are obliged to use their sensible measures and so define both place and motion with respect to bodies which we regard as immovable. 675 But, it is said in philosophical matters we must abstract from our senses, since it may be that none of those bodies which seem to be quiescent are truly so, and the same thing which is moved relatively may be really at rest; 676 as likewise one and the same body may be in relative rest and motion, or even moved with contrary relative motions at the same time, according as its place is variously defined. 677 All which ambiguity is to be found in the apparent motions, but not at all in the true or absolute, which should therefore be alone regarded in philosophy. 678 And the true as we are told are distinguished from apparent or relative motions by the following properties.-- 679 First, in true or absolute motion all parts which preserve the same position with respect of the whole, partake of the motions of the whole. 680 Secondly, the place being moved, that which is placed therein is also moved; so that a body moving in a place which is in motion doth participate the motion of its place.

681 Thirdly, true motion is never generated or changed otherwise than by force impressed on the body itself. 682 Fourthly, true motion is always changed by force impressed on the body moved. 683 Fifthly, in circular motion barely relative there is no centrifugal force, which, nevertheless, in that which is true or absolute, is proportional to the quantity of motion.

MOTION, WHETHER REAL OR APPARENT, RELATIVE

684 But, notwithstanding what has been said, I must confess it does not appear to me that there can be any motion other than relative; 685 so that to conceive motion there must be at least conceived two bodies, whereof the distance or position in regard to each other is varied. 686 Hence, if there was one only body in being it could not possibly be moved. This seems evident, in that the idea I have of motion doth necessarily include relation.

APPARENT MOTION DENIED

687 But, though in every motion it be necessary to conceive more bodies than one, yet it may be that one only is moved, namely, that on which the force causing the change in the distance or situation of the bodies, is impressed. 688 For, however some may define relative motion, so as to term that body moved which changes its distance from some other body, whether the force or action causing that change were impressed on it or no, 689 yet as relative motion is that which is perceived by sense, and regarded in the ordinary affairs of life, it should seem that every person of common sense knows what it is as well as the best philosopher. 690 Now, I ask any one whether, in your sense of motion as you walks along the streets, the stones you passes over may be said to move, because they change distance with your feet? 691 To me it appears that though motion includes a relation of one thing to another, yet it is not necessary that each term of the relation be denominated from it. 692 As a person may think of somewhat

which does not think, so a body may be moved to or from another body which is not therefore itself in motion.

693 As the place happens to be variously defined, the motion which is related to it varies. 694 A person in a ship may be said to be quiescent with relation to the sides of the vessel, and yet move with relation to the land. Or you may move eastward in respect of the one, and westward in respect of the other. 695 In the common affairs of life humans never go beyond the earth to define the place of any body; and what is quiescent in respect of that is accounted absolutely to be so. 696 But philosophers, who have a greater extent of thought, and juster notions of the system of things, discover even the earth itself to be moved. 697 In order therefore to fix their notions they seem to conceive the corporeal world as finite, and the utmost unmoved walls or shell thereof to be the place whereby they estimate true motions. 698 If we sound our own conceptions, I believe we may find all the absolute motion we can frame an idea of to be at bottom no other than relative motion thus defined. 699 For, as has been already observed, absolute motion, exclusive of all external relation, is incomprehensible; 700 and to this kind of relative motion all the above-mentioned properties, causes, and effects ascribed to absolute motion will, if I mistake not, be found to agree. 701 As to what is said of the centrifugal force, that it does not at all belong to circular relative motion, I do not see how this follows from the experiment which is brought to prove it. See *Philosophiae Naturalis Principia Mathematica, in Schol.* 702 For the water in the vessel at that time wherein it is said to have the greatest relative circular motion, has, I think, no motion at all; as is plain from the foregoing section.

703 For, to denominate a body moved it is requisite, first, that it change its distance or situation with regard to some other body; and secondly, that the force occasioning that change be applied to it. 704 If either of these be wanting, I do not think that, agreeably to the sense of

humankind, or the propriety of language, a body can be said to be in motion. 705 I grant indeed that it is possible for us to think a body which we see change its distance from some other to be moved, though it have no force applied to it (in which sense there may be apparent motion), 706 but then it is because the force causing the change of distance is imagined by us to be applied or impressed on that body thought to move; which indeed shows we are capable of mistaking a thing to be in motion which is not, and that is all.

ANY IDEA OF PURE SPACE RELATIVE

707 From what has been said it follows that the philosophic consideration of motion does not imply the being of an absolute Space, distinct from that which is perceived by sense and related bodies; 708 which that it cannot exist without the mind is clear upon the same principles that demonstrate the like of all other objects of sense. 709 And perhaps, if we inquire narrowly, we shall find we cannot even frame an idea of pure Space exclusive of all body. This I must confess seems impossible, as being a most abstract idea. 710 When I excite a motion in some part of my body, if it be free or without resistance, I say there is Space; but if I find a resistance, then I say there is Body; and in proportion as the resistance to motion is lesser or greater, I say the space is more or less pure. 711 So that when I speak of pure or empty space, it is not to be supposed that the word "space" stands for an idea distinct from or conceivable without body and motion-- 712 though indeed we are apt to think every noun substantive stands for a distinct idea that may be separated from all others; which has occasioned infinite mistakes. 713 When, therefore, supposing all the world to be annihilated besides my own body, I say there still remains pure Space, thereby nothing else is meant but only that I conceive it possible for the limbs of my body to be moved on all sides without the least resistance, 714 but if that, too, were annihilated then there could be no motion, and consequently no

Space. 715 Some, perhaps, may think the sense of seeing doth furnish them with the idea of pure space; but it is plain from what we have elsewhere shown, that the ideas of space and distance are not obtained by that sense. See the *Essay concerning Vision*.

716 What is here laid down seems to put an end to all those disputes and difficulties that have sprung up amongst the learned concerning the nature of pure Space. 717 But the chief advantage arising from it is that we are freed from that dangerous dilemma, to which several who have employed their thoughts on that subject imagine themselves reduced, 718 to wit, of thinking either that Real Space is God, or else that there is something beside God which is eternal, uncreated, infinite, indivisible, immutable. Both which may justly be thought pernicious and absurd notions. 719 It is certain that not a few divines, as well as philosophers of great note, have, from the difficulty they found in conceiving either limits or annihilation of space, concluded it must be divine. 720 And some of late have set themselves particularly to show the incommunicable attributes of God agree to it. 721 Which doctrine, how unworthy soever it may seem of the Divine Nature, yet I do not see how we can get clear of it, so long as we adhere to the received opinions.

THE ERRORS ARISING FROM THE DOCTRINES OF ABSTRACTION AND EXTERNAL MATERIAL EXISTENCES, INFLUENCE MATHEMATICAL REASONINGS

722 Hitherto of Natural Philosophy: we come now to make some inquiry concerning that other great branch of speculative knowledge, to wit, Mathematics. 723 These, how celebrated soever they may be for their clearness and certainty of demonstration, which is hardly anywhere else to be found, cannot nevertheless be supposed altogether free from mistakes, 724 if in their principles there lurks some secret error which is common to the professors of those sciences with the rest of humankind. 725 Mathematicians, though they deduce their theorems from a great height of evidence,

yet their first principles are limited by the consideration of quantity: 726 and they do not ascend into any inquiry concerning those transcendental maxims which influence all the particular sciences, each part whereof, Mathematics not excepted, does consequently participate of the errors involved in them. 727 That the principles laid down by mathematicians are true, and their way of deduction from those principles clear and incontestible, we do not deny; 728 but, we hold there may be certain erroneous maxims of greater extent than the object of Mathematics, and for that reason not expressly mentioned, though tacitly supposed throughout the whole progress of that science; 729 and that the ill effects of those secret unexamined errors are diffused through all the branches thereof. 730 To be plain, we suspect the mathematicians are as well as other people concerned in the errors arising from the doctrine of abstract general ideas, and the existence of objects without the mind.

731 Arithmetic has been thought to have for its object abstract ideas of Number; of which to understand the properties and mutual habitudes, is supposed no mean part of speculative knowledge. 732 The opinion of the pure and intellectual nature of numbers in abstract has made them in esteem with those philosophers who seem to have affected an uncommon fineness and elevation of thought. 733 It has set a price on the most trifling numerical speculations which in practice are of no use, but serve only for amusement; 734 and has therefore so far infected the minds of some, that they have dreamed of mighty mysteries involved in numbers, and attempted the explication of natural things by them. 735 But, if we inquire into our own thoughts, and consider what has been premised, we may perhaps entertain a low opinion of those high flights and abstractions, 736 and look on all inquiries, about numbers only as so many difficiles nugae, so far as they are not subservient to practice, and promote the benefit of life.

737 Unity in abstract we have before considered in chapter-1, verses:106-118, from which and

what has been said in chapter-1, it plainly follows there is not any such idea. 738 But, number being defined a "collection of units," we may conclude that, if there be no such thing as unity or unit in abstract, there are no ideas of number in abstract denoted by the numeral names and figures. 739 The theories therefore in Arithmetic, if they are abstracted from the names and figures, as likewise from all use and practice, as well as from the particular things numbered, can be supposed to have nothing at all for their object; 740 hence we may see how entirely the science of numbers is subordinate to practice, and how jejune and trifling it becomes when considered as a matter of mere speculation.

741 However, since there may be some who, deluded by the specious show of discovering abstracted verities, waste their time in arithmetical theorems and problems which have not any use, 742 it will not be amiss if we more fully consider and expose the vanity of that pretence; and this will plainly appear by taking a view of Arithmetic in its infancy, and observing what it was that originally put people on the study of that science, and to what scope they directed it. 743 It is natural to think that at first, people, for ease of memory and help of computation, made use of counters, or in writing of single strokes, points, or the like, each whereof was made to signify an unit, i.e., some one thing of whatever kind they had occasion to reckon. 744 Afterwards they found out the more compendious ways of making one character stand in place of several strokes or points. 745 And, lastly, the notation of the Arabians or Indians came into use, wherein, by the repetition of a few characters or figures, and varying the signification of each figure according to the place it obtains, all numbers may be most aptly expressed; 746 which seems to have been done in imitation of language, so that an exact analogy is observed betwixt the notation by figures and names, 747 the nine simple figures answering the nine first numeral names and places in the former, corresponding to denominations in the latter. 748 And agreeably to those conditions

of the simple and local value of figures, were contrived methods of finding, from the given figures or marks of the parts, what figures and how placed are proper to denote the whole, or vice versa. 749 And having found the sought figures, the same rule or analogy being observed throughout, it is easy to read them into words; and so the number becomes perfectly known. 750 For then the number of any particular things is said to be known, when we know the name of figures (with their due arrangement) that according to the standing analogy belong to them. 751 For, these signs being known, we can by the operations of arithmetic know the signs of any part of the particular sums signified by them; 752 and, thus computing in signs (because of the connexion established betwixt them and the distinct multitudes of things whereof one is taken for an unit), we may be able rightly to sum up, divide, and proportion the things themselves that we intend to number.

753 In Arithmetic, therefore, we regard not the things, but the signs, which nevertheless are not regarded for their own sake, but because they direct us how to act with relation to things, and dispose rightly of them. 754 Now, agreeably to what we have before observed of words in general (chapter-1, verses 174-180) it happens here likewise that abstract ideas are thought to be signified by numeral names or characters, while they do not suggest ideas of particular things to our minds. 755 I shall not at present enter into a more particular dissertation on this subject, but only observe that it is evident from what has been said, those things which pass for abstract truths and theorems concerning numbers, are in reality conversant about no object distinct from particular numeral things, 756 except only names and characters, which originally came to be considered on no other account but their being signs, or capable to represent aptly whatever particular things people had need to compute. 757 Whence it follows that to study them for their own sake would be just as wise, 758 and to as good purpose as if a person, neglecting the true use or original intention and subserviency of

language, should spend own time in impertinent criticisms upon words, or reasonings and controversies purely verbal.

759 From numbers we proceed to speak of Extension, which, considered as relative, is the object of Geometry. 760 The infinite divisibility of finite extension, though it is not expressly laid down either as an axiom or theorem in the elements of that science, 761 yet is throughout the same everywhere supposed and thought to have so inseparable and essential a connexion with the principles and demonstrations in Geometry, that mathematicians never admit it into doubt, or make the least question of it. 762 And, as this notion is the source from whence do spring all those amusing geometrical paradoxes which have such a direct repugnancy to the plain common sense of humankind, and are admitted with so much reluctance into a mind not yet debauched by learning; 763 so it is the principal occasion of all that nice and extreme subtilty which renders the study of Mathematics so difficult and tedious. 764 Hence, if we can make it appear that no finite extension contains innumerable parts, or is infinitely divisible, it follows that we shall at once clear the science of Geometry from a great number of difficulties 765 and contradictions which have ever been esteemed a reproach to human reason, and withal make the attainment thereof a business of much less time and pains than it hitherto has been.

766 Every particular finite extension which may possibly be the object of our thought is an idea existing only in the mind, and consequently each part thereof must be perceived. 767 If, therefore, I cannot perceive innumerable parts in any finite extension that I consider, it is certain they are not contained in it; 768 but, it is evident that I cannot distinguish innumerable parts in any particular line, surface, or solid, which I either perceive by sense, or figure to myself in my mind: wherefore I conclude they are not contained in it. 769 Nothing can be plainer to me than that the extensions I have in view are no other than my own ideas; 770 and it is no less plain that I cannot

resolve any one of my ideas into an infinite number of other ideas, that is, that they are not infinitely divisible. 771 If by finite extension be meant something distinct from a finite idea, I declare I do not know what that is, and so cannot affirm or deny anything of it. 772 But if the terms "extension," "parts," are taken in any sense conceivable, that is, for ideas, then to say a finite quantity or extension consists of parts infinite in number is so manifest a contradiction, that every one at first sight acknowledges it to be so; 773 and it is impossible it should ever gain the assent of any reasonable creature who is not brought to it by gentle and slow degrees, as a converted Gentile to the belief of transubstantiation. 774 Ancient and rooted prejudices do often pass into principles; and those propositions which once obtain the force and credit of a principle, are not only themselves, but likewise whatever is deducible from them, thought privileged from all examination. 775 And there is no absurdity so gross, which, by this means, the mind of human may not be prepared to swallow.

776 You whose understanding is possessed with the doctrine of abstract general ideas may be persuaded that (whatever be thought of the ideas of sense) extension in abstract is infinitely divisible. 777 And one who thinks the objects of sense exist without the mind will perhaps in virtue thereof be brought to admit that a line but an inch long may contain innumerable parts-- really existing, though too small to be discerned. 778 These errors are grafted as well in the minds of geometricians as of other people, and have a like influence on their reasonings; 779 and it were no difficult thing to show how the arguments from Geometry made use of to support the infinite divisibility of extension are bottomed on them. 780 At present we shall only observe in general whence it is the mathematicians are all so fond and tenacious of that doctrine.

781 It has been observed in another place that the theorems and demonstrations in Geometry are conversant about universal ideas (Chapter-1, verses 91-93); 782 where

it is explained in what sense this ought to be understood, to wit, the particular lines and figures included in the diagram are supposed to stand for innumerable others of different sizes; 783 or, in other words, the geometer considers them abstracting from their magnitude-- which does not imply that one forms an abstract idea, but only that one cares not what the particular magnitude is, whether great or small, but looks on that as a thing different to the demonstration. 784 Hence it follows that a line in the scheme but an inch long must be spoken of as though it contained ten thousand parts, since it is regarded not in itself, but as it is universal; 785 and it is universal only in its signification, whereby it represents innumerable lines greater than itself, in which may be distinguished ten thousand parts or more, though there may not be above an inch in it. 786 After this manner, the properties of the lines signified are (by a very usual figure) transferred to the sign, and thence, through mistake, though to appertain to it considered in its own nature.

787 Because there is no number of parts so great but it is possible there may be a line containing more, the inch-line is said to contain parts more than any assignable number; which is true, not of the inch taken absolutely, but only for the things signified by it. 788 But people, not retaining that distinction in their thoughts, slide into a belief that the small particular line described on paper contains in itself parts innumerable. 789 There is no such thing as the ten--thousandth part of an inch; but there is of a mile or diameter of the earth, which may be signified by that inch. 790 When therefore I delineate a triangle on paper, and take one side not above an inch, for example, in length to be the radius, this I consider as divided into 10,000 or 100,000 parts or more; 791 for, though the ten-thousandth part of that line considered in itself is nothing at all, and consequently may be neglected without an error or inconveniency, 792 yet these described lines, being only marks standing for greater quantities, whereof it may be the ten--thousandth part is very

considerable, it follows that, to prevent notable errors in practice, the radius must be taken of 10,000 parts or more.

LINES WHICH ARE INFINITELY DIVISIBLE

793 From what has been said the reason is plain why, to the end any theorem become universal in its use, it is necessary we speak of the lines described on paper as though they contained parts which really they do not. 794 In doing of which, if we examine the matter thoroughly, we shall perhaps discover that we cannot conceive an inch itself as consisting of, or being divisible into, a thousand parts, but only some other line which is far greater than an inch, and represented by it; 795 and that when we say a line is infinitely divisible, we must mean a line which is infinitely great. 796 What we have here observed seems to be the chief cause why, to suppose the infinite divisibility of finite extension has been thought necessary in geometry.

797 The several absurdities and contradictions which flowed from this false principle might, one would think, have been esteemed so many demonstrations against it. 798 But, by I know not what logic, it is held that proofs a-posteriori are not to be admitted against propositions relating to infinity, as though it were not impossible even for an infinite mind to reconcile contradictions; 799 or as if anything absurd and repugnant could have a necessary connexion with truth or flow from it. 800 But, whoever considers the weakness of this pretence will think it was contrived on purpose to humour the laziness of the mind 801 which had rather acquiesce in an indolent scepticism than be at the pains to go through with a severe examination of those principles it has ever embraced for true.

802 Of late the speculations about Infinities have run so high, and grown to such strange notions, as have occasioned no small scruples and disputes among the geometers of the present age. 803 Some there are of great note who, not content with holding that finite lines may be divided into an infinite number

of parts, do yet farther maintain that each of those infinitesimals is itself subdivisible into an infinity of other parts or infinitesimals of a second order, and so on ad infinitum. 804 These, I say, assert there are infinitesimals of infinitesimals of infinitesimals, without ever coming to an end; 805 so that according to them an inch does not barely contain an infinite number of parts, but an infinity of an infinity of an infinity ad infinitum of parts. 806 Others there be who hold all orders of infinitesimals below the first to be nothing at all; thinking it with good reason absurd to imagine there is any positive quantity or part of extension which, though multiplied infinitely, can never equal the smallest given extension. 807 And yet on the other hand it seems no less absurd to think the square, cube or other power of a positive real root, should itself be nothing at all; 808 which they who hold infinitesimals of the first order, denying all of the subsequent orders, are obliged to maintain.

OBJECTION OF MATHEMATICIANS--ANSWER

809 Have we not therefore reason to conclude they are both in the wrong, and that there is in effect no such thing as parts infinitely small, or an infinite number of parts contained in any finite quantity? 810 But you will say that if this doctrine obtains it will follow the very foundations of Geometry are destroyed, and those great people who have raised that science to so astonishing a height, have been all the while building a castle in the air. 811 To this it may be replied that whatever is useful in geometry, and promotes the benefit of human life, does still remain firm and unshaken on our principles; 812 that science considered as practical will rather receive advantage than any prejudice from what has been said. 813 But to set this in a due light may be the proper business of another place. 814 For the rest, though it should follow that some of the more intricate and subtle parts of Speculative Mathematics may be pared off without any prejudice to truth, yet I do not see what damage will be thence

derived to humankind. 815 On the contrary, I think it were highly to be wished that people of great abilities and obstinate application would draw off their thoughts from those amusements, and employ them in the study of such things as lie nearer the concerns of life, or have a more direct influence on the manners.

SECOND OBJECTION OF MATHEMATICIANS.-- ANSWER

816 If it be said that several theorems undoubtedly true are discovered by methods in which infinitesimals are made use of, which could never have been if their existence included a contradiction in it; 817 I answer that upon a thorough examination it will not be found that in any instance it is necessary to make use of or conceive infinitesimal parts of finite lines, or even quantities less than the minimum sensible; nay, it will be evident this is never done, it being impossible.

IF THE DOCTRINE WERE ONLY AN HYPOTHESIS IT SHOULD BE RESPECTED FOR ITS CONSEQUENCES

818 By what we have premised, it is plain that very numerous and important errors have taken their rise from those false Principles which were impugned in the foregoing parts of this treatise; 819 and the opposites of those erroneous tenets at the same time appear to be most fruitful Principles, from whence do flow innumerable consequences highly advantageous to true philosophy, as well as to religion. 820 Particularly Matter, or the absolute existence of corporeal objects, has been shown to be that wherein the most avowed and pernicious enemies of all knowledge, whether human or divine, have ever placed their chief strength and confidence. 821 And surely, if by distinguishing the real existence of unthinking things from their being perceived, and allowing them a subsistance of their own out of the minds of spirits, no one thing is explained in Nature, but on the contrary a great many inexplicable difficulties arise; 822 if the

supposition of Matter is barely precarious, as not being grounded on so much as one single reason; 823 if its consequences cannot endure the light of examination and free inquiry, but screen themselves under the dark and general pretence of "infinites being incomprehensible"; 824 if withal the removal of this Matter be not attended with the least evil consequence; 825 if it be not even missed in the world, but everything as well, nay much easier conceived without it; 826 if, lastly, both Sceptics and Atheists are for ever silenced upon supposing only spirits and ideas, and this scheme of things is perfectly agreeable both to Reason and Religion: 827 methinks we may expect it should be admitted and firmly embraced, though it were proposed only as an hypothesis, and the existence of Matter had been allowed possible, which yet I think we have evidently demonstrated that it is not.

828 True it is that, in consequence of the foregoing principles, several disputes and speculations which are esteemed no mean parts of learning, are rejected as useless. 829 But, how great a prejudice soever against our notions this may give to those who have already been deeply engaged, and make large advances in studies of that nature, 830 yet by others we hope it will not be thought any just ground of dislike to the principles and tenets herein laid down, that they abridge the labour of study, and make human sciences far more clear, compendious and attainable than they were before.

831 Having despatched what we intended to say concerning the knowledge of IDEAS, the method we proposed leads us in the next place to treat of SPIRITS-- with regard to which, perhaps, human knowledge is not so deficient as is vulgarly imagined. 832 The great reason that is assigned for our being thought ignorant of the nature of spirits is our not having an idea of it. 833 But, surely it ought not to be looked on as a defect in a human understanding that it does not perceive the idea of spirit, if it is manifestly impossible there should be any such idea. 834 And this if I mistake not has been demonstrated in verses 164-173 in

this chapter; to which I shall here add that a spirit has been shown to be the only substance or support wherein unthinking beings or ideas can exist; 835 but that this substance which supports or perceives ideas should itself be an idea or like an idea is evidently absurd.

OBJECTION--ANSWER

836 It will perhaps be said that we want a sense (as some have imagined) proper to know substances withal, which, if we had, we might know our own soul as we do a triangle. 837 To this I answer, that, in case we had a new sense bestowed upon us, we could only receive thereby some new sensations or ideas of sense. 838 But I believe nobody will say that what you means by the terms soul and substance is only some particular sort of idea or sensation. 839 We may therefore infer that, all things duly considered, it is not more reasonable to think our faculties defective, in that they do not furnish us with an idea of spirit or active thinking substance, than it would be if we should blame them for not being able to comprehend a round square.

840 From the opinion that spirits are to be known after the manner of an idea or sensation have risen many absurd and heterodox tenets, and much scepticism about the nature of the soul. 841 It is even probable that this opinion may have produced a doubt in some whether they had any soul at all distinct from their body since upon inquiry they could not find they had an idea of it. 842 That an idea which is inactive, and the existence whereof consists in being perceived, should be the image or likeness of an agent subsisting by itself, seems to need no other refutation than barely attending to what is meant by those words. 843 But, perhaps you will say that though an idea cannot resemble a spirit in its thinking, acting, or subsisting by itself, yet it may in some other respects; and it is not necessary that an idea or image be in all respects like the original.

844 I answer, if it does not in those mentioned, it is impossible it should represent it in any other thing. 845 Do but leave out the power of willing, thinking, and perceiving ideas, and there remains nothing else wherein the idea can be like a spirit. 846 For, by the word spirit we mean only that which thinks, wills, and perceives; this, and this alone, constitutes the signification of the term. 847 If therefore it is impossible that any degree of those powers should be represented in an idea, it is evident there can be no idea of a spirit.

848 But it will be objected that, if there is no idea signified by the terms soul, spirit, and substance, they are wholly insignificant, or have no meaning in them. 849 I answer, those words do mean or signify a real thing, which is neither an idea nor like an idea, but that which perceives ideas, and wills, and reasons about them. 850 What I am myself, that which I denote by the term I, is the same with what is meant by soul or spiritual substance. 851 If it be said that this is only quarreling at a word, and that, since the immediately significations of other names are by common consent called ideas, no reason can be assigned why that which is signified by the name spirit or soul may not partake in the same appellation. 852 I answer, all the unthinking objects of the mind agree in that they are entirely passive, and their existence consists only in being perceived; 853 whereas a soul or spirit is an active being, whose existence consists, not in being perceived, but in perceiving ideas and thinking. 854 It is therefore necessary, in order to prevent equivocation and confounding natures perfectly disagreeing and unlike, that we distinguish between spirit and idea. See verses 164-173 of this chapter.

OUR IDEA OF SPIRIT

855 In a large sense, indeed, we may be said to have an idea or rather a notion of spirit; that is, we understand the meaning of the word, otherwise we could not affirm or deny anything of it. 856 Moreover, as we conceive the ideas that are in the minds of other

spirits by means of our own, which we suppose to be resemblances of them; so we know other spirits by means of our own soul-- which in that sense is the image or idea of them; 857 it having a like respect to other spirits that blueness or heat by me perceived has to those ideas perceived by another.

THE NATURAL IMMORTALITY OF THE SOUL IS A NECESSARY CONSEQUENCE OF THE FOREGOING DOCTRINE

858 It must not be supposed that they who assert the natural immortality of the soul are of opinion that it is absolutely incapable of annihilation even by the infinite power of the Creator who first gave it being, 859 but only that it is not liable to be broken or dissolved by the ordinary Laws of Nature or motion. 860 They indeed who hold the soul of human to be only a thin vital flame, or system of animal spirits, make it perishing and corruptible as the body; 861 since there is nothing more easily dissipated than such a being, which it is naturally impossible should survive the ruin of the tabernacle wherein it is enclosed. 862 And this notion has been greedily embraced and cherished by the worst part of humankind, as the most effectual antidote against all impressions of virtue and religion. 863 But it has been made evident that bodies, of what frame or texture soever, are barely passive ideas in the mind, which is more distant and heterogeneous from them than light is from darkness. 864 We have shown that the soul is indivisible, incorporeal, unextended, and it is consequently incorruptible. 865 Nothing can be plainer than that the motions, changes, decays, and dissolutions which we hourly see befall natural bodies (and which is what we mean by the course of nature) cannot possibly affect an active, simple, uncompounded substance; 866 such a being therefore is indissoluble by the force of Nature; that is to say, "the soul of human is naturally immortal."

867 After what has been said, it is, I suppose, plain that our souls are not to be known in the same manner as senseless, inactive objects, or by way of idea.

868 Spirits and ideas are things so wholly different, that when we say "they exist," "they are known," or the like, these words must not be thought to signify anything common to both natures. 869 There is nothing alike or common in them: and to expect that by any multiplication or enlargement of our faculties we may be enabled to know a spirit as we do a triangle, seems as absurd as if we should hope to see a sound. 870 This is inculcated because I imagine it may be of moment towards clearing several important questions, and preventing some very dangerous errors concerning the nature of the soul. 871 We may not, I think, strictly be said to have an idea of an active being, or of an action, although we may be said to have a notion of them. 872 I have some knowledge or notion of my mind, and its acts about ideas, inasmuch as I know or understand what is meant by these words. 873 What I know, that I have some notion of. I will not say that the terms idea and notion may not be used convertibly, if the world will have it so; 874 but yet it conduceth to clearness and propriety that we distinguish things very different by different names. 875 It is also to be remarked that, all relations including an act of the mind, we cannot so properly be said to have an idea, but rather a notion of the relations and habitudes between things. 876 But if, in the modern way, the word idea is extended to spirits, and relations, and acts, this is, after all, an affair of verbal concern.

877 It will not be amiss to add, that the doctrine of abstract ideas has had no small share in rendering those sciences intricate and obscure which are particularly conversant about spiritual things. 878 Humans have imagined they could frame abstract notions of the powers and acts of the mind, and consider them prescinded as well from the mind or spirit itself, as from their respective objects and effects. 879 Hence a great number of dark and ambiguous terms, presumed to stand for abstract notions, have been introduced into metaphysics and morality, and from these have grown infinite distractions and disputes amongst the learned.

880 But, nothing seems more to have contributed towards engaging people in controversies and mistakes with regard to the nature and operations of the mind, than the being used to speak of those things in terms borrowed from sensible ideas. 881 For example, the Will is termed the motion of the soul; this infuses a belief that the mind of human is as a ball in motion, impelled and determined by the objects of sense, as necessarily as that is by the stroke of a racket. 882 Hence arise endless scruples and errors of dangerous consequence in morality. 883 All which, I doubt not, may be cleared, and truth appear plain, uniform, and consistent, could but philosophers be prevailed on to retire into themselves, and attentively consider their own meaning.

KNOWLEDGE OF SPIRITS NOT IMMEDIATE

884 From what has been said, it is plain that we cannot know the existence of other spirits otherwise than by their operations, or the ideas by them excited in us. 885 I perceive several motions, changes, and combinations of ideas, that inform me there are certain particular agents, like myself, which accompany them and concur in their production. 886 Hence, the knowledge I have of other spirits is not immediate, as is the knowledge of my ideas; but depending on the intervention of ideas, by me referred to agents or spirits distinct from myself, as effects or concomitant signs.

887 But, though there be some things which convince us human agents are concerned in producing them; 888 yet it is evident to every one that those things which are called the Works of Nature, that is, the far greater part of the ideas or sensations perceived by us, are not produced by, or dependent on, the wills of humans. 889 There is therefore some other Spirit that causes them; since it is repugnant that they should subsist by themselves. See verses 178-180 of this chapter. 890 But, if we attentively consider the constant regularity, order, and concatenation of natural things, the surprising magnificence, beauty,

and perfection of the larger, and the exquisite contrivance of the smaller parts of creation, together with the exact harmony and correspondence of the whole, 891 but above all the never-enough-admired laws of pain and pleasure, and the instincts or natural inclinations, appetites, and passions of animals; 892 I say if we consider all these things, and at the same time attend to the meaning and import of the attributes One, Eternal, Infinitely Wise, Good, and Perfect, we shall clearly perceive that they belong to the aforesaid Spirit, "who works all in all," and "by whom all things consist."

THE EXISTENCE OF GOD MORE EVIDENT THAN THAT OF HUMAN

893 Hence, it is evident that God is known as certainly and immediately as any other mind or spirit whatsoever distinct from ourselves. 894 We may even assert that the existence of God is far more evidently perceived than the existence of humans; because the effects of Nature are infinitely more numerous and considerable than those ascribed to human agents. 895 There is not any one mark that denotes a human, or effect produced by you, which does not more strongly evince the being of that Spirit who is the Author of Nature. 896 For, it is evident that in affecting other persons the will of human has no other object than barely the motion of the limbs of your body; 897 but that such a motion should be attended by, or excite any idea in the mind of another, depends wholly on the will of the Creator. 898 He alone it is who, "upholding all things by the word of His power," maintains that intercourse between spirits whereby they are able to perceive the existence of each other. 899 And yet this pure and clear light which enlightens every one is itself invisible.

900 It seems to be a general pretence of the unthinking herd that they cannot see God. Could we but see Him, say they, as we see a human, we should believe that He is, and believing obey His commands. 901 But alas, we need only open our eyes to see the Sovereign Lord of all things, with a more full and clear view than we

do any one of our fellow--creatures. 902 Not that I imagine we see God (as some will have it) by a direct and immediate view; or see corporeal things, not by themselves, but by seeing that which represents them in the essence of God, which doctrine is, I must confess, to me incomprehensible. 903 But I shall explain my meaning;-- A human spirit or person is not perceived by sense, as not being an idea; when therefore we see the colour, size, figure, and motions of a person, we perceive only certain sensations or ideas excited in our own minds; 904 and these being exhibited to our view in sundry distinct collections, serve to mark out unto us the existence of finite and created spirits like ourselves. 905 Hence it is plain we do not see a human-- if by human is meant that which lives, moves, perceives, and thinks as we do-- 906 but only such a certain collection of ideas as directs us to think there is a distinct principle of thought and motion, like to ourselves, accompanying and represented by it. 907 And after the same manner we see God; all the difference is that, whereas some one finite and narrow assemblage of ideas denotes a particular human mind, 908 whithersoever we direct our view, we do at all times and in all places perceive manifest tokens of the Divinity: 909 everything we see, hear, feel, or anywise perceive by sense, being a sign or effect of the power of God; as is our perception of those very motions which are produced by humans.

910 It is therefore plain that nothing can be more evident to any one that is capable of the least reflexion than the existence of God, 911 or a Spirit who is intimately present to our minds, producing in them all that variety of ideas or sensations which continually affect us, on whom we have an absolute and entire dependence, in short "in whom we live, and move, and have our being." 912 That the discovery of this great truth, which lies so near and obvious to the mind, should be attained to by the reason of so very few, 913 is a sad instance of the stupidity and inattention of humans, who, though they are surrounded with such clear manifestations of the Deity, are yet

so little affected by them that they seem, as it were, blinded with excess of light.

OBJECTION ON BEHALF OF NATURE

914 But you will say, has Nature no share in the production of natural things, and must they be all ascribed to the immediate and sole operation of God? 915 I answer, if by Nature is meant only the visible series of effects or sensations imprinted on our minds, according to certain fixed and general laws, then it is plain that Nature, taken in this sense, cannot produce anything at all. 916 But, if by Nature is meant some being distinct from God, as well as from the Laws of Nature, and things perceived by sense, I must confess that word is to me an empty sound without any intelligible meaning annexed to it. 917 Nature, in this acceptation, is a vain chimera, introduced by those heathens who had not just notions of the omnipresence and infinite perfection of God. 918 But, it is more unaccountable that it should be received among Christians, professing belief in the Holy Scriptures, which constantly ascribe those effects to the immediate hand of God that heathen philosophers are wont to impute to Nature. 919 "The Lord He causeth the vapours to ascend; He maketh lightnings with rain; He bringeth forth the wind out of His treasures." Jeremiah. Chapter-10, verse 13. 920 "He turneth the shadow of death into the morning, and maketh the day dark with night." Amos, chapter-5. Verse 8. 921 "He visiteth the earth, and maketh it soft with showers: He blesseth the springing thereof, and crowneth the year with His goodness; so that the pastures are clothed with flocks, and the valleys are covered over with corn." See Psalm-65. 922 But, notwithstanding that this is the constant language of Scripture, yet we have I know not what aversion from believing that God concerns Himself so nearly in our affairs. 923 Fain would we suppose Him at a great distance off, and substitute some blind unthinking deputy in His stead, though (if we may

believe Saint Paul) "He be not far from every one of us."

OBJECTION TO THE HAND OF GOD BEING THE IMMEDIATE CAUSE, THREEFOLD

924 It will, I doubt not, be objected that the slow and gradual methods observed in the production of natural things do not seem to have for their cause the immediate hand of an Almighty Agent. 925 Besides, monsters, untimely births, fruits blasted in the blossom, rains falling in desert places, miseries incident to human life, and the like, are so many arguments that the whole frame of Nature is not immediately actuated and superintended by a Spirit of infinite wisdom and goodness. 926 But the answer to this objection is in a good measure plain from verses 385-395 in this chapter; 927 it being visible that the aforesaid methods of Nature are absolutely necessary, in order to working by the most simple and general rules, and after a steady and consistent manner; which argues both the wisdom and goodness of God. 928 Such is the artificial contrivance of this mighty machine of Nature that, whilst its motions and various phenomena strike on our senses, the hand which actuates the whole is itself unperceivable to humans of flesh and blood. 929 "Verily" (saith the prophet) "thou art a God that hidest thyself." Isaiah, chapter-45, verse 15. But, though the Lord conceal Himself from the eyes of the sensual and lazy, who will not be at the least expense of thought, 930 yet to an unbiased and attentive mind nothing can be more plainly legible than the intimate presence of an All-wise Spirit, who fashions, regulates and sustains the whole system of beings. 931 It is clear, from what we have elsewhere observed, that the operating according to general and stated laws is so necessary for our guidance in the affairs of life, 932 and letting us into the secret of Nature, that without it all reach and compass of thought, all human sagacity and design, could serve to no manner of purpose; 933 it were even impossible there should be any such faculties or powers in the mind. See verses-186-190 in this chapter. Which one consideration abundantly outbalances whatever

particular inconveniences may thence arise.

934 We should further consider that the very blemishes and defects of Nature are not without their use, in that they make an agreeable sort of variety, and augment the beauty of the rest of the creation, as shades in a picture serve to set off the brighter and more enlightened parts. 935 We would likewise do well to examine whether our taxing the waste of seeds and embryos, and accidental destruction of plants and animals, before they come to full maturity, as an imprudence in the Author of Nature, be not the effect of prejudice contracted by our familiarity with impotent and saving mortals. 936 In human indeed a thrifty management of those things which you cannot procure without much pains and industry may be esteemed wisdom. 937 But, we must not imagine that the inexplicably fine machine of an animal or vegetable costs the great Creator any more pains or trouble in its production than a pebble does; 938 nothing being more evident than that an Omnipotent Spirit can indifferently produce everything by a mere fiat or act of His will. 939 Hence, it is plain that the splendid profusion of natural things should not be interpreted weakness or prodigality in the agent who produces them, but rather be looked on as an argument of the riches of His power.

940 As for the mixture of pain or uneasiness which is in the world, pursuant to the general Laws of Nature, and the actions of finite, imperfect spirits, this, in the state we are in at present, is indispensably necessary to our well-being. 941 But our prospects are too narrow. We take, for instance, the idea of some one particular pain into our thoughts, and account it evil; 942 whereas, if we enlarge our view, so as to comprehend the various ends, connexions, and dependencies of things, on what occasions and in what proportions we are affected with pain and pleasure, the nature of human freedom, and the design with which we are put into the world; 943 we shall be forced to acknowledge that those particular things which, considered in themselves, appear to be evil, have

the nature of good, when considered as linked with the whole system of beings.

944 ATHEISM AND MANICHEISM WOULD HAVE FEW SUPPORTERS IF humankind WERE IN GENERAL ATTENTIVE. From what has been said, it will be manifest to any considering person, 945 that it is merely for want of attention and comprehensiveness of mind that there are any favourers of Atheism or the Manichean Heresy to be found. 946 Little and unreflecting souls may indeed burlesque the works of Providence, the beauty and order whereof they have not capacity, or will not be at the pains, to comprehend; 947 but those who are masters of any justness and extent of thought, and are withal used to reflect, can never sufficiently admire the divine traces of Wisdom and Goodness that shine throughout the Economy of Nature. 948 But what truth is there which shineth so strongly on the mind that by an aversion of thought, a willful shutting of the eyes, we may not escape seeing it? 949 Is it therefore to be wondered at, if the generality of humans, who are ever intent on business or pleasure, and little used to fix or open the eye of their mind, should not have all that conviction and evidence of the Being of God which might be expected in reasonable creatures?

950 We should rather wonder that humans can be found so stupid as to neglect, than that neglecting they should be unconvinced of such an evident and momentous truth. 951 And yet it is to be feared that too many of parts and leisure, who live in Christian countries, are, merely through a supine and dreadful negligence, sunk into Atheism. 952 Since it is downright impossible that a soul pierced and enlightened with a thorough sense of the omnipresence, holiness, and justice of that Almighty Spirit should persist in a remorseless violation of His laws. 953 We ought, therefore, earnestly to meditate and dwell on those important points; that so we may attain conviction without all scruple "that the eyes of the Lord are in every place beholding the evil and the good; 954 that He is with us and keepeth us in all places whither we go, and giveth us bread to eat and raiment to put

on"; 955 that He is present and conscious to our innermost thoughts; and that we have a most absolute and immediate dependence on Him. 956 A clear view of which great truths cannot choose but fill our hearts with an awful circumspection and holy fear, which is the strongest incentive to Virtue, and the best guard against Vice.

957 For, after all, what deserves the first place in our studies is the consideration of GOD and our DUTY; 958 which to promote, as it was the main drift and design of my labours, so shall I esteem them altogether useless and ineffectual if, by what I have said, I cannot inspire my readers with a pious sense of the Presence of God; 959 and, having shown the falseness or vanity of those barren speculations which make the chief employment of learned humans, the better dispose them to reverence and embrace the salutary truths of the Gospel, which to know and to practice is the highest perfection of human nature.

SUBJECTIVISM
Ralph Barton Perry

SUBJECTIVISM ORIGINALLY ASSOCIATED WITH RELATIVISM AND SCEPTICISM

3 When, in the year 1710, Bishop Berkeley maintained the thesis of empirical idealism, having rediscovered it and announced it with a justifiable sense of originality, he provoked a kind of critical judgment that was keenly annoying if not entirely surprising to him. 2 In refuting the conception of material substance and demonstrating the dependence of being upon mind, he at once sought, as he did repeatedly in later years, to establish the world of practical belief, and so to reconcile metaphysics and common-sense. 3 Yet he found himself hailed as a fool and a sceptic. In answer to an inquiry concerning the reception of his book in London, his friend Sir John Percival wrote as follows: 4 "I did but name the subject matter of your book of '*Principles*' to some ingenious friends of mine and they immediately treated it

with ridicule, at the same time refusing to read it, which I have not yet got one to do. 5 A physician of my acquaintance undertook to discover your person, and argued you must needs be mad, and that you ought to take remedies. 6 A bishop pitied you, that a desire of starting something new should put you upon such an undertaking. 7 Another told me that you are not gone so far as another gentleman in town, who asserts not only that there is no such thing as Matter, but that we ourselves have no being at all."

8 There can be no doubt but that the idea of the dependence of real things upon their appearance to the individual is a paradox to common-sense. 9 It is a paradox because it seems to reverse the theoretical instinct itself, and to define the real in those very terms which disciplined thought learns to neglect. 10 In the early history of thought the nature of the thinker himself is recognised as that which is likely to distort truth rather than that which conditions it. 11 When the wise man, the devotee of truth, first makes his appearance, his authority is acknowledged because he has renounced himself. 12 As witness of the universal being he purges himself of whatever is peculiar to his own individuality, or even to his human nature. 13 In the aloofness of his meditation he escapes the cloud of opinion and prejudice that obscures the vision of the common human. 14 In short, the element of belief dependent upon the thinker himself is the dross which must be refined away in order to obtain the pure truth. 15 When, then, in the critical epoch of the Greek sophists, Protagoras declares that there is no belief that is not of this character, his philosophy is promptly recognised as scepticism. 16 Protagoras argues that sense qualities are clearly dependent upon the actual operations of the senses, and that all knowledge reduces ultimately to these terms. 17 "The senses are variously named hearing, seeing, smelling; there is the sense of heat, cold, pleasure, pain, desire, fear, and many more which are named, as well as innumerable others which have no name; 18 'with each of them there is born an object of sense',-- all sorts of colors born with all sorts of sight and sounds

in like manner with hearing, and other objects with the other senses." 19 If the objects are "born with" the senses, it follows that they are born with and appertain to the individual perceiver. 20 "Either show, if you can, that our sensations are not relative and individual, or, if you admit that they are individual, prove that this does not involve the consequence that the appearance becomes, or, if you like to say, is to the individual only."

21 The same motif is thus rendered by Walter Pater in the Conclusion of his "*Renaissance*": 22 "At first sight experience seems to bury us under a flood of external objects, pressing upon us with a sharp and importunate reality, calling us out of ourselves in a thousand forms of action. 23 But when reflexion begins to act upon those objects they are dissipated under its influence; 24 the cohesive force seems suspended like a trick of magic; each object is loosed into a group of impressions-- colour, odour, texture-- in the mind of the observer. . . . 25 Experience, already reduced to a swarm of impressions, is ringed round for each one of us by that thick wall of personality through which no real voice has ever pierced on its way to us, or from us to that which we can only conjecture to be without. 26 Every one of these impressions is the impression of the individual in own isolation, each mind keeping as a solitary prisoner its own dream of a world."

27 The Protagorean generalisation is due to the reflection that all experience is some individual experience, that no subject of discourse escapes the imputation of belonging to some individual's private history. 28 The individual must start with own experiences and ideas, and you can never get beyond them, for you cannot see outside your own vision, or even think outside your own mind. 29 The scepticism of this theory is explicit, and the formulas of Protagoras-- the famous "'*Human is the measure of all things*'," and the more exact formula, "'*The truth is what appears to each person at each time*'"-- have been the articles of scepticism throughout the history of thought.

30 There is, therefore, nothing really surprising in the reception accorded the "new philosophy" of Bishop Berkeley. 31 A sceptical relativism is the earliest phase of subjectivism, and its avoidance at once becomes the most urgent problem of any philosophy which proposes to proceed forth from this principle. 32 And this problem Berkeley meets with great adroitness and a wise recognition of difficulties. 33 But his sanguine temperament and speculative interest impel him to what he regards as the extension of his first principle, the reintroduction of the conception of substance under the form of spirit, and of the objective order of Nature under the form of the mind of God. 34 In short, there are two motives at work in him, side by side: the epistemological motive, restricting reality to perceptions and thoughts, and the metaphysical-religious motive, leading him eventually to the definition of reality in terms of perceiving and thinking spirits. 35 And from the time of Berkeley these two principles, 'phenomenalism' and 'spiritualism', have remained as distinct and alternating phases of subjectivism. 36 The former is its critical and dialectical conception, the latter its constructive and practical conception.

37 Phenomenalism as Maintained by Berkeley. The Problem Inherited from Descartes and Locke. 38 As Phenomenalism has its classic statement and proof in the writings of Berkeley, we shall do well to return to these. The fact that this philosopher wished to be regarded as the prophet of common-sense has already been mentioned. 39 This purpose reveals itself explicitly in the series of "*Dialogues between Hylas and Philonous*." The form in which Berkeley here advances his thesis is further determined by the manner in which the lines were drawn in his day of thought. 40 The world of enlightened public opinion was then threefold, consisting of God, physical Nature, and the soul. 41 In the early years of the seventeenth century Descartes had sharply distinguished between the two

substances-- mind, with its attribute of thought; and body, with its attribute of extension-- and divided the finite world between them. 42 God was regarded as the infinite and sustaining cause of both. Stated in the terms of epistemology, the object of clear thinking is the physical cosmos, the subject of clear thinking the immortal soul. 43 The realm of perception, wherein the mind is subjected to the body, embarrasses the Cartesian system, and has no clear title to any place in it. 44 And without attaching cognitive importance to this realm, the system is utterly dogmatic in its epistemology. 45 For what one substance thinks, must be assumed to be somehow true of another quite independent substance without any medium of communication. 46 Now between Descartes and Berkeley appeared the sober and questioning "*Essay Concerning Human Understanding*," by John Locke. This is an interesting combination (they cannot be said to blend) of traditional metaphysics and revolutionary epistemology. 47 The universe still consists of God, the immortal thinking soul, and a corporeal nature, the object of its thought. 48 But, except for certain proofs of God and self, knowledge is entirely reduced to the perceptual type, to sensations, or ideas directly imparted to the mind by the objects themselves. 49 To escape dogmatism it is maintained that the real is what is 'observed to be present'. 50 But Locke thinks the qualities so discovered belong in part to the perceiver and in part to the substance outside the mind. 51 Color is a case of the former, a "secondary quality"; and extension a case of the latter, a "primary quality." And evidently the above empirical test of knowledge is not equally well met in these two cases. 52 When I see a red object I know that red exists, for it is observed to be present, and I make no claim for it beyond the present. 53 But when I note that the red object is square, I am supposed to know a property that will continue to exist in the object after I have closed my eyes or turned to something else. 54 Here my claim exceeds my observation, and the empirical principle adopted at the outset would seem to be violated.

55 Berkeley develops his philosophy from this criticism. His refutation of material substance is intended as a full acceptance of the implications of the new empirical epistemology. 56 Knowledge is to be all of the perceptual type, where what is known is directly presented; and, in conformity with this principle, being is to be restricted to the content of the living pulses of experience.

57 Berkeley, then, beginning with the threefold world of Descartes and of common-sense, proposes to apply Locke's theory of knowledge to the discomfiture of corporeal nature. 58 It was a radical doctrine, because it meant for him and for his contemporaries the denial of all finite objects outside the mind. 59 But at the same time it meant a restoration of the homogeneity of experience, the reëstablishment of the qualitative world of every-day living, and so had its basis of appeal to common-sense. 60 The encounter between Hylas, the advocate of the traditional philosophy, and Philonous, who represents the author himself, begins with an exchange of the charge of innovation.

61 Hyl.' I am glad to find there was nothing in the accounts I heard of you. 'Phil.' Pray, what were those?

62 'Hyl.' You were represented, in last night's conversation, as one who maintained the most extravagant opinion that ever entered into the mind of human, to wit, that there is no such thing as 'material substance' in the world.

63 'Phil.' That there is no such thing as what 'philosophers' call 'material substance', I am seriously persuaded: 64 but if I were made to see anything absurd or sceptical in this, I should then have the same reason to renounce this that I imagine I have now to reject the contrary opinion.

65 'Hyl.' What! can anything be more fantastical, more repugnant to Common-Sense, or a more manifest piece of Scepticism, than to believe there is no such thing as 'matter'?

66 'Phil.' Softly, good Hylas. What if it should prove that you, who hold there is, are, by virtue of that opinion, a greater sceptic, and maintain more paradoxes and repugnances to Common-Sense, than I who believe no such thing?

67 Philonous now proceeds with his case. Beginning by obtaining from Hylas the admission that pleasure and pain are essentially relative and subjective, 68 he argues that sensations such as heat, since they are inseparable from these feelings, must be similarly regarded. 69 And he is about to annex other qualities in turn to this core of subjectivity, when Hylas enters a general demurrer: "Hold, Philonous, I now see what it was deluded me all this time. 70 You asked me whether heat and cold, sweetness and bitterness, were not particular sorts of pleasure and pain; to which I answered simply that they were. 71 Whereas I should have thus distinguished:--those qualities as perceived by us, are pleasures or pains; but not as existing in the external objects. 72 We must not therefore conclude absolutely, that there is no heat in the fire, or sweetness in the sugar, but only that heat or sweetness, as perceived by us, are not in the fire or sugar."

73 Here the argument touches upon profound issues. Philonous now assumes the extreme empirical contention 'that knowledge applies only to its own psychological moment, that its object in no way extends beyond that individual situation which we call the state of knowing'. 74 The full import of such an epistemology Berkeley never recognised, but he is clearly employing it here, and the overthrow of Hylas is inevitable so long as he does not challenge it or turn it against his opponent. 75 This, however, as a protagonist of Berkeley's own making, he fails to do, and he plays into Philonous's hands by admitting that what is known only in perception must for that reason 'consist' in perception. 76 He frankly owns "that it is vain to stand out any longer," that "colours, sounds, tastes, in a word, all those termed 'secondary qualities', have certainly no existence without the mind."

77 Hylas has now arrived at the distinction between primary and secondary qualities. "Extension, Figure, Solidity, Gravity, Motion, and Rest" are the attributes of an external substance which is the cause of sensations. 78 But the same epistemological principle readily reduces these also to dependence on mind, for, like the

secondary qualities, their content is given only in perception. 79 Hylas is then driven to defend a general material substratum, which is the cause of ideas, but to which none of the definite content of these ideas can be attributed. 80 In short, he has put all the content of knowledge on the one side, and admitted its inseparability from the perceiving spirit, and left the being of things standing empty and forlorn on the other. 81 This amounts, as Philonous reminds him, to the denial of the reality of the known world.

82 "You are therefore, by your principles, forced to deny the 'reality' of sensible things; since you made it to consist in an absolute existence exterior to the mind. 83 That is to say, you are a downright sceptic. So I have gained my point, which was to show your principles led to Scepticism."

84 Having advanced the direct empiricist argument for phenomenalism, Berkeley now gives the rationalistic motive an opportunity to express itself in the queries of Hylas as to whether there be not an "absolute extension," somehow abstracted by thought from the relativities of perception. 85 Is there not at least a 'conceivable' world independent of perception?

86 The answers of Philonous throw much light upon the Berkeleyan position. He admits that thought is capable of separating the primary from the secondary qualities in certain 'operations', but at the same time denies that this is forming an idea of them as separate.

87 "I acknowledge, Hylas, it is not difficult to form general propositions and reasonings about those qualities, without mentioning any other; and, in this sense, to consider or treat of them abstractedly. 88 But, how doth it follow that, because I can pronounce the word 'motion' by itself, I can form the idea of it in my mind exclusive of body? 89 Or, because theorems may be made of extension and figures, without any mention of 'great' or 'small', or any other sensible mode or quality, 90 that therefore it is possible such an abstract idea of extension, without any particular size or figure, or sensible quality, should be distinctly formed, and

apprehended by the mind? 91 Mathematicians treat of quantity, without regarding what other sensible qualities it is attended with, as being altogether indifferent to their demonstrations. 92 But, when laying aside the words, they contemplate the bare ideas, I believe you will find, they are not the pure abstracted ideas of extension."

93 Berkeley denies that we have ideas of pure extension or motion, because, although we do actually 'deal' with these and find them intelligible, we can never obtain a state of mind in which they appear as the content. 94 He applies this psychological test because of his adherence to the general empirical postulate that knowledge is limited to the individual content of its own individual states. 95 "It is a universally received maxim," he says, "that 'everything which exists is particular'." 96 Now the truth of mathematical reckoning is not particular, but is valid wherever the conditions to which it refers are fulfilled. 97 Mathematical reckoning, if it is to be particular, must be regarded as a particular act or state of some thinker. 98 Its truth must then be construed as relative to the interests of the thinker, as a symbolism which has an instrumental rather than a purely cognitive value. 99 This conclusion cannot be disputed short of a radical stand against the general epistemological principle to which Berkeley is so far true, the principle that the reality which is known in any state of thinking or perceiving is the state itself.

100 This concludes the purely phenomenalistic strain of Berkeley's thought. He has taken the immediate apprehension of sensible objects in a state of mind centring about the pleasure and pain of an individual, to be the norm of knowledge. 101 He has further maintained that knowledge cannot escape the particularity of its own states. 102 The result is that the universe is composed of private perceptions and ideas. Strictly on the basis of what has preceded, 103 Hylas is justified in regarding this conclusion as no less sceptical than that to which his own position had been reduced; 104 for while he had been compelled to admit that the real is unknowable, Philonous has

apparently defined the knowable as relative to the individual. 105 But the supplementary metaphysics which had hitherto been kept in the background is now revealed. It is maintained that though perceptions know no external world, they do nevertheless reveal a spiritual substance of which they are the states. 106 Although it has hitherto been argued that the 'esse' of things is in their 'percipi', this is now replaced by the more fundamental principle that the 'esse' of things is in their 'percipere' or 'velle'. 107 The real world consists not in perceptions, but in perceivers.

108 Now it is at once evident that the epistemological theory which has been Berkeley's dialectical weapon in the foregoing argument is no longer available. 109 And those who have cared more for this theory than for metaphysical speculation have attempted to stop at this point, and so to construe phenomenalism as to make it self-sufficient on its own grounds. 110 Such attempts are so instructive as to make it worth our while to review them before proceeding with the development of the spiritualistic motive in subjectivism.

111 The world is to be regarded as made up of sense-perceptions, ideas, or phenomena. 112 What is to be accepted as the fundamental category which gives to all of these terms their subjectivistic significance? 113 So far there seems to be nothing in view save the principle of relativity. The type to which these were reduced was that of the peculiar or unsharable experience best represented by an individual' pleasure and pain. 114 But relativity will not work as a general principle of being. It consigns the individual to own private mind, and cannot provide for the validity of knowledge enough even to maintain itself. Some other course, then, must be followed. 115 Perception may be given a psycho-physical definition, which employs physical terms as fundamental; but this flagrantly contradicts the phenomenalistic first principle. 116 Or, reality may be regarded as so stamped with its marks as to insure the proprietorship of thought. 117 But this definition of certain objective

entities of mind, of beings attributed to intelligence because of their intrinsic intelligibility, is inconsistent with empiricism, if indeed it does not lead eventually to a realism of the Platonic type. 118 Finally, and most commonly, the terms of phenomenalism have been retained after their original meaning has been suffered to lapse. The "impressions" of Hume, 'e. g.', are the remnant of the Berkeleyan world with the spirit stricken out. 119 There is no longer any point in calling them impressions, for they now mean only elements or qualities. As a consequence this outgrowth of the Berkeleyanism epistemology is at present merging into a realistic philosophy of experience. 120 Any one, then, of these three may be the last state of one who undertakes to remain exclusively faithful to the phenomenalistic aspect of Berkeleyanism, embodied in the principle 'esse est percipi'.

121 Let us now follow the fortunes of the other phase of subjectivism-- that which develops the conception of the perceiver rather than the perceived. 122 When Berkeley holds that "all the choir of heaven and furniture of the Earth, in a word, all those bodies which compose the mighty frame of the world, have not any subsistence without a Mind," 123 his thought has transcended the epistemology with which he overthrew the conception of material substance, in two directions. 124 For neither mind of the finite type nor mind of the divine type is perceived. But the first of these may yet be regarded as a direct empirical datum, even though sharply distinguished from an object of perception. 125 In the third dialogue, Philonous thus expounds this new kind of knowledge: "I own I have properly no 'idea', either of God or any other spirit; for these being active, cannot be represented by things perfectly inert, as our ideas are. 126 I do nevertheless know that I, who am a spirit or thinking substance, exist as certainly as I know my ideas exist. 127 Farther, I know what I mean by the terms 'I' and 'myself'; and I know this immediately or intuitively, though I do not perceive it as I perceive a triangle, a color, or a sound."

128 The knowledge here provided for may be regarded as empirical because the reality in question is an individual present in the moment of the knowledge. 129 Particular acts of perception are said directly to reveal not only perceptual objects, but perceiving subjects. 130 And the conception of spiritual substance, once accredited, may then be extended to account for social relations and to fill in the nature of God. 131 The latter extension, in so far as it attributes such further predicates as universality and infinity, implies still a third epistemology, and threatens to pass over into rationalism. 132 But the knowledge of one's fellow-humans may, it is claimed, be regarded as immediate, like the knowledge of one's self. 133 Perceptual and volitional activity has a sense for itself and also a sense for other like activity. 134 The self is both self-conscious and socially conscious in an immediate experience of the same type.

135 But this general spiritualistic conception is developed with less singleness of purpose in Berkeley than among the 'voluntarists' and 'panpsychists' who spring from Schopenhauer, the orientalist, pessimist, and mystic among the German Kantians of the early nineteenth century. 136 His great book, "*Die Welt als Wille und Vorstellung*," opens with the phenomenalistic contention that "*the world is my idea*." It soon appears, however, that the "my" is more profoundly significant than the "idea." 137 My nature is my creation, due to the working within me of certain fixed principles of thought, such as space, time, and causality. 138 But my nature, just because it is my creation, is less than me: is but a manifestation of the true being for which I must look 'within' myself. 139 But this inner self cannot be made an object of thought, for that would be only to create another term of my nature. 140 The will itself, from which such creation springs, is "that which is most immediate" in one's consciousness, and "makes itself known in a direct manner in its particular acts." 141 The term 'will' is used by Schopenhauer as a general term covering the whole dynamics of life, instinct and desire, as well as volition. 142 It is

that sense of life-preserving and life-enhancing appetency which is the conscious accompaniment of struggle. With its aid the inwardness of the whole world may now be apprehended.

143 "Whoever has now gained from all these expositions a knowledge 'in abstracto', and therefore clear and certain, of what everyone knows directly 'in concreto', 'i. e.', as feeling, 144 a knowledge that your will is the real inner nature of your phenomenal being, . . . and that your will is that which is most immediate in your consciousness, . . . will find that of itself it affords you the key to the knowledge of the inmost being of the whole of your nature; 145 for you now transfers it to all those phenomena which are not given to you, like your own phenomenal existence, both in direct and indirect knowledge, but only in the latter, thus merely one-sidedly as 'idea' alone."

146 The heart of reality is thus known by an "intuitive interpretation," which begins at home in the individual's own heart. 147 The panpsychist follows the same course of reflection. There is an outwardness and an inwardness of human nature, corresponding to the knower's body on the one hand, and one's feeling or will on the other. 148 With this principle in hand one may pass down the whole scale of being and discover no breach of continuity. 149 Such an interpretation of human nature has been well set forth by a contemporary writer, who quotes the following from the botanist, C. v. Naegeli: 150 "Sensation is clearly connected with the reflex actions of higher animals. We are obliged to concede it to the other animals also, and we have no grounds for denying it to plants and inorganic bodies. 151 The sensation arouses in us a condition of comfort and discomfort. In general, the feeling of pleasure arises when the natural impulses are satisfied, the feeling of pain when they are not satisfied. 152 Since all material processes are composed of movements of molecules and elementary atoms, pleasure and pain must have their seat in these particles. . . . Thus the same mental thread runs through

all material phenomena. 153 The human mind is nothing but the highest development on our earth of the mental processes which universally animate and move our nature."

154 According to panpsychism, then, physical Nature is the manifestation of an 'appetency or bare consciousness generalised from the thinker's awareness of one’s own most intimate self'. 155 Such appetency or bare consciousness is the essential or substantial state of that which appears as physical Nature.

156 We must now turn to the efforts which this doctrine has made to maintain itself against the sceptical trend of its own epistemology. 157 For precisely as in the case of phenomenalism its dialectical principle threatens to be self-destructive. 158 Immediate presence is still the test of knowledge. But does not immediate presence connote relativity and inadequacy, at best; 159 an initial phase of knowledge that must be supplemented and corrected before objective reality and valid truth are apprehended? 160 Does not the individuality of the individual thinker connote the very maximum of error? 161 Indeed, spiritualism would seem to have exceeded even Protagoreanism itself, and to have passed from scepticism to deliberate nihilism. 162 The object of knowledge is no longer even, as with the phenomenalist, the thinker's thought, but only your 'thinking'. 163 And if the thinker's thought is relative to the self, then the thinker's act of thinking is the very vanishing-point of relativity, the negative term of a negating relation. 164 How is a real, a self-subsistent world to be composed of such? Impelled by a half-conscious realisation of the hopelessness of this situation, 165 the exponent of spiritualism has sought to universalise your conception; to define an 'absolute or ultimate spirit' other than the individual thinker, though known in and through you. 166 But it is clear that this development of spiritualism, like all of the speculative procedure of subjectivism, threatens to exceed the scope of the original principle of knowledge. 167 There is a strong presumption against the

possibility of introducing a knowledge of God by the way of the particular presentations of an individual consciousness.

168 Schopenhauer must be credited with a genuine effort to accept the metaphysical consequences of his epistemology. His epistemology, as we have seen, defined knowledge as centripetal. 169 The object of real knowledge is identical with the subject of knowledge. If I am to know the universal will, therefore, I must in knowing become that will. 170 And this Schopenhauer maintains. The innermost heart of the individual into which you may retreat, even from your private will, is-- the universal. 171 But there is another way of arriving at the same knowledge. In contemplation I may become absorbed in principles and laws, rather than be diverted by the particular spacial and temporal objects, 172 until (and this is peculiarly true of the æsthetic experience) my interest no longer distinguishes itself, but coincides with truth. 173 In other words, abstract thinking and pure willing are not opposite extremes, but adjacent points on the deeper or transcendent circle of experience. 174 One may reach this part of the circle by moving in either of two directions that at the start are directly opposite: by turning in upon the subject or by utterly giving one's self up to the object. 175 Reality obtains no definition by this means. Philosophy, for Schopenhauer, is rather a programme for realising the state in which I will the universal and know the universal will. 176 The final theory of knowledge, then, is mysticism, reality directly apprehended in a supreme and incommunicable experience, direct and vivid, like perception, and at the same time universal, like thought. 177 But the empiricism with which Schopenhauer began, the appeal to a familiar experience of self as will, has meanwhile been forgotten. 178 The idea as object of my perception, and the will as its subject were in the beginning regarded as common and verifiable items of experience. 179 But who, save the occasional philosopher, knows a universal will? 180 Nor have attempts to avoid mysticism, while retaining

Schopenhauer's first principle, been successful. 181 Certain voluntarists and panpsychists have attempted to do without the universal will, and define the world solely in terms of the many individual wills. 182 But, as Schopenhauer himself pointed out, individual wills cannot be distinguished except in terms of something other than will, such as space and time. 183 The same is true if for will there be substituted inner feeling or consciousness. 184 Within this category individuals can be distinguished only as points of view, which to be comparable at all must contain common objects, or be defined in terms of a system of relations like that of the physical world or that of an ethical community. 185 The conception of pure will or pure feeling inevitably attaches to itself that of an undivided unity, if for no other reason because there is no ground for distinction. 186 And such a unity, a will or consciousness that is no particular act or idea, can be known only in the unique experience which mysticism provides. 187 The way of Schopenhauer is the way of one who adheres to the belief that what the thinker knows must always be a part of oneself, your state or your activity. 188 From this point of view the important element of being, its very essence or substance, is not any definable nature but an immediate relation to the knower. 189 The consequence is that the universe in the last analysis can only be defined as a supreme state or activity into which the individual's consciousness may develop. 190 Spiritualism has, however, other interests, interests which may be quite independent of epistemology. It is speculatively interested in a kind of being which it defines as spiritual, and in terms of which it proposes to define the universe. 191 Such procedure is radically different from the epistemological criticism which led Berkeley to maintain that the 'esse' of objects is in their 'percipi', 192 or Schopenhauer to maintain that "the world is my idea," or that led both of these philosophers to find a deeper reality in immediately intuited self-activity. 193 For now it is proposed to

'understand' spirit, discover its properties, and to acknowledge it only where these properties appear. 194 I may now know spirit as an object; which in its properties, to be sure, is quite different from matter, but which like matter is capable of subsisting quite independently of my knowledge. 195 This is a metaphysical spiritualism quite distinct from epistemological spiritualism, and by no means easily made consistent therewith. 196 Indeed, it exhibits an almost irrepressible tendency to overstep the bounds both of empiricism and subjectivism, an historical connection with which alone justifies its introduction in the present chapter.

197 To return again to the instructive example of Bishop Berkeley, we find him proving God from the evidence of himself in experience, or the need of himself to support the claims of experience. 198 "But, whatever power I may have over my own thoughts, I find the ideas actually perceived by Sense have not a like dependence on 'my' will. 199 When in broad daylight I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view: 200 and so likewise as to the hearing and other senses; the ideas imprinted on them are not creatures of 'my' will. There is therefore some other Will or Spirit that produces them.

201 The ideas of Sense are more strong, lively, and distinct than those of the Imagination; 202 they have likewise a steadiness, order, and coherence, and are not excited at random, as those which are the effects of human wills often are, but in a regular train or series-- 203 the admirable connection whereof sufficiently testifies the wisdom and benevolence of its Author. Now the set rules, or established methods, wherein the Mind we depend on excites in us the ideas of Sense, are called 'the Laws of Nature'."

204 Of the attributes of experience here in question, independence or "steadiness" is not regarded as 'prima facie' evidence of spirit, but rather as an aspect of experience for which some cause is necessary. 205 But it is assumed that the

power to "produce," with which such a cause must be endowed, is the peculiar prerogative of spirit, and that this cause gives further evidence of its spiritual nature, of its eminently spiritual nature, in the orderliness and the goodness of its effects. 206 "The force that produces, the intellect that orders, the goodness that perfects all things is the Supreme Being." 207 That spirit is possessed of causal efficacy, Berkeley has in an earlier passage proved by a direct appeal to the individual's sense of power. 208 "I find I can excite ideas in my mind at pleasure, and vary and shift the scene as oft as I think fit. 209 It is no more than 'willing', and straightway this or that idea arises in my fancy; and by the same power it is obliterated and makes way for another. 210 This making and unmaking of ideas doth very properly denominate the mind active. Thus much is certain and grounded on experience: 211 but when we talk of unthinking agents, or of exciting ideas exclusive of volition, we only amuse ourselves with words."

212 Although Berkeley is here in general agreement with a very considerable variety of philosophical views, it will be readily observed that this doctrine tends to lapse into mysticism whenever it is retained in its purity. 213 Berkeley himself admitted that there was no "idea" of such power. And philosophers will as a rule either obtain an idea corresponding to a term or amend the term-- always excepting the mystical appeal to an inarticulate and indefinable experience. 214 Hence pure power revealed in an ineffable immediate experience tends to give place to kinds of power to which some definite meaning may be attached. 215 The energy of physics, defined by measurable quantitative equivalence, is a case in point. The idealistic trend is in another direction, power coming to signify ethical or logical connection. 216 Similarly, in the later philosophy of Berkeley himself, God is known by the nature of one’s activity rather than by the fact of one’s activity; and we are said "to account for a thing, when we show that it is so best." 217 God's power, in short, becomes indistinguishable from one’s

universality attended with the attributes of goodness and orderliness. 218 But this means that the analogy of the human spirit, conscious of its own activity, is no longer the basis of the argument. 219 By the divine Will is now meant ethical principles, rather than the "here am I willing" of the empirical consciousness. 220 Similarly the divine mind is defined in terms of logical principles, such as coherence and order, rather than in terms of the "here am I thinking" of the finite knower yourself. 221 But enough has been said to make it plain that this is no longer the stand-point of empirio-idealism. 222 Indeed, in his last philosophical writing, the "Siris," Berkeley is so far removed from the principles of knowledge which made him at once the disciple and the critic of Locke, as to pronounce himself the devotee of Platonism and the prophet of transcendentalism. 223 The former strain appears in his conclusion that "the 'principles' of science are neither objects of sense nor imagination; and that intellect and reason are alone the sure guides to truth." 224 His transcendentalism appears in his belief that such principles, participating in the vital unity of the Individual Purpose, constitute the meaning and so the substantial essence of the universe. 225 Such then are the various paths which lead from subjectivism to other types of philosophy, demonstrating the peculiar aptitude of the former for departing from its first principle. 226 Beginning with the relativity of all knowable reality to the individual knower, it undertakes to conceive reality in one or the other of the terms of this relation, as particular state of knowledge or as individual subject of knowledge. 227 But these terms develop an intrinsic nature of their own, and become respectively 'empirical datum', and 'logical' or 'ethical principle'. In either case the subjectivistic principle of knowledge has been abandoned. 228 Those whose speculative interest in a definable objective world has been less strong than their attachment to this principle, have either accepted the imputation of scepticism, or had recourse to the radical

epistemological doctrine of mysticism.

229 Since the essence of subjectivism is epistemological rather than metaphysical, its practical and religious implications are various. 230 The ethical theories which are corollary to the tendencies expounded above, range from extreme egoism to a mystical universalism. 231 The close connection between the former and relativism is evident, and the form of egoism most consistent with epistemological relativism is to be found among those same Sophists who first maintained this latter doctrine. 232 If we may believe Plato, the Sophists sought to create for their individual pupils an 'appearance' of good. 233 In the "Theaetetus," Socrates is represented as speaking thus on behalf of Protagoras: "And I am far from saying that wisdom and the wise person have no existence; but I say that the wise person is you who makes the evils which are and appear to a human, into goods which are and appear to you. . . . 234 I say that they (the wise people) are the physicians of the human body, and the husbandmen of plants-- 235 for the husbandmen also take away the evil and disordered sensations of plants, and infuse into them good and healthy sensations as well as true ones; 236 and the wise and good rhetoricians make the good instead of the evil seem just to States; for whatever appears to be just and fair to a State, while sanctioned by a State, is just and fair to it; 237 but the teacher of wisdom causes the good to take the place of the evil, both in appearance and in reality."

238 As truth is indistinguishable from the appearance of truth to the individual, so good is indistinguishable from a particular seeming good. 239 The supreme moral value according to this plan of life is the agreeable feeling tone of that dream world to which the individual is forever consigned. 240 The possible perfection of an experience which is "reduced to a swarm of impressions," and "ringed round" for each one of us by a "thick wall of personality" has been brilliantly depicted in the passage already quoted from Walter Pater, in whom the naturalistic and subjectivistic

motives unite. 241 If all my experience is strictly my own, then my good must likewise be my own. 242 And if all of my experience is valid only in its instants of immediacy, then my best good must likewise consist in some "exquisite passion," or stirring of the senses.

243 But for Schopenhauer the internal world opens out into the boundless and unfathomable sea of the universal will. 244 If I retire from the world upon my own private feelings, I am still short of the true life, for I am asserting myself against the world. 245 I should seek a sense of unison with a world whose deeper heart-beats I may learn to feel and adopt as the rhythm of my own. 246 The folly of willing for one's private self is the ground of Schopenhauer's pessimism. "All 'willing' arises from want, therefore from deficiency, and therefore from suffering. 247 The satisfaction of a wish ends it; yet for one wish that is satisfied there remain at least ten which are denied. 248 Further, the desire lasts long, the demands are infinite; the satisfaction is short and scantily measured out. 249 But even the final satisfaction is itself only apparent; every satisfied wish at once makes room for a new one, both are illusions; the one is known to be so, the other not yet. 250 No attained object of desire can give lasting satisfaction, but merely a fleeting gratification; it is like the alms thrown to the beggar, that keeps him alive to-day that own misery may be prolonged till the morrow. . . . 251 The subject of willing is thus constantly stretched on the revolving wheel of Ixion, pours water into the sieve of the Danaids, is the ever-longing Tantalus." 252 The escape from this torture and self-deception is possible through the same mystical experience, the same blending with the universe that conditions knowledge.

253 But though pleasant dreaming be the most consistent practical sequel to a subjectivistic epistemology, its 'individualism' presents another basis for life with quite different possibilities of emphasis. 254 It may develop into an aggressive egoism of the type represented by the sophist Thrasymachus, in his proclamation that "might is right, justice the

interest of the stronger." 255 But more commonly it is tempered by a conception of social interest, and serves as the champion of action against contemplation. 256 The gospel of action is always individualistic. It requires of the individual a sense of your independence, and of the real virtue of your initiative. 257 Hence those voluntarists who emphasise the many individual wills and decline to reduce them, after the manner of Schopenhauer, to a universal, may be said to afford a direct justification of it. 258 It is true that this practical realism threatens the tenability of an epistemological idealism, but the two have been united, and because of their common emphasis upon the individual such procedure is not entirely inconsequential. 259 Friedrich Paulsen, whose panpsychism has already been cited, is an excellent case in point. The only good, he maintains, is "welfare," 260 the fulfillment of those natural desires which both distinguish the individual and signify own continuity with all grades of being.

261 "The goal at which the will aims does not consist in a maximum of pleasurable feelings, but in the normal exercise of the vital functions for which the species is predisposed. 262 In the case of human the mode of life is on the whole determined by the nature of the historical unity from which the individual evolves as a member. 263 Here the objective content of life, after which the will strives, also enters into consciousness with the progressive evolution of presentation; the type of life becomes a conscious ideal of life."

264 Here, contrary to the teaching of Schopenhauer, the good consists in individual attainment, the extension and fulfillment of the 'distinct' interests that arise from the common fund of one’s nature. 265 To be and to do to the uttermost, to realise the maximum from nature's investment in one's special capacities and powers--this is indeed the first principle of a morality of action.

266 But a type of ethics still further removed from the initial relativism has been adopted and more or less successfully assimilated by

subjectivistic philosophies. 267 Accepting Berkeley's spirits, with their indefinite capacities, and likewise the stability of the ideal principles that underlie a God-administered world, and morality becomes the obedience which the individual renders to the law. 268 The individual, free to act in your own right, coöperates with the purposes of the general spiritual community, whose laws are worthy of obedience though not coercive. 269 The recognition of such a spiritual citizenship, entailing opportunities, duties, and obligations, rather than thraldom, partakes of the truth as well as the inadequacy of common-sense.

270 As for religion, at least two distinct practical appreciations of the universe have been historically associated with this chapter in philosophy. 271 The one of these is the mysticism of Schopenhauer, the religious sequel to a universalistic voluntarism. Schopenhauer's ethics, his very philosophy, is religion. 272 For the good and the true are alike attainable only through identification with the Absolute Will. 273 This consummation of life, transcending practical and theoretical differences, engulfing and effacing all qualities and all values, is like the Nirvâna of the Orient-- a positive ideal only for one who has appraised the apparent world at its real value.

274 "Rather do we freely acknowledge that what remains after the entire abolition of Will is for all those who are still full of Will certainly nothing; 275 but, conversely, to those in whom the Will has turned and has denied itself, this our world, which is so real, with all it's suns and milky-ways-- is nothing."

THE RELIGION OF INDIVIDUAL COÖPERATION WITH GOD

276 From the union of the two motives of voluntarism and individualism springs another and a more familiar type of religion, that of coöperative spiritual endeavour. 277 In the religion of Schopenhauer the soul must utterly lose itself for the sake of peace; here the soul must persist in its own being and activity for the sake of the progressive goodness of the world. 278 For

Schopenhauer God is the universal solution, in which all motions cease and all differences disappear; here God is the General of moral forces. 279 The deeper and more significant universe is "a society of rational agents, acting under the eye of Providence, concurring in one design to promote the common benefit of the whole, and conforming their actions to the established laws and order of the Divine parental wisdom: 280 wherein each particular agent shall not consider oneself apart, but as the member of a great City, whose author and founder is God: 281 in which the civil laws are no other than the rules of virtue and the duties of religion: and where everyone's true interest is combined with one's duty."

282 But so uncompromising an optimism is not essential to this religion. Its distinction lies rather in its acceptance of the manifest plurality of souls, and its appeal to the faith that is engendered by service. 283 As William James has said: "Even God's being is sacred from ours. To coöperate with His creation by the best and rightest response seems all He wants of us. 284 In such coöperation with His purposes, not in any chimerical speculative conquest of Him, not in any theoretical drinking of Him up, must lie the real meaning of our destiny."

The Book of Divine Panagogue called

PROPHECY

OF PROPHECY

Benedict of Spinoza

1 Prophecy, or revelation is sure knowledge revealed by God to human.

2 A prophet is one who interprets the revelations of God to those who are unable to attain to sure knowledge of the matters revealed, and therefore can only apprehend them by simple faith.

3 The Hebrew word for prophet is "nabi," i.e. speaker or interpreter, but in Scripture its meaning is restricted to interpreter of God, 4 as we may learn from Exodus, chapter-7: verse:1, where God says to Moses, "See, I have made thee a god to Pharaoh, and Aaron thy brother shall be thy prophet;" 5 implying that, since in interpreting Moses' words to Pharaoh, Aaron acted the part of a prophet, Moses would be to Pharaoh as a god, or in the attitude of a god.

6 Prophets I will treat of in the next chapter, and at present consider prophecy.

7 Now it is evident, from the definition above given, that prophecy really includes ordinary knowledge; for the knowledge which we acquire by our natural faculties depends on knowledge of God and His eternal laws; 8 but ordinary knowledge is common to all humans as humans, and rests on foundations which all share, whereas the multitude always strains after rarities and exceptions, and thinks little of the gifts of Nature; 9 so that, when prophecy is talked of, ordinary knowledge is not supposed to be included.

10 Nevertheless it has as much right as any other to be called Divine, for God's nature, in so far as we share therein, and God's laws, dictate it to us; 11 nor does it suffer from that to which we give the preeminence, except in so far as the latter transcends its limits and cannot be accounted for by natural laws taken in themselves.

12 In respect to the certainty it involves, and the source from which it is derived, i.e. God, ordinary knowledge is no whit inferior to prophetic, 13 unless indeed we believe, or rather dream, that the prophets had

human bodies but superhuman minds, and therefore that their sensations and consciousness were entirely different from our own.

14 But, although ordinary knowledge is Divine, its professors cannot be called prophets, for they teach what the rest of humankind could perceive and apprehend, not merely by simple faith, but as surely and honourably as themselves.

15 Seeing then that our mind subjectively contains in itself and partakes of the nature of God, and solely from this cause is enabled to form notions explaining natural phenomena and inculcating morality, 16 it follows that we may rightly assert the nature of the human mind (in so far as it is thus conceived) to be a primary cause of Divine revelation.

17 All that we clearly and distinctly understand is dictated to us, as I have just pointed out, by the idea and nature of God; 18 not indeed through words, but in a way far more excellent and agreeing perfectly with the nature of the mind, as all who have enjoyed intellectual certainty will doubtless attest.

19 Here, however, my chief purpose is to speak of matters having reference to Scripture, so these few words on the light of reason will suffice.

20 I will now pass on to, and treat more fully, the other ways and means by which God makes revelations to humankind, both of that which transcends ordinary knowledge, and of that within its scope; 21 for there is no reason why God should not employ other means to communicate what we know already by the power of reason.

22 Our conclusions on the subject must be drawn solely from Scripture; for what can we affirm about matters transcending our knowledge except what is told us by the words or writings of prophets?

23 And since there are, so far as I know, no prophets now alive, we have no alternative but to read the books of prophets departed, taking care the while not to reason from metaphor or to ascribe anything to our authors which they do not themselves distinctly state.

24 I must further premise that the Jews never make any mention or

account of secondary, or particular causes, but in a spirit of religion, piety, and what is commonly called godliness, refer all things directly to the Deity.

25 For instance if they make money by a transaction, they say God gave it to them; if they desire anything, they say God has disposed their hearts towards it; if they think anything, they say God told them.

26 Hence we must not suppose that everything is prophecy or revelation which is described in Scripture as told by God to anyone, 27 but only such things as are expressly announced as prophecy or revelation, or are plainly pointed to as such by the context.

28 A perusal of the sacred books will show us that all God's revelations to the prophets were made through words or appearances, or a combination of the two. 29 These words and appearances were of two kinds; (1).- real when external to the mind of the prophet who heard or saw them, (2).- imaginary when the imagination of the prophet was in a state which led him distinctly to suppose that he heard or saw them.

30 With a real voice God revealed to Moses the laws which He wished to be transmitted to the Hebrews, as we may see from Exodus, chapter-25, verse:22, where God says, 31 "And there I will meet with thee and I will commune with thee from the mercy seat which is between the Cherubim."

32 Some sort of real voice must necessarily have been employed, for Moses found God ready to commune with him at any time. This, as I shall shortly show, is the only instance of a real voice.

33 We might, perhaps, suppose that the voice with which God called Samuel was real, for in 1 Samuel, chapter-3, verse:21, 34 we read, "And the Lord appeared again in Shiloh, for the Lord revealed Himself to Samuel in Shiloh by the word of the Lord;" 35 implying that the appearance of the Lord consisted in His making Himself known to Samuel through a voice; in other words, that Samuel heard the Lord speaking. 36 But we are compelled to distinguish between the prophecies

of Moses and those of other prophets, and therefore must decide that this voice was imaginary, 37 a conclusion further supported by the voice's resemblance to the voice of Eli, which Samuel was in the habit of hearing, and therefore might easily imagine; when thrice called by the Lord, Samuel supposed it to have been Eli.

38 The voice which Abimelech heard was imaginary, for it is written, Genesis, chapter-20, verse:6, "And God said unto him in a dream."

39 So that the will of God was manifest to him, not in waking, but only in sleep, that is, when the imagination is most active and uncontrolled.

40 Some of the Jews believe that the actual words of the Decalogue were not spoken by God, but that the Israelites heard a noise only, without any distinct words, and during its continuance apprehended the Ten Commandments by pure intuition; 41 to this opinion I myself once inclined, seeing that the words of the Decalogue in Exodus are different from the words of the Decalogue in Deuteronomy, 42 for the discrepancy seemed to imply (since God only spoke once) that the Ten Commandments were not intended to convey the actual words of the Lord, but only His meaning.

43 However, unless we would do violence to Scripture, we must certainly admit that the Israelites heard a real voice, for Scripture expressly says, Deuteronomy, chapter-5, verse:4, "God spake with you face to face," i.e. 44 as two people ordinarily interchange ideas through the instrumentality of their two bodies; and therefore it seems more consonant with Holy Writ to suppose that God really did create a voice of some kind with which the Decalogue was revealed.

45 The discrepancy of the two versions is treated of in Chapter-8.

46 Yet not even thus is all difficulty removed, for it seems scarcely reasonable to affirm that a created thing, depending on God in the same manner as other created things, would be able to express or explain the nature of God either verbally or really by means of its individual organism:

47 for instance, by declaring in the first person, "I am the Lord your God."

48 Certainly when anyone says with own mouth, "I understand," we do not attribute the understanding to the mouth, but to the mind of the speaker; 49 yet this is because the mouth is the natural organ of a human speaking, and the hearer, knowing what understanding is, easily comprehends, by a comparison with own self, that the speaker's mind is meant; 50 but if we knew nothing of God beyond the mere name and wished to commune with Him, and be assured of His existence, I fail to see how our wish would be satisfied by the declaration of a created thing (depending on God neither more nor less than ourselves), "I am the Lord."

51 If God contorted the lips of Moses, or, I will not say Moses, but some beast, till they pronounced the words, "I am the Lord," should we apprehend the Lord's existence therefrom?

52 Scripture seems clearly to point to the belief that God spoke Himself, having descended from heaven to Mount Sinai for the purpose-- and not only that the Israelites heard Him speaking, but that their chief men beheld Him (Exodus, chapter-24)

53 Further the law of Moses, which might neither be added to nor curtailed, and which was set up as a national standard of right, nowhere prescribed the belief that God is without body, or even without form or figure, 54 but only ordained that the Jews should believe in His existence and worship Him alone: it forbade them to invent or fashion any likeness of the Deity, but this was to insure purity of service; 55 because, never having seen God, they could not by means of images recall the likeness of God, but only the likeness of some created thing which might thus gradually take the place of God as the object of their adoration.

56 Nevertheless, the Bible clearly implies that God has a form, and that Moses when he heard God speaking was permitted to behold it, or at least its hinder parts.

57 Doubtless some mystery lurks in this question which we will discuss more fully below.

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58 For the present I will call attention to the passages in Scripture indicating the means by which God has revealed His laws to human.

59 Revelation may be through figures only, as in I Chronicles, chapter-22, where God displays His anger to David by means of an angel bearing a sword, and also in the story of Balaam.

60 Maimonides and others do indeed maintain that these and every other instance of angelic apparitions (e.g. to Manoah and to Abraham offering up Isaac) occurred during sleep, for that no one with own eyes open ever could see an angel, but this is mere nonsense.

61 The sole object of such commentators seems to be to extort from Scripture confirmations of Aristotelian quibbles and their own inventions, a proceeding which I regard as the acme of absurdity.

62 In figures, not real but existing only in the prophet's imagination, God revealed to Joseph his future lordship, and in words and figures He revealed to Joshua that He would fight for the Hebrews, causing to appear an angel, 63 as it were the Captain of the Lord's host, bearing a sword, and by this means communicating verbally.

64 The forsaking of Israel by Providence was portrayed to Isaiah by a vision of the Lord, the thrice Holy, sitting on a very lofty throne, and the Hebrews, stained with the mire of their sins, sunk as it were in uncleanness, and thus as far as possible distant from God.

65 The wretchedness of the people at the time was thus revealed, while future calamities were foretold in words. 66 I could cite from Holy Writ many similar examples, but I think they are sufficiently well known already.

67 However, we get a still more clear confirmation of our position in Numbers, chapter-12, verses:6 and 7 , as follows: "If there be any prophet among you, I the Lord will make myself known unto him in a vision" i.e. 68 by appearances and signs, for God says of the prophecy of Moses that it was a vision without signs, "and will speak unto him in a dream" i.e. not with actual words and an actual voice.

PROPHECY

69 "My servant Moses is not so; with him will I speak mouth to mouth, even apparently, and not in dark speeches, and the similitude of the Lord he shall behold," i.e. looking on me as a friend and not afraid, he speaks with me (cf. Exodus, chapter-33, verse:17).

70 This makes it indisputable that the other prophets did not hear a real voice, and we gather as much from Deuteronomy, chapter-34, verse:10: 71 "And there arose not a prophet since in Israel like unto Moses whom the Lord knew face to face," which must mean that the Lord spoke with none other; for not even Moses saw the Lord's face.

72 These are the only media of communication between God and human which I find mentioned in Scripture, and therefore the only ones which may be supposed or invented.

73 We may be able quite to comprehend that God can communicate immediately with human, for without the intervention of bodily means He communicates to our minds His essence; 74 still, a person who can by pure intuition comprehend ideas which are neither contained in nor deducible from the foundations of our natural knowledge, 75 must necessarily possess a mind far superior to those of own fellow humans, nor do I believe that any have been so endowed save Christ.

76 To Him the ordinances of God leading humans to salvation were revealed directly without words or visions, so that God manifested Himself to the Apostles through the mind of Christ as He formerly did to Moses through the supernatural voice.

77 In this sense the voice of Christ, like the voice which Moses heard, may be called the voice of God, and it may be said that the wisdom of God (i.e. wisdom more than human) took upon itself in Christ human nature, and that Christ was the way of salvation.

78 I must at this juncture declare that those doctrines which certain churches put forward concerning Christ, I neither affirm nor deny, for I freely confess that I do not understand them.

79 What I have just stated I gather from Scripture, where I never read that God appeared to Christ, or

spoke to Christ, but that God was revealed to the Apostles through Christ; 80 that Christ was the Way of Life, and that the old law was given through an angel, and not immediately by God; 81 whence it follows that if Moses spoke with God face to face as a person speaks with own friend (i.e. by means of their two bodies) Christ communed with God mind to mind.

82 Thus we may conclude that no one except Christ received the revelations of God without the aid of imagination, whether in words or vision.

83 Therefore the power of prophecy implies not a peculiarly perfect mind, but a peculiarly vivid imagination, as I will show more clearly in the next chapter.

84 We will now inquire what is meant in the Bible by the Spirit of God breathed into the prophets, or by the prophets speaking with the Spirit of God; 85 to that end we must determine the exact signification of the Hebrew word 'ruagh', commonly translated spirit.

86 The word 'ruagh' literally means a wind, 'e.g.' the south wind, but it is frequently employed in other derivative significations. It is used as equivalent to,

87 (1.) Breath: "Neither is there any spirit in his mouth," Psalm, chapter-135, verse:17.

88 (2.) Life, or breathing: "And his spirit returned to him" 1 Samuel. Chapter-30, verse:12; i.e. he breathed again.

89 (3.) Courage and strength: "Neither did there remain any more spirit in any human," Joshua. Chapter-2, verse:11; 90 "And the spirit entered into me, and made me stand on my feet," Ezekiel. Chapter-2, verse:2.

91 (4.) Virtue and fitness: "Days should speak, and multitudes of years should teach wisdom; but there is a spirit in human," Job, chapter-32, verse:7; i.e. 92 wisdom is not always found among old people for I now discover that it depends on individual virtue and capacity. So, "A person in whom is the Spirit," Numbers, chapter-27, verse:18.

93 (5.) Habit of mind: "Because he had another spirit with him," Numbers, chapter-14, verse:24; i.e. another habit of mind. "Behold I

will pour out My Spirit unto you," Proverb. Chapter-1, verse:23.

94 (6.) Will, purpose, desire, impulse: "Whither the spirit was to go, they went," Ezekiel. Chapter-1, verse:12; 95 "That cover with a covering, but not of My Spirit," Isaiah, chapter-30, verse:1; 96 "For the Lord hath poured out on you the spirit of deep sleep," Isaiah, chapter-29, verse:10; 97 "Then was their spirit softened," Judges, chapter-8, verse:3; 98 "He that ruleth his spirit, is better than he that taketh a city," Proverb, chapter-16, verse:32; 99 "He that hath no rule over his own spirit," Proverb, chapter-25, verse:28; 100 "Your spirit as fire shall devour you," Isaiah, chapter-33. verse:1.

101 From the meaning of disposition we get -

(7.) Passions and faculties. A lofty spirit means pride, a lowly spirit humility, an evil spirit hatred and melancholy. 102 So, too, the expressions spirits of jealousy, fornication, wisdom, counsel, bravery, stand for a jealous, lascivious, wise, prudent, or brave mind (for we Hebrews use substantives in preference to adjectives), or these various qualities.

103 (8.) The mind itself, or the life: "Yea, they have all one spirit," Ecclesiastes. Chapter-3, verse:19 "The spirit shall return to God Who gave it."

104 (9.) The quarters of the world (from the winds which blow thence), or even the side of anything turned towards a particular quarter-- Ezekiel, chapter-37, verse:9; Chapter-42, verses 16-19.

105 I have already alluded to the way in which things are referred to God, and said to be of God.

106 (1.) As belonging to His nature, and being, as it were, part of Him; e.g. the power of God, the eyes of God.

107 (2.) As under His dominion, and depending on His pleasure; thus the heavens are called the heavens of the Lord, as being His chariot and habitation. 108 So Nebuchadnezzar is called the servant of God, Assyria the scourge of God.

109 (3.) As dedicated to Him, e.g. the Temple of God, a Nazarene of God, the Bread of God.

110 (4.) As revealed through the prophets and not through our natural faculties. In this sense the Mosaic law is called the law of God.

111 (5.) As being in the superlative degree. Very high mountains are styled the mountains of God, a very deep sleep, the sleep of God.

112 In this sense we must explain Amos, chapter-4, verse:11: "I have overthrown you as the overthrow of the Lord came upon Sodom and Gomorrah," i.e. that memorable overthrow, for since God Himself is the Speaker, the passage cannot well be taken otherwise. 113 The wisdom of Solomon is called the wisdom of God, or extraordinary. The size of the cedars of Lebanon is alluded to in the Psalmist's expression, "the cedars of the Lord."

114 Similarly, if the Jews were at a loss to understand any phenomenon, or were ignorant of its cause, they referred it to God.

115 Thus a storm was termed the chiding of God, thunder and lightning the arrows of God, for it was thought that God kept the winds confined in caves, His treasuries; thus differing merely in name from the Greek wind-god Eolus.

116 In like manner miracles were called works of God, as being especially marvellous; though in reality, of course, all natural events are the works of God, and take place solely by His power.

117 The Psalmist calls the miracles in Egypt the works of God, because the Hebrews found in them a way of safety which they had not looked for, and therefore especially marvelled at.

118 As, then, unusual natural phenomena are called works of God, and trees of unusual size are called trees of God, we cannot wonder that very strong and tall men, though impious robbers and whore-mongers, are in Genesis called sons of God.

119 This reference of things wonderful to God was not peculiar to the Jews.

120 Pharaoh, on hearing the interpretation of his dream, exclaimed that the mind of the gods was in Joseph.

121 Nebuchadnezzar told Daniel that he possessed the mind of the holy gods; so also in Latin anything well made is often said to

be wrought with Divine hands, which is equivalent to the Hebrew phrase, wrought with the hand of God.

122 We can now very easily understand and explain those passages of Scripture which speak of the Spirit of God.

123 In some places the expression merely means a very strong, dry, and deadly wind, as in Isaiah, chapter-40, verse:7, "The grass withereth, the flower fadeth, because the Spirit of the Lord bloweth upon it."

124 Similarly in Genesis, chapter-1, verse:2: "The Spirit of the Lord moved over the face of the waters."

125 At other times it is used as equivalent to a high courage, thus the spirit of Gideon and of Samson is called the Spirit of the Lord, as being very bold, and prepared for any emergency. 126 Any unusual virtue or power is called the Spirit or Virtue of the Lord, Exodus, chapter-31, verse:3: "I will fill him (Bezaleel) with the Spirit of the Lord," i.e., as the Bible itself explains, with talent above human's usual endowment.

127 So Isaiah, chapter-11, verse:2: "And the Spirit of the Lord shall rest upon him," is explained afterwards in the text to mean the spirit of wisdom and understanding, of counsel and might.

128 The melancholy of Saul is called the melancholy of the Lord, or a very deep melancholy, the persons who applied the term showing that they understood by it nothing supernatural, in that they sent for a musician to assuage it by harp-playing.

129 Again, the "Spirit of the Lord" is used as equivalent to the mind of human, for instance, in Job, chapter-27, verse:3: "And the Spirit of the Lord in my nostrils," 130 the allusion being to Genesis, chapter-2, verse:7: "And God breathed into human's nostrils the breath of life."

131 Ezekiel also, prophesying to the dead, says (Chapter-27, verse:14), "And I will give to you My Spirit, and ye shall live;" i.e. I will restore you to life.

132 In Job, chapter-34, verse:14, we read: "If He gather unto Himself His Spirit and breath;" in Genesis. Chapter-6, verse:3: "My

Spirit shall not always strive with human, for that you also is flesh," i.e. 133 since human acts on the dictates of own body, and not the spirit which I gave you to discern the good, I will let you alone.

134 So, too, Psalm, chapter-51, verse:12: "Create in me a clean heart, O God, and renew a right spirit within me; cast me not away from Thy presence, and take not Thy Holy Spirit from me."

135 It was supposed that sin originated only from the body, and that good impulses come from the mind; 136 therefore the Psalmist invokes the aid of God against the bodily appetites, but prays that the spirit which the Lord, the Holy One, had given you might be renewed.

137 Again, inasmuch as the Bible, in concession to popular ignorance, describes God as having a mind, a heart, emotions--nay, even a body and breath-- 138 the expression Spirit of the Lord is used for God's mind, disposition, emotion, strength, or breath.

139 Thus, Isaiah, chapter-40, verse:13: "Who hath disposed the Spirit of the Lord?" i.e. who, save Himself, hath caused the mind of the Lord to will anything,? 140 And Isaiah, chapter-63, verse:10: "But they rebelled, and vexed the Holy Spirit."

141 The phrase comes to be used of the law of Moses, which in a sense expounds God's will, Isaiah, chapter-43, verse:11, "Where is He that put His Holy Spirit within him?" meaning, as we clearly gather from the context, the law of Moses.

142 Nehemiah, speaking of the giving of the law, says, in chapter-1, verse:20, "Thou gavest also thy good Spirit to instruct them."

143 This is referred to in Deuteronomy. Chapter-4, verse:6, "This is your wisdom and understanding," and in Psalm, chapter-143, verse:10, "Thy good Spirit will lead me into the land of uprightness."

144 The Spirit of the Lord may mean the breath of the Lord, for breath, no less than a mind, a heart, and a body are attributed to God in Scripture, as in Psalm, chapter-33, verse:6.

145 Hence it gets to mean the power, strength, or faculty of God, as in Job, chapter-33, verse:4, "The Spirit of the Lord made me," i.e.

the power, or, if you prefer, the decree of the Lord.

146 So the Psalmist in poetic language declares, chapter-33, verse:6, "By the word of the Lord were the heavens made, and all the host of them by the breath of His mouth," i.e. by a mandate issued, as it were, in one breath.

147 Also Psalm, chapter-139, verse:7, "Whither shall I go from Thy Spirit, or whither shall I flee from Thy presence?" i.e. whither shall I go so as to be beyond Thy power and Thy presence?

148 Lastly, the Spirit of the Lord is used in Scripture to express the emotions of God, e.g. His kindness and mercy, Micah, chapter-2, verse:7, "Is the Spirit i.e. the mercy of the Lord straitened?

149 Are these cruelties His doings?"

150 Zechariah, chapter-4, verse:6, "Not by might or by power, but My Spirit [i.e. mercy], saith the Lord of hosts."

151 The twelfth verse of the seventh chapter of the same prophet must, I think, be interpreted in like manner: "Yea, they made their hearts as an adamant stone, lest they should hear the law, and the words which the Lord of hosts hath sent in His Spirit i.e. in His mercy by the former prophets."

152 So also Haggai, chapter-2, verse:5: "So My Spirit remaineth among you: fear not."

153 The passage in Isaiah, chapter-48, verse:16, "And now the Lord and His Spirit hath sent me," may be taken to refer to God's mercy or His revealed law; 154 for the prophet says, "From the beginning" (i.e. from the time when I first came to you, to preach God's anger and His sentence forth against you) "I spoke not in secret; 155 from the time that it was, there am I," and now I am sent by the mercy of God as a joyful messenger to preach your restoration.

156 Or we may understand him to mean by the revealed law that he had before come to warn them by the command of the law (Leviticus, chapter-19, verse:17) 157 in the same manner under the same conditions as Moses had warned them, that now, like Moses, he ends by preaching their restoration.

158 But the first explanation seems to me the best.

PROPHECY

159 Returning, then, to the main object of our discussion, we find that the Scriptural phrases, "The Spirit of the Lord was upon a prophet," "The Lord breathed His Spirit into humans," "Humans were filled with the Spirit of God, with the Holy Spirit," 160 are quite clear to us, and mean that prophets were endowed with a peculiar and extraordinary power, and devoted themselves to piety with especial constancy; 161 that thus they perceived the mind or the thought of God, for we have shown that God's Spirit signifies in Hebrew God's mind or thought, and that the law which shows His mind and thought is called His Spirit; 162 hence that the imagination of the prophets, inasmuch as through it were revealed the decrees of God, may equally be called the mind of God, and the prophets be said to have possessed the mind of God.
163 On our minds also the mind of God and His eternal thoughts are impressed; 164 but this being the same for all humans is less taken into account, especially by the Hebrews, who claimed a pre-eminence, and despised other people and other people's knowledge.
165 Lastly, the prophets were said to possess the Spirit of God because people knew not the cause of prophetic knowledge, and in their wonder referred it with other marvels directly to the Deity, styling it Divine knowledge.
166 We need no longer scruple to affirm that the prophets only perceived God's revelation by the aid of imagination, that is, by words and figures either real or imaginary.
167 We find no other means mentioned in Scripture, and therefore must not invent any.
168 As to the particular Law of Nature by which the communications took place, I confess my ignorance.
169 I might, indeed, say as others do, that they took place by the power of God; but this would be mere trifling, and no better than explaining some unique specimen by a transcendental term.
170 Everything takes place by the power of God.
171 Nature Herself is the power of God under another name, and our ignorance of the power of God is

co-extensive with our ignorance of Nature.

172 It is absolute folly, therefore, to ascribe an event to the power of God when we know not its natural cause, which is the power of God.

173 However, we are not now inquiring into the causes of prophetic knowledge.

174 We are only attempting, as I have said, to examine the Scriptural documents, and to draw our conclusions from them as from ultimate natural facts; the causes of the documents do not concern us.

175 As the prophets perceived the revelations of God by the aid of imagination, they could indisputably perceive much that is beyond the boundary of the intellect, 176 for many more ideas can be constructed from words and figures than from the principles and notions on which the whole fabric of reasoned knowledge is reared.

177 Thus we have a clue to the fact that the prophets perceived nearly everything in parables and allegories, and clothed spiritual truths in bodily forms, for such is the usual method of imagination.

178 We need no longer wonder that Scripture and the prophets speak so strangely and obscurely of God's Spirit or Mind (cf. Numbers, chapter-11, verse:17, 1 Kings, chapter-22, verse:21), 179 that the Lord was seen by Micah as sitting, by Daniel as an old man clothed in white, by Ezekiel as a fire, that the Holy Spirit appeared to those with Christ as a descending dove, to the apostles as fiery tongues, to Paul on his conversion as a great light.

180 All these expressions are plainly in harmony with the current ideas of God and spirits.

181 Inasmuch as imagination is fleeting and inconstant, we find that the power of prophecy did not remain with a prophet for long, nor manifest itself frequently, but was very rare; manifesting itself only in a few people, and in them not often.

182 We must necessarily inquire how the prophets became assured of the truth of what they perceived by imagination, and not by sure mental laws; 183 but our investigation must be confined to Scripture, for the subject is one on which we cannot acquire certain knowledge, and which we cannot

explain by the immediate causes. 184 Scripture teaching about the assurance of prophets I will treat of in the next chapter.

OF PROPHETS
Benedict of Spinoza

2 It follows from the last chapter that, as I have said, the prophets were endowed with unusually vivid imaginations, and not with unusually perfect minds. 2 This conclusion is amply sustained by Scripture, for we are told that Solomon was the wisest of humans, but had no special faculty of prophecy.

3 Heman, Calcol, and Dara, though men of great talent, were not prophets, whereas uneducated countrymen, nay, even women, such as Hagar, Abraham's handmaid, were thus gifted. 4 Nor is this contrary to ordinary experience and reason. 5 People of great imaginative power are less fitted for abstract reasoning, whereas those who excel in intellect and its use keep their imagination more restrained and controlled, holding it in subjection, so to speak, lest it should usurp the place of reason. 6 Thus to suppose that knowledge of natural and spiritual phenomena can be gained from the prophetic books, is an utter mistake, which I shall endeavour to expose, as I think philosophy, the age, and the question itself demand. 7 I care not for the girdings of superstition, for superstition is the bitter enemy, of all true knowledge and true morality.

8 Yes; it has come to this! 9 People who openly confess that they can form no idea of God, and only know Him through created things, of which they know not the causes, can unblushingly accuse philosophers of Atheism. 10 Treating the question methodically, I will show that prophecies varied, not only according to the imagination and physical temperament of the prophet, but also according to individual particular opinions; 11 and further that prophecy never rendered the prophet wiser than individual was before. 12 But I will first discuss the assurance of truth which the prophets received, for this is akin to the subject-matter of

the chapter, and will serve to elucidate somewhat our present point.

13 Imagination does not, in its own nature, involve any certainty of truth, such as is implied in every clear and distinct idea, but requires some extrinsic reason to assure us of its objective reality: 14 hence prophecy cannot afford certainty, and the prophets were assured of God's revelation by some sign, and not by the fact of revelation, 15 as we may see from Abraham, who, when he had heard the promise of God, demanded a sign, not because he did not believe in God, but because he wished to be sure that it was God Who made the promise. 16 The fact is still more evident in the case of Gideon: "Show me," he says to God, "show me a sign, that I may know that it is Thou that talkest with me." 17 God also says to Moses: "And let this be a sign that I have sent thee." 18 Hezekiah, though he had long known Isaiah to be a prophet, none the less demanded a sign of the cure which he predicted. 19 It is thus quite evident that the prophets always received some sign to certify them of their prophetic imaginings; 20 and for this reason Moses bids the Jews (Deuteronomy, chapter-18) ask of the prophets a sign, namely, the prediction of some coming event. 21 In this respect, prophetic knowledge is inferior to natural knowledge, which needs no sign, and in itself implies certitude.

22 Moreover, Scripture warrants the statement that the certitude of the prophets was not mathematical, but moral. 23 Moses lays down the punishment of death for the prophet who preaches new gods, even though he confirm his doctrine by signs and wonders (Deuteronomy, chapter-13); "For," he says, "the Lord also worketh signs and wonders to try His people." 24 And Jesus Christ warns His disciples of the same thing (Matthew, chapter-24, verse:24). 25 Furthermore, Ezekiel (chapter-14, verse:9) plainly states that God sometimes deceives people with false revelations; and Micaiah bears like witness in the case of the prophets of Ahab.

26 Although these instances go to prove that revelation is open to doubt, it nevertheless contains, as we have said, a considerable

element of certainty, 27 for God never deceives the good, nor His chosen, but (according to the ancient proverb, and as appears in the history of Abigail and her speech), God uses the good as instruments of goodness, and the wicked as means to execute His wrath. 28 This may be seen from the case of Micaiah above quoted; for although God had determined to deceive Ahab, through prophets, He made use of lying prophets; to the good prophet He revealed the truth, and did not forbid his proclaiming it.

29 Still the certitude of prophecy, remains, as I have said, merely, moral; for no one can justify oneself before God, nor boast that you are an instrument for God's goodness. 30 Scripture itself teaches and shows that God led away David to number the people, though it bears ample witness to David's piety. 31 The whole question of the certitude of prophecy, was based on these three considerations:

32 (1.) That the things revealed were imagined very vividly, affecting the prophets in the same way as things seen when awake; (2.) The presence of a sign; (3.) Lastly, and chiefly, that the mind of the prophet was given wholly, to what was right and good.

33 Although Scripture does not always make mention of a sign, we must nevertheless suppose that a sign was always vouchsafed; 34 for Scripture does not always relate every condition and circumstance (as many have remarked), but rather takes them for granted. 35 We may, however, admit that no sign was needed when the prophecy declared nothing that was not already contained in the law of Moses, because it was confirmed by that law.

36 For instance, Jeremiah's prophecy, of the destruction of Jerusalem was confirmed by the prophecies of other prophets, and by the threats in the law, and, therefore, it needed no sign; 37 whereas Hananiah, who, contrary to all the prophets, foretold the speedy restoration of the State, stood in need of a sign, or he would have been in doubt as to the truth of his prophecy, until it was confirmed by facts. 38 "The prophet which prophesieth of peace, when the word of the

prophet shall come to pass, then shall the prophet be known that the Lord hath truly sent him."

39 As, then, the certitude afforded to the prophet by signs was not mathematical (i.e. did not necessarily follow from the perception of the thing perceived or seen), but only moral, 40 and as the signs were only given to convince the prophet, it follows that such signs were given according to the opinions and capacity of each prophet, so that a sign which convince one prophet would fall far short of convincing another who was imbued with different opinions. 41 Therefore the signs varied according to the individual prophet.

42 So also did the revelation vary, as we have stated, according to individual disposition and temperament, and according to the opinions previously held. 43 It varied according to disposition, in this way: if a prophet was cheerful, victories, peace, and events which make people glad, were revealed to the self; in that the prophet was naturally more likely to imagine such things. 44 If, on the contrary, the prophet was melancholy, wars, massacres, and calamities were revealed; and so, according as a prophet was merciful, gentle, quick to anger, or severe, would be more fitted for one kind of revelation than another. 45 It varied according to the temper of imagination in this way: if a prophet was cultivated and perceived the mind of God in a cultivated way, if was confused to perceived it confusedly. 46 And so with revelations perceived through visions. 47 If a prophet was a countryman he saw visions of oxen, cows, and the like; if he was a soldier, he saw generals and armies; if a courtier, a royal throne, and so on.

48 Lastly, prophecy varied according to the opinions held by the prophets; for instance, to the Magi, who believed in the follies of astrology, the birth of Christ was revealed through the vision of a star in the East. 49 To the augurs of Nebuchadnezzar the destruction of Jerusalem was revealed through entrails, whereas the king himself inferred it from oracles and the direction of arrows which he shot into the air. 50 To prophets who believed that man acts from free

choice and by his own power, God was revealed as standing apart from and ignorant of future human actions. 51 All of which we will illustrate from Scripture.

52 The first point is proved from the case of Elisha, who, in order to prophecy to Jehoram, asked for a harp, and was unable to perceive the Divine purpose till he had been recreated by its music; 53 then, indeed, he prophesied to Jehoram and to his allies glad tidings, which previously he had been unable to attain to because he was angry with the king, and these who are angry with anyone can imagine evil of him, but not good. 54 The theory that God does not reveal Himself to the angry or the sad, is a mere dream: for God revealed to Moses while angry, the terrible slaughter of the firstborn, and did so without the intervention of a harp.

55 To Cain in his rage, God was revealed, and to Ezekiel, impatient with anger, was revealed the contumacy and wretchedness of the Jews. 56 Jeremiah, miserable and weary of life, prophesied the disasters of the Hebrews, so that Josiah would not consult him, but inquired of a woman, inasmuch as it was more in accordance with womanly nature that God should reveal His mercy thereto. 57 So, Micaiah never prophesied good to Ahab, though other true prophets had done so, but invariably evil. 58 Thus we see that individual prophets were by temperament more fitted for one sort of revelation than another.

59 The style of the prophecy also varied according to the eloquence of the individual prophet. 60 The prophecies of Ezekiel and Amos are not written in a cultivated style like those of Isaiah and Nahum, but more rudely. 61 Any Hebrew scholar who wishes to inquire into this point more closely, and compares chapters of the different prophets treating of the same subject, will find great dissimilarity of style. 62 Compare, for instance, chapter-1 of the courtly Isaiah, verse 11-20, with chapter-5 of the countryman Amos, verses 21-24. 63 Compare also the order and reasoning of the prophecies of Jeremiah, written in Idumaea (chapter-49), with the order and reasoning of Obadiah. 64 Compare, lastly, Isaiah, chapter-

40, verse:19-20, and chapter-44, verse:8, with Hosea, chapter-8, verse:6, and chapter-8, verse:2. And so on.

65 A due consideration of these passage will clearly show us that God has no particular style in speaking, but, according to the learning and capacity of the prophet, is cultivated, compressed, severe, untutored, prolix, or obscure. 66 There was, moreover, a certain variation in the visions vouchsafed to the prophets, and in the symbols by which they expressed them, for Isaiah saw the glory of the Lord departing from the Temple in a different form from that presented to Ezekiel. 67 The Rabbis, indeed, maintain that both visions were really the same, but that Ezekiel, being a countryman, was above measure impressed by it, and therefore set it forth in full detail; 68 but unless there is a trustworthy tradition on the subject, which I do not for a moment believe, this theory is plainly an invention. 69 Isaiah saw seraphim with six wings, Ezekiel beasts with four wings; Isaiah saw God clothed and sitting on a royal throne, Ezekiel saw Him in the likeness of a fire; each doubtless saw God under the form in which he usually imagined Him.

70 Further, the visions varied in clearness as well as in details; for the revelations of Zechariah were too obscure to be understood by the prophet without explanation, as appears from his narration of them; 71 the visions of Daniel could not be understood by him even after they had been explained, and this obscurity did not arise from the difficulty of the matter revealed (for being merely human affairs, these only transcended human capacity in being future), 72 but solely in the fact that Daniel's imagination was not so capable for prophecy while he was awake as while he was asleep; 73 and this is further evident from the fact that at the very beginning of the vision he was so terrified that he almost despaired of his strength. 74 Thus, on account of the inadequacy of his imagination and his strength, the things revealed were so obscure to him that he could not understand them even after they had been explained. 75 Here we may note that the words heard by

Daniel, were, as we have shown above, simply imaginary, so that it is hardly wonderful that in his frightened state he imagined them so confusedly and obscurely that afterwards he could make nothing of them.

76 Those who say that God did not wish to make a clear revelation, do not seem to have read the words of the angel, who expressly says that He came to make the prophet understand what should befall His people in the latter days (Daniel, chapter-10, verse:14). 77 The revelation remained obscure because no one was found, at that time, with imagination sufficiently strong to conceive it more clearly. 78 Lastly, the prophets, to whom it was revealed that God would take away Elijah, wished to persuade Elisha that he had been taken somewhere where they would find him; showing sufficiently clearly that they had not understood God's revelation aright.

79 There is no need to set this out more amply, for nothing is more plain in the Bible than that God endowed some prophets with far greater gifts of prophecy than others. 80 But I will show in greater detail and length, for I consider the point more important, that the prophecies varied according to the opinions previously embraced by the prophets, and that the prophets held diverse and even contrary opinions and prejudices. 81 (I speak, be it understood, solely of matters speculative, for in regard to uprightness and morality the case is widely different.) 82 From thence I shall conclude that prophecy never rendered the prophets more learned, but left them with their former opinions, and that we are, therefore, not at all bound to trust them in matters of intellect.

83 Everyone has been strangely hasty in affirming that the prophets knew everything within the scope of human intellect; and, although certain passages of Scripture plainly affirm that the prophets were in certain respects ignorant, 84 such persons would rather say that they do not understand the passages than admit that there was anything which the prophets did not know; or else they try to wrest the Scriptural words away from their evident meaning. 85 If either

of these proceedings is allowable we may as well shut our Bibles, for vainly shall we attempt to prove anything from them if their plainest passages may be classed among obscure and impenetrable mysteries, or if we may put any interpretation on them which we fancy. 86 For instance, nothing is more clear in the Bible than that Joshua, and perhaps also the author who wrote his history, thought that the sun revolves round the earth, and that the earth is fixed, and further that the sun for a certain period remained still. 87 Many, who will not admit any movement in the heavenly bodies, explain away the passage till it seems to mean something quite different; 88 others, who have learned to philosophise more correctly, and understand that the earth moves while the sun is still, or at any rate does not revolve round the earth, try with all their might to wrest this meaning from Scripture, though plainly nothing of the sort is intended. 89 Such quibblers excite my wonder! 90 Are we, forsooth, bound to believe that Joshua the Soldier was a learned astronomer? Or that a miracle could not be revealed to him, or that the light of the sun could not remain longer than usual above the horizon, without his knowing the cause?

91 To me both alternatives appear ridiculous, and therefore I would rather say, that Joshua was ignorant of the true cause of the lengthened day, 92 and that he and the whole host with him thought that the sun moved round the earth every day, and that on that particular occasion it stood still for a time, thus causing the light to remain longer; 93 and I would say, that they did not conjecture that, from the amount of snow in the air (see Joshua, chapter-10, verse:11), the refraction may have been greater than usual, or that there may have been some other cause which we will not now inquire into.

94 So also the sign of the shadow going back was revealed to Isaiah according to his understanding; that is, as proceeding from a going backwards of the sun; 95 for he, too, thought that the sun moves and that the earth is still; of parhelia he perhaps never even dreamed. 96 We may arrive at this

conclusion without any scruple, for the sign could really have come to pass, and have been predicted by Isaiah to the king, without the prophet being aware of the real cause.

97 With regard to the building of the Temple by Solomon, if it was really dictated by God we must maintain the same doctrine: namely, that all the measurements were revealed according to the opinions and understanding of the king; 98 for as we are not bound to believe that Solomon was a mathematician, we may affirm that he was ignorant of the true ratio between the circumference and the diameter of a circle, and that, like the generality of workmen, he thought that it was as three to one. 99 But if it is allowable to declare that we do not understand the passage, in good sooth I know nothing in the Bible that we can understand; for the process of building is there narrated simply and as a mere matter of history. 100 If, again, it is permitted to pretend that the passage has another meaning, and was written as it is from some reason unknown to us, this is no less than a complete subversal of the Bible; 101 for every absurd and evil invention of human perversity could thus, without detriment to Scriptural authority, be defended and fostered.

102 Our conclusion is in no wise impious, for though Solomon, Isaiah, Joshua, were prophets, they were none the less humans, and as such not exempt from human shortcomings. 103 According to the understanding of Noah it was revealed to him that God as about to destroy the whole human race, for Noah thought that beyond the limits of Palestine the world was not inhabited. 104 Not only in matters of this kind, but in others more important, the prophets could be, and in fact were, ignorant; 105 for they taught nothing special about the Divine attributes, but held quite ordinary notions about God, and to these notions their revelations were adapted, as I will demonstrate by ample Scriptural testimony; 106 from all which one may easily see that they were praised and commended, not so much for the sublimity and eminence of their intellect as for their piety and faithfulness.

107 Adam, the first man to whom God was revealed, did not know that He is omnipotent and omniscient; for he hid himself from Him, and attempted to make excuses for his fault before God, as though he had had to do with a man; 108 therefore to him also was God revealed according to his understanding-- that is, as being unaware of his situation or his sin, 109 for Adam heard, or seemed to hear, the Lord walking in the garden, calling him and asking him where he was; and then, on seeing his shamefacedness, asking him whether he had eaten of the forbidden fruit. 110 Adam evidently only knew the Deity as the Creator of all things. 111 To Cain also God was revealed, according to his understanding, as ignorant of human affairs, nor was a higher conception of the Deity required for repentance of his sin.

112 To Laban the Lord revealed Himself as the God of Abraham, because Laban believed that each nation had its own special divinity (see Genesis, chapter-31, verse:29).

113 Abraham also knew not that God is omnipresent, and has foreknowledge of all things; for when he heard the sentence against the inhabitants of Sodom, he prayed that the Lord should not execute it till He had ascertained whether they all merited such punishment; 114 for he said (see Genesis, chapter-18, verse:24), "Peradventure there be fifty righteous within the city," and in accordance with this belief God was revealed to him; 115 as Abraham imagined, He spake thus: "I will go down now, and see whether they have done altogether according to the cry of it which is come unto Me; and, if not, I will know." 116 Further, the Divine testimony concerning Abraham asserts nothing but that he was obedient, and that he "commanded his household after him that they should keep the way of the Lord" (Genesis, chapter-18, verse:19); it does not state that he held sublime conceptions of the Deity.

117 Moses, also, was not sufficiently aware that God is omniscient, and directs human actions by His sole decree, 118 for although God Himself says that the Israelites should hearken to Him, Moses still considered the

matter doubtful and repeated, "But if they will not believe me, nor hearken unto my voice." 119 To him in like manner God was revealed as taking no part in, and as being ignorant of, future human actions: 120 the Lord gave him two signs and said, "And it shall come to pass that if they will not believe thee, neither hearken to the voice of the first sign, that they will believe the voice of the latter sign; but if not, thou shalt take of the water of the river," 121 Indeed, if any one considers without prejudice the recorded opinions of Moses, he will plainly see that Moses conceived the Deity as a Being Who has always existed, does exist, and always will exist, 122 and for this cause he calls Him by the name Jehovah, which in Hebrew signifies these three phases of existence: 123 as to His nature, Moses only taught that He is merciful, gracious, and exceeding jealous, as appears from many passages in the Pentateuch. 124 Lastly, he believed and taught that this Being was so different from all other beings, that He could not be expressed by the image of any visible thing; 125 also, that He could not be looked upon, and that not so much from inherent impossibility as from human infirmity; further, that by reason of His power He was without equal and unique. 126 Moses admitted, indeed, that there were beings (doubtless by the plan and command of the Lord) who acted as God's vicegerents-- that is, beings to whom God had given the right, authority, and power to direct nations, and to provide and care for them; 127 but he taught that this Being Whom they were bound to obey was the highest and Supreme God, or (to use the Hebrew phrase) God of gods, 128 and thus in the song (Exodus, chapter-15, verse:11) he exclaims, "Who is like unto Thee, O Lord, among the gods?" and Jethro says (Exodus, chapter-18, verse:11), "Now I know that the Lord is greater than all gods." 129 That is to say, "I am at length compelled to admit to Moses that Jehovah is greater than all gods, and that His power is unrivalled."

130 We must remain in doubt whether Moses thought that these beings who acted as God's vicegerents were created by Him,

for he has stated nothing, so far as we know, about their creation and origin. 131 He further taught that this Being had brought the visible world into order from Chaos, and had given Nature Her germs, and therefore that He possesses supreme right and power over all things; 132 further, that by reason of this supreme right and power He had chosen for Himself alone the Hebrew nation and a certain strip of territory, 133 and had handed over to the care of other gods substituted by Himself the rest of the nations and territories, and that therefore He was called the God of Israel and the God of Jerusalem, whereas the other gods were called the gods of the Gentiles.

134 For this reason the Jews believed that the strip of territory which God had chosen for Himself, demanded a Divine worship quite apart and different from the worship which obtained elsewhere, and that the Lord would not suffer the worship of other gods adapted to other countries. 135 Thus they thought that the people whom the king of Assyria had brought into Judaea were torn in pieces by lions because they knew not the worship of the National Divinity (2 Kings, chapter-17, verse:25).

136 Jacob, according to Aben Ezra's opinion, therefore admonished his sons when he wished them to seek out a new country, 137 that they should prepare themselves for a new worship, and lay aside the worship of strange gods-- that is, of the gods of the land where they were (Genesis, chapter-35, verses:2-3).

138 David, in telling Saul that he was compelled by the king's persecution to live away from his country, said that he was driven out from the heritage of the Lord, and sent to worship other gods (1 Samuel, chapter-26, verse:19). 139 Lastly, he believed that this Being or Deity had His habitation in the heavens (Deuteronomy, chapter-33, verse:27), an opinion very common among the Gentiles.

140 If we now examine the revelations to Moses, we shall find that they were accommodated to these opinions; 141 as he believed that the Divine Nature was subject to the conditions of mercy, graciousness, so God was revealed

to him in accordance with his idea and under these attributes (see Exodus, chapter-34, verses:6-7, and the second commandment). 142 Further it is related (Exodus, chapter-33, verse:18) that Moses asked of God that he might behold Him, but as Moses (as we have said) had formed no mental image of God, 143 and God (as I have shown) only revealed Himself to the prophets in accordance with the disposition of their imagination, He did not reveal Himself in any form. 144 This, I repeat, was because the imagination of Moses was unsuitable, for other prophets bear witness that they saw the Lord; for instance, Isaiah, Ezekiel, Daniel. 145 For this reason God answered Moses, "Thou canst not see My face;" and inasmuch as Moses believed that God can be looked upon-- that is, that no contradiction of the Divine Nature is therein involved (for otherwise he would never have preferred his request)-- 146 it is added, "For no one shall look on Me and live," thus giving a reason in accordance with Moses' idea, 147 for it is not stated that a contradiction of the Divine Nature would be involved, as was really the case, but that the thing would not come to pass because of human infirmity.

148 When God would reveal to Moses that the Israelites, because they worshipped the calf, were to be placed in the same category as other nations, He said (Exodus, Chapter-33, verses:2-3), that He would send an angel 149 that is, a being who should have charge of the Israelites, instead of the Supreme Being, and that He Himself would no longer remain among them; 150 thus leaving Moses no ground for supposing that the Israelites were more beloved by God than the other nations whose guardianship He had entrusted to other beings or angels (verse:16).

151 Lastly, as Moses believed that God dwelt in the heavens, God was revealed to him as coming down from heaven on to a mountain, 152 and in order to talk with the Lord Moses went up the mountain, which he certainly need not have done if he could have conceived of God as omnipresent.

153 The Israelites knew scarcely anything of God, although He was

revealed to them; and this is abundantly evident from their transferring, a few days afterwards, the honour and worship due to Him to a calf, which they believed to be the god who had brought them out of Egypt. 154 In truth, it is hardly likely that people accustomed to the superstitions of Egypt, uncultivated and sunk in most abject slavery, should have held any sound notions about the Deity, or that Moses should have taught them anything beyond a rule of right living; 155 inculcating it not like a philosopher, as the result of freedom, but like a lawgiver compelling them to be moral by legal authority. 156 Thus the rule of right living, the worship and love of God, was to them rather a bondage than the true liberty, the gift and grace of the Deity. 157 Moses bid them love God and keep His law, because they had in the past received benefits from Him (such as the deliverance from slavery in Egypt), 158 and further terrified them with threats if they transgressed His commands, holding out many promises of good if they should observe them; thus treating them as parents treat irrational children. 159 It is, therefore, certain that they knew not the excellence of virtue and the true happiness.

160 Jonah thought that he was fleeing from the sight of God, which seems to show that he too held that God had entrusted the care of the nations outside Judaea to other substituted powers. 161 No one in the whole of the Old Testament speaks more rationally of God than Solomon, who in fact surpassed all the people of his time in natural ability. 162 Yet he considered himself above the law (esteeming it only to have been given for people without reasonable and intellectual grounds for their actions), and made small account of the laws concerning kings, which are mainly three: 163 nay, he openly violated them (in this he did wrong, and acted in a manner unworthy of a philosopher, by indulging in sensual pleasure), and taught that all 164 Fortune's favours to humankind are vanity, that humanity has no nobler gift than wisdom, and no greater

punishment than folly. (See Proverbs, chapter-16, verses:22-23).

165 But let us return to the prophets whose conflicting opinions we have undertaken to note. 166 The expressed ideas of Ezekiel seemed so diverse from those of Moses to the Rabbis who have left us the extant prophetic books (as is told in the treatise of Sabbathus, i:13, 2), 167 that they had serious thoughts of omitting his prophecy from the canon, and would doubtless have thus excluded it if a certain Hananiah had not undertaken to explain it; a task which (as is there narrated) he with great zeal and labour accomplished. 168 How he did so does not sufficiently appear, whether it was by writing a commentary which has now perished, or by altering Ezekiel's words and audaciously striking out phrases according to his fancy. 169 However this may be, chapter xviii. certainly does not seem to agree with Exodus, chapter-34, verse:7, Jeremiah, chapter-32, verses:18.

170 Samuel believed that the Lord never repented of anything He had decreed (1 Samuel, chapter-15, verse:29), for when Saul was sorry for his sin, and wished to worship God and ask for forgiveness, Samuel said that the Lord would not go back from his decree.

171 To Jeremiah, on the other hand, it was revealed that, "If that nation against whom I (the Lord) have pronounced, turn from their evil, I will repent of the evil that I thought to do unto them. 172 If it do evil in my sight, that it obey not my voice, then I will repent of the good wherewith I said I would benefit them" (Jeremiah, chapter-18, verses:8-10).

173 Joel (chapter-2, verse:13) taught that the Lord repented Him only of evil.

174 Lastly, it is clear from Genesis, chapter-4, verse:7 that a person can overcome the temptations of sin, and act righteously; for this doctrine is told to Cain, though, as we learn from Josephus and the Scriptures, he never did so overcome them. 175 And this agrees with the chapter of Jeremiah just cited, for it is there said that the Lord repents of the good or the evil pronounced, if the people in question change their ways and manner of life. 176 But,

on the other hand, Paul (in Romans, chapter-9, verse:10) teaches as plainly as possible that humans have no control over the temptations of the flesh save by the special vocation and grace of God. 177 And when (in Romans, chapter-3, verse:5 and chapter-6, verse:19) he attributes righteousness to human, he corrects himself as speaking merely humanly and through the infirmity of the flesh.

178 We have now more than sufficiently proved our point, that God adapted revelations to the understanding and opinions of the prophets, 179 and that in matters of theory without bearing on charity or morality the prophets could be, and, in fact, were, ignorant, and held conflicting opinions. 180 It therefore follows that we must by no means go to the prophets for knowledge, either of natural or of spiritual phenomena.

181 We have determined, then, that we are only bound to believe in the prophetic writings, the object and substance of the revelation; with regard to the details, every one may believe or not, as you likes. 182 For instance, the revelation to Cain only teaches us that God admonished him to lead the true life, for such alone is the object and substance of the revelation, not doctrines concerning free-will and philosophy. 183 Hence, though the freedom of the Will is clearly implied in the words of the admonition, we are at liberty to hold a contrary opinion, since the words and reasons were adapted to the understanding of Cain.

184 So, too, the revelation to Micaiah would only teach that God revealed to him the true issue of the battle between Ahab and Aram; and this is all we are bound to believe. 185 Whatever else is contained in the revelation concerning the true and the false Spirit of God, the army of heaven standing on the right hand and on the left, and all the other details, does not affect us at all. 186 Everyone may believe as much of it as your reason allows. 187 The reasonings by which the Lord displayed His power to Job (if they really were a revelation, and the author of the history is narrating, and not merely, as some suppose, rhetorically adorning his own conceptions), would come under

the same category-- 188 that is, they were adapted to Job's understanding, for the purpose of convincing him, and are not universal, or for the convincing of all humans.

189 We can come to no different conclusion with respect to the reasonings of Christ, by which He convicted the Pharisees of pride and ignorance, and exhorted His disciples to lead the true life. 190 He adapted them to each person's opinions and principles. 191 For instance, when He said to the Pharisees (Matthew, chapter-12, verse:26), "And if Satan cast out devils, his house is divided against itself, how then shall his kingdom stand?" 192 He only wished to convince the Pharisees according, to their own principles, not to teach that there are devils, or any kingdom of devils. 193 So, too, when He said to His disciples (Matthew, chapter-18, verse:10), "See that ye despise not one of these little ones, for I say unto you that their angels," 194 He merely desired to warn them against pride and despising any of their fellows, not to insist on the actual reason given, which was simply adopted in order to persuade them more easily.

195 Lastly, we should say exactly the same of the apostolic signs and reasonings, but there is no need to go further into the subject. 196 If I were to enumerate all the passages of Scripture addressed only to individuals, or to a particular human's understanding, and which cannot, without great danger to philosophy, be defended as Divine doctrines, I should go far beyond the brevity at which I aim. 197 Let it suffice, then, to have indicated a few instances of general application, and let the curious reader consider others by yourself.

198 Although the points we have just raised concerning prophets and prophecy are the only ones which have any direct bearing on the end in view, namely, the separation of Philosophy from Theology, 199 still, as I have touched on the general question, I may here inquire whether the gift of prophecy was peculiar to the Hebrews, or whether it was common to all nations. 200 I must then come to a conclusion about the vocation of the Hebrews, all of

which I shall do in the ensuing chapter.

OF THE VOCATION OF THE HEBREWS, AND WHETHER THE GIFT OF PROPHECY WAS PECULIAR TO THEM

Benedict of Spinoza

3 Every human's true happiness and blessedness consist solely in the enjoyment of what is good, not in the pride that you alone is enjoying it, to the exclusion of others. 2 You who thinks yourself the more blessed because you are enjoying benefits which others are not, or because you are more blessed or more fortunate than your fellows, is ignorant of true happiness and blessedness, 3 and the joy which you feels is either childish or envious and malicious. 4 For instance, a human's true happiness consists only in wisdom, and the knowledge of the truth, 5 not at all in the fact that you are wiser than others, or that others lack such knowledge: such considerations do not increase your wisdom or true happiness. 6 Whoever, therefore, rejoices for such reasons, rejoices in another's misfortune, and is, so far, malicious and bad, knowing neither true happiness nor the peace of the true life.

7 When Scripture, therefore, in exhorting the Hebrews to obey the law, says that the Lord has chosen them for Himself before other nations (Deuteronomy, chapter-10, verse:15); that He is near them, but not near others (Deuteronomy, chapter-4, verse:7); 8 that to them alone He has given just laws (Deuteronomy, chapter-4, verse:8); and, lastly, that He has marked them out before others (Deuteronomy, chapter-4, verse:32); 9 it speaks only according to the understanding of its hearers, who, as we have shown in the last chapter, and as Moses also testifies (Deuteronomy, chapter-4, verses:6 and 7), knew not true blessedness. 10 For in good sooth they would have been no less blessed if God had called all humans equally to salvation, nor would God have been less present to them for being equally present to others; 11 their laws, would have been no less just if they had been ordained for all, and

they themselves would have been no less wise. 12 The miracles would have shown God's power no less by being wrought for other nations also; 13 lastly, the Hebrews would have been just as much bound to worship God if He had bestowed all these gifts equally on all humans.

14 When God tells Solomon (1 Kings, chapter-3, verse:12) that no one shall be as wise as he in time to come, it seems to be only a manner of expressing surpassing wisdom; 15 it is little to be believed that God would have promised Solomon, for his greater happiness, that He would never endow anyone with so much wisdom in time to come; 16 this would in no wise have increased Solomon's intellect, and the wise king would have given equal thanks to the Lord if everyone had been gifted with the same faculties.

17 Still, though we assert that Moses, in the passages of the Pentateuch just cited, spoke only according to the understanding of the Hebrews, 18 we have no wish to deny that God ordained the Mosaic law for them alone, nor that He spoke to them alone, nor that they witnessed marvels beyond those which happened to any other nation; 19 but we wish to emphasise that Moses desired to admonish the Hebrews in such a manner, and with such reasonings as would appeal most forcibly to their childish understanding, and constrain them to worship the Deity. 20 Further, we wished to show that the Hebrews did not surpass other nations in knowledge, or in piety, but evidently in some attribute different from these; 21 or (to speak like the Scriptures, according to their understanding), that the Hebrews were not chosen by God before others for the sake of the true life and sublime ideas, though they were often thereto admonished, but with some other object. 22 What that object was, I will duly show. But before I begin, I wish in a few words to explain what I mean by the guidance of God, by the help of God, external and inward, and, lastly, what I understand by fortune.

23 By the help of God, I mean the fixed and unchangeable order of Nature or the chain of natural

events: 24 for I have said before and shown elsewhere that the universal Laws of Nature, according to which all things exist and are determined, are only another name for the eternal decrees of God, which always involve eternal truth and necessity. 25 So that to say that everything happens according to natural laws, and to say that everything is ordained by the decree and ordinance of God, is the same thing. 26 Now since the power in Nature is identical with the power of God, by which alone all things happen and are determined, 27 it follows that whatsoever human, as a part of Nature, provides the self with to aid and preserve own existence, or whatsoever Nature affords you without your help, is given to you solely by the Divine power, acting either through human nature or through external circumstance. 28 So whatever human nature can furnish itself with by its own efforts to preserve its existence, may be fitly called the inward aid of God, 29 whereas whatever else accrues to human's profit from outward causes may be called the external aid of God.

30 We can now easily understand what is meant by the election of God. 31 For since no one can do anything save by the predetermined order of Nature, that is by God's eternal ordinance and decree, 32 it follows that no one can choose a plan of life for own self, or accomplish any work save by God's vocation choosing you for the work or the plan of life in question, rather than any other. 33 Lastly, by fortune, I mean the ordinance of God in so far as it directs human life through external and unexpected means. 34 With these preliminaries I return to my purpose of discovering the reason why the Hebrews were said to be elected by God before other nations, and with the demonstration I thus proceed.

35 All objects of legitimate desire fall, generally speaking, under one of these three categories: (1.) The knowledge of things through their primary causes. (2.) The government of the passions, or the acquirement of the habit of virtue. (3.) Secure and healthy life.

36 The means which most directly conduce towards the first two of these ends, and which may be

considered their proximate and efficient causes are contained in human nature itself, so that their acquisition hinges only on our own power, and on the laws of human nature. 37 It may be concluded that these gifts are not peculiar to any nation, but have always been shared by the whole human race, unless, indeed, we would indulge the dream that Nature formerly created humans of different kinds. 38 But the means which conduce to security and health are chiefly in external circumstance, and are called the gifts of fortune because they depend chiefly on objective causes of which we are ignorant; 39 for a fool may be almost as liable to happiness or unhappiness as a wise person.

40 Nevertheless, human management and watchfulness can greatly assist towards living in security and warding off the injuries of our fellow-humans, and even of beasts. 41 Reason and experience show no more certain means of attaining this object than the formation of a society with fixed laws, the occupation of a strip of territory and the concentration of all forces, as it were, into one body, that is the social body. 42 Now for forming and preserving a society, no ordinary ability and care is required: 43 that society will be most secure, most stable, and least liable to reverses, which is founded and directed by far-seeing and careful people; 44 while, on the other hand, a society constituted by people without trained skill, depends in a great measure on fortune, and is less constant. 45 If, in spite of all, such a society lasts a long time, it is owing to some other directing influence than its own; 46 if it overcomes great perils and its affairs prosper, it will perforce marvel at and adore the guiding Spirit of God (in so far, that is, as God works through hidden means, and not through the nature and mind of human), 47 for everything happens to it unexpectedly and contrary to anticipation, it may even be said and thought to be by miracle.

48 Nations, then, are distinguished from one another in respect to the social organisation and the laws under which they live and are governed; 49 the Hebrew nation

was not chosen by God in respect to its wisdom nor its tranquillity of mind, but in respect to its social organisation and the good fortune with which it obtained supremacy and kept it so many years. This is abundantly clear from Scripture. 50 Even a cursory perusal will show us that the only respects in which the Hebrews surpassed other nations, are in their successful conduct of matters relating to government, and in their surmounting great perils solely by God's external aid; 51 in other ways they were on a par with their fellows, and God was equally gracious to all. 52 For in respect to intellect (as we have shown in the last chapter) they held very ordinary ideas about God and Nature, so that they cannot have been God's chosen in this respect; 53 nor were they so chosen in respect of virtue and the true life, for here again they, with the exception of a very few elect, were on an equality with other nations: 54 therefore their choice and vocation consisted only in the temporal happiness and advantages of independent rule.

55 In fact, we do not see that God promised anything beyond this to the patriarchs or their successors; 56 in the law no other reward is offered for obedience than the continual happiness of an independent commonwealth and other goods of this life; 57 while, on the other hand, against contumacy and the breaking of the covenant is threatened the downfall of the commonwealth and great hardships. 58 Nor is this to be wondered at; for the ends of every social organisation and commonwealth are (as appears from what we have said, and as we will explain more at length hereafter) security and comfort; 59 a commonwealth can only exist by the laws being binding on all.

60 If all the members of a state wish to disregard the law, by that very fact they dissolve the state and destroy the commonwealth. 61 Thus, the only reward which could be promised to the Hebrews for continued obedience to the law was security and its attendant advantages, 62 while no surer punishment could be threatened for disobedience, than the ruin of the state and the evils which

generally follow therefrom, 63 in addition to such further consequences as might accrue to the Jews in particular from the ruin of their especial state. 64 But there is no need here to go into this point at more length. 65 I will only add that the laws of the Old Testament were revealed and ordained to the Jews only, for as God chose them in respect to the special constitution of their society and government, they must, of course, have had special laws. 66 Whether God ordained special laws for other nations also, and revealed Himself to their lawgivers prophetically, that is, under the attributes by which the latter were accustomed to imagine Him, I cannot sufficiently determine.

67 It is evident from Scripture itself that other nations acquired supremacy and particular laws by the external aid of God; witness only the two following passages: 68 In Genesis. Chapter-14, verse:18, 19, 20, it is related that Melchisedek was king of Jerusalem and priest of the Most High God, that in exercise of his priestly functions he blessed Abraham, and that Abraham the beloved of the Lord gave to this priest of God a tithe of all his spoils. 69 This sufficiently shows that before He founded the Israelitish nation God constituted kings and priests in Jerusalem, and ordained for them rites and laws. 70 Whether He did so prophetically is, as I have said, not sufficiently clear; but I am sure of this, that Abraham, whilst he sojourned in the city, lived scrupulously according to these laws, for Abraham had received no special rites from God; 71 and yet it is stated (in Genesis, chapter-26, verse:5), that he observed the worship, the precepts, the statutes, and the laws of God, which must be interpreted to mean the worship, the statutes, the precepts, and the laws of king Melchisedek. 72 Malachi chides the Jews as follows (in chapter-1, verse:10-11.): "Who is there among you that will shut the doors? [of the Temple]; neither do ye kindle fire on mine altar for nought. 73 I have no pleasure in you, saith the Lord of Hosts. For from the rising of the sun, even until the going down of the same My Name shall be great

among the Gentiles; 74 and in every place incense shall be offered in My Name, and a pure offering; for My Name is great among the heathen, saith the Lord of Hosts." 75 These words, which, unless we do violence to them, could only refer to the current period, abundantly testify that the Jews of that time were not more beloved by God than other nations, 76 that God then favoured other nations with more miracles than He vouchsafed to the Jews, who had then partly recovered their empire without miraculous aid; 77 and, lastly, that the Gentiles possessed rites and ceremonies acceptable to God.

78 But I pass over these points lightly: it is enough for my purpose to have shown that the election of the Jews had regard to nothing but temporal physical happiness and freedom, 79 in other words, autonomous government, and to the manner and means by which they obtained it; consequently to the laws in so far as they were necessary to the preservation of that special government; and, lastly, to the manner in which they were revealed. 80 In regard to other matters, wherein human's true happiness consists, they were on a par with the rest of the nations.

81 When, therefore, it is said in Scripture (Deuteronomy, chapter-4, verse:7) that the Lord is not so nigh to any other nation as He is to the Jews, reference is only made to their government, and to the period when so many miracles happened to them, for in respect of intellect and virtue-- 82 that is, in respect of blessedness-- God was, as we have said already, and are now demonstrating, equally gracious to all. 83 Scripture itself bears testimony to this fact, for the Psalmist says (in chapter-145, verse:18), "The Lord is near unto all them that call upon Him, to all that call upon Him in truth." 84 So in the same Psalm, chapter-145, verse:9, "The Lord is good to all, and His tender mercies are over all His works." 85 In Psalm, chapter-33, verse:16, it is clearly stated that God has granted to all humans the same intellect, in these words, "He fashioneth their hearts alike." The heart was considered by the Hebrews, as I suppose everyone

knows, to be the seat of the soul and the intellect.

86 Lastly, from Job, chapter-38, verse:28, it is plain that God had ordained for the whole human race the law to reverence God, to keep from evil doing, or to do well, and that Job, although a Gentile, was of all people most acceptable to God, because he exceeded all in piety and religion. 87 Lastly, from Jonah, chapter-4, verse:2, it is very evident that, not only to the Jews but to all humans, God was gracious, merciful, long-suffering, and of great goodness, and repented Him of the evil, 88 for Jonah says: "Therefore I determined to flee before unto Tarshish, for I know that Thou art a gracious God, and merciful, slow to anger, and of great kindness," and that, therefore, God would pardon the Ninevites. 89 We conclude, therefore (inasmuch as God is to all humans equally gracious, and the Hebrews were only chosen by Him in respect to their social organisation and government), 90 that the individual Jew, taken apart from His social organisation and government, possessed no gift of God above other people, and that there was no difference between Jew and Gentile. 91 As it is a fact that God is equally gracious, merciful, and the rest, to all humans; and as the function of the prophet was to teach people not so much the laws of their country, as true virtue, and to exhort them thereto, 92 it is not to be doubted that all nations possessed prophets, and that the prophetic gift was not peculiar to the Jews.

93 Indeed, history, both profane and sacred, bears witness to the fact. 94 Although, from the sacred histories of the Old Testament, it is not evident that the other nations had as many prophets as the Hebrews, or that any Gentile prophet was expressly sent by God to the nations, 95 this does not affect the question, for the Hebrews were careful to record their own affairs, not those of other nations. 96 It suffices, then, that we find in the Old Testament Gentiles, and uncircumcised, as Noah, Enoch, Abimelech, Balaam, exercising prophetic gifts; 97 further, that Hebrew prophets were sent by God, not only to their own nation but to many others also.

98 Ezekiel prophesied to all the nations then known; Obadiah to none, that we are aware of, save the Idumeans; and Jonah was chiefly the prophet to the Ninevites. 99 Isaiah bewails and predicts the calamities, and hails the restoration not only of the Jews but also of other nations, for he says (in chapter-16, verse:9), "Therefore I will bewail Jazer with weeping;" 100 and in chapter-19. he foretells first the calamities and then the restoration of the Egyptians (see verses 19, 20, 21, 25), saying that God shall send them a Saviour to free them, that the Lord shall be known in Egypt, 101 and, further, that the Egyptians shall worship God with sacrifice and oblation; and, at last, he calls that nation the blessed Egyptian people of God; all of which particulars are specially noteworthy.

102 Jeremiah is called, not the prophet of the Hebrew nation, but simply the prophet of the nations (see Jeremiah, chapter-1, verse:5). 103 He also mournfully foretells the calamities of the nations, and predicts their restoration, for he says (in chapter-48, verse:31) of the Moabites, "Therefore will I howl for Moab, and I will cry out for all Moab" (verse 36), "and therefore mine heart shall sound for Moab like pipes;" 104 in the end he prophesies their restoration, as also the restoration of the Egyptians, Ammonites, and Elamites. 105 Wherefore it is beyond doubt that other nations also, like the Jews, had their prophets, who prophesied to them.

106 Although Scripture only, makes mention of one man, Balaam, to whom the future of the Jews and the other nations was revealed, 107 we must not suppose that Balaam prophesied only once, for from the narrative itself it is abundantly clear that he had long previously been famous for prophesy and other Divine gifts. 108 For when Balak bade him to come to him, he said (in Numbers, chapter-22, verse:6), "For I know that he whom thou blessest is blessed, and he whom thou cursest is cursed." 109 Thus we see that he possessed the gift which God had bestowed on Abraham. 110 Further, as accustomed to prophesy, Balaam bade the messengers wait for him till the

will of the Lord was revealed to him. 111 When he prophesied, that is, when he interpreted the true mind of God, he was wont to say this of himself: "He hath said, which heard the words of God and knew the knowledge of the Most High, which saw the vision of the Almighty falling into a trance, but having his eyes open." 112 Further, after he had blessed the Hebrews by the command of God, he began (as was his custom) to prophesy to other nations, and to predict their future; 113 all of which abundantly shows that he had always been a prophet, or had often prophesied, and (as we may also remark here) possessed that which afforded the chief certainty to prophets of the truth of their prophecy, 114 namely, a mind turned wholly to what is right and good, for he did not bless those whom he wished to bless, nor curse those whom he wished to curse, as Balak supposed, but only those whom God wished to be blessed or cursed. 115 Thus he answered Balak: "If Balak should give me his house full of silver and gold, I cannot go beyond the commandment of the Lord to do either good or bad of my own mind; but what the Lord saith, that will I speak." 116 As for God being angry with him in the way, the same happened to Moses when he set out to Egypt by the command of the Lord; 117 and as to his receiving money for prophesying, Samuel did the same (1 Samuel, chapter-9, verses:7 and 8); if in anyway he sinned, "there is not a just man upon earth that doeth good and sinneth not," Ecclesiastes, chapter-7, verse:20. (See 2 Epistle; Peter, chapter-2, verse:15, 16; and Jude, chapter-5, verse:11).

118 His speeches must certainly have had much weight with God, and His power for cursing must assuredly have been very great from the number of times that we find stated in Scripture, 119 in proof of God's great mercy to the Jews, that God would not hear Balaam, and that He changed the cursing to blessing (see Deuteronomy, chapter-23, verse:6; Joshua, chapter-24, verse:10; and Nehemiah, chapter-8, verse:2). 120 Wherefore he was without doubt most acceptable to God, for the speeches and cursings of the

wicked move God not at all. 121 As then he was a true prophet, and nevertheless Joshua calls him a soothsayer or augur, it is certain that this title had an honourable signification, and that those whom the Gentiles called augurs and soothsayers were true prophets, 122 while those whom Scripture often accuses and condemns were false soothsayers, who deceived the Gentiles as false prophets deceived the Jews; 123 indeed, this is made evident from other passages in the Bible, whence we conclude that the gift of prophecy was not peculiar to the Jews, but common to all nations. 124 The Pharisees, however, vehemently contend that this Divine gift was peculiar to their nation, and that the other nations foretold the future (what will superstition invent next?) by some unexplained diabolical faculty. 125 The principal passage of Scripture which they cite, by way of confirming their theory with its authority, is Exodus, chapter-33, verse:16, where Moses says to God, "For wherein shall it be known here that I and Thy people have found grace in Thy sight? 126 Is it not in that Thou goest with us? So shall we be separated, I and Thy people, from all the people that are upon the face of the earth." 127 From this they would infer that Moses asked of God that He should be present to the Jews, and should reveal Himself to them prophetically; further, that He should grant this favour to no other nation.

128 It is surely absurd that Moses should have been jealous of God's presence among the Gentiles, or that he should have dared to ask any such thing. 129 The fact is, as Moses knew that the disposition and spirit of his nation was rebellious, he clearly saw that they could not carry out what they had begun without very great miracles and special external aid from God; 130 nay, that without such aid they must necessarily perish: as it was evident that God wished them to be preserved, he asked for this special external aid. 131 Thus he says (in Exodus, chapter-34, verse:9), "If now I have found grace in Thy sight, O Lord, let my Lord, I pray Thee, go among us; for it is a stiff-necked people." 132 The reason, therefore, for his seeking special external aid from

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God was the stiff-neckedness of the people, and it is made still more plain, that he asked for nothing beyond this special external aid by God's answer-- 133 for God answered at once (verse 10 of the same chapter)-- "Behold, I make a covenant: before all Thy people I will do marvels, such as have not been done in all the earth, nor in any nation." 134 Therefore Moses had in view nothing beyond the special election of the Jews, as I have explained it, and made no other request to God.

135 I confess that in Paul's Epistle to the Romans, I find another text which carries more weight, namely, where Paul seems to teach a different doctrine from that here set down, 136 for he there says (in Romans, chapter-3, verse:1): "What advantage then hath the Jew? Or what profit is there of circumcision? Much every way: chiefly, because that unto them were committed the oracles of God." 137 But if we look to the doctrine which Paul especially desired to teach, we shall find nothing repugnant to our present contention; 138 on the contrary, his doctrine is the same as ours, for he says (in Romans, chapter-3, verse:29) "that God is the God of the Jews and of the Gentiles, 139 and" (chapter-2, verses:25 and 26) "But, if thou be a breaker of the law, thy circumcision is made uncircumcision. 140 Therefore if the uncircumcision keep the righteousness of the law, shall not his uncircumcision be counted for circumcision?" 141 Further, in chapter-4, verse:9, he says that all alike, Jew and Gentile, were under sin, and that without commandment and law there is no sin. 142 Wherefore it is most evident that to all humans absolutely was revealed the law under which all lived-- 143 namely, the law which has regard only to true virtue, not the law established in respect to, and in the formation of a particular state and adapted to the disposition of a particular people.

144 Lastly, Paul concludes that since God is the God of all nations, that is, is equally gracious to all, and since all humans equally live under the law and under sin, so also to all nations did God send His Christ, 145 to free all people equally from the bondage of the

law, that they should no more do right by the command of the law, but by the constant determination of their hearts. 146 So that Paul teaches exactly the same as ourselves. When, therefore, he says "To the Jews only were entrusted the oracles of God," we must either understand that to them only were the laws entrusted in writing, 147 while they were given to other nations merely in revelation and conception, or else (as none but Jews would object to the doctrine he desired to advance) that Paul was answering only in accordance with the understanding and current ideas of the Jews, 148 for in respect to teaching things which he had partly seen, partly heard, he was to the Greeks a Greek, and to the Jews a Jew.

149 It now only remains to us to answer the arguments of those who would persuade themselves that the election of the Jews was not temporal, and merely in respect of their commonwealth, but eternal; 150 for, they say, we see the Jews after the loss of their commonwealth, and after being scattered so many years and separated from all other nations, still surviving, which is without parallel among other peoples, 151 and further the Scriptures seem to teach that God has chosen for Himself the Jews for ever, so that though they have lost their commonwealth, they still nevertheless remain God's elect. 152 The passages which they think teach most clearly this eternal election, are chiefly: (1.) Jeremiah, chapter-31, verse:36, where the prophet testifies that the seed of Israel shall for ever remain the nation of God, comparing them with the stability of the heavens and Nature; 153 (2.) Ezekiel, chapter-20, verse:32, where the prophet seems to intend that though the Jews wanted after the help afforded them to turn their backs on the worship of the Lord, 154 that God would nevertheless gather them together again from all the lands in which they were dispersed, and lead them to the wilderness of the peoples-- as He had led their fathers to the wilderness of the land of Egypt-- 155 and would at length, after purging out from among them the rebels and transgressors, bring them thence to His Holy mountain,

where the whole house of Israel should worship Him.
156 Other passages are also cited, especially by the Pharisees, but I think I shall satisfy everyone if I answer these two, 157 and this I shall easily accomplish after showing from Scripture itself that God chose not the Hebrews for ever, but only on the condition under which He had formerly chosen the Canaanites, 158 for these last, as we have shown, had priests who religiously worshipped God, and whom God at length rejected because of their luxury, pride, and corrupt worship. 159 Moses (in Leviticus, chapter-18, verse:27) warned the Israelites that they be not polluted with whoredoms, lest the land spue them out as it had spued out the nations who had dwelt there before, 160 and in Deuteronomy, chapter-8, verses:19 and 20, in the plainest terms He threatens their total ruin, for He says, "I testify against you that ye shall surely perish. As the nations which the Lord destroyeth before your face, so shall ye perish."
161 In like manner many other passages are found in the law which expressly show that God chose the Hebrews neither absolutely nor for ever. 162 If, then, the prophets foretold for them a new covenant of the knowledge of God, love, and grace, such a promise is easily proved to be only made to the elect, 163 for Ezekiel in the chapter which we have just quoted expressly says that God will separate from them the rebellious and transgressors, 164 and Zephaniah (in chapter-3, verses:12 and 13), says that "God will take away the proud from the midst of them, and leave the poor." 165 Now, inasmuch as their election has regard to true virtue, it is not to be thought that it was promised to the Jews alone to the exclusion of others, 166 but we must evidently believe that the true Gentile prophets (and every nation, as we have shown, possessed such) promised the same to the faithful of their own people, who were thereby comforted. 167 Wherefore this eternal covenant of the knowledge of God and love is universal, as is clear, moreover, from Zephaniah, chapter-3, verses:10 and 11: 168 no difference

in this respect can be admitted between Jew and Gentile, nor did the former enjoy any special election beyond that which we have pointed out.

169 When the prophets, in speaking of this election which regards only true virtue, mixed up much concerning sacrifices and ceremonies, and the rebuilding of the temple and city, 170 they wished by such figurative expressions, after the manner and nature of prophecy, to expound matters spiritual, so as at the same time to show to the Jews, whose prophets they were, the true restoration of the state and of the temple to be expected about the time of Cyrus. 171 At the present time, therefore, there is absolutely nothing which the Jews can arrogate to themselves beyond other people. 172 As to their continuance so long after dispersion and the loss of empire, there is nothing marvellous in it, for they so separated themselves from every other nation as to draw down upon themselves universal hate, 173 not only by their outward rites, rites conflicting with those of other nations, but also by the sign of circumcision which they most scrupulously observe.

174 That they have been preserved in great measure by Gentile hatred, experience demonstrates. 175 When the king of Spain formerly compelled the Jews to embrace the State religion or to go into exile, a large number of Jews accepted Catholicism. 176 Now, as these renegades were admitted to all the native privileges of Spaniards, and deemed worthy of filling all honourable offices, it came to pass that they straightway became so intermingled with the Spaniards as to leave of themselves no relic or remembrance. 177 But exactly the opposite happened to those whom the king of Portugal compelled to become Christians, for they always, though converted, lived apart, inasmuch as they were considered unworthy of any civic honours.

178 The sign of circumcision is, as I think, so important, that I could persuade myself that it alone would preserve the nation for ever 179 Nay, I would go so far as to believe that if the foundations of their religion have not emasculated their minds they may even, if

occasion offers, so changeable are human affairs, raise up their empire afresh, and that God may a second time elect them.

180 Of such a possibility we have a very famous example in the Chinese. They, too, have some distinctive mark on their heads which they most scrupulously observe, 181 and by which they keep themselves apart from everyone else, and have thus kept themselves during so many thousand years that they far surpass all other nations in antiquity. 182 They have not always retained empire, but they have recovered it when lost, and doubtless will do so again after the spirit of the Tartars becomes relaxed through the luxury of riches and pride.

183 Lastly, if any one wishes to maintain that the Jews, from this or from any other cause, have been chosen by God for ever, I will not gainsay you if you will admit that this choice, whether temporary or eternal, has no regard, in so far as it is peculiar to the Jews, 184 to aught but dominion and physical advantages (for by such alone can one nation be distinguished from another), 185 whereas in regard to intellect and true virtue, every nation is on a par with the rest, and God has not in these respects chosen one people rather than another.

The Book of Divine Panagogue called

LOGIC

LOGIC
George Stuart Fullerton

THE PHILOSOPHICAL SCIENCES

1 I have said (in the book of THEOSOPHY, Chapter-13) that there is quite a group of sciences that are regarded as belonging peculiarly to the province of the teacher of philosophy to-day. 2 Having, in the chapters preceding, given some account of the nature of reflective thought, of the problems touching the world and the mind which present themselves to those who reflect, and of some types of philosophical theory which have their origin in such reflection, 3 I turn to a brief consideration of the philosophical sciences. Among these I included logic, psychology, ethics, and aesthetics, metaphysics, and the history of philosophy. 4 I did not include epistemology or "the theory of knowledge" as a separate discipline, and my reasons for this will appear in ‘the book of METAPHYSICS’. 5 I remarked that, to complete the list, we should have to add the philosophy of religion and an investigation into the principles and methods of the sciences generally.

6 Why, it was asked, should this group of disciplines be regarded as the field of the philosopher, when others are excluded? 7 The answer to this question which finds the explanation of the fact to lie in a mere historical accident was declared unsatisfactory, 8 and it was maintained that the philosophical sciences are those in which we find ourselves carried back to the problems of reflective thought. 8 With a view to showing the truth of this opinion, I shall take up one by one the philosophical sciences. Of the history of philosophy I shall not speak in this part of the work, but shall treat of it in the book of METAPHYSICS, chapter-4.

THE TRADITIONAL LOGIC

George Stuart Fullerton

2 Most of us begin our acquaintance with logic in the study of some such elementary manual as Jevons' "*Lessons in*

Logic." 2 In such books we are shown how terms represent things and classes of things or their attributes, and how we unite them into propositions or statements. 3 It is indicated at length what statements may be made on a basis of certain other statements and what may not; 4 and emphasis is laid upon the dangers which arise out of a misunderstanding of the language in which we are forced to express our thoughts. 5 Finally, there are described for us the experimental methods by which the workers in the sciences have attained to the general information about the world which has become our heritage.

6 Such books are useful. It is surely no small profit for a student to gain the habit of scrutinising the steps by which you have come into the possession of a certain bit of information, and to have a quick eye for loose and inconsistent reasonings. 7 But it is worthy of remark that one may study such a book as this and yet remain pretty consistently on what may be called the plane of the common understanding. 8 One seems to make the assumptions made in all the special sciences, e.g. the assumption that there is a world of real things and that we can know them and reason about them. 9 We are not introduced to such problems as: What 'is' truth? and Is 'any' knowledge valid? 10 Nor does it seem at once apparent that the person who is studying logic in this way is busying own self with a philosophical discipline.

THE "MODERN LOGIC."

George Stuart Fullerton

3 It is very puzzling for the student to turn from such a text-book as the one above mentioned to certain others which profess to be occupied with the same science, and which, yet, appear to treat of quite different things. 2 Thus, in Dr. Bosanquet's little work on "*The Essentials of Logic*," the reader is at once plunged into such questions as the nature of knowledge, and what is meant by the real world. 3 We seem to be dealing with metaphysics, and not with logic, as we have learned to understand the term. How is it that

the logician comes to regard these things as within own province?
4 A multitude of writers at the present day are treating logic in this way, and in some great prominence is given to problems which the philosopher recognises as indisputably their own. 5 The term "modern logic" is often employed to denote a logic of this type; 6 one which does not, after the fashion of the natural sciences generally, proceed on the basis of certain assumptions, and leave deeper questions to some other discipline, but tries to get to the bottom of things for itself. 7 The tendency to run into metaphysics is peculiarly marked in those writers who have been influenced by the work of the philosopher Hegel.
8 I shall not here ask why those who belong to one school are more inclined to be metaphysical than are those who belong to another, 9 but shall approach the broader question why the logicians generally are inclined to be more metaphysical than those who work in certain other special sciences, such as mathematics, for example. 10 Of the general tendency there can be no question. The only problem is: Why does this tendency exist?

LOGIC AND PHILOSOPHY
George Stuart Fullerton

4 Let us contrast the science of arithmetic with logic; and let us notice, regarding it, the following points:--
2 It is, like logic, a 'general' science, in that the things treated of in many sciences may be numbered. It considers only a certain aspect of the things.
3 Now, that things may be counted, added together, subtracted, etc., is guaranteed by the experience of the plain person; 4 and the methods of determining the numerical relations of things are gradually developed before your eyes, beginning with operations of great simplicity. 5 Moreover, verification is possible, and within certain limits verification by direct inspection. 6 To this we may add, that there has gradually been built up a fine system of unambiguous symbols, and it is possible for a

person to know just what you are dealing with.

7 Thus, a certain beaten path has been attained, and a person may travel this very well without having forced on own attention the problems of reflective thought. 8 The knowledge of numbers with which you starts is sufficient equipment with which to undertake the journey. That one is on the right road is proved by the results one obtains. 9 As a rule, disputes can be settled by well-tried mathematical methods.

10 There is, then, a common agreement as to initial assumptions and methods of work, and useful results are attained which seem to justify both. Here we have the normal characteristics of a special science. 11 We must not forget, however, that, even in the mathematical sciences, before a beaten path was attained, disputes as to the significance of numbers and the cogency of proofs were sufficiently common. 12 And we must bear in mind that even to-day, where the beaten path does not seem wholly satisfactory, people seem to be driven to reflect upon the significance of their assumptions and the nature of their method.

13 Thus, we find it not unnatural that a person should be led to ask; What is a minus quantity really? Can anything be less than nothing? 14 Or that you should raise the questions: Can one rightly speak of an infinite number? 15 Can one infinite number be greater than another, and, if so, what can greater mean? 16 What are infinitesimals? and what can be meant by different orders of infinitesimals? 17 You who has interested yourself in such questions as these has betaken yourself to philosophical reflection. They are not answered by employing mathematical methods.

18 Let us now turn to logic. And let us notice, to begin with, that it is broader in its application than the mathematical sciences. 19 It is concerned to discover what constitutes 'evidence' in every field of investigation.

20 There is, it is true, a part of logic that may be developed somewhat after the fashion of mathematics. 21 Thus, we may examine the two statements: All

humans are mortal, and Caesar is a human; and we may see clearly that, given the truth of these, we must admit that Caesar is mortal. 22 We may make a list of possible inferences of this kind, and point out under what circumstances the truth of two statements implies the truth of a third, and under what circumstances the inference cannot be made. Our results can be set forth in a system of symbols. 23 As in mathematics, we may abstract from the particular things reasoned about, and concern ourselves only with the forms of reasoning. 24 This gives us the theory of the 'syllogism'; it is a part of logic in which the mathematician is apt to feel very much at home.

25 But this is by no means all of logic. Let us consider the following points:--

(1) We are not concerned to know only what statements may be made on the basis of certain other statements. 26 We want to know what is true and what is false. We must ask: Has a person the right to set up these particular statements and to reason from them? 27 That some people accept as true premises which are repudiated by others is an undoubted fact. 28 Thus, it is maintained by certain philosophers that we may assume that any view of the universe which is repellant to our nature cannot be true. Shall we allow this to pass unchallenged? 29 And in ethics, some have held that it is under all circumstances wrong to lie; others have denied this, and have held that in certain cases-- for example, to save life or to prevent great and unmerited suffering-- lying is permissible. 30 Shall we interest ourselves only in the deductions that each person makes from own assumed premises, and pay no attention to the truth of the premises themselves?

31 (2) Again. The vast mass of the reasonings that interest people are expressed in the language that we all use and not in special symbols. 32 But language is a very imperfect instrument, and all sorts of misunderstandings are possible to those who express their thoughts in it. 33 Few people know exactly how much is implied in what they are saying. If I say: All humans are mortal, and an angel is not a human; therefore, an angel is not mortal; it is not at once apparent to

every one in what respect my argument is defective. 34 You who argues: Feathers are light; light is contrary to darkness; hence, feathers are contrary to darkness; is convicted of error without difficulty. 35 But arguments of the same kind, and quite as bad, are to be found in learned works on matters less familiar to us, and we often fail to detect the fallacy.

36 Thus, Herbert Spencer argues, in effect, in the fourth and fifth chapters of his "*First Principles*," as follows:--

37 We are conscious of the Unknowable,
The Unknowable lies behind the veil of phenomena,
Hence, we are conscious of what lies behind the veil of phenomena.

38 It is only the critical reader who notices that the Unknowable in the first line is the "raw material of consciousness," and the Unknowable in the second is something not in consciousness at all. 39 The two senses of the word "light" are not more different from one another. Such apparent arguments abound, and it often requires much acuteness to be able to detect their fallacious character.

40 When we take into consideration the two points indicated above, we see that the logician is at every turn forced to reflect upon our knowledge as humans do not ordinarily reflect. 41 You are led to ask: What is truth? You cannot accept uncritically the assumptions which humans make; 42 and you must endeavour to become very clearly conscious of the real meaning and the whole meaning of statements expressed in words. 43 Even in the simple logic with which we usually begin our studies, we learn to scrutinise statements in a reflective way; and when we go deeper, we are at once in contact with philosophical problems. 44 It is evidently our task to attain to a clearer insight into the nature of our experience and the meaning of proof than is attainable by the unreflective. 45 Logic, then, is a reflective science, and it is not surprising that it has held its place as one of the philosophical sciences.

LOGIC

THE NORMATIVE SCIENCES AND THE PROBLEMS OF RELIGION

Ralph Barton Perry

THE NORMATIVE SCIENCES

5 There are three sets of problems whose general philosophical importance depends upon the place which metaphysics assigns to the human critical faculties'. 2 People passes judgment upon that which claims to be true, beautiful, or good, thus referring to ideals and standards that define these values. 3 Attempts to make these ideals explicit, and to formulate principles which regulate their attainment, have resulted in the development of the three so-called 'normative sciences': logic, æsthetics, and ethics. 4 These sciences are said to owe their origin to the Socratic method, and it is indeed certain that their problem is closely related to the general rationalistic attitude. 5 In Plato's dialogue, "Protagoras," one may observe the manner of the inception of both ethics and logic. 6 The question at issue between Socrates and the master sophist Protagoras, is concerning the possibility of teaching virtue. 7 Protagoras conducts his side of the discussion with the customary rhetorical flourish, expounding in set speeches the tradition and usage in which such a possibility is accepted. Socrates, on the other hand, conceives the issue quite differently. 8 One can neither affirm nor deny anything of virtue unless one knows 'what is meant by it. 9 Even the possession of such a meaning was scarcely recognised by Protagoras, who was led by Socrates's questions to attribute to the various virtues an external grouping analogous to that of the parts of the face. 10 But Socrates shows that since justice, temperance, courage, and the like, are admittedly similar in that they are all virtues, they must have in common some essence, which is virtue in general. 11 This he seeks to define in the terms, virtue is knowledge'. 12 The interest which Socrates here shows in the reduction of the ordinary moral judgments to a system centering in some single fundamental principle, is the ethical interest. 13 But this is at the same time a particular application of the general rationalistic method of definition,

and of the general rationalistic postulate that one knows nothing until one can form unitary and determinate conceptions. 14 The recognition which Socrates thus gives to criteria of knowledge is an expression of the logical interest. In a certain sense, indeed, the whole labour of Socrates was in the cause of the logical interest. 15 For he sought to demonstrate that belief is not necessarily knowledge; that belief may or may not be true. 16 In order that it shall be true, and constitute knowledge, it must be well-grounded, and accompanied by an understanding of its object. 17 Socrates thus set the problem of logic, the discovery, namely, of those characters by virtue of the possession of which belief is knowledge.

THE AFFILIATIONS OF LOGIC

Ralph Barton Perry

6 Logic deals with the ground of belief, and thus distinguishes itself from the psychological account of the elements of the believing state. 2 But it is not possible sharply to sunder psychology and logic. This is due to the fact that the general principles which make belief true, may be regarded quite independently of this fact. 3 They then become the 'most general truth', belonging to the absolute, archetypal realm, or to the mind of God. 4 When the general principles of certainty are so regarded, logic can be distinguished from metaphysics only by adding to the study of the general principles themselves, 5 the study of the special conditions (mainly psychological) under which they may be realised among humans.

6 In the history of human thought the name of logic belongs to the study of this 'attainment' of truth, as the terms æsthetics and ethics belong to the studies of the attainment of beauty and goodness. 7 It is evident that logic will have a peculiar importance for the rationalist. 8 For the empiricist, proposing to report upon things as they are given, will tend on the whole to maintain that knowledge has no properties save those which are given to it by its special subject-matter. 9 One cannot, in

short, define any absolute relationship between the normative sciences and the other branches of philosophy.

LOGIC DEALS WITH THE MOST GENERAL CONDITIONS OF TRUTH IN BELIEF

Ralph Barton Perry

7 'Logic is the formulation, as independently as possible of special subject-matter, of that which conditions truth in belief.' 2 Since logic is concerned with truth only in so far as it is predicated of belief, and since belief in so far as true is knowledge, 3 logic can be defined as the formulation of the most general principles of knowledge. 4 The principles so formulated would be those virtually used to 'justify' belief or to disprove the imputation of error. 5 What is called 'formal logic' is animated with the hope of extracting these formulations directly from an analysis of the procedure of thought. 6 The most general logical principles which have appeared in the historical development of formal logic are 'definition', 'self-evidence', 'inference', and 'observation'. 7 Each of these has been given special study, and each has given rise to special issues.

8 'Definition' has to do with the 'formation of concepts', or determinate and unequivocal meanings. 9 The universality of such concepts, and their consequent relation to particular things, was, as we have seen, investigated at a very early date, and gave rise to the great realistic-nominalistic controversy. 10 A large part of the logical discussion in the Platonic dialogues is an outgrowth of the earlier "eristic," a form of disputation in favour with the sophists, and consisting in the adroit use of ambiguity. 11 It is natural that in its first conscious self-criticism thought should discover the need of definite terms. 12 The perpetual importance of definition has been largely due to the great prestige in modern philosophy of the method of geometry, which was regarded by Descartes and Spinoza as the model for systems of necessary truth.

13 'Self-evidence' is the principle according to which 'conviction of truth follows directly from an understanding of meaning'. 14 In the practice of his intellectual midwifery, Socrates presupposed that thought is capable of bringing forth its own certainties. 15 And rationalism has at all times regarded truth as ultimately accredited by internal marks recognisable by reason. 16 Such truth arrived at antecedent to acquaintance with instances is called 'a priori', as distinguished from 'a posteriori' knowledge, or observation after the fact. 17 There can be no principles of self-evidence, but logicians have always been more or less concerned with the enumeration of alleged self-evident principles, notably those of 'contradiction' and 'identity'. 18 A philosophical interest in the mathematical method has led to a logical study of axioms, but with a view rather to their fruitfulness than their intrinsic truth. 19 Indeed, the interest in self-evident truth has always been subordinate to the interest in systematic truth, 20 and the discovery of first principles most commonly serves to determine the relative priority of definite concepts, or the correct point of departure for a series of inferences.

21 The greater part of the famous Aristotelian logic consists in a study of 'inference', or 'the derivation of new knowledge from old knowledge'. 22 Aristotle sought to set down and classify every method of advancing from premises. 23 The most important form of inference which he defined was the 'syllogism', a scheme of reasoning to a conclusion by means of two premises having one term in common. 24 From the premises "all humans are mortal" and "Socrates is a human," one may conclude that "Socrates is mortal." 25 This is an instance not only of the syllogism in general, but of its most important "mood," the subsumption of a particular case under a general rule. 26 Since the decline of Aristotle's influence in philosophy there has been a notable decrease of interest in the different forms of inference; 27 though its fundamental importance as the very bone and sinew of

'reasoning' or 'deductive thinking' has never been challenged. 28 Its loss of preëminence is in part due to the growth of empiricism, stimulated by the writings of Lord Bacon in the seventeenth century, and fostered by the subsequent development of experimental science.

29 'Observation' is the fundamental logical principle of empiricism. 30 For a radical empiricism, knowledge would consist of descriptive generalisations based upon the summation of instances. 31 That branch of logic which deals with 'the advance from individual instances to general principles', is called 'inductive logic'. 32 It has resulted in the announcement of canons of accuracy and freedom from preconception, and in the methodological study of hypothesis, experiment, and verification. 33 Rules for observation directed to the end of discovering causes, constitute the most famous part of the epoch-making logic of J. S. Mills.

34 There are two significant tendencies in contemporary logic. 35 'Theories of the judgment' have arisen in the course of an attempt to define the least complexity that must be present in order that thought shall come within the range of truth and error. 36 It is evident that no one either knows or is in error until you takes some attitude which lays claim to knowledge. 37 Denoting by the term 'judgment' this minimum of complexity in knowledge, an important question arises as to the sense in which the judgment involves the subject, predicate, and copula that are commonly present in its propositional form.

PRIORITY OF CONCEPTS

Ralph Barton Perry

8 But a more important logical development has been due to the recent analysis of definite accredited systems of knowledge. 2 The study of the fundamental conceptions of mathematics and mechanics, together with an examination of the systematic structure of these sciences, furnishes the most notable cases. 3 There are two senses in which such studies may be regarded as

logical. In the first place, in so far as they bring to light the inner coherence of any body of truth, 4 the kind of evidence upon which it rests, and the type of formal perfection which it seeks, they differ from formal logic only in that they derive their criteria from cases, rather than from the direct analysis of the procedure of thought. 5 And since formal logic must itself make experiments, this difference is not a radical one. 6 The study of cases tends chiefly to enrich 'methodology', or the knowledge of the special criteria of special sciences. 7 In the second place, such studies serve to define the relatively few simple truths which are common to the relatively many complex truths.

8 A study of the foundations of arithmetic reveals more elementary conceptions, such as 'class' and 'order', that must be employed in the very definition of number itself, and so are implied in every numerical calculation. 9 It appears similarly that the axioms of geometry are special axioms which involve the acceptance of more general axioms or indefinables. 10 Logic in this sense, then, is the enumeration of conceptions and principles in the order of their indispensableness to knowledge. 11 And while it must be observed that the most general conceptions and principles of knowledge are not necessarily those most significant for the existent world, 12 nevertheless the careful analysis which such an enumeration involves is scarcely less fruitful for metaphysics than for logic.

The Book of Divine Panagogue called

REASON

REASON,
THE ONLY ORACLE OF HUMAN
Ethan Allen

THE DUTY OF REFORMING HUMANKIND FROM SUPERSTITION AND ERROR, AND THE GOOD CONSEQUENCES OF IT

SECTION I

1 The desire of knowledge has engaged the attention of the wise and curious among humankind in all ages which has been productive of extending the arts and sciences far and wide in the several quarters of the globe, 2 and excited the contemplative to explore Nature's laws in a gradual series of improvement, until philosophy, astronomy, geography, and history, with many other branches of science, have arrived to a great degree of perfection.

3 It is nevertheless to be regretted, that the bulk of humankind, even in those nations which are most celebrated for learning and wisdom, are still carried down the torrent of superstition, 4 and entertain very unworthy apprehensions of the being, perfections, creation, and providence of God, and their duty to Him, 5 which lays an indispensable obligation on the philosophic friends of human nature, unanimously to exert themselves in every lawful, wise, and prudent method, 6 to endeavour to reclaim humankind from their ignorance and delusion, by enlightening their minds in those great and sublime truths concerning God and His providence, 7 and their obligations to moral rectitude which in this world, and that which is to come, cannot fail greatly to affect their happiness and well being.

8 Though "none by searching can find out God, or the Almighty to perfection," 9 yet I am persuaded, that if humankind would dare to exercise their reason as freely on those divine topics as they do in the common concerns of life, they would, in a great measure, rid themselves of their blindness and superstition, 10 gain more exalted ideas of God and their obligations to Him and one another, and be proportionally delighted and blessed with the views of His

moral government, 11 make better members of society, and acquire many powerful incentives to the practice of morality, which is the last and greatest perfection that human nature is capable of.

OF THE BEING OF A GOD

SECTION II

12 The Laws of Nature having subjected humankind to a state of absolute dependence on something out of it, and manifestly beyond themselves, 13 or the compound exertion of their natural powers, gave them the first conception of a superior principle existing; otherwise they could have had no possible conception of a superintending power. 14 But this sense of dependency, which results from experience and reasoning on the facts, which every day cannot fail to produce, has uniformly established the knowledge of our dependence to every individual of the species who are rational, 15 which necessarily involves, or contains in it, the idea of a ruling power, or that there is a God, which ideas are synonymous.

16 The globe with its productions, the planets in their motions, and the starry heavens in their magnitudes, surprise our senses and confound our reason, 17 in their munificent lessons of instruction concerning God, by means whereof, we are apt to be more or less lost in our ideas of the object of divine adoration, 18 though at the same time every one is truly sensible that their being and preservation is from God. 19 We are too apt to confound our ideas of God with His works, and take the latter for the former. 20 Thus barbarous and unlearned nations have imagined, that inasmuch as the sun in its influence is beneficial to them in bringing forward the spring of the year, causing the production of vegetation, and food for their subsistence, that therefore it is their God: 21 while others have located other parts of creation, and ascribe to them prerogatives of God; 22 and mere creatures and images have been substituted for Gods by the wickedness or weakness of human, or both together. 23 It seems that humankind in most ages and parts

of the world have been fond of corporeal Deities with whom their outward senses might be gratified, 24 or as fantastically diverted from the just apprehension of the true God, by a supposed supernatural intercourse with invisible and mere spiritual beings, to whom they ascribe divinity, 25 so that through one means or other, the character of the true God has been much neglected, to the great detriment of truth, justice, and morality in the world; 26 nor is it possible that humankind can be uniform in their religious opinions, or worship God according to knowledge, except they can form a consistent arrangement of ideas of the Divine character.

27 Although we extend our ideas retrospectively ever so far upon the succession, yet no one cause in the extended order of succession, which depends upon another prior to itself, can be the independent cause of all things: 28 nor is it possible to trace the order of the succession of causes back to that self-existent cause, inasmuch as it is eternal and infinite, and cannot therefore be traced out by succession, which operates according to the order of time, 29 consequently can bear no more proportion to the eternity of God, than time itself may be supposed to do, which has no proportion at all; as the succeeding arguments respecting the eternity and infinity of God will evince. 30 But notwithstanding the series of the succession of causes cannot be followed in a retrospective succession up to the self-existent or eternal cause, it is nevertheless a perpetual and conclusive evidence of a God.-- 31 For a succession of causes considered collectively, can be nothing more than effects of the independent cause, and as much dependent on it as those dependent causes are upon one another; 32 so that we may with certainty conclude that the system of Nature, which we call by the name of natural causes, is as much dependent on a self-existent cause, as an individual of the species in the order of generation is dependent on its progenitors for existence. 33 Such part of the series of Nature's operations, which we understand, has a regular and necessary connection with, and dependence

on its parts, which we denominate by the names of cause and effect.
34 From hence we are authorised from reason ton conclude, that the vast system of causes and effects are thus necessarily connected, (speaking of the natural world only,) and the whole regularly and necessarily dependent on a self-existent cause: 35 so that we are obliged to admit an independent cause, and ascribe self-existence to it, otherwise it could not be independent, and consequently not a God. 36 But the eternity or manner of the existence of a self-existent and independent being is to all finite capacities utterly incomprehensible; 37 yet this is so far from an objection against the reality of such a being, that it is essentially necessary to support the evidence of it; 38 for if we could comprehend that being whom we call God, He would not be God, but must have been finite and that in the same degree as those may be supposed to be who could comprehend him; 39 therefore so certain that God is, we cannot comprehend His essence, eternity, or manner of existence.
40 This should always be premised, when we assay to reason on the being, perfection, eternity, and infinity of God, or of His creation and providence. 41 As far as we understand Nature, we are become acquainted with the character of God, for the knowledge of Nature is the revelation of God. 42 If we form in our imagination a compendious idea of the harmony of the universe, it is the same as calling God by the name of harmony, 43 for there could be no harmony without regulation, and no regulation without a regulator, which is expressive of the idea of a God. 44 Nor could it be possible, that there could be order or disorder, except we admit of such a thing as creation, and creation contains in it the idea of a creator, which is another appellation for the Divine Being, distinguishing God from His creation.
45 Furthermore, there could be no proportion, figure, or motion, without wisdom and power; 46 wisdom to plan, and power to execute, and these are perfections, when applied to the works of Nature, which signify the agency

or superintendency of God. 47 If we consider Nature to be matter, figure, and motion, we include the idea of God in that of motion; for motion implies a mover as much as creation does a creator. 48 If from the composition, texture, and tendency of the universe in general, we form a complex idea of general good resulting therefrom to humankind, we implicitly admit a God by the name of good, including the idea of His providence to human. 49 And from hence arises our obligations to love and adore God, because He provides for, and is beneficent to us. 50 Abstract the idea of goodness from the character of God, and it would cancel all our obligations to Him, and excite us to hate and detest Him as a tyrant: 51 hence it is, that ignorant people are superstitiously misled into a conceit that they hate God, when at the same time it is only the idol of their own imagination, which they truly ought to hate and be ashamed of; 52 but were such persons to connect the ideas of power, wisdom, goodness, and all possible perfection in the character of God, their hatred towards Him would be turned into love and adoration.

53 By extending our ideas in a larger circle, we shall perceive our dependence on the earth and waters of the globe which we inhabit, and from which we are bountifully fed and gorgeously arrayed; 54 and next extend our ideas to the sun, whose fiery mass darts its brilliant rays of light to our terraqueous ball with amazing velocity, 55 and whose region of inexhaustible fire supplies it with fervent heat, which causes vegetation, and gilds the various seasons of the year with ten thousand charms: 56 this is not the achievement of human, but the workmanship and providence of God. 57 But how the sun is supplied with materials, thus to perpetuate its kind influences, we know not. 58 But will any one deny the reality of those beneficial influences, because we do not understand the manner of the perpetuality of that fiery world, or how it became such a body of fire? 59 Or will any one deny the reality of nutrition by food, because we do not understand the secret

operation of the digesting powers of animal nature, or the minute particulars of its cherishing influence? None will be so stupid as to do it. 60 Equally absurd would it be for us to deny the providence of God, by "whom we live, move, and have our being," because we cannot comprehend it. 61 We know that earth, water, fire and air, in their various compositions subserve us, and we also know that these elements are devoid of reflection, reason, or design; 62 from whence we may easily infer, that a wise, understanding, and designing being has ordained them to be thus subservient. 63 Could blind chance constitute order and decorum, and consequently a providence? 64 That wisdom, order, and design should be the production of nonentity, or of chaos, confusion, and old night, is too absurd to deserve a serious confutation, 65 for it supposeth that there may be effects without a cause, viz.: produced by nonentity, or that chaos and confusion could produce the effects of power, wisdom, and goodness. 66 Such absurdities as these we must assent to, or subscribe to the doctrine of a self-existent and providential being.

THE MANNER OF DISCOVERING THE MORAL PERFECTIONS... AND ATTRIBUTES OF GOD

SECTION III

67 Having in a concise manner offered a variety of indisputable reasons to evince the certainty of the being and providence of God, 68 and of His goodness to human through the intervention of the series of Nature's operations, which are commonly described by the name of natural causes, 69 we come now more particularly to the consideration of His moral perfections; 70 and though all finite beings fall as much short of an adequate knowledge thereof as they do of perfection itself, nevertheless through the intelligence of our own souls we may have something of a prospective idea of the divine perfections. 71 For though the human mind bears no proportion to the divine, yet there is undoubtedly a resemblance between them. 72 For instance,

God knows all things, and we know some things, and in the things which we do understand, our knowledge agrees with that of the divine, and cannot fail necessarily corresponding with it. 73 To more than know a thing, speaking of that thing only, is impossible even to omniscience itself; for knowledge is but the same in both the infinite and finite minds. 74 To know a thing is the same as to have right ideas of it, or ideas according to truth, and truth is uniform in all rational minds, the divine mind not excepted. 75 It will not be disputed but that humankind in plain and common matters understand justice from injustice, truth from falsehood, right from wrong, virtue from vice, and praise-worthiness from blame-worthiness, for other wise they could not be accountable creatures. 76 This being admitted, we are capable of forming a complex idea of a moral character, which when done in the most deliberate, the wisest, and most rational manner in our power, we are certain bears a resemblance to the divine perfections. 77 For as we learn from the worlds of Nature an idea of the power and wisdom of God, so from our own rational nature we learn an idea of His moral perfections.

78 From what has been observed on the moral perfections of God, we infer that all rational beings, who have an idea of justice, goodness, and truth, have at the same time either a greater or less idea of the moral perfections of God. 79 It is by reason that we are able to compound an idea of a moral character, whether applied to God or human; it is that which gives us the supremacy over the irrational part of the creation.

THE CAUSE OF IDOLATRY, AND THE REMEDY OF IT

SECTION IV

80 Inasmuch as God is not corporeal, and consequently does not and cannot come within the notice of our bodily sensations, we are therefore obliged to deduce inferences from His providence, and particularly from our own rational nature, 81 in order to form our conceptions of the divine character, which through inattention, want of learning, or

through the natural imbecility of humankind, or through the artifice of designing people, or all together, they have been greatly divided and subdivided in their notions of a God. 82 Many have so groped in the dark as wholly to mistake the proper object of divine worship, and not distinguishing the creator from His creation, have paid adoration to "four footed beasts and creeping things." 83 And some have ascribed divine honours to the sun, moon, or stars; while others have been infatuated to worship dumb, senseless, and unintelligent idols, 84 which derived their existence as Gods, partly from mechanics, who gave them their figure, proportion, and beauty, and partly from their priests, who gave them their attributes; 85 whose believers, it appears, were so wrought upon, that they cried out in the ecstasy of their deluded zeal, "Great is Diana."

86 Whatever delusions have taken place in the world relative to the object of divine worship, or respecting the indecencies or immoralities of the respective superstitions themselves, 87 or by what means soever introduced or perpetuated, whether by designing people whose interest it has always been to impose on the weakness of the great mass of the vulgar; 88 or as it is probable, that part of those delusions took place in consequence of the weakness of uncultivated reason, in deducing a visible instead of an invisible God from the works of Nature. 89 Be that as it will, humankind are generally possessed of an idea that there is a God, however they may have been mistaken or misled as to the object. 90 This notion of a God, as has been before observed, must have originated from a universal sense of dependence, which humankind have on something that is more wise, powerful, and beneficent than themselves, 91 or they could have had no apprehensions of any superintending principle in the universe, and consequently would never have sought after a God, or have had any conception of His existence, 92 nor could designing people have imposed on their credulity by obtruding false gods upon them; but taking advantage of the common belief that there is

a God, they artfully deceive their adherents with regard to the object to be adored.

93 There are other sorts of idols which have no existence but in the mere imagination of the human mind; and these are vastly the most numerous, and universally (either in the greater or less degree) dispersed over the world; 94 the wisest of humankind are not and cannot be wholly exempt from them, inasmuch as every wrong conception of God is (as far as the error takes place in the mind) idolatrous. 95 To give a sample, an idea of a jealous God is of this sort. Jealousy is the offspring of finite minds, proceeding from the want of knowledge; which in dubious matters makes us suspicious and distrustful; 96 but in matters which we clearly understand, there can be no jealousy, for knowledge excludes it, so that to ascribe it to God is a manifest infringement on his omniscience.

97 "The Lord thy God is a jealous God." The idea of a revengeful God is likewise one of that sort, but this idea of divinity being borrowed from a savage nature, needs no further confutation. 98 The representation of a God, who (as we are told by certain divines) from all eternity elected an inconsiderable part of humankind to eternal life, and reprobated the rest to eternal damnation, merely from His own sovereignty, adds another to the number;-- 99 this representation of the Deity undoubtedly took its rise from that which we discovered in great, powerful, and wicked tyrants among humans, however tradition may since have contributed to its support, 100 though I am apprehensive that a belief in those who adhere to that doctrine, that they themselves constitute that blessed elect number, has been a greater inducement to them to close with it, than all other motives added together. 101 It is a selfish and inferior notion of a God void of justice, goodness, and truth, and has a natural tendency to impede the cause of true religion and morality in the world, 102 and diametrically repugnant to the truth of the divine character, and which, if admitted to be true, overturns all religion, wholly precluding the agency of

humankind in either their salvation or damnation, 103 resolving the whole into the sovereign disposal of a tyrannical and unjust being, which is offensive to reason and common sense, and subversive of moral rectitude in general. 104 But as it was not my design so much to confute the multiplicity of false representations of a God, as to represent just and consistent ideas of the true God, I shall therefore omit any further observation on them in this place, 105 with this remark, that all unjust representations, or ideas of God, are so many detractions from His character among humankind. 106 To remedy these idolatrous notions of a God, it is requisite to form right and consistent ideas in their stead.

107 The discovery of truth necessarily excludes error from the mind, which nothing else can possibly do; 108 for some sort of God or other will crowd itself into the conceptions of dependent creatures, and if they are not so happy as to form just ones, they will substitute erroneous and delusive ones in their stead; 109 so that it serves no valuable purpose to humankind, to confute their idolatrous opinions concerning God, without communicating to them just notions concerning the true one, for if this is not effected, nothing is done to the purpose. 110 For, as has been before observed, humankind will form to themselves, or receive from others, an idea of Divinity either right or wrong: 111 this is the universal voice of intelligent nature, from whence a weighty and conclusive argument may be drawn of the reality of a God, however inconsistent most, of their conceptions of Him may be. 112 The fact is, humankind readily perceives that there is a God, by feeling their dependence on Him, 113 and as they explore His works, and observe His providence, which is too sublime for finite capacities to understand but in part, they have been more or less confounded in their discoveries of a just idea of a God and of His moral government. 114 Therefore we should exercise great applications and care whenever we assay to speculate upon the Divine character, accompanied with a sincere desire after truth, 115 and

not ascribe anything to His perfections of government which is inconsistent with reason or the best information which we are able to apprehend of moral rectitude, 116 and be at least wise enough not to charge God with injustice and contradictions which we should scorn to be charged with ourselves. 117 No king, governor, or parent would like to be accused of partiality in their respective governments, 118 "Is it fit to say unto Princes, ye are ungodly, how much less to you that regardeth not the persons of princes, or the rich more than the poor, for they are all the work of His hands."

OF THE ETERNITY OF CREATION

Ethan Allen

SECTION I

2 As creation was the result of eternal and infinite wisdom, justice, goodness, and truth, and effected by infinite power, it is like its great author, mysterious to us. 2 How it could be accomplished, or in what manner performed, can never be comprehended by any capacity. 3 Eternal, whether applied to duration, existence, action, or creation, is incomprehensible to us, but implies no contradiction in either of them; 4 for that which is above comprehension we cannot perceive to be contradictory, nor on the other hand can we perceive its rationality or consistency.

5 We are certain that God is a rational, wise, understanding Being, because He has in degree made us so, and His wisdom power, and goodness is visible to us in His creation, and government of the world. 6 From these facts we are rationally induced to acknowledge Him, and not because we can comprehend His being, perfections, creation, or providence. 7 Could we comprehend God, He would cease to be what He is. 8 The ignorant among people cannot comprehend the understanding of the wise among their own species, much less the perfection of a God; 9 nevertheless, in our ratiocination upon the works and harmony of Nature, we are obliged to concede to a self-existent and eternal cause of all things, as has been sufficiently argued, 10 though at the same time it is mysterious to

us, that there should be such a being as a self-existent and eternally independent one;-- 11 thus we believe in God, although we cannot comprehend anything of the how, why or wherefore it was possible for Him to be; 12 and as creation was the exertion of such an incomprehensible and perfect being, it must of necessary consequence be, in a great measure, mysterious to us. 13 We can nevertheless be certain, that it has been of an equal eternity and infinitude of extension with God. 14 Immensity being replete with creation, the omniscient, omnipresent, omnipotent, eternal, and infinite exertion of God in creation, is incomprehensible to the understanding or the weakness of human, 15 and will eternally remain the prerogative of infinite penetration, sagacity, and uncreated intelligence to understand.

OBSERVATIONS OF MOSES'S ACCOUNT OF CREATION

SECTION II

16 The foregoing theory of creation and providence will probably be rejected by most people, inasmuch as they are prepossessed with the theology of Moses, which represents creation to have a beginning. 17 "In the beginning God created the heavens and the earth." In the preceding part of this chapter it has been evinced that creation and providence could not have had a beginning, and that they are not circumscribed, but unlimited; 18 yet it seems that Moses limited creation by a prospective view of the heavens, or firmament from this globe, 19 and if creation was thus limited, it would consequently have circumscribed the dominion and display of the divine providence or perfection; 20 but if Moses's idea of the creation of "the heavens and the earth," was immense, ever so many days of progressive work could never have finished such a boundless creation; 21 for a progressive creation is the same as a limited one; 22 as each progressive day's work would be bounded by a successive admeasurement, and the whole six days' work added together could be but local, and bear no manner of proportion to infinitude, but

would limit the dominion, 23 and consequently the display of the divine perfections or providence, which is incompatible with a just idea of eternity and infinity of God, as has been argued in the foregoing pages.

24 There are a variety of other blunders in Moses's description of creation, one of which I shall mention, which is to be found in his history of the first and fourth day's work of God: 25 "And God said, Let there be light, and there was light; and God called the light day, and the darkness He called night: and the evening and the morning were the first day." 26 Then he proceeds to the second and third day's work, and so on to the sixth; but in his chronicle of the fourth day's work, he says that "God made two great lights, the greater light to rule the day, and the lesser light to rule the night." 27 This appears to be an inconsistent history of the origin of light. Day and night were ordained the first day, and on the fourth day the greater and less lights were made to serve the same purposes; 28 but it is likely that many errors have crept into his writings, through the vicissitudes of learning, and particularly from the corruptions of translations, of his as well as the writings of other ancient authors; 29 besides, it must be acknowledged that those ancient writers laboured under great difficulties in writing to posterity, merely from the consideration of the infant state of learning and knowledge then in the world, 30 and consequently we should not act the part of severe critics, with their writings, any further than to prevent their obtrusion on the world as being infallible.

OF THE ETERNITY AND INFINITUDE OF DIVINE PROVIDENCE

SECTION III

31 When we consider our solar system, attracted by its fiery centre, and moving in its several orbits, with regular, majestic, and periodical revolutions, 32 we are charmed at the prospect and contemplation of those worlds of motions, and adore the wisdom and power by which they are attracted, and their velocity regulated and perpetuated. 33 And

when we reflect that the blessings of life are derived from, and dependent on, the properties, qualities, constructions, proportions and movements, of that stupendous machine, we gratefully acknowledge the divine beneficence. 34 When we extend our thoughts (through our external sensations) to the vast regions of the starry heavens, we are lost in the immensity of God's works. 35 Some stars appear fair and luminous, and others scarcely discernible to the eye, which by the help of glasses make a brilliant appearance, 36 bringing the knowledge of others far remote, within the verge of our feeble discoveries, which merely by the eye could not have been discerned or distinguished. 37 These discoveries of the works of God naturally prompt the inquisitive mind to conclude that the author of this astonishing part of creation which is displayed to our view, has still extended His creation; 38 so that if it were possible that any of us could be transported to the farthest extended star, which is perceptible to us here, we should from thence survey worlds as distant from that as that is from this, and so on 'ad infinitum'.

39 Furthermore, it is altogether reasonable to conclude that the heavenly bodies, 'alias' worlds, which move or are situate within the circle of our knowledge, 40 as well all others throughout immensity, are each and every one of them possessed or inhabited by some intelligent agents or other, however different their sensations or manners of receiving or communicating their ideas may be from ours, or however different from each other. 41 For why would it not have been as wise or as consistent with the perfections which we adore in God, to have neglected giving being to intelligence in this world as in those other worlds, interspersed with aether of various qualities in His immense creation? 42 And inasmuch as this world is thus replenished, we may, with the highest rational certainty infer, that as God has given us to rejoice, and adore Him for our being, He has acted consistent with His goodness, in the display of His providence throughout the

university of worlds. 43 To suppose that God Almighty has confined His goodness to this world, to the exclusion of all others, is much similar to the idle fancies of some individuals in this world, that they, and those of their communion or faith, are the favourites of heaven exclusively; 44 but these are narrow and bigoted conceptions, which are degrading to a rational nature, and utterly unworthy of God, of whom we should form the most exalted ideas.

45 It may be objected that a person cannot subsist in the sun; but does it follow from thence, that God cannot or has not constituted a nature peculiar to that fiery region, 46 and caused it to be as natural and necessary for it to suck in and breathe out flames of fire, as it is for us to do the like in air. 47 Numerous are the kinds of fishy animals which can no other way subsist but in the water, in which other animals would perish, (amphibious ones excepted,) 48 while other animals, in a variety of forms, either swifter or slower move on the surface of the earth, or wing the air. 49 Of these there are sundry kinds, which during the season of winter live without food; and many of the insects which are really possessed of animal life, remain frozen, and as soon as they are let loose by the kind influence of the sun, they again assume their wonted animal life; 50 and if animal life may differ so much in the same world, what inconceivable variety may be possible in worlds innumerable, as applicable to mental, cogitative, and organised beings. 51 Certain it is, that any supposed obstructions, concerning the quality or temperature of any or every one of those worlds, could not have been any bar in the way of God Almighty, with regard to His replenishing His universal creation with moral agents. 52 The unlimited perfection of God could perfectly well adapt every part of His creation to the design of whatever rank or species of constituted beings, His Godlike wisdom and goodness saw fit to impart existence to; 53 so that as there is no deficiency of absolute perfection in God, it is rationally demonstrative that the immense creation is replenished with

rational agents, and that it has been eternally so, 54 and that the display of divine goodness must have been as perfect and complete, in the antecedent, as it is possible to be in the subsequent eternity.

55 From this theological way of arguing on the creation and providence of God, it appears that the whole, which we denominate by the term 'Nature', 56 which is the same as creation perfectly regulated, was eternally connected together by the creator to answer the same all glorious purpose, 'to wit': the display of the divine Nature, 57 the consequences of which are existence and happiness to beings in general, so that creation, with all its productions operates according to the Laws of Nature, 58 and is sustained by the self-existent eternal cause, in perfect older and decorum, agreeable to the eternal wisdom, unalterable rectitude, impartial justice, and immense goodness of the divine Nature, which is a summary of God's providence. 59 It is from the established order of Nature, that summer and winter, rainy and fair seasons, moonshine, refreshing breezes, seed time and harvest, day and night, interchangeably succeed each other, and diffuse their extensive blessings to human. 60 Every enjoyment and support of life is from God, delivered to His creatures in and by the tendency, aptitude, disposition, and operation of those laws. 61 Nature is the medium, or intermediate instrument through which God dispenses His benignity to humankind. 62 The air we breathe in, the light of the sun, and the waters of the murmuring rills, evince God’s providence: and well it is, that they are given in so great profusion, that they cannot by the monopoly of the rich be engrossed from the poor.

63 When we copiously pursue the study of Nature, we are certain to be lost in the immensity of the works and wisdom of God; 64 we may nevertheless, in a variety of things discern their fitness, happifying tendency and sustaining quality to us ward, 65 from all which, as rational and contemplative beings we are prompted to infer, that God is universally uniform and consistent in His infinitude of creation and

providence, although we cannot comprehend all that consistency, by reason of infirmity; 66 yet we are morally sure, of all possible plans, infinite wisdom must have eternally adopted the best, and infinite goodness have approved it, and infinite power have perfected it. 67 And as the good of beings in general must have been the ultimate end of God in His creation and government of His creatures, His omniscience could not fail to have it always present in His view. 68 Universal Nature must therefore be ultimately attracted to this single point, and infinite perfection must have eternally displayed itself in creation and providence. 69 From hence we infer, that God is as eternal and infinite in His goodness, as His self-existent and perfect nature is omnipotently great.

THE PROVIDENCE OF GOD
DOES NOT INTERFERE...
WITH THE AGENCY OF HUMAN.

SECTION IV

70 The doctrine of Fate has been made use of in armies as a policy to induce soldiers to face danger. 71 Mahomet taught his army that the "term of every human's life was fixed by God, and that none could shorten it, by any hazard that he might seem to be exposed to in battle or otherwise," 72 but that it should be introduced into peaceable and civil life, and be patronised by any teachers of religion, 73 is quite strange, as it subverts religion in general, and renders the teaching of it unnecessary, except among other necessary events it may be premised that it is necessary they teach that doctrine, 74 and that I oppose it from the influence of the same law of fate upon which thesis we are all disputing and acting in certain necessary circles, 75 and if so, I make another necessary movement, which is, to discharge the public teachers of this doctrine, and expend. their salaries in an economical manner, 76 which might better answer the purposes of our happiness, or lay it out in good wine or old spirits to make the heart glad, and laugh at the stupidity or cunning of those who would have made us mere machines.

77 Some advocates for the doctrine of fate will also maintain that we are free agents, notwithstanding they tell us there has been a concatenation of causes and events which has reached from God down to this time, and which will eternally be continued-- 78 that has and will control, and bring about every action of our lives, though there is not anything in Nature more certain than that we cannot act necessarily and freely in the same action, and at the same time; 79 yet it is hard for such persons, who have verily believed that they are elected, (and thus by a predetermination of God become His special favourites.) to give up their notions of a predetermination of all events, upon which system their election and everlasting happiness is nonsensically founded; 80 and on the other hand, it is also hard for them to go so evidently against the Law of Nature (or dictates of conscience) which intuitively evinces the certainty of human liberty, as to reject such evidence; 81 and therefore hold to both parts of the contradiction, 'to wit', that they act necessarily, and freely, 82 upon which contradictory principle they endeavoured to maintain the dictates of natural conscience, and also their darling folly of being electedly and exclusively favourites of God.

THE DOCTRINE OF THE INFINITY OF EVIL AND OF SIN CONSIDERED

Ethan Allen

SECTION I

3 That God is infinitely good in the eternal displays of His providence, has been argued in the third section of the second chapter, 2 from which we infer that there cannot be an infinite evil in the universe, inasmuch as it would be incompatible with infinite good; 3 yet there are many who imbibe the doctrine of the infinite evil of sin, and the maxim on which they predicate their arguments in its support, are, that the greatness of sin, or adequateness of its punishment, is not to be measured, 4 or its viciousness ascertained by the capacity and circumstances of the offender, but by the capacity and dignity of the being against whom the offence is committed;

5 and as every transgression is against the authority and law of God, it is therefore against God; 6 and as God is infinite, therefore, sin is an infinite evil, and from hence infer the infinite and vindictive wrath of God against sinners, and of His justice in dooming them, 7 as some say to infinite, and others say to eternal misery; the one without degree or measure, and the other without end or duration.

8 Admitting this maxim for truth, that the transgressions or sins of humankind are to be estimated by their heinousness, by the dignity and infinity of the divine Nature, 9 then it will follow that all sins would be equal, which would confound all our notions of the degrees or aggravations of sin; so that the sin would be the same to kill my neigbour as it would be to kill his horse. 10 For the divine Nature, by this maxim, being the rule by which human's sin is to be estimated, and always the same, there could therefore be no degrees in sin or guilt, any more than there are degrees of perfection in God, 11 whom we all admit to be infinite, and who for that reason only cannot admit of any degrees or enlargement. 12 Therefore as certain as there are degrees in sin, the infinity of the divine Nature cannot be the standard whereby it is to be ascertained, 13 which single consideration is a sufficient confutation of the doctrine of the infinite evil of sin, as predicated on that maxim, inasmuch as none are so stupid as not to discern that there are degrees and aggravations in sin.

14 I recollect a discourse of a learned Ecclesiastic, who was labouring in support of this doctrine. His first proposition was, "That moral rectitude was infinitely pleasing to God;" 15 from which he deduced this inference, viz., "That a contrariety to moral rectitude was consequently infinitely displeasing to God and infinitely evil." 16 That the absolute moral rectitude of the divine Nature is infinitely well pleasing to God, will not be disputed; for this is none other but perfect and infinite rectitude; 17 but there cannot in Nature be an infinite contrariety thereto, or any being infinitely evil, or infinite in any respect whatever, except we

admit a self-existent and infinite diabolical nature, which is too absurd to deserve argumentative confutation.

18 Therefore, as all possible moral evil must result from the agency of finite beings, consisting in their sinful deviations from the rules of eternal unerring order and reason, which is moral rectitude in the abstract, 19 we infer that, provided 'all finite beings in the universe' had not done anything else but sin and rebel against God, reason and moral rectitude in general; 20 all possible moral evil would fall as much short of being infinite, as all finite capacities, complexly considered, would fail of being infinite, which will bear no proportion at all. 21 For though 'finite minds', as has been before argued, bear a 'resemblance to God', yet they bear 'no proportion to His infinity'; 22 and therefore there is not and cannot be any being, beings or agency of being or beings, complexly considered or otherwise, which are infinite in capacity, or which are infinitely evil and detestable in the sight of God, in that unlimited sense; 23 for the actions or agency of limited beings, are also limited, which is the same as finite: 24 so that both the virtues and vices of human are finite; they are not virtuous or vicious but in degree; therefore moral evil is finite and bounded.

25 Though there is one, and but one infinite good, which is God, and there can be no dispute, 26 but that God judges, and approves or disapproves of all things and beings, and agencies of beings, as in truth they are, 27 or in other words judges of every thing as being what it is; 28 but to judge a finite evil to be infinite, would be infinitely erroneous and disproportionate; 29 for so certain as there is a distinction between, infinity and infinitude, so certain finite sinful agency cannot be infinitely evil; or in other words finite offences cannot be infinite. 30 Nor is it possible that the greatest of sinners should in justice deserve infinite punishment, or their nature sustain it; 31 finite beings may as well be supposed to be capable of infinite happiness as of infinite misery, but the rank which they hold in the universe exempts them from either; 32 it nevertheless admits them to a state

of agency, probation or trial, consequently to interchangeable progressions in moral good and evil, and of course to alternate happiness or misery.

33 We will dismiss the doctrine of the infinite evil of sin with this observation, that as no mere creature can suffer an infinitude of misery or of punishment, it is therefore incompatible with the wisdom of God, 34 so far to capacitate creatures to sin, as in His constitution of things to foreclose Himself from adequately punishing them for it.

THE MORAL GOVERNMENT OF GOD AS INCOMPATIBLE...
WITH ETERNAL PUNISHMENT

SECTION II

35 We may for certain conclude, that such a punishment will never have the divine approbation, or be inflicted on any intelligent being or beings in the infinitude of the government of God. 36 For an endless punishment defeats the very end of its institution, which in all wise and good governments is as well to reclaim offenders, as to be examples to others; 37 but a government which does not admit of reformation and repentance, must unavoidably involve its subjects in misery; 38 for the weakness of creatures will always be a source of error and inconstancy, and a wise Governor, as we must admit God to be, would suit His government to the capacity and all other circumstances of the governed; 39 and instead of inflicting eternal damnation on His offending children, would rather interchangeably extend His beneficence with His vindictive punishments, so as to alienate them from sin and wickedness, and incline them to morality; 40 convincing them from experimental suffering, that sin and vanity are their greatest enemies, and that in God and moral rectitude their dependence and true happiness consists, 41 and by reclaiming them from wickedness and error, to the truth, and to the love and practice of virtue, give them occasion to glorify God for the wisdom and goodness of His government, and to be ultimately happy under it. 42 But we are told that the eternal

damnation of a part of humankind greatly augments the happiness of the elect, who are represented as being vastly the less numerous, (a diabolical temper of mind in the elect:) 43 besides, how narrow and contractive must such notions of infinite justice and goodness be? Who would imagine that the Deity conducts His providence similar to the detestable despots of this world? 44 Oh horrible? Most horrible impeachment of Divine Goodness! 45 Rather let us exaltedly suppose that God eternally had the ultimate best good of beings generally and individually in his view, with the reward of the virtuous and the punishment of the vicious, 46 and that no other punishment will ever be inflicted, merely by the divine administration, but that will finally terminate in the best good of the punished, 47 and thereby subserve the great and important ends of the divine government, and be productive of the restoration and felicity of all finite rational nature.

48 The most weighty arguments deducible from the divine Nature have been already offered, 'to wit', ultimate end of God, in creation and providence, to do the greatest possible good and benignity to beings in general, 49 and consequently, that the great end and design of punishment, in the divine government, must be to reclaim, restore, and bring revolters from original rectitude back to embrace it and to be ultimately happy; 50 as also, that an eternal punishment, would defeat the very end and design of punishment itself; 51 and that no good consequences to the punished could arise out of a never ending destruction; 52 but that a total, everlasting, and irreparable evil would take place on such part of the moral creation, as may be thus sentenced to eternal and remediless perdition; which would argue imperfection either in the creation, or moral government of God, or in both.

REASON

HUMAN LIBERTY, AGENCY AND ACCOUNTABILITY, CANNOT...
BE ATTENDED WITH ETERNAL CONSEQUENCES,
EITHER GOOD OR EVIL

SECTION III

53 From what has been argued in the foregoing section, it appears that humankind in this life are not agents of trial for eternity, but that they will eternally remain agents of trial! 54 To suppose that our eternal circumstances will be unalterably fixed in happiness or misery, in consequence of the agency or transactions of this temporary life, is inconsistent with the moral government of God, and the progressive and retrospective knowledge of the human mind. 55 God has not put it into our power to plunge ourselves into eternal woe and perdition; human liberty is not so extensive, for the term of human life bears no proportion to eternity succeeding it; 56 so that there could be no proportion between a momentary agency, (which is liberty of action,) or probation, and any supposed eternal consequences of happiness or misery resulting from it. 57 Our liberty consists in our power of agency, and cannot fall short of, or exceed it, for liberty is agency itself, or is that by which agency or action is exerted; 58 it may be that the curious would define it, that agency is the effect of liberty, and that liberty is the cause which produces it; 59 making a distinction between action and the power of action; be it so, yet agency cannot surpass its liberty; 60 to suppose otherwise, would be the same as to suppose agency without the power of agency, or an effect without a cause; 61 therefore, as our agency does not extend to consequences of eternal happiness or misery, the power of that agency, which is liberty, does not. 62 Sufficient it is for virtuous minds, while in this life, that they keep "Consciences void of offence towards God and towards human." 63 And that in their commencement in the succeeding state, they have a retrospective knowledge of their agency in this, and retain a consciousness of a well spent life. 64 Beings thus possessed of a habit of virtue, would enjoy a rational felicity beyond the reach of physical evils which terminate with life; 65 and

in all rational probability would be advanced in the order of Nature, to a more exalted and sublime manner of being, knowledge and action, than at present we can conceive of, where no joys or pains can approach, but of the mental kind; 66 in which elevated state virtuous minds will be able, in a clearer and more copious manner in this life, to contemplate the superlative beauties of moral fitness; 67 and with ecstatic satisfaction enjoy it, notwithstanding imperfection and consequently agency, proficiency and trial, of some kind or other, must everlastingly continue with finite minds.

68 And as to the vicious, who have violated the laws of reason and morality, lived a life of sin and wickedness, and are at as great a remove from a rational happiness as from moral rectitude; 69 such incorrigible sinners, at their commencing existence in the world of spirits, will undoubtedly have opened to them a tremendous scene of horror, self-condemnation and guilt, with an anguish of mind; 70 the more so, as no sensual delights can there, (as in this world,) divert the mind from its conscious guilt; 71 the clear sense of which will be the more pungent, as the mind in that state will be greatly enlarged, and consequently more capaciously susceptible of sorrow, grief, and conscious woe, from a retrospective reflection of a wicked life.

OF PHYSICAL EVILS

SECTION IV

72 Physical evils are in nature inseparable from animal life, they commenced existence with it, and are its concomitants through life; 73 so that the same nature which gives being to the one, gives birth to the other also; the one is not before or after the other, but they are coexistent together, and cotemporaries; 74 and as they began existence in a necessary dependence on each other, so they terminate together in death and dissolution. 75 This is the original order to which animal nature is subjected, as applied to every species of it. 76 The beasts of the field, the fowls of the air, the fishes of the sea, with reptiles, and all manner of beings, which are

possessed with animal life; nor is pain, sickness, or mortality any part of God's punishment for sin. 77 On the other hand sensual happiness is no part of the reward of virtue: to reward moral actions with a glass of wine or a shoulder of mutton, would be as inadequate, as to measure a triangle with sound, 78 for virtue and vice pertain to the mind, and their merits or demerits have their just effects on the conscience, as has been before evinced: 79 but animal gratifications are common to the human race indiscriminately, and also, to the beasts of the field: 80 and physical evils as promiscuously and universally extend to the whole, so "'That there is no knowing good or evil by all that is before us, for all is vanity'." 81 It was not among the number of possibles, that animal life should be exempted from mortality: omnipotence itself could not have made it capable of eternalisation and indissolubility; 82 for the self same nature which constitutes animal life, subjects it to decay and dissolution; so that the one cannot be without the other, any more than there could be a compact number of mountains without vallies, 83 or that I could exist and not exist at the same time, or that God should effect any other contradiction in Nature; all contradictions being equally impossible, inasmuch as they imply an absolute incompatibility with Nature and truth; 84 for Nature is predicated on truth, and the same truth which constitutes mountains, made the vallies at the same time; nor is it possible that they could have a separate existence. 85 And the same truth which affirms my existence, denies its negative; so also the same Law of Nature, which in truth produceth an animal life and supports it for a season, wears it out, and in its natural course reduces it to its original elements again.

86 The vegetable world also presents us with a constant aspect of productions and dissolutions; and the bustle of elements is beyond all conception; 87 but the dissolution of forms is not the dissolution of matter, or the annihilation of it, nor of the creation, which exists in all possible forms and fluxilities;

88 and it is from such physical alterations of the particles of matter, that animal or vegetable life is produced and destroyed. 89 Elements afford them nutrition, and time brings them to maturity, decay and dissolution; 90 and in all the prolific production of animal life, or the productions of those of a vegetative nature, throughout all their growth, decay and dissolution, make no addition or diminution of creation; 91 but eternal Nature continues its never ceasing operations, (which in most respects are mysterious to us) under the unerring guidance of the providence of God.

92 Animal nature consists of a regular constitution of a variety of organic parts, which have a particular and necessary dependance on each other, by the mutual assistance whereof the whole are animated. 93 Blood seems to be the source of life, and it is requisite that it have a proper circulation from the heart to the extreme parts of the body, 94 and from thence to the heart again, that it may repeat its temporary rounds through certain arteries and veins, which replenish every minutia part with blood and vital heat; 95 but the brain is evidently the seat of sensation, which through the nervous system conveys the animal spirits to every part of the body, imparting to it sensation and motion, constituting it a living machine,-- 96 which could never have been produced, or exercised its respective functions in any other sort of world but this; which is in a constant series of fluxilities, and which causeth it to produce food for its inhabitants. 97 An unchangeable world could not admit of production or dissolution, but would be identically the same, which would preclude the existence and nutriment of such sensitive creatures as we are.

98 The nutrition extracted from food by the secret aptitudes of the digesting powers (by which mysterious operation it becomes incorporated with the circulating juices, supplying the animal functions with vital heat, strength and vigour) 99 demands a constant flux and reflux of the particles of matter, which is perpetually incorporating with the body, 100 and supplying the place of the superfluous particles that are

constantly discharging themselves by insensible perspiration; supporting, and at the same time, in its ultimate tendency, destroying animal life. 101 Thus it manifestly appears, that the laws of the world in which we live, and the constitution of the animal nature of human, are all but one uniform arrangement of cause and effect; 102 and as by the course of those laws, animal life is propagated and sustained for a season, so by the operation of the same laws, decay and mortality are the necessary consequences.

SPECULATION ON THE DOCTRINE OF THE DEPRAVITY... OF HUMAN REASON

Ethan Allen

SECTION I

4 In the course of our speculation on Divine Providence we proceed next to the consideration of the doctrine of the depravity of human reason: 2 a doctrine derogatory to the nature of human, and the rank and character of being which you holds in the universe, 3 and which, if admitted to be true overturns knowledge and science and renders learning, instruction and books useless and impertinent; 4 inasmuch as reason, depraved or spoiled, would cease to be reason; as much as the mind of a raving mad person would of course cease to be rational: 5 admitting the depravity of reason, the consequence would unavoidably follow, that as far as it may be supposed to have taken place in the midst of humankind, there could be no judges of it, in consequence of their supposed depravity; 6 for without the exercise of reason, we could not understand what reason is, which would be necessary for us previously to understand, in order to understand what it is not; or to distinguish it from that which is its reverse. 7 But for us to have the knowledge of what reason is, and the ability to distinguish it from that which is depraved, or is irrational, is incompatible with the doctrine of the depravity of our reason. 8 Inasmuch as to understand what reason is, and to distinguish it from that which is marred or spoiled, is the same to all intents and purposes, as to have, exercise and enjoy, the

principle of reason itself, which precludes its supposed depravity: 9 so that it is impossible for us to understand what reason is, and at the same time determine that our reason is depraved; 10 for this would be the same as when we know that we are in possession and exercise of reason, to determine that we are not in possession or exercise of it.

11 It may be, that some who embrace the doctrine of the depravity of human reason, will not admit that it is wholly and totally depraved, but that it is in a great measure marred or spoiled. 12 But the foregoing arguments are equally applicable to a supposed depravity in parts, as in the whole; 13 for in order to judge whether reason be depraved in part or not, it would be requisite to have an understanding of what reason may be supposed to have been, previous to its premised depravity; 14 and to have such a knowledge of it, would be the same as to exercise and enjoy it in its lustre and purity, which would preclude the notion of a depravity in part, as well as in the whole; 15 for it would be utterly impossible for us to judge of reason undepraved and depraved, but by comparing them together. 16 But for depraved reason to make such a comparison, is contradictory and impossible; so that, if our reason had been depraved, we could not have had any conception of it any more than a beast. 17 People of small faculties in reasoning cannot comprehend the extensive reasonings of their superiors, how then can a supposed depraved reason comprehend that reason which is uncorrupted and pure? 18 To suppose that it could, is the same as to suppose that depraved and undepraved reason is alike, and if so, there needs no further dispute about it.

19 There is a manifest contradiction in applying the term 'depraved' to that of reason, the ideas contained in their respective definitions will not admit of their association together, as the terms convey heterogeneous ideas; 20 for reason spoiled, marred, or robbed of its perfection, ceaseth to be rational, and should not be called reason; inasmuch as it is premised to be depraved, or degenerated from a rational nature; 21 and in

consequence of the deprivation of its nature, should also be deprived of its name, and called subterfuge, or some such like name, which might better define its real character.

22 Those who invalidate reason, ought seriously to consider, "'whether they argue against reason, with or without reason; 23 if with reason, then they establish the principle, that they are labouring to dethrone:'" but if they argue without reason, (which, in order to be consistent with themselves, they must do,) they are out of the reach of rational conviction, nor do they deserve a rational argument.

24 We are told that the knowledge of the depravity of reason, was first communicated to humankind by the immediate inspiration of God. 25 But inasmuch as reason is supposed to be depraved, what principle could there be in the human irrational soul, which could receive or understand the inspiration, or on which it could operate so as to represent to those whom it may be supposed were inspired, 26 the knowledge of the depravity of (their own and humankind's) reason (in general:) for a rational inspiration must consist of rational ideas, 27 which pre-sup-poses that the minds of those who were inspired, were rational previous to such inspiration, which would be a downright contradiction to the inspiration itself; 28 the import of which was to teach the knowledge of the depravity of human reason, which without reason could not be understood, and with reason it would be understood, that the inspiration was false.

29 Will any advocates for the depravity of reason suppose, that inspiration ingrafts or superadds the essence of reason itself to the human mind? 30 Admitting it to be so, yet such inspired persons could not understand any thing of reason, before the reception of such supposed inspiration; 31 nor would such a premised inspiration prove to its possessors or receivers, that their reason had ever been depraved. 32 All that such premised inspired persons could understand, or be conscious of, respecting reason, would be after the inspiration may be supposed to have taken effect, and

made them rational beings, 33 and then instead of being taught by inspiration, that their reason had been previously depraved, they could have had no manner of consciousness of the existence or exercise of it, until the impairing the principle of it by the supposed energy of inspiration; 34 nor could such supposed inspired persons communicate the knowledge of such a premised revelation to others of the species, who for want of a rational nature, could not be supposed, on this position, to be able to receive the impressions of reason.

35 That there are degrees in the knowledge of rational beings, and also in their capacities to acquire it, cannot be disputed, as it is so very obvious among humankind. 36 But in all the retrospect gradations from the exalted reasonings of a Locke or a Newton, down to the lowest exercise of it among the species, still it is reason, and not depraved; 37 for a less degree of reason by no means implies a depravity of it, nor does the imparting of reason argue its depravity, for what remains of reason, or rather of the exercise of it, is reason still. 38 But there is not, and cannot be such a thing as depraved reason, for that which is rational is so, and for that reason cannot be depraved, whatever its degree of exercise may be supposed to be.

39 A blow on the head, or fracture of the cranium, as also palsies and many other casualties that await our sensorium, retard, and in some cases wholly prevent the exercise of reason for a longer or shorter period; and sometimes through the stage of human life; 40 but in such instances as these, reason is not depraved, but ceases in a greater or less degree, or perhaps wholly ceases its rational exertions or operations; 41 by reason of the breaches or disorders of the organs of sense, but in such instances, wherein the organs become rectified, and the senses recover their usefulness, the exercise of reason returns, free from any blemish or depravity. 42 For the cessation of the exercise of reason, by no means depraves it.

43 From what has been argued on this subject, in this and the preceding chapters, it appears that reason is not and cannot be

depraved, 44 but that it bears a likeness to divine reason, is of the same kind, and in its own nature as uniform as truth, which is the test of it; 45 though in the divine essence, it is eternal and infinite, but in human it is eternal only as it respects their immortality, and finite as it respects capaciousness. 46 Such people as can be prevailed upon to believe, that their reason is depraved, may easily be led by the nose, and duped into superstition at the pleasure of those in whom they confide, and there remain from generation to generation: 47 for when they throw by the law of reason 'the only one' which God gave them to direct them in their speculations and duty, they are exposed to ignorant or insidious teachers, 48 and also to their own irregular passions, and to the folly and enthusiasm of those about them, which nothing but reason can prevent or restrain: 49 nor is it a rational supposition that the commonality of humankind would ever have mistrusted that their reason was depraved, had they not been told so, 50 and it is whispered about, that the first insinuation of it was from the Priests; (though the Armenian Clergymen in the circle of my acquaintance have exploded the doctrine.) 51 Should we admit the depravity of reason, it would equally affect the priesthood, or any other teachers of that doctrine, with the rest of humankind; 52 but for depraved creatures to receive and give credit to a depraved doctrine, started and taught by depraved creatures, is the greatest weakness and folly imaginable, 53 and comes nearer a proof of the doctrine of total depravity, than any arguments which have been advanced in support of it.

CONTAINING A DISQUISITION OF THE LAW OF NATURE...
AS IT RESPECTS THE MORAL SYSTEM, INTERSPERSED WITH OBSERVATIONS ON SUBSEQUENT RELIGIONS

SECTION II

54 That humankind are by nature endowed with sensation and reflection, from which results the power of reason and understanding, will not be disputed. 55 The senses are well calculated to make discoveries of external objects and to communicate those notices, or

simple images of things to the mind, 56 with all the magnificent simplicity of Nature, which opens an extensive field of contemplation to the understanding, enabling the mind to examine into the natural causes and consequences of things, 57 and to investigate the knowledge of moral good and evil, from which, together with the power of agency, results the human conscience. This is the original of moral obligation and accountability, which is called natural religion; 58 for without the understanding of truth from falsehood, and right from wrong, which is the same as justice from injustice, and a liberty of agency, which is the same as a power of proficiency in either moral good or evil: humankind would not be rational or accountable creatures.

59 Undoubtedly it was the ultimate design of our Creator, in giving us being, and furnishing us with those noble compositions of mental powers and sensitive aptitudes, that we should, in, by, and with that nature, serve and honour Him; 60 and with those united capacities, search out and understand our duty to Him, and to one another, with the ability of practising the same as far as may be necessary for us in this life. 61 To object against the sufficiency of natural religion, to effect the best ultimate good of humankind, would be derogating from the wisdom, goodness, and justice of God, who in the course of His providence to us, has adopted it: 62 besides, if natural religion may be supposed to be deficient, what security can we have that any subsequently revealed religion should not be so also? 63 For why might not a second religion from God be as insufficient or defective as a first religion may be supposed to be? 64 From hence we infer that if natural religion be insufficient to dictate humankind in the way of their duty and make them ultimately happy, there is an end to religion in general. 65 But as certain as God is perfect in wisdom and goodness, natural religion is sufficient and complete; 66 and having had the divine approbation, and naturally resulting from a rational nature, is as universally promulgated to humankind as reason itself. 67 But to the disadvantage of the claim of

all subsequent religions, 'called revelations, whether denominated inspired, external, supernatural, or whatnot', they came too late into the world to be essential to the well being of humankind, 68 or to point out to them the only way to heaven and everlasting blessedness: inasmuch as for the greatest part of humankind who have ever lived in this world, have departed this life previous to the eras and promulgations of such revelations.

69 Besides, those subsequent revelations to the Law of Nature, began as human traditions have ever done in very small circumferences, 70 in the respective parts of the world where they have been inculcated, and made their progress, as time, chance, and opportunity presented. 71 Does this look like the contrivance of heaven, and the only way of salvation? Or is it not more like this world and the contrivance of human? 72 Undoubtedly the great parent of humankind laid a just and sufficient foundation of salvation for every one of them; 73 for otherwise such of them, who may be supposed not to be thus provided for would not have whereof to glorify God for their being, 74 but on the contrary would have just matter of complaint against His providence or moral government for involuntarily necessitating them into a wretched and miserable existence, and that without end or remedy: 75 which would be ascribing to God a more extensive injustice than is possible to be charged on the most barbarous despots that ever were among humankind.

76 But to return to our speculations on the Law of Nature. That this divine Law surpasses all positive institutions, that have ever been ushered into the world since its creation 77 as much as the wisdom and goodness of God exceeds that of human, is beautifully illustrated in the following quotation: 78 "But it may be said what is virtue? It is the faithful discharge of those obligations which reason dictates. 79 And what is wisdom itself, but a portion of intelligence? with which the creator has furnished us, in order to direct us in our duty? 80 It may be further asked, what is this

duty? whence does it result? and by what law is it prescribed? 81 I answer that the law which prescribed it is the immutable will of God; to which right reason obliges us to conform ourselves, and in this conformity virtue consists. 82 No law which has commenced since the creation, or which may ever cease to be in force, can constitute virtue; 83 for before the existence of such a law, humankind could not be bound to observe it; but they were certainly under an obligation to be virtuous from the beginning. 84 Princes may make laws and repeal them, but they can neither make nor destroy virtue, and how indeed should they be able to do what is impossible to the Deity Himself?

85 Virtue being as immutable in its nature as the divine Will which is the ground of it. 86 Virtue did not derive its nature merely from the omnipotent will of God, but also from the eternal truth and moral fitness of things; 87 which was the eternal reason why they were eternally approved of by God, and immutably established by Him, to be what they are; 88 and so far as our duty is connected with those eternal measures of moral fitness, or we are able to act on them, we give such actions or habits the name of virtue or morality. 89 But when we, in writing or conversation, say that virtue is grounded on the divine will, we should at the same time include in the complex idea of it, that the divine will which constituted virtue, was eternally and infinitely reasonable.

90 A Prince may command his subjects to pay taxes or subsidies, may forbid them to export certain commodities, or to introduce those of a foreign country. 91 The faithful observance of these laws make obedient subjects, but does not make virtuous humans; and would any one seriously think yourself possessed of a virtue the more for not having dealt in painted calico; 92 or if the Prince should by his authority abrogate these laws, would any one say he had abrogated virtue? 93 It is thus with all positive laws; they all had a beginning-- are all liable to exceptions, and may be dispensed with and even abolished. 94 That law alone which is engraven on our hearts by the hand of our

creator, is unchangeable and of universal and eternal obligation. 95 The law, says Cicero, is not a human invention, nor an arbitrary political institution, it is in its nature eternal and of universal obligation.

96 The violence Tarquin offered to Lucretia, was a breach of that eternal law, and though the Romans at that time might have no written law which condemned such kind of crimes, his offence was not the less heinous; 97 for this law of reason did not then begin, when it was first committed to writing; its original is as ancient as the divine mind. 98 For the true, primitive and supreme law, is no other than the unerring reason of the great Jupiter. 99 And in another place he says, this law is founded in Nature, it is universal, immutable, and eternal, it is subject to no change from any difference of place, or time, 100 it extends invariably to all ages and nations, like the sovereign dominion of that Being, who is author of it."

101 The promulgation of this supreme law to creatures, is co-extensive and co-existent with reason, and binding on all intelligent beings in the universe; 102 and is that eternal rule of fitness, as applicable to God, by which the creator of all things conducts His infinitude of providence, and by which He governs the moral system of being, according to the absolute perfection of his nature. 103 From hence we infer, that admitting those subsequent revelations, which have more or less obtained credit in the world, as the inspired laws of God, to be consonant to the Laws of Nature, 104 yet they could be considered as none other but mere transcripts therefrom, promulgated to certain favourite nations, when at the same time all humankind was favoured with the original.

105 The moral precepts contained in Moses' decalogue to the people of Israel, was previously known to every nation under heaven, and in all probability by them as much practised as by the tribes of Israel. 106 Their keeping the seventh day of the week as a sabbath was an arbitrary imposition of Moses, (as many other of his edicts were) and not included in the Law of Nature.

107 But as to such laws of his, or those of any other legislator, which are morally fit, agree with, and are a part of the natural law, as for instance; "Thou shalt not covet," or "kill." 108 These positive injunctions cannot add anything to the Law of Nature, inasmuch as it contains an entire and perfect system of morality; 109 nor can any positive injunctions or commands enforce the authority of it, or confer any additional moral obligation on those to whom they are given to obey; 110 the previous obligation of natural religion, having ever been as binding as reason can possibly conceive of, or the order and constitution of the moral rectitude of things, as resulting from God, can make it to be.

111 To illustrate the argument of the obligatory nature of the natural law let us reverse the commandments of the decalogue, by premising that Moses had said thou shalt covet; thou shalt steal and murder; 112 would any one conclude, that the injunctions would have been obligatory? Surely they would not, 113 for a positive command to violate the Law of Nature could not be binding on any rational being. 114 How then came the injunctions of Moses, or any others, to be binding in such cases, in which they coincide with the Law of Nature? 115 We answer, merely in consequence of the obligatory sanctions of the natural law, which does not at all depend on the authority of Moses or of any other legislator, short of him who is eternal and infinite; 116 nor is it possible that the Jews, who adhere to the law of Moses, should be under greater obligation to the moral law, than the Japanese; or the Christians than the Chinese; 117 for the same God extends the same moral government over universal rational nature, independent of Popes, Priests and Levites. 118 But with respect to all mere positive institutions, injunctions, rites and ceremonies, that do not come within the jurisdiction of the Law of Nature, they are political matters, 119 and may be enacted, perpetuated, dispensed with, abolished, re-enacted, compounded or diversified, as conveniency, power, opportunity, inclination, or

interest, or all together may dictate; 120 inasmuch as they are not founded on any stable or universal principle of reason, but change with the customs, fashions, traditions and revolutions of the world; having no centre of attraction, but interest, power and advantages of a temporary nature. 121 Was the creator and governor of the universe to erect a particular academy of arts and sciences in this world, under His immediate inspection, with tutors rightly organised, and intellectually qualified to carry on the business of teaching, 122 it might like other colleges, (and possibly in a superior manner,) instruct its scholars. 123 But that God should have given a revelation of His will to humankind, as His law, and to be continued to the latest posterity as such, which is premised to be above the capacity of their understanding, is contradictory and in its' own nature impossible. 124 Nor could a revelation to humankind, which comes within the circle of their knowledge, be edifying or instructing to them, 125 for it is a contradiction to call that which is above my comprehension, or that which I already, (from natural sagacity) understand, a revelation to me: 126 to tell me, or inspire me, with the knowledge of that which I knew before, would reveal nothing to me, and to reveal that to me which is supernatural or above my comprehension, is contradictory and impossible. 127 But the truth of the matter is, that humankind are restricted by the Law of Nature to acquire knowledge or science progressively, as before argued. 128 From which we infer the impropriety, and consequently the impossibility of God's having ever given us any manuscript copy of His eternal law: 129 for that to reveal it at first would bring it on a level with the infancy of knowledge then in the world, or (fishermen, shepherds, and illiterate people could not have understood it,) 130 which would have brought it so low that it could not be instructive or beneficial to after generations in their progressive advances in science and wisdom.

ARGUMENTATIVE REFLECTIONS ON SUPERNATURAL... AND MYSTERIOUS REVELATION IN GENERAL

Ethan Allen

SECTION I

5 There is not anything which has contributed so much to delude humankind in religious matters, as mistaken apprehensions concerning supernatural inspiration or revelation; 2 not considering that all true religion originates from reason, and can no otherwise be understood but by the exercise and improvement of it; therefore they are apt to confuse their minds with such inconsistencies. 3 In the subsequent reasonings on this subject, we shall argue against supernatural revelation in general, which will comprehend the doctrine of inspiration or immediate illumination of the mind. 4 And first-- we will premise, that a revelation consists of an assemblage of rational ideas, intelligibly arranged and understood by those to whom it may be supposed to be revealed, for otherwise it could not exist in their minds as such. 5 To suppose a revelation, void of rationality or understanding, or of communicating rational intelligence to those, to whom it maybe supposed to be given, would be a contradiction; 6 for that it could contain nothing except it were unintelligibleness which would be the same as to reveal and not to reveal; 7 therefore, a revelation must consist of an assemblage of rational ideas, intelligibly communicated to those who are supposed to have been the partakers or receivers of it from the first supposed inspiration, down to this or any other period of time. 8 But such a revelation as this, could be nothing more or less than a transcript of the Law of Nature, predicated on reason, and would be no more supernatural, than the reason of human may be supposed to be. 9 The simple definition of supernatural is, that which is "beyond or above the powers of Nature," which never was or can be understood by humankind; the first promulgators of revelation not excepted; 10 for such revelation, doctrine, precept or instruction only, as comes within the powers of our nature, is

capable of being apprehended, contemplated or understood by us, 11 and such as does not, is to us incomprehensible and unknown, and consequently cannot for us compose any part of revelation.

12 The author of human nature impressed it with certain sensitive aptitudes and mental powers, so that apprehension, reflection or understanding could no otherwise be exerted or produced in the compound nature of human, but in the order prescribed by the creator. 13 It would therefore be a contradiction in Nature, and consequently impossible for God to inspire, infuse, or communicate the apprehension, reflection or understanding of any thing whatever into human nature, out of, above, or beyond the natural aptitudes, and mental powers of that nature, which was of His own production and constitution; 14 for it would be the same as to inspire, infuse, or reveal apprehension, reflection or understanding, to that which is not; 15 inasmuch as out of, beyond or above the powers of Nature, there could be nothing to operate upon, as a prerequisite principle to receive the inspiration or infusion of the revelation, which might therefore as well be inspired into, or revealed to nonentity, as to human.

16 For the essence of human is that, which we denominate to be your nature, out of or above which you are as void of sensation, apprehension, reflection and understanding, as nonentity may be supposed to be; 17 therefore such revelation as is adapted to the nature and capacity of human, and comes within your powers of perception and understanding, is the only revelation, which you are able to receive from God or human.

18 Supernatural revelation is as applicable to beasts, birds and fishes, as it is to us; 19 for neither we nor they are capable of being acted upon supernaturally, as all the possible exertions and operations of Nature, which respect the natural or moral world, are truly natural. 20 Nor does God deviate from His rectitude of Nature in matters of inspiration, revelation or instruction to the moral world, any more than in that of His government of the natural. 21 The infinitude of the wisdom of

God's creation, providence and moral government will eternally remain supernatural to all finite capacities, and for that very reason we can never arrive to the comprehension of it, in any state of being and improvement whatever; 22 inasmuch as progression can never attain to that which is infinite, so that an eternal proficiency in knowledge could not be supernatural, but on the other hand would come within the limits and powers of our nature, for otherwise such proficiency would be impossible to us; 23 nor is this infinite knowledge of God supernatural to you, for that your perfection is also infinite. 24 But if we could break over the limits of our capacity, so as to understand any one supernatural thing, which is above or beyond the power of our natures, we might by that rule as well understand all things, 25 and thus by breaking over the confines of finite Nature and the rank of being which we hold in the universe, comprehend the knowledge of infinity.

26 From hence we infer, that every kind and degree of apprehension, reflection and understanding, which we can attain to in any state of improvement whatever, is no more supernatural than the nature of human, 27 from whence perception and understanding is produced, may be supposed to be so: nor has or could God Almighty ever have revealed Himself to humankind in any other way or manner, but what is truly natural.

CONTAINING OBSERVATIONS ON THE PROVIDENCE...
AND AGENCY OF GOD, AS IT RESPECTS THE NATURAL AND MORAL WORLD, WITH STRICTURES ON REVELATION IN GENERAL

SECTION II

28 The idea of a God we infer from our experimental dependence on something superior to ourselves in wisdom, power and goodness, which we call God; 29 our senses discover to us the works of God which we call Nature, and which is a manifest demonstration of His invisible essence. 30 Thus it is from the works of Nature that we deduce the knowledge of a God, and not because we have, or can have any immediate knowledge of, or revelation from Him. 31 But on the other hand, all our

understanding of, or intelligence from God, is communicated to us by the intervention of natural causes, (which is not of the divine essence;) 32 this we denominate to be natural revelation, for that it is mediately made known to Us by our senses, and from our sensations of external objects in general, 33 so that all and every part of the universe, of which we have any conception, is exterior from the nature or essence of God; 34 nor is it in the nature of things possible for us to receive, or for God to communicate any inspiration or revelation to us, but by the instrumentality of intermediate causes, as has been before observed.

35 Therefore all our notions of the immediate interposition of divine illuminations, inspiration, or infusion of ideas or revelations into our minds, is mere enthusiasm and deception; 36 for that neither the divine mind, nor those of any finite intelligences can make any representation to, or impression on our external senses without the assistance of some adequate, intermediate cause. 37 The same is the case between human and human, or with humankind in general; we can no otherwise hold a correspondence but by the aptitude, and through the medium of our senses. 38 Since this is the only possible way in Nature by which we can receive any notices, perceptions, or intelligence from God or human.

39 Nothing can be more unreasonable than to suppose, because God is infinitely powerful, that He can therefore inspire or infuse perception, reflection or revelation into the mind of human in such a way or manner as is incompatible with the aptitudes and powers of their nature: 40 such a revelation would be as impossible to be revealed by God, as by a mere creature. For though it is a maxim of truth, "That with God all things are possible," 41 yet it should be considered, that contradictions, and consequently impossibilities are not comprehended in the definition of things, but are diametrically the reverse of them, as may be seen in the definition of the word things, to wit: "whatever is." 42 There is no contradiction in Nature or truth, which comprehends or contains all

things, therefore the maxim is just, "That with God all things are possible," viz: all things in Nature are possible with God; 43 but contradictions are falsehoods which have no positive existence, but are the negatives to things, or to Nature, which comprehends, "Whatever is;" 44 so that contradictions are opposed to Nature and truth, and are no things, but the chimeras of weak, unintelligent minds who make false application of things to persons, 45 or ascribe such powers, qualities, dispositions and aptitudes to things as Nature never invested them with; 46 such are our deluded notions of the immediate operations of the holy spirit, or of any mere spirit, on our minds independent of the intervention of some adequate, natural or intermediate cause.

47 To make a triangle four square, or to make a variety of mountains contiguously situated, without vallies, or to give existence to a thing and not to give existence to it at the same time, 48 or to reveal anything to us incompatible with our capacity of receiving the perception of it, pertains to those negatives to Nature and truth, and are not things revealed, nor have they any positive existence as has been before argued; 49 for they are inconsistent with themselves, and the relations and effects which they are supposed to have upon and with each other. 50 It derogates nothing from the power and absolute perfection of God that He cannot make both parts of a contradiction to be true.

51 But let us reverse the position concerning revelation, and premise that it is accommodated to our capacity of receiving and understanding it, and in this case it would be natural, and therefore possible for us to receive and understand it; 52 for the same truth which is predicated on the sufficiency of our capacity to receive and understand a revelation, affirms at the same time the possibility of our receiving and understanding it. 53 But to suppose that God can make both parts of a contradiction to be true, to reveal and not reveal, would be the same as ascribing a falsehood to Him and to call it by the name of power.

54 That God can do anything and everything, that is consonant to His moral perfections, and which does not imply a contradiction to the nature of the things themselves, and the essential relation which they bear to each other, none will dispute. 55 But to suppose, that inasmuch as God is all-powerful, He can therefore do everything, which we in our ignorance of Nature or of moral fitness may ascribe to Him, 56 without understanding, whether it is either consonant to moral rectitude, or to the nature of the things themselves, and the immutable relations and connections which they bear to each other, or not, is great weakness and folly. 57 That God cannot in the exercise of His providence or moral government, counteract the perfections of His Nature, or do any manner of injustice, is manifestly certain; nor is it possible for God to effect a contradiction in the natural world, any more than in the moral. 58 The impossibility of the one results from the moral perfections of God, and the impossibility of the other from the immutable properties, qualities, relations and nature of the things themselves, 59 as in the instances of the mountains, vallies, before alluded to, and in numberless other such like cases.

60 Admitting a revelation to be from God, it must be allowed to be infallible, therefore those to whom it may be supposed to have been first revealed from God, must have had an infallible certainty of their inspiration: 61 so likewise the rest of humankind, to whom it is proposed as a Divine Law, or rule of duty, should have an infallible certainty, 62 that its first promulgators were thus truly inspired by the immediate interposition of the spirit of God, 63 and that the revelation has been preserved through all the changes and revolutions of the world to their time, and that the copies extant present them with its original inspiration and unerring composure, or are perfectly agreeable to it. 64 All this we must have an infallible certainty of, or we fail of an infallible certainty of revelation, and are liable to be imposed upon by impostors, 65 or by ignorant and insidious teachers,

whose interest it may be to obtrude their own systems on the world for infallible truth, as in the instance of Mahomet.

66 But let us consult our own constitutions and the world in which we live, and we shall find that inspiration is, in the very nature of things, impossible to be understood by us, and of consequence not in fact true. 67 What certainty can we have of the agency of the divine mind on ours? Or how can we distinguish the supposed divine illuminations or ideas from those of our own which are natural to us? 68 In order for us to be certain of the interposition of immediate divine inspiration in our minds we must be able to analyse, distinguish, and distinctly separate the premised divine reflections, illuminations or inspiration from our own natural cogitations, 69 for otherwise we should be liable to mistake our reflections and reasonings for God's inspiration, as is the case with enthusiasts, or fanatics, and thus impose on ourselves, and obtrude our romantic notions on humankind, as God's revelation.

70 None will, it is presumed, pretend that the natural reflections of our minds are dictated by the immediate agency of the divine spirit; for if they were thus dictated, they would be of equal authority with any supposed inspired revelation. 71 How then shall we be able to distinguish or understand our natural perceptions, reflections or reasonings, from any premised immediately inspired ones? 72 Should God make known to us, or to any of us, a revelation by a voice, and that in a language which we understand, and admitting that the propositions, doctrines, or subject matter of it, should not exceed our capacity, 73 we could understand it the same as we do in conversation with one another; but this would be an external and natural revelation, 74 in which God is supposed to make use of language, grammar, logic and sound, alias of intermediate causes, in order to communicate or reveal it, which would differ as much from an immediately inspired revelation, as this book may be supposed to do; 75 for the very definition of immediate

inspiration precludes all natural or immediate causes. 76 That God is eternally perfect in knowledge, and therefore knows all things, not by succession or by parts, as we understand things by degrees, has been already evinced; 77 nevertheless all truth, which we arrive at the understanding of, accords with the divine omniscience, but we do not come at the comprehension of things by immediate infusion, or inspiration, but from reasoning; 78 for we cannot see or hear God think or reason any more than human, nor are our senses susceptible of a mere mental communion with Him, 79 nor is it in Nature possible for the human mind to receive any instantaneous or immediate illuminations or ideas from the divine spirit (as before argued,) 80 but we must illuminate and improve our minds by a close application to the study of Nature, through the series whereof God has been pleased to reveal Himself to human, so that we may truly say, that the knowledge of Nature is the revelation of God. 81 In this there can be no delusion, it is natural, and could come from none other but God.

82 Unless we could do this, we should compound them together at a venture, and form a revelation like Nebuchadnezzar's idol, "partly iron and partly clay," alias partly divine and partly human. 83 The Apostle Paul informs us, that sometimes he "spake, and not the Lord," and at other times speaks doubtfully about the matter, saying, "and I think also that I have the spirit of God," and if He was at a loss about His inspiration, well may we be distrustful of it. 84 From the foregoing speculations on the subject of supernatural inspiration, it appears, that there are insuperable difficulties in a mere mental discourse with the divine spirit; it is what we are unacquainted with, and the law of our nature forbids it. 85 Our method of conversation is vocal, or by writing, or by some sort of external symbols which are the mediate ground of it, and we are liable to errors and mistakes in this natural and external way of correspondence; 86 but when we have the vanity to rely on dreams and visions to inform ourselves of

things, or attempt to commune with invisible finite beings, or with the holy spirit, our deceptions, blunders and confusions are increased to fanaticism itself; 87 as the diverse supposed influence of the spirit, on the respective sectaries, even among Christians, may witness, as it manifestly, in their empty conceit of it, conforms to every of their traditions. 88 Which evinces, that the whole bustle of it is mere enthusiasm, for was it dictated by the spirit of truth and uniformity itself, it would influence all alike, 89 however zealots persuade themselves and one another that they have supernatural communion with the Holy Ghost, from whence they tell us they derive their notions of religion, 90 and in their frenzy are proof against reason and argument, which if we tender them, they tell us, that it is carnal and depraved reasoning, but that their teachings are immediately from God, 91 and then proceed to vent upon us all the curses and punishments, which are written in the book of the law.

92 There has in the different parts and ages of the world, been a multiplicity of immediate and wonderful discoveries, said to have been made to godly people of old by the special illumination or supernatural inspiration of God, 93 every of which have, in doctrine, precept and instruction, been essentially different from each other, which are consequently as repugnant to truth, as the diversity of the influence of the spirit on the multiplicity of sectaries has been represented to be.

94 These facts, together with the premises and inferences as already deduced, are too evident to be denied, and operate conclusively against immediate or supernatural revelation in general; nor will such revelation hold good in theory any more than in practice. 95 Was a revelation to be made known to us, it must be accommodated to our external senses, and also to our reason, so that we could come at the perception and understanding of it, the same as we do to that of things in general. 96 We must perceive by our senses, before we can reflect with the mind. 97 Our sensorium is that essential medium between the divine and human mind, through which God reveals to human the knowledge of

Nature, and is our only door of correspondence with God or with human.

98 A premised revelation, adapted to our external senses, would enable our mental powers to reflect upon, examine into, and understand it. 99 Always provided nevertheless, that the subject matter of such revelation, or that of the doctrines, precepts or injunctions therein contained, do not exceed our reason, but are adapted to it as well as to our external senses. 100 To suppose that God, merely from His omnipotence, without the intervention of some adequate intermediate cause could make use of sound, or grammatical and logical language, or of writing, so as to correspond with us, 101 or to reveal any thing to us, would run into the same sort of absurdity, which we have already confuted; 102 for it is the same as to suppose an effect without a suitable or a proportionable cause, or an effect without a cause; 103 whereas, effects must have adequate causes or they could not be produced. 104 God is the self-existent and eternal cause of all things, but the eternal cause can no otherwise operate on the eternal succession of causes and effects, but by the mutual operation of those causes on each other, according to the fixed Laws of Nature. 105 For as we have frequently observed before that of all possible systems, infinite wisdom comprehended the best; and infinite goodness and power must have adopted and perfected it; 106 and being once established into an ordinance of Nature, it could not be deviated from by God: 107 for that it would necessarily imply a manifest imperfection in God, either in its eternal establishment, or in its premised subsequent alteration, which will be more particularly considered in the next chapter.

108 To suppose that Almighty power could produce a voice, language, grammar, or logic, so as to communicate a revelation to us, without some sort of organic or instrumentated machine 109 or intermediate vehicle, or adequate constituted external cause, would imply a contradiction to the order of Nature and consequently to the perfection of God, who established it; 110 therefore, provided God has

ever given us any particular revelation, we must suppose, that He has made use of a regular and natural constituted and mediate cause, 111 comprehended in the external order of Nature, rightly fitted and abilitated to make use of the vocal power of language, which comprises that of characters, orthography, grammar and logic, 112 all which must have been made use of, in communicating a supposed revelation to humankind, which forecloses inspiration.

113 Furthermore, this heavenly dictating voice should have been accommodated to all languages, grammars and logical ways of speaking, in which a revelation may have been divulged, 114 as it would be needful to have been continued from the beginning to every receiver, compiler, translator, printer, commentator on and teacher of such revelation, 115 in order to have informed humankind in every instance, wherein at any time they may have been imposed upon by any spurious adulterations or interpolations, and how it was in the original. 116 These, with the refinements of languages and translations, are a summary of the many ways, wherein we may have been deceived by giving credit to antiquated written revelation, 117 which would need a series of miracles to promulgate and perpetuate it in the world free from mistakes and frauds of one kind or other.

OF MIRACLES

Ethan Allen

SECTION I

6 Previous to the arguments concerning miracles, it is requisite that we give a definition of them, that the arguments may be clearly opposed to the doctrine of miracles, the reality of which we mean to negative; 2 so that we do not dispute about matters in which we are all agreed, but that we may direct our speculations to the subject matter or essence of the controversy. 3 We will therefore premise, that miracles are opposed to, and counteract the Laws of Nature, 4 or that they imply an absolute alteration in either a greater or less degree, the eternal

order, disposition and tendency of it; 5 this, we conclude, is a just definition of miraculousness, and is that for which the advocates for miracles contend, in their defining of miracles. 6 For if they were supposed to make no alteration in the natural order of things, they could have no positive existence, but the Laws of Nature would produce their effects, which would preclude their reality, and render them altogether fictitious, 7 inasmuch as their very existence is premised to consist in their opposition to, and alteration of the Laws of Nature: so that if this is not effected, miracles can have no positive existence, any more than nonentity itself; 8 therefore, if in the course of the succeeding arguments, we should evince that the Laws of Nature have not and cannot be perverted, altered or suspended, it will foreclose miracles by making all things natural.

9 Having thus defined miracles, and stated the dispute, we proceed to the arguments. Should there ever have been a miraculous suspension and alteration of the Laws of Nature, God must have been the immediate author of it, 10 as no finite beings may be supposed to be able to alter those laws or regulations, which were established by omnipotent power and infinite perfection, and which nothing short of such power and perfection can perpetuate. 11 This then is the single point at issue, viz: whether God has, or can, consistent with His nature as God, in any instance whatever, alter or deviate from the laws, with which He has eternally impressed the universe, or not.

12 To suppose that God should subvert His laws, (which is the same as changing them) would be to suppose Him to be mutable; 13 for that it would necessarily imply, either that their eternal establishment was imperfect, or that a premised alteration thereof is so. 14 To alter or change that which is absolutely perfect, would necessarily make it cease to be perfect, inasmuch as perfection could not be altered for the better, but for the worse, and consequently an alteration could not meet with the divine approbation; 15 which terminates the issue of the matter in question

against miracles, and authorises us to deduce the following conclusive inference, to wit: 16 that Almighty God, having eternally impressed the universe with a certain system of laws, for the same eternal reason that they were infinitely perfect and best, 17 they could never admit of the least alteration, but are as unchangeable, in their nature, as God their immutable author.

18 To form the foregoing argument into syllogisms, it would be thus:-- God is perfect-- the Laws of Nature were established by God; therefore, the Laws of Nature are perfect. 19 But admitting miracles, the syllogism should be thus:-- The Laws of Nature were in their eternal establishment perfect;-- the Laws of Nature have been altered; therefore, the alteration of the Laws of Nature is imperfect. 20 Or thus: the Laws of Nature have been altered;-- the alteration has been for the better; therefore, the eternal establishment thereof was imperfect. 21 Thus it appears, from a syllogistical as well as other methods of reasoning, that provided we admit of miracles, which are synonymous to the alterations of Nature, 22 we by so doing derogate from the perfection of God, either in His eternal constitution of Nature, or in a supposed subsequent miraculous alteration of it, so that take the argument either way, and it preponderates against miracles.

23 Furthermore, was it possible, that the eternal order of Nature should have been imperfect, there would be an end to all perfection. 24 For God might be as imperfect in any supposed miraculous works, as in those of Nature; nor could we ever have any security under His natural or moral government, if they were liable to change; 25 for mutability is but another term for imperfection, or is inseparably connected with it.

26 God, the great architect of Nature, has so constructed its machinery, that it never needs to be altered or rectified. 27 In vain* we endeavour to search out the hidden mystery of a perpetual motion, in order to copy Nature, for after all our researches we must be contented with such mechanism as will run down, and need rectification again; 28 but the machine of the universe admits of

no rectification, but continues its never ceasing operations, under the unerring guidance of the providence of God. 29 Human architects make and unmake things, and alter them as their invention may dictate, and experience may determine to be most convenient and best. 30 But that mind, which is infinitely perfect, gains nothing by experience, but surveys the immense universality of things, with all their possible relations, fitnesses and unfitnesses, of both a natural or moral kind, with one comprehensive view.

A SUCCESSION OF KNOWLEDGE, OR OF THE EXERTION OF POWER... IN GOD, INCOMPATIBLE WITH HIS OMNISCIENCE OR OMNIPOTENCE, AND THE ETERNAL AND INFINITE DISPLAY OF DIVINE POWER FORECLOSES ANY SUBSEQUENT EXERTION OF IT MIRACULOUSLY

SECTION II

31 That creation is as eternal and infinite as God, has been argued (in chapter-2); 32 and that there could be no succession in creation, or the exertion of the power of God, in perfecting the boundless work, and in impressing the universe with harmonious laws, perfectly well adapted to their design, use and end.

33 First. These arguments may be further illustrated, and the evidence of the being of a God more fully exhibited, from the following considerations, to wit: 34 dependent beings and existences must be dependent on some being or cause that is independent, for dependent beings, or existences, could not exist independently; 35 and, inasmuch as by retrospectively tracing the order of the succession of causes, we cannot include in our numeration the independent cause, 36 as the several successive causes still depend on their preceding cause, and that preceding cause on the cause preceding it, and so on beyond numerical calculations, 37 we are therefore obliged (as rational beings) to admit an independent cause of all things, for that a mere succession of dependent causes cannot constitute an independent cause; 38 and from hence we are obliged to admit a self-existent and sufficient cause of all things, for otherwise it

would be dependent and insufficient to have given existence to itself, or to have been the efficient cause of all things.

39 Having thus established the doctrine of a self-sufficient, self-existent, and consequently all-powerful cause of all things, we ascribe an eternal existence to this cause of all causes and effects, whom we call God. 40 And, inasmuch, as from the works of Nature it is manifest, that God is possessed of almighty power, we from hence infer His eternal existence. 41 Since His premised existence at (and not before) any given era, would be a conclusive objection to the omnipotency of His power, that He had not existed before, or eternally. 42 For as God is a being self-sufficient, self-existent, and almighty, (as before argued) His power must apply to His own existence as well as to the existence of things in general, 43 and therefore, if He did not eternally exist, it must be because He had not the almighty power of existence in Himself, and if so, He never could have existed at all; so that God must have eternally existed or not have existed at all; 44 and inasmuch as the works of Nature evince His positive existence, and as He could not be dependent on the power, will, or pleasure of any other being but Himself for His existence, 45 and as an existence, in time would be a contradiction to His almighty power of self-existency, that He had not eternally existed; therefore, His existence must have been (in truth) eternal.

46 Although it is to us incomprehensible that any being could be self-existent or eternal (which is synonymous,) yet we can comprehend, that any being that is not self-existent and eternal and dependent and finite, and consequently not a God. 47 Hence we infer, that though we cannot comprehend the true God (by reason of our own finiteness,) yet we can negatively comprehend that an imperfect being cannot be God. 48 A dependent being is finite, and therefore imperfect, and consequently not a God. 49 A being that has existed at a certain era (and not before) is a limited one, for beyond your era you was not, and therefore finite, and consequently not a God.

50 Therefore, that being only who is self-existent, infinitely perfect and eternal, is the true God: 51 and if eternally and infinitely perfect, there must have been an eternal and infinite display, and if an eternal and infinite display, it could be nothing short of an eternal and infinite creation and providence.

52 As to the existence of a God, previous to Moses's era of the first day's work, he does not inform us. 53 The first notice he gives us of a God was of his labourious working by the day, a theory of creation (as I should think) better calculated for the servile Israelitish Brick-makers, than for people of learning and science in these modern times.

RARE AND WONDERFUL PHENOMENA NO EVIDENCE OF MIRACLES...
NOR ARE DIABOLICAL SPIRITS ABLE TO EFFECT THEM, OR SUPERSTITIOUS TRADITIONS TO CONFIRM THEM, NOR CAN ANCIENT MIRACLES PROVE RECENT REVELATIONS

SECTION III

54 Comets, earthquakes, volcanoes, and northern lights (in the night,) with many other extraordinary phenomena or appearances intimidate weak minds, 55 and are by them thought to be miraculous, although they undoubtedly have their proper natural causes, which have been in a great measure discovered. 56 Jack-with-a-lantern is a frightful appearance to some people, but not so much as the imaginary spectre. 57 But of all the scarecrows which have made human nature tremble, the devil has been chief; his family is said to be very numerous, consisting of "legions," with which he has kept our world in a terrible uproar. 58 To tell of all the feats and diabolical tricks, which this infernal family is said to have played upon our race, would compose a volume of an enormous size. 59 All the magicians, necromancers, wizards, witches, conjurors, gypsies, sybils, hobgoblins, apparitions and the like, are supposed to be under their diabolical government: old Belzebub rules them all. 60 People will face destructive cannon and mortars, engage each other in the clashing of arms, and meet the

horrors of war undaunted, 61 but the devil and own banditti of fiends and emissaries fright them out of their wits, and have a powerful influence in plunging them into superstition, and also in continuing them therein.

62 This supposed intercourse between humankind and those infernal beings, is by some thought to be miraculous or supernatural; 63 while others laugh at all the stories of their existence, concluding them to be mere juggle and deception, craftily imposed on the credulous, who are always gaping after something marvellous, miraculous, or supernatural, or after that which they do not understand: 64 and are awkward and unskillful in their examination into Nature, or into the truth or reality of things, which is occasioned partly by natural imbecility, and partly by indolence and inattention to Nature and reason.

65 That any magical intercourse or correspondence of mere spirits with humankind, is contradictory to Nature, and consequently impossible. 66 And that nothing short of the omnipotent power of God, countermanding His eternal order of Nature, and impressing it with new and contrary law, can constitute a miracle has been argued in this, and is an effect surpassing the power of mere creatures, the diabolical nature not excepted. 67 From hence we infer, that devils cannot work miracles. 68 Inattention to reason, and ignorance of the nature of things makes many of humankind give credit to miracles. 69 It seems that by this marvellous way of accounting for things, they think to come off with reputation in their ignorance; 70 for if Nature was nothing but a supernatural whirligig, or an inconstant and irregular piece of mechanism, it would reduce all learning and science to a level with the fanaticism and superstition of the weak and credulous, 71 and put the wise and unwise on a level in point of knowledge, as there would not, on this thesis, be any regular standard in Nature, whereby to ascertain the truth and reality of things. 72 What is called sleight-of-hand, is by some people thought to be miraculous. 73 Astrological calculations of

nativities, lucky and unlucky days and seasons, are by some, regarded, and even moles on the surface of the skin are thought to be portentive of good or bad fortune.

74 "The Swedish Laplanders, the most ignorant mortals in Europe," are "charged with being conjurors, and are said to have done such feats, by the magic art, as do not at all fall far short of miracles; 75 that they will give the sailors such winds as they want in any part of their voyage; that they can inflict and cure diseases at any distance; and insure people of success in their undertakings; 76 and yet they are just such poor miserable wretches as used to be charged with witchcraft here," viz: in England and in New England, "and cannot command so much as the necessaries of life: 77 and indeed, none but very credulous and ignorant people give credit to such fables at this day, though the whole world seems to have been bewitched in believing them formerly."

78 "The 24th of March, 1735, an Act passed in the Parliament of Great Britain to repeal the statute of I 'Jac's', entitled an act against conjuration, witchcraft, and dealing with evil and wicked spirits, and to repeal an act in Scotland entitled Amentis Witchcraft." 79 It is but forty-six years since the supreme legislature became apprized of the natural impossibility of any magical intercourse between humankind and evil and wicked spirits; 80 in consequence whereof they repealed their statute laws against it, as they were naturally void, unnecessary, and unworthy of their legislative restriction. 81 For that such a crime had no possible existence in Nature, and therefore could not be acted by humankind; 82 though previous to the repeal of those laws, more or less of that island had fallen a sacrifice to them; 83 and the relations of those imaginary criminals were stamped with infamy by such executions, which had the sanction of law, alias of the legislature and the judges, 84 and in which many learned attorneys have demonstrated the turpitude of such capital offences, and the just sanction of those laws in extirpating such pests of society

from the earth; 85 to which the clergy have likewise given their approbation, for that those capital transgressors made too free with their devils.

86 Furthermore, the repeal of those laws, as far as the wisdom and authority of the British Parliament may be supposed to go, abrogated that command of the law of Moses, which saith, "Thou shalt not suffer a witch to live," 87 and not only so, but the doctrine of the impossibility of intercourse, or of dealing with wicked spirits, forecloses the supposed miraculous casting out of devils, of which we have sundry chronicles in the New Testament.

88 But to return to the annals of my own country, it will present us with a scene of superstition in the magical way, which will probably equal any that is to be met with in history, to wit: 89 the Salem witchcraft in New England; great numbers of the inhabitants of both sexes were judicially convicted of being wizards and witches, and executed accordingly; 90 some of whom were so infatuated with the delusion, that at their execution they confessed themselves guilty of the sorcery for which they were indicted; 91 nor did the fanaticism meet with a check until some of the first families were accused with it, who made such an opposition to the prosecutions, as finally to put an end to any further execution of the Salemites. 92 Those capital offenders suffered in consequence of certain laws, which, by way of derision, have since been called the 'Blue Laws', in consequence of the multiplicity of superstition, with which they abounded, most of which are repealed; 93 but those that respect sorcery have had favourite legislators enough to keep them alive and in force to this day.

94 I recollect an account of prodigies said to have been carried on by the Romish Clergy in France, upon which his most Christian Majesty sent one of his officers to them with the following prohibition, to wit: 95 "by the command of the king, God is forbid to work any more miracles in this place;" upon which the marvellous work ceased. 96 There has been so much detection of the artifice, juggle and imposture of the pretenders to miracles, in the

world, especially in such parts where learning and science have prevailed, 97 that it should prompt us to be very suspicious of the reality of them, even without entering into any lengthy arguments from the reason and nature of things to evince the utter impossibility of their existence in the creation and providence of God.

98 We are told, that the first occasion and introduction of miracles into the world, was to prove the divine authority of revelation, and the mission of its first teachers; be it so. 99 Upon this plan of evincing the divinity of revelation, it would be necessary that its teachers should always be vested with the power of working miracles; 100 so that when their authority or the infallibility of the revelation which they should teach, should at any time be questioned, they might work a miracle; or that in such a case God would do it; 101 which would end the dispute, provided humankind were supposed to be judges of miracles, which may be controverted. 102 However, admitting that they are possible, and humankind in the several generations of the world to be adequate judges of them, and also, that they were necessary to support the divine mission of the first promulgators of revelation, and the divinity which they taught; 103 from the same parity of reasoning, miracles ought to be continued to the succeeding generations of humankind, co-extensive with its divine authority, or that of its teachers. 104 For why should we in this age of the world be under obligation to believe the infallibility of revelation, or the heavenly mission of its teachers, upon less evidence than those of humankind who lived in the generations before us? 105 For that which may be supposed to be a rational evidence, and worthy to gain the belief and assent of humankind at one period of time, must be so at another; 106 so that it appears, from the sequel of the arguments on this subject, that provided miracles were requisite to establish the divine authority of revelation originally, 107 it is equally requisite that they be continued to the latest posterity, to whom the divine legislator may be

supposed to continue such revelation as His law to humankind.

108 Nothing is more evident to the understanding part of humankind, than that in those parts of the world where learning and science has prevailed, miracles have ceased; 109 but in such parts of it as are barbarous and ignorant, miracles are still in vogue; 110 which is of itself a strong presumption that in the infancy of letters, learning and science, or in the world's non-age, those who confided in miracles, as a proof of the divine mission of the first promulgators of revelation, were imposed upon by fictitious appearances instead of miracles.

111 Furthermore, the author of Christianity warns us against the impositions of false teachers, and ascribes the signs of the true believers, 112 saying, "And, these signs shall follow them that believe, in my name shall they cast out devils, they shall speak with new tongues, they shall take up serpents, and if they drink any deadly thing it shall not hurt them, they shall lay hands on the sick and they shall recover." 113 These are the express words of the founder of Christianity, and are contained in the very commission, which he gave to his eleven Apostles, who were to promulgate his gospel in the world; 114 so that from their very institution it appears that when the miraculous signs, therein spoken of, failed, they were considered as unbelievers, and consequently no faith or trust to be any longer reposed in them or their successors. 115 For these signs were those which were to perpetuate their mission, and were to be continued as the only evidences of the validity and authenticity of it, 116 and as long as these signs followed, humankind could not be deceived in adhering to the doctrines which the Apostles and their successors taught; but when these signs failed, their divine authority ended.

117 Now if any of them will drink a dose of deadly poison, which I could prepare, and it does not "hurt them," I will subscribe to their divine authority, and end the dispute; 118 not that I have a disposition to poison anyone, nor

do I suppose that they would dare to take such a dose as I could prepare for them, which, if so, would evince that they were unbelievers themselves, 119 though they are extremely apt to censure others for unbelief, which according to their scheme is a damnable sin.

PRAYER CANNOT BE ATTENDED WITH MIRACULOUS CONSEQUENCES

SECTION IV

120 Prayer to God is no part of a rational religion, nor did reason ever dictate it; but, was it duly attended to, it would teach us the contrary. 121 To make known our wants to God by prayer, or to communicate any intelligence concerning ourselves or the universe to Him, is impossible, 122 since His omniscient mind has a perfect knowledge of all things, and therefore is beholden to none of our correspondency to inform Himself of our circumstances, 123 or of what would be wisest and best to do for us in all possible conditions and modes of existence, in our never ending duration of being. 124 These, with the infinitude of things, have been eternally deliberated by the omniscient mind, who can admit of no additional intelligence, whether by prayer or otherwise, which renders it nugatory.

125 We ought to act up to the dignity of our nature, and demean ourselves, as creatures of our rank and capacity, and not presume to dictate any thing, less or more, to the governor of the universe; who rules not by our proscriptions, but by eternal and infinite reason. 126 To pray to God, or to make supplication to Him, requesting certain favours for ourselves, or from any, or all the species, is inconsistent with the relation which subsists between God and human. 127 Whoever has a just sense of the absolute perfection of God, and of their own imperfection, and natural subjection to His providence, cannot but from thence infer the impropriety of praying or supplicating to God, for this, that, or the other thing; 128 or of remonstrating against His providence: inasmuch, as "known to God are all our wants;" and as

we know, that we ourselves are inadequate judges of what would be best for us, all things considered. 129 God looks through the immensity of things, and understands the harmony, moral beauty and decorum of the whole, and will by no means change His purposes, or alter the nature of the things themselves for any of our entreaties or threats.

130 To pray, entreat, or make supplication to God, is neither more nor less than dictating to eternal reason, and entering into the province and prerogative of the Almighty; 131 if this is not the meaning and import of prayer, it has none at all, that extends to the final events and consequences of things. 132 To pray to God with a sense, that the prayer we are making will not be granted any more for our making it, 133 or that our prayer will make no alteration in the state, order or disposal of things at all, 134 or that the requests, which we make, will be no more likely to be granted, or the things themselves conferred upon us by God, than as though we had not prayed for them, 135 would be stupidity or outright mockery, or "to be seen of humans," in order to procure from them some temporary advantages. 136 But on the other hand for us to suppose, that our prayers or praises do in any one instance or more alter the eternal constitution of things, or of the providence of God, is the same as to suppose ourselves so far forth to hold a share in the divine government, 137 for our prayers must be supposed to effect something or nothing, if they effect nothing they are good for nothing; 138 but that they should effect any alteration in the nature of things, or providence of God, is inadmissible: 139 for if they did, we should interfere with the providence of God in a certain degree, by arrogating it to ourselves. 140 For if there are any particulars in providence, which God does not govern by His order of Nature, they do not belong to the providence of God, but of human; 141 for if in any instance, God is moved by the prayers, entreaties, or supplications of His creatures, to alter His providence, or to do that in conformity thereto, which otherwise, in the course of His providence, He would not

have done; 142 then it would necessarily follow, that as far as such alteration may be supposed to take place, God does not govern by eternal and infinite reason, but on the contrary is governed Himself by the prayer of human.

143 Our great proficients in prayer must need think themselves to be of great importance in the scale of being, otherwise they would not indulge themselves in the notion, that the God of Nature would subvert His laws, or bend His providence in conformity to their prayers. 144 But it may be objected, that they pray conditionally, to wit: that God would answer their prayers, provided they are agreeable to His providential order or disposal of things; 145 but to consider prayer in such a sense renders it, not only useless, but impertinent; for the Laws of Nature would produce their natural effects as well without it, 146 as with it The sum total of such conditional prayer could amount to no more than this, viz: that God would not regard them at all, but that he would conduct the kingdom of His providence agreeable to the absolute perfections of His nature; 147 and who in the exercise of common sense would imagine that God would do otherwise?

148 The nature of the immense universality of things having been eternally adjusted, constituted and settled, by the profound thought, perfect wisdom, impartial justice, immense goodness, and omnipotent power of God, it is the greatest arrogance in us to attempt an alteration thereof. 149 If we demean ourselves worthy of a rational happiness, the laws of the moral system, already established, will afford it to us; 150 and as to physical evils, prudent economy may make them tolerable, or ward most of them off for a season, though they will unavoidably bring about the separation of a soul and body, and terminate with animal life, whether we pray for or against it.

151 To pray for any thing, which we can obtain by the due application of our natural powers, and neglect the means of procuring it, is impertinence and laziness in the abstract; 152 and to pray for that which God in the course of His providence, has put out of our

power to obtain, is only murmuring against God, and finding fault with His providence, or acting the inconsiderate part of a child; 153 for example, to pray for more wisdom, understanding, grace or faith; for a more robust constitution-- handsomer figure, or more of a gigantic size, would be the same as telling God, that we are dissatisfied with our inferiority in the order of being; 154 that neither our souls nor bodies suit us; that He has been too sparing of His beneficence; that we want more wisdom, and organs better fitted for show, agility and superiority. 155 But we ought to consider, that "'we cannot add one cubit to our stature'," or alter the construction of our organic frame; 156 and that our mental talents are finite; and that in a vast variety of proportions and disproportions, as our Heavenly Father in His order of Nature, and scale of being saw fit; 157 who has nevertheless for the encouragement of intelligent nature ordained, that it shall be capable of improvement, and consequently of enlargement; 158 therefore, "'whosoever lacketh wisdom'" instead of "'asking it of God'," let you improve what you have, that you may enlarge the original stock; this is all the possible way of gaining in wisdom and knowledge, a competency of which will regulate our faith. 159 But it is too common for great faith and little knowledge to unite in the same person; such persons are beyond the reach of argument and their faith immovable, though it cannot remove mountains. 160 The only way to procure food, raiment, or the necessaries or conveniences of life, is by natural means; we do not get them by wishing or praying for, but by actual exertion; 161 and the only way to obtain virtue or morality is to practice and habituate ourselves to it, and not to pray to God for it: 162 God has naturally furnished us with talents or faculties suitable for the exercise and enjoyment of religion, and it is our business to improve them aright, or we must suffer the consequences of it. 163 We should conform ourselves to reason, the path of moral rectitude, and in so doing, we cannot fail of recommending ourselves to God, and to our own consciences. 164 This is all the religion which

reason knows or can ever approve of.

165 Moses, the celebrated prophet and legislator of the Israelites, ingratiated himself into their esteem, by the stratagem of prayer, and pretended intimacy with God; 166 he acquaints us, that he was once admitted to a sight of His back-parts! and that "'no human can see" His "face and live';" and at other times we are told that he "'talked with God, face to face, as a person talketh with own friend';" 167 and also that at times God waxed, wroth with Israel, and how Moses prayed for them; and at other times, that he ordered Aaron to offer sweet incense to God, which 'appeased His wrath', and prevented His destroying Israel in His 'hot displeasure!' 168 These are the footsteps, by which we may trace sacerdotal dominion to its source, and explore its progress in the world. "'And the Lord said unto Moses, how long will this people provoke me?

169 I will smite them with the pestilence, and disinherit them, and I will make of thee a great nation, and mightier than they'," but Moses advertises God of the injury, which so rash a procedure would do to his character among the nations; 170 and also reminds Him of His promise to Israel, saying, "'Now if thou shall kill all these people as one human, then the nations, which have heard the fame of thee will speak, 171 saying, because the Lord was not able to bring these people into the land, which He swear unto them, therefore He hath slain them in the wilderness'."

172 That Moses should thus advise the omniscient God, of dishonourable consequences which would attend a breach of promise, which he tells us, that God was unadvisedly about to make with the tribes of Israel, had not his remonstrance prevented it, is very extraordinary and repugnant to reason; 173 yet to an eye of faith it would exalt the man Moses, "and make him very great;" 174 for if we may credit his history of the matter, he not only averted God's judgment against Israel, and prevented them from being cut off as a nation, but by the same prayer procured for them a pardon of their sin. 175 "'Pardon, I beseech thee, the iniquity of

these people'," and in the next verse follows the answer, "'and the Lord said I have pardoned according to thy word'." 176 It seems that God had the power, but Moses had the dictation of it, and saved Israel from the wrath and pestilential fury of a jealous God; and that he procured them a pardon of their sin, "'for the Lord thy God is a jealous God'."

177 Jealousy can have no existence in that mind, which possesses perfect knowledge, 178 and consequently cannot, without the greatest impropriety, he ascribed to God, who knows all things, and needed none of the admonitions, advice or intelligence of Moses, or any of his dictatorial prayers. 179 "'And the Lard hearkened unto me at that time also';" intimating that it was a common thing for Him to do the like.

180 When teachers can once make the people believe that God answers their prayers, and that their eternal interest is dependent on them, they soon raise themselves to opulency, rule and high sounding titles; 181 as that of 'His Holiness-- the Reverend Father in God-- The Holy Poker-- Bishop of Souls'-- and a variety of other such like appellations, derogatory to the honour or just prerogative of God; 182 as is Joshua's history concerning the Lord's hearkening unto him at the battle of the Amorites, wherein he informs us, that he ordered the sun to stand still, 183 saying, "'Sun stand thou still upon Gidaen, and thou Moon in the valley of Ajalon, so the Sun stood still and the Moon stayed until the people had avenged themselves upon their enemies;" 184 so the Sun stood still in the midst of Heaven, "and hasted not to go down about a whole day;'" and then adds, by way of supremacy to Himself above all others, 185 and in direct contradiction to the before recited passages of Moses concerning the Lord's hearkening unto him, or to any other human but himself, saying, "'And there was no day like that before it, or after it, that the Lord hearkened unto the voice of a human'."

186 There is not any thing more evident than that if the representation given by Joshua, as matter of fact, is true, those exhibited by Moses concerning the

Lord's hearkening unto him are not: 187 though the representations of fact by Moses and by Joshua, are allowed to be both canonical, yet it is impossible that both can be true. 188 However, astronomy being but little understood in the age in which Joshua lived, and the earth being in his days thought to be at rest, and the sun to revolve round it, makes it in no way strange, that he caught himself by ordering the sun to stand still, 189 which having since been discovered to have been the original fixed position of that luminous body, eclipses the miraculous interposition of Joshua. 190 Furthermore, if we but reflect that on that very day Israel vanquished the Amorites with a great slaughter, "'and chased them along the way that goeth to Bethoron, and smote them to Azekah, and unto Makkedah'," 191 in so great a hurry of war, clashing of arms, exasperation and elevation of mind, in consequence of such triumphant victory, they could make but a partial observation on the length of the day; 192 and being greatly elated with such an extraordinary day's work, Joshua took the advantage of it, and told them that it was an uncommon day for duration; 193 that he had interposed in the system and prescribed to the sun to stand still about a whole day; and that they had two days' time to accomplish those great feats. 194 The belief of such a miraculous event to have taken place in the solar system, in consequence of the influence which Joshua insinuated that he had with God, would most effectually establish his authority among the people; 195 for if God would hearken to his voice well might human. 196 This is the cause why the bulk of humankind in all ages and countries of the world, have been so much infatuated by their ghostly teachers, whom they have ever, imagined to have had a special influence with God Almighty.

THE VAGUENESS AND UNINTELLIGIBLENESS OF THE PROPHECIES... RENDER THEM INCAPABLE OF PROVING REVELATION

Ethan Allen

SECTION I

7 Prophecy is by some thought to be miraculous, and by others to be supernatural, and there are others, who indulge themselves in an opinion, that they amount to no more than mere political conjectures. 2 Some nations have feigned an intercourse with good spirits by the art of divination; and others with evil ones by the art of magic; and most nations have pretended to an intercourse with the world of spirits both ways.

3 The Romans trusted much to their sibylline oracles and soothsayers; the Babylonians to their magicians and astrologers; the Egyptians and Persians to their magicians; and the Jews to their seers or prophets; 4 and all nations and individuals, discover an anxiety for an intercourse with the world of spirits; which lays a foundation for artful and designing people, to impose upon them. 5 But if the foregoing arguments in chapter sixth, respecting the natural impossibility of an intercourse of any unbodied or imperceptible mental beings with humankind, are true, then the foretelling of future events can amount to nothing more. than political illusion. 6 For prophecy as well as all other sorts of prognostication must be super-naturally inspired, or it could be no more than judging of future events from mere probability or guess-work, 7 as the astronomers ingenuously confess in their calculations, by saying: "Judgment of the weather," So also respecting astrology, provided there is any such thing as futurity to be learned from it, it would be altogether a natural discovery; 8 for neither astronomy nor astrology claim anything of a miraculous or supernatural kind, but their calculations are meant to be predicated on the order and course of Nature, 9 with which our senses are conversant, and with which inspiration or the mere cooperation of spirits is not intended to act as part.

10 So also concerning prophecy, if it be considered to be merely

natural, (we will not at present dispute whether it is true or false) upon this position it stands on the footing of probability or mere conjecture and uncertainty. 11 But as to the doctrine of any supernatural agency of the divine mind on ours, which is commonly called inspiration, it has been sufficiently confuted in chapter sixth; 12 which arguments need not be repeated, nor does it concern my system to settle the question, whether prophecy should be denominated miraculous or supernatural, inasmuch as both these doctrines have been confuted; 13 though it is my opinion, that were we to trace the notion of supernatural to its source, it would finally terminate in that which is denominated miraculous; 14 for that which is above or beyond Nature, if it has any positive existence, must be miraculous.

15 The writings of the prophets are most generally so loose, vague and indeterminate in their meaning, or in the grammar of their present translation, that the prophecies will as well answer to events in one period of time, as in another; 16 and are equally applicable to a variety of events, which have and are still taking place in the world, 17 and are liable to so many different interpretations, that they are incapable of being understood or explained, except upon arbitrary principles, and therefore cannot be admitted as a proof of revelation; as for instance, "it shall come to pass in the last days, saith God." 18 Who can understand the accomplishment of the prophecies, that are expressed after this sort? For every day in its turn has been, and will in its succession be the last day; 19 and if we advert to the express words of the prophecy, to wit, "'the last days'," there will be an uncertain plurality "'of last days'," which must be understood to be short of a month, or a year; 20 or it should have been expressed thus, and it shall come to pass in the last months or years, instead of days: and if it had mentioned last years, it would be a just construction to suppose, that it included a less number of years than a century; 21 but as the prophecy mentions "'last days'" we are at a loss, which among the

plurality of them to assign for the fulfilling of the prophecy.

22 Furthermore, we cannot learn from the prophecy, in what month, year, or any other part of duration those last days belong; 23 so that we can never tell when such vague prophecies are to take place, they therefore remain the arbitrary prerogative of fanatics to prescribe their events in any age or period of time, when their distempered fancies may think most eligible: 24 there are other prophecies still more abstruse; to wit, "'And one said unto the man clothed in linen, which was upon the waters of the river, how long shall it be to the end of these wonders? 25 And I heard the man clothed in linen, which was upon the waters of the river, when he held up his right hand and his left hand unto Heaven, and sware by him that liveth forever, that it should be for an time, times and an half'." 26 The question, in the prophecy is asked "how long shall it be to the end of these wonders?" And the answer is given with the solemnity of an oath, "'it shall be for a time, times and a half'."

27 A time is an indefinite part of duration, and so are times, and the third description of time is as indefinite as either of the former descriptions of it; to wit, "and an half;" that is to say, half a time. 28 There is no certain term given in any or either of the three descriptions of the end of the wonders alluded to, whereby any or all of them together are capable of computation, as there is no certain period marked out to begin or end a calculation. 29 To compute an indefinite time in the single number or quantity of duration is impossible, and to compute an uncertain plurality of such indefinite times is equally perplexing and impracticable; 30 and lastly, to define half a time by any possible succession of its parts, is a contradiction, for half a time includes no time at all; 31 inasmuch as the smallest conception or possible moment or criterion of duration, is a time, or otherwise, by the addition of ever so many of those parts together, they would not prolong a period; 32 so that there is not, and cannot be such a part of time, as half a time, for be it supposed to be ever

so momentous, yet if includes any part of duration, it is a time, and not half a time. 33 Had the prophet said half a year, half a day, or half a minute, he would have spoken intelligibly; 34 but half a time has no existence at all, and consequently no period could ever possibly arrive in the succession or order of time, when there could be an end to the wonders alluded to; 35 and in this sense only, the prophecy is intelligible; to wit, that it will never come to pass.

36 The revelation of St. John the divine, involves the subject of time, if possible, in still greater inconsistencies, 37 viz: "'And to the woman was given two wings of a great eagle, that she might fly into the wilderness, into her place: Where she is nourished for a time, and times and half a time." 38 "And the angel which I saw stand upon the sea and upon the earth lifted up his hands to heaven, and sware by Him that liveth forever and ever, 39 who created heaven and the things that therein are, and the earth and the things that therein are, and the sea and the things which are therein, that there should be time no longer.'" 40 Had this tremendous oath been verified there could have been no farther disputations on the calculation of "'time and times and half a time'," (or about any thing else) 41 for its succession would have reached its last and final period at that important crisis when time should have been "no longer." 42 The solar system must have ceased its motions, from which we compute the succession of time, and the race of human would have been extinct; 43 for as long as they may be supposed to exist, time must of necessary consequence have existed also; 44 and since the course of Nature, including the generations of humankind, has been continued from the time of the positive denunciation of the angel to this day, we may safely conclude, that his interference in the system of Nature, was perfectly romantic.

45 The apostle Peter, at the first Christian pentecost, objecting to the accusation of their being drunk with new wine, explains the prophecy of the prophet Joel, who prophesied of the events which were to take place in the last days, as coming to pass at that early

period; 46 his words are handed down to us as follows: "'But this is that which is spoken by the prophet Joel, and it shall come to pass in the last days, saith God, 47 that I will pour out my spirit upon all flesh, and your sons and your daughters shall prophecy, and your young people shall see visions, and your old people shall dream dreams'." 48 The history of the out-pouring of the spirit at the Pentecost, admitting it to have been a fact, would have been very inadequate to the prophetical prediction, 49 viz: I will pour out my spirit upon all flesh; the most favourable construction is that the prophet meant human flesh, 'i. e.' all human flesh; 50 but instead of a universal effusion of the spirit, it appears to have been restricted to a select number, who were collected together at Jerusalem, and the concourse of spectators thought them to be delirious; 51 It may however be supposed, that St. Peter was a better judge of the accomplishment of the prophecy than I am: well then, admitting his application of the prophecy of the last days to take place at the first pentecost; 52 it being now more than seventeen hundred years ago, they consequently could not have been the last days.

53 Still a query arises, whether every of the prophecies, which were predicted to be fulfilled in the last days, must not have been accomplished at that time; 54 or whether any of the prophecies thus expressed are still to be completed by any events which may in future take place; or by any which have taken place since those last days called pentecost; 55 or whether any prophecy whatever can be fulfilled more than once; and if so, how many times; 56 or how is it possible for us, out of the vast variety of events (in which there is so great a similarity) which one in particular to ascribe to its right prediction among the numerous prophecies?

57 Furthermore, provided some of the prophecies should point out some particular events, which have since taken place, there might have been previous grounds of probability, that such or such events would in the ordinary course of things come to pass; 58 for instance, it is no ways extraordinary, that the prophet

Jeremiah should be able to predict that Nebuchadnezzar, king of Babylon, should take Jerusalem, when we consider the power of the Babylonish empire at that time, and the feebleness of the Jews. 59 "'The word, which came to Jeremiah from the Lord, when Nebuchadnezzar king of Babylon and all his army, and all the kingdoms of the earth of his dominion, and all the people fought against Jerusalem, and against all the cities thereof, 60 saying, thus saith the Lord the God of Israel, go and speak unto Zedekiah king of Judah, and tell him thus saith the Lord, behold, I will give this city of Jerusalem into the hand of the king of Babylon.'" 61 No politicians could at the time of the prediction be much at a loss respecting the fate of Jerusalem. 62 Nor would it be at all evidential to any candid and ingenious enquirer, that God had any manner of agency in fabricating the prophecies, 63 though, some of them should seem to decypher future events, as they might, to human appearance, turn out right, merely from accident or contingency. 64 It is very improbable, or rather incompatible with human nature, that the prophecy of Micah will ever come to pass, who predicts that "they," speaking of humankind, "'shall beat their swords into plough-shares, and their spears into pruning-hooks; 65 nation shall not lift up sword against nation, neither shall they learn war any more'." 66 Some of the prophecies are so apparently contradictory, that they contain their own confutation; 67 as for instance, the prophecy of Micaiah contained in the book of Chronicles, which probably is as absurd as any thing that is to be met with in story: 68 "And when he was come unto the king, the king said unto him, Micaiah, shall we go to Ramoth Gilead to battle, or shall I forbear? And he said go ye up and prosper, and they shall be delivered into your hand, 69 and the king said unto him, how many times shall I adjure thee, that thou shalt tell me nothing, but that which is true in the name of the Lord? Then he said I did see all Israel scattered upon the mountains, as sheep that have no shepherd, 70 and the Lord said, these have no master, let

them return, therefore, every human to his house in peace: and the king said unto Jehoshaphat, did not I tell thee, that he would prophecy no good concerning me, but evil?" 71 "Again he said, therefore, hear the word of the Lord-- I saw the Lord sitting upon his throne, and all the host of Heaven standing on his right hand and on his left, and the Lord said who shall entice Ahab, King of Israel, that he may go up and fall at Ramoth Gilead, 72 and one spake saying after this manner, and another saying after that manner; 73 then there came out a spirit and stood before the Lord, and said I will entice him, and the Lord said unto him wherewith? And he said I will go forth and be a lying spirit in the mouth of all his prophets, and the Lord said thou shalt entice him and thou shalt prevail; go out and do even so. 74 Now therefore, behold the Lord hath put a lying spirit in the mouth of these thy prophets and the Lord hath spoken evil against thee."

75 It is observable that the prophet at first predicted the prosperity of Ahab, saying, "go ye up and prosper, and they shall be delivered into your hand," but after a little adjurement by the king, he alters his prediction and prophecies diametrically the reverse. 76 What is more certain than that the event of the expedition against Ramoth Gilead must have comported with the one or the other of his prophecies? 77 Certain it was, that Ahab would take it or not take it, he must either prosper or not prosper, as there would be no third way or means between these two; 78 and it appears that the prophet was determined to be in the right of it by his prophecy both ways. 79 It further appears from his prophecy, that there was a great consultation in Heaven to entice Ahab King of Israel to his destruction, and that a certain lying spirit came and stood before the Lord, and proposed to him to go out and be a lying spirit in the mouth of the king's prophets. 80 But what is the most incredible is, that God should countenance it, and give him positive orders to falsify the truth to the other prophets. 81 It appears that Micaiah in his first prophecy, viz: "Go up to Ramoth Gilead and

prosper, and they shall be delivered into your hand," acted in concert with the lying spirit which stood before the Lord, 82 but afterwards acted the treacherous part by prophecying the truth, which, if we may credit his account, was in direct opposition to the scheme of Heaven.

THE CONTENTIONS WHICH SUBSISTED BETWEEN THE PROPHETS... RESPECTING THEIR VERACITY, AND THEIR INCONSISTENCIES WITH ONE ANOTHER, AND WITH THE NATURE OF THINGS, AND THEIR OMISSION IN TEACHING THE DOCTRINE OF IMMORTALITY, PRECLUDES THE DIVINITY OF THEIR PROPHECIES

SECTION II

83 Whoever examines the writings of the prophets will discover a spirit of strife and contention among them; 84 they would charge each other with fallacy and deception; disputations of this kind are plentifully interspersed through the writings of the prophets; 85 we will transcribe a few of those passages out of many: "Thus saith the Lord to the foolish prophets that follow their own spirit, and have found nothing, they have seen vanity and lying divination, saying the Lord saith, and the Lord hath, not sent them, and they have made others to hope that they would confirm the word." 86 And in another place, "I have not sent these prophets, yet they ran; I have not spoken unto them, yet they prophecy." 87 Again, "I have heard what the prophets said, that prophecy lies in my name, saying, I have dreamed, I have dreamed, yet they are the prophets of the deceit of their own hearts." 88 And again, "Yea, they are greedy dogs, which can never have enough, and they are shepherds that cannot understand; they all look to their own way, every one for his gain from his quarter." 89 It being the case that there was such a strife among the prophets to recommend themselves to the people, and every art and dissimulation having been practised by them to gain power and superiority, 90 all which artifice was to be judged of by the great vulgar, or in some instances by the political views of the Jewish Sanhedrim, 91 how could those who were contemporaries with the several prophets,

distinguish the premised true prophets from the false? 92 Much less, how can we, who live more than seventeen hundred years since the last of them, be able to distinguish them apart? 93 And yet, without the knowledge of this distinction, we cannot with propriety give credit to any of them, even admitting there were some true prophets among them. 94 Nor is it possible for us to know but that their very institution was merely a reach of policy of the Israelitish and Judaic governments, 95 the more easily, implicitly and effectually to keep their people in subordination, by inculcating a belief that they were ruled with special directions from heaven, which in fact originated from the Sanhedrim. 96 Many other nations have made use of much the same kind of policy.

97 In the 22d chapter of Genesis, we have a history of a very extraordinary command from God to Abraham, and of a very unnatural attempt of his to obey it. 98 "And it came to pass after these things that God did tempt Abraham, and he said unto him, Abraham, and he said behold here I am, and he said take now thy son Isaac, whom thou lovest, and get thee to the land of Moriah, and offer him there for a burnt offering upon one of the mountains which I will tell thee of;" 99 "And they came to the place which God had told him of, and Abraham built an altar there, and laid the wood in order, and bound Isaac his son, and laid him on the altar upon the wood; 100 and Abraham stretched forth his hand and took the knife to slay his son." Shocking attempt! Murder is allowed by humankind in general to be the most capital crime that is possible to be acted among humans; 101 it would therefore be incompatible with the divine Nature to have enjoined it by a positive command to Abraham to have killed his son; 102 a murder of all others the most unnatural and cruel and attended with the most aggravating circumstances, 103 not merely from a prescribed breach of the ties of parental affection, but from the consideration that the child was to be (if we may credit the command,) offered to God as a religious sacrifice. 104 What could have been a more complicated

wickedness than the obedience of this command would have been? And what can be more absurd than to suppose that it came from God? 105 It is argued, in vindication of the injunction to Abraham to kill his son, that it was merely for a trial of his obedience, and that God never designed to have him do it; to prevent which an angel from heaven called to him and gave him counter orders, not to slay his son; 106 but to suppose that God needed such an experiment, or any other, in order to know whether Abraham would be obedient to his commands, is utterly incompatible with his omniscience, who without public exhibitions understands all things; 107 so that had the injunction been in itself, fit and reasonable, and also from God, the compliance or non-compliance of Abraham thereto, could not have communicated any new idea to the divine mind.

108 Every part of the conduct of humankind is a trial of their obedience and is known to God, as well as the particular conduct of Abraham; 109 besides in the canonical writings, we read that "'God cannot be tempted with evil, neither tempteth He any human'. 110 " How then can it be, "'that God did tempt Abraham?'" a sort of employment which, in scripture, is commonly ascribed to the devil. 111 It is a very common thing to hear Abraham extolled for attempting to comply with the supposed command of sacrificing his son; 112 but it appears to me, that it had been wiser and more becoming the character of a virtuous man, for Abraham to have replied in answer to the injunction as follows, to wit, that it could not possibly have come from God; 113 who was the fountain of goodness and perfection, and unchangeable in His nature, who had endowed him with reason and understanding, whereby he knew his duty to God, his son, and to himself, better than to kill his only son, and offer him as a religious sacrifice to God, 114 for God would never have implanted in his mind such a strong affection towards Him, nor such a conscious sense of duty to provide for, protect and succor Him in all duties, 115 and to promote His happiness and well being, provided he had designed that he

should have laid violent hands on his life. 116 And inasmuch as the command was, in itself, morally speaking, unfit, and altogether unworthy of God, he presumed that it never originated from him, but from some inhuman, cruel and destructive being, who delighted in woe, and pungent grief; 117 for God could not have been the author of so base an injunction, nor could he be pleased with so inhuman and sinful a sacrifice.

118 Moses in his last chapter of Deuteronomy crowns his history with the particular account of his own death and burial. 119 "So Moses, the servant of the Lord, died there, in the land of Moab, according to the word of the Lord, and he buried him in a valley, in the land of Moab, over against Bethpeor, but no person knew of his sepulchre unto this day; 120 and Moses was an hundred and twenty years old when he died, his eyes were not dim, nor his natural force abated, and the children of Israel wept for Moses in the plains of Moab thirty days." 121 This is the only historian in the circle of my reading, who has ever given the public a particular account of his own death, and how old he was at that decisive period, 122 where he died, who buried him, and where he was buried, and withal of the number of days his friends and acquaintances mourned and wept for him. 123 I must confess I do not expect to be able to advise the public of the term of my life, nor the circumstances of my death and burial, nor of the days of the weeping or laughing of my survivors.

124 Part of the laws of Moses were arbitrary impositions upon the tribes of Israel, and have no foundation in the reason and fitness of things, 125 particularly that in which he inculcates punishing the children for the iniquities of the father; "visiting the iniquities of the fathers upon the children, and upon the children's children unto the third and fourth generation." 126 There is no reason to be given, why the iniquity of the father might not as well have involved the fifth, sixth and seventh generations, and so on to the latest posterity in guilt and punishment, as the first four generations; 127 for if it was possible, that the iniquity of the

father could be justly visited upon any of his posterity, who were not accomplices with him in the iniquity, or were not some way or other aiding or accessory in it, 128 then the iniquity might as justly be visited upon any one of the succeeding generations as upon another, or upon the generation of any indifferent person: 129 for arbitrary imputations of iniquity are equally absurd in all supposable cases; 130 so that if we once admit the possibility of visiting iniquity upon any others than the perpetrators, be they who they will, we overturn our natural and scientifical notions of a personal retribution of justice among humankind.

131 It is, in plain English, punishing the innocent for the sin of the guilty. But virtue or vice cannot be thus visited or imputed from the fathers to the unoffending children, or to children's children; 132 or which is the same thing, from the guilty to the innocent; for moral good or evil is mental and personal, which cannot be transferred, changed or altered from one person to another, 133 but is inherently connected with its respective personal actors, and constitutes a quality or habit, and is the merit or demerit of the respective agents or proficients in moral good or evil, and is by nature inalienable,

134 "The righteousness of the righteous shall be upon him, and the wickedness of the wicked shall be upon him." But as we shall have occasion to argue this matter at large in the twelfth chapter of this treatise, where we shall treat of the imputed sin of Adam to his posterity, and of imputative righteousness, 135 we will discuss the subject of imputation no farther in this place. However, the unjust practice of punishing the children for the iniquity of the father having been an ordinance of Moses, was more or less continued by the Israelites, as in the case of Achan and his children. 136 "And Joshua and all Israel with him took Achan the son of Zorah, and the silver and the garment, and the wedge of gold, and his sons, and his daughters, and his oxen, and his asses, and his sheep, and his tent, and all that he had, and brought them to the valley of Achor, 137 and all Israel stoned

him with stones, and burned them with fire, after they had stoned them with stones, and they raised over him a great heap of stones unto this day; so the Lord turned from the fierceness of His anger." 138 "'Fierce anger'" is incompatible with the divine perfection, nor is the cruel extirpation of the innocent family, and live stock of Achan, to be accounted for on principles of reason. 139 This flagrant injustice of punishing the children for the iniquity of the father had introduced a proverb in Israel, viz: "The fathers have eaten sour grapes and the children's teeth are set on edge."

140 But the prophet Ezekiel in the 18th chapter of his prophecies, has confuted Moses's statutes of visiting the iniquities of the father upon the children, and repealed them with the authority of thus saith the Lord, which was the manner of expression by which they were promulgated. 141 But the prophet Ezekiel did not repeal those statutes of Moses merely by the authority of thus saith the Lord, but over and above gives the reason for it, otherwise he could not have repealed them; 142 for Moses enacted them as he relates, from as high authority as Ezekiel could pretend to in nullifying them; so that had he not produced reason and argument, it would have been "thus saith the Lord," against "thus saith the Lord." 143 But Ezekiel reasons conclusively, viz: "The word of the Lord came unto me again, saying, what meat ye that ye use this proverb concerning the land of Israel, saying, the fathers have eaten sour grapes and the children's teeth are set on edge; 144 as I live, saith the Lord God, ye shall not have occasion any more to use this proverb in Israel. 145 Behold all souls are mine, as the soul of the father so also the soul of the son is mine; the soul that sinneth it shall die, the son shall not bear the iniquity of the father, neither shall the father bear the iniquity of the son, 146 the righteousness of the righteous shall be upon you, and the wickedness of the wicked shall be upon you, therefore, I will judge you, O house of Israel, every one according to their ways saith the Lord God." 147 It is observable, that the prophet ingeniously says, "Ye shall not

have occasion any more to use this proverb in Israel," implicitly acknowledging that the law of Moses had given occasion to that proverb, 148 nor was it possible to remove that proverb or grievance to which the Israelites were liable on account of visiting the iniquities of the fathers upon the children, but by the repeal of the statute of Moses in that case made and provided; which was effectually done by Ezekiel: 149 in consequence whereof the administration of justice became disencumbered of the embarrassments under which it had laboured for many centuries. 150 Thus it appears, that those laws, denominated the laws of God, are not infallible, but have their exceptions and may be dispensed with.

151 Under the dispensation of the law a breach of the Sabbath was a capital offence. "And while the children of Israel were in the wilderness, they found a man that gathered sticks on the Sabbath day, 152 and the Lord said unto Moses, the man shall surely be put to death, and all the congregation shall stone him with stones without the camp; 153 and all the congregation brought him without the camp and stoned him with stones, and he died, as the Lord commanded Moses." 154 The very institution of the Sabbath was in itself arbitrary, otherwise it would not have been changed from the last to the first day of the week. 155 For those ordinances which are predicated on the reason and fitness of things can never change: as that which is once morally fit, always remains so, and is immutable, 156 nor could the same crime, in justice, deserve death in Moses's time (as in the instance of the Israelite's gathering sticks), and but a pecuniary fine in ours; as in the instance of the breach of Sabbath in these times.

157 Furthermore, the order of Nature respecting day and night, or the succession of time, is such, as renders it impossible that any identical part of time, which constitutes one day, can do it to all the inhabitants of the globe at the same time, or in the same period. 158 Day is perpetually dawning, and night commencing to some or other of the inhabitants of the terraqueous ball without

intermission. 159 At the distance of fifteen degrees of longitude to the east of us, the day begins an hour sooner than it does with us here in Vermont, and with us an hour sooner than it does fifteen degrees to the westward, 160 and thus it continues in succession round the globe, and night as regularly revolving after it, succeeding each other in their alternate rounds; 161 so that when it is mid-day with us, it is mid-night with our species, denominated the Periaeci, who live under the same parallel of latitude with us, but under a directly opposite meridian; so likewise, when it is mid-day with them, it is mid-night with us. 162 Thus it appears that the same identical part of time, which composes our days, compose their nights, and while we are keeping Sunday, they are in their midnight dreams; 163 nor is it possible in Nature, that the same identical part of time, which makes the first day of the week with us, should make the first day of the week with the inhabitants on the opposite side of the globe.

164 The apostle James speaks candidly on this subject, saying, "Some esteem one day above another, others esteem every day alike, let every one be fully persuaded in own mind," and keep the laws of the land. 165 It was unfortunate for the Israelite who was accused of gathering sticks on the Israelitish Sabbath, that he was convicted of it; 166 for though by the law of his people he must have died, yet the act for which he suffered was no breach of the Law of Nature. 167 Supposing that very delinquent should come to this world again, and gather sticks on Saturday in this country, he might as an hireling receive his wages for it, without being exposed to a similar prosecution of that of Moses; 168 and provided he should gather sticks on our Sunday, his wages would atone for his crime instead of his life, since modern legislators have abated the rigour of the law for which he died.

169 The barbarous zeal of the prophet Samuel in hewing Agag to pieces after he was made prisoner by Saul, king of Israel, could not proceed from a good spirit, nor would such cruelty be permitted towards a prisoner in any civilised nation at this day. 170 "And Samuel hewed Agag to pieces

before the Lord in Gilgal." The unhumanly deed seems to be mentioned with a phiz of religion, viz: that it was done before the Lord; 171 but that cannot alter the nature of the act itself, for every act of humankind, whether good or evil, is done before the Lord, as much as Samuel's hewing Agag to pieces. 172 The orders which Samuel gave unto Saul, (as he says by the word of the Lord) to cut off the posterity of the Amalekites, and to destroy them utterly, together with the cause of God's displeasure with them, 173 are unworthy of God as may be seen at large in the 15th chapter of the Book of Samuel, "Spare them not, but slay both man and woman, infant and suckling, ox and sheep, camel and ass."

174 The ostensible reason for all this, was, because the ancestors of the Amalekites, as long before the days of Samuel as when the children of Israel came out of Egypt, which was near five hundred years, had ambushed and fought against Israel, in their passage from thence to the land which they afterwards inhabited. 175 Although it appears from the history of Moses and Joshua, that Israel was going to disposess them of their country, which is thought to be a sufficient cause of war in these days. 176 It is true they insinuate that the Lord had given the land to the children of Israel, yet it appears that they had to fight for it and get it by the hardest, notwithstanding, as is the case with nations in these days, and ever has been since the knowledge of history.

177 But be the old quarrel between Israel and Amalek as it will, it cannot on any principle be supposed, the successors of those Amalekites, in the days of Samuel, could be guilty of any premised transgressions of their predecessors. 178 The sanguinary laws of Moses did not admit of visiting the iniquities of the fathers upon the children in the line of succession, farther than to the fourth generation, 179 but the Amalekites against whom Samuel had denounced the wrath of God, by the hand of Saul, were at a much greater remove from those their progenitors, who were charged with the crime for which they were cut off as a nation.

180 Nor is it compatible with reason to suppose, that God ever directed either Moses or Joshua to extirpate the Canaanitish nations. "And we took all his cities at that time, and utterly destroyed the men and the women, and the little ones of every city, we left none to remain." 181 There is not more propriety in ascribing these cruelties to God, than those that were perpetrated by the Spaniards against the Mexican and Peruvian Indians or natives of America. 182 Every one who dares to exercise own reason, free from bias, will readily discern, that the inhumanities exercised towards the Canaanites and Amorites, Mexicans and Peruvians, were detestably wicked, and could not be approbated by God, or by rational and good humans. 183 Undoubtedly avarice and domination were the causes of those abounding cruelties, in which religion had as little to do as in the crusades of the holy land (so called.)

184 The writings of the prophets abound with prodigies, strange and unnatural events. 185 The walls of Jericho are represented to have fallen to the ground in consequence of a blast of ram's horns; 186 Balaam's ass to speak to his master, and the prophet Elijah is said to have been carried off bodily into heaven by a chariot, in a whirlwind. Strange stories!

187 But other scriptures tell us, "Flesh and blood cannot inherit the kingdom of God." 188 The history of the affront, which the little children of Bethel gave the prophet Elisha, his cursing them, and their destruction by the bears, has the appearance of a fable. 189 That Elisha should be so exasperated at the children for calling him 'bald head', and telling him to 'go up', was rather a sample of ill breeding; 190 most gentlemen would have laughed at the joke, instead of cursing them, or being instrumental in their destruction, by merciless, wild and voracious beasts. 191 Though the children were saucy, yet a man of any considerable candour, would have made allowance for their non-age, "for childhood and youth are vanity." 192 "And he went up from thence unto Bethel, and as he was going up by the way, there came forth little children out of the city

and mocked him, and said unto him, go up thou bald-head, go up thou bald-head, 193 and he turned back and looked on them, and he cursed them in the name of the Lord, and there came forth two she bears out of the wood, and tare forty and two children of them."

194 It seems by the children's address to Elisha, that he was an old bald-headed man, and that they had heard, that his mate, Elijah, had gone up a little before; 195 and as it was an uncommon thing for men to kite away into the air, and leave the world after that sort, it is likely that it excited a curiosity in the children to see Elisha go off with himself in the same manner, which occasioned their particular mode of speech to him, saying, "go up bald head."

196 The writings of Solomon, Song of Israel, must needs have been foisted into the canonical volume by some means or other, for no one passage therein gives the least intimation of inspiration, or that he had any immediate dictation from God in his compositions, 197 but oh the contrary, he informs us, that he acquired his knowledge by applying himself to wisdom, "to seek and to search out concerning all things that are done under the sun. 198 This sore travail," says he, "has God given to the sons of men to be exercised therewith." And since Solomon never pretended to inspiration, others cannot justly claim his writings to have been anything more than natural reasonings, 199 for who can, with propriety stamp his writings with divine authority, when he pretended no such thing, but the contrary? 200 His song of songs appears to be rather of the amorous kind, and is supposed to have been written at the time he was making love to the daughter of Pharaoh, King of Egypt, 201 who is said to have been a princess of exquisite beauty and exceeding coy, and so captivated his affections that it made him light headed and sing about the "'joints of her thighs'," and her "'belly'."

202 The divine legation of Moses and the prophets is rendered questionable from the consideration that they never taught the doctrine of immortality, their rewards and punishments are altogether temporary, terminating at death; 203 they have not so

much as exhibited any speculation of surviving the grave; to this is ascribed the unbelief of the Sadducees of the resurrection of the dead, or of an angel or spirit, as they strenuously adhered to the law of Moses, 204 for they could not imagine, but that their great prophet and law giver would have apprised them of a state of immortality had it been true; 205 and in this the Sadducees seem to argue with force on their position of the divine legation of Moses. 206 For admitting the reality of human's immortality, it appears incredible to suppose, that God should have specially commissioned Moses, as his prophet and instructor to the tribes of Israel, and not withal to have instructed them in the important doctrine of a future existence.

DREAMS OR VISIONS UNCERTAIN AND CHIMERICAL CHANNEL... FOR THE CONVEYANCE OF REVELATION; WITH REMARKS ON THE COMMUNICATION OF THE HOLY GHOST TO THE DISCIPLES, BY THE PRAYERS AND LAYING ON OF THE APOSTLES HANDS, WITH OBSERVATIONS ON THE DIVINE DICTATIONS OF THE FIRST PROMULGATORS OF THE GOSPEL, AND AN ACCOUNT OF THE ELECT LADY, AND HER NEW SECTARY OF SHAKERS

SECTION III

207 It appears from the writings of the prophets and apostles, that part of their revelations were communicated to them by dreams and visions, which have no other existence but in the imagination, 208 and are defined to be "the images which appear to the mind during sleep, figuratively, a chimera, a groundless fancy or conceit, without reason." 209 Our experience agrees with this definition, and evinces that there is no trust to be reposed in them. 210 They are fictitious images of the mind, not under the control of the understanding, and therefore not regarded at this day except by the credulous and superstitious, who still retain a veneration for them. 211 But that a revelation from God to human, to be continued to the latest posterity as a divine and perfect rule of duty or law, should be communicated through such a fictitious and chimerical channel, carries with it the evident marks of deception

itself, or of unintelligibleness, as appears from the vision of St. Paul. 212 "It is not expedient for me doubtless to glory, I will come to visions and revelations of the Lord; I knew a man in Christ above fourteen years ago, whether in the body I cannot tell, or whether out of the body I cannot tell, God knoweth such an one caught up to the third heavens. 213 And I knew such a man, whether in the body or out of the body I cannot tell, God knoweth how that he was caught up into Paradise and heard unspeakable words which it is not lawful for a human to utter." 214 That God knoweth the whole affair, will not be disputed, but that we should understand it is impossible, for the apostle's account of his vision is unintelligible; 215 it appears that he was rather in a delirium or a stupor, so that he knew not that whether he was in or out of the body: 216 he says he heard "'unspeakable words,'" but this communicates no intelligence of the subject-matter of them to us; and that they "'were not lawful for a human to utter'," 217 but what they were, or wherein their unlawfulness to be uttered by human consisted, he does not inform us. 218 His revelation from his own story was unspeakable and unlawful, and so he told us nothing what it was, nor does it compose any part of revelation, which is to make known. 219 He is explicit as to his being caught up to the third heaven, but how he could understand that is incredible, when at the same time he knew not whether he was in the body or out of the body; 220 and if he was in such a delirium that he did not know so domestic a matter as that, it is not to be supposed that he could be a competent judge whether he was at the first, second, third, or fourth heaven, or whether he was advanced above the surface of the earth, or not.

221 That the apostles in their ministry were dictated by the Holy Ghost, in the settlement of disputable doctrines, is highly questionable. 222 "For as much as we have heard that certain, which went out from us have troubled you with words, subverting your souls, saying, ye must be circumcised and keep the law, to whom we gave no such

commandment, 223 for it seemed good to the Holy Ghost, and to us, to lay upon you no other burden than these necessary things." Acts, chapter-15. 224 And after having given a history of the disputations concerning circumcision, and of keeping the law of Moses, and of the result of the council, the same chapter informs us, that a contention happened so sharp between Paul and Barnabas, "that they parted asunder the one from the other." 225 Had the Holy Ghost been the dictator of the first teachers of Christianity, as individuals, there could have been no disputable doctrines or controversies, respecting the religion which they were promulgating in the world or in the manner of doing it, 226 to be referred to a general council of the apostles and elders held at Jerusalem, for had they been directed by the Holy Ghost, there could have been no controversies among them to have referred to the council. 227 And inasmuch as the Holy Ghost neglected them as individuals, why is it not as likely that it neglected to dictate the council held at Jerusalem or elsewhere? 228 It seems that the Holy Ghost no otherwise directed them in their plan of religion, than by the general council of the apostles and elders, the same as all other communities are governed. 229 "Paul having passed through the upper coasts came to Ephesus, and finding certain disciples, he said unto them have ye received the Holy Ghost since ye believed? And they said unto him we have not so much as heard whether there be any Holy Ghost; 230 and when Paul had laid his hands upon them, the Holy Ghost came on them, and they spoke with tongues and prophesied."

231 The spirit of God is that which constitutes the divine essence, and makes Him to be what He is, but that He should be dictated, or His spirit be communicated by any acts or ceremonies of the apostles, is by no means admissible; 232 for such exertions of the apostles, so far as they may be supposed to communicate the holy spirit to their disciples, would have made God passive in the premised act of the gift of the spirit; 233 for it must have been either the immediate act of God or of the apostles, and if it

was the immediate act of the one, it could not have been the immediate act of the other. 234 To suppose that the act of the gift of the spirit was the mere act of God, and at the same time the mere act of the apostles, are propositions diametrically opposed to each other, and cannot both be true. 235 But it may be supposed that the gift of the spirit was partly the act of God and partly the act of the apostles; 236 admitting this to have been the case the consequences would follow, that the act of the gift of the spirit was partly divine and partly human, 237 and therefore the beneficence and glory of the grant of the gift of the spirit unto the disciples, would belong partly to God and partly to the apostles, 238 and in an exact proportion to that which God and they may be supposed to have respectively contributed towards the marvellous act of the gift of the spirit. 239 But that God should act in partnership with human, or share His providence and glory with you, is too absurd to demand argumentative confutation, 240 especially in an act which immediately respects the display or exertion of the divine spirit on the spirits of humans.

241 Such delusions have taken place in every age of the world since history has attained to any considerable degree of intelligence; 242 nor is there at present a nation on earth, but what is more or less infatuated with delusory notions of the immediate influence of good or evil spirits on their minds. 243 An instance of it appears in the Elect Lady (as she has seen fit to style herself) and her followers, called Shakers; this pretended holy woman began her religious scheme at Connestaguna; 244 in the north-westardly part of the State of New York, about the year 1769, and has added a new sectary to the religious catalogue. 245 After having instilled her tenets among the Connestagunites, and the adjacent inhabitants, she rambled into several parts of the country, promulgating her religion, and has gained a considerable number of scattering proselytes, not only in the State of New York, but some in the New England States. 246 She has so wrought on the minds of her female devotees, respecting the fading nature,

vanity and tempting allurements of their ornaments (which by the by are not plenty among her followers,) 247 and the deceitfulness of riches, that she has procured from them a considerable number of strings of gold beads and jewels, and amassed a small treasure; 248 and like most sectaries engrosses the kingdom of heaven to herself and her followers, to the seclusion of all others. 249 She gives out that her mission is immediately from heaven, that she travails in pain for her elect, and pretends to talk in seventy-two unknown languages, in which she converses with those who have departed this life, 250 and says, that there has, not been a true church on earth since the apostles days until she had erected hers. 251 That both the living and the dead must be saved in, by, and through her, and that they must confess their sins unto her and procure her pardon, or cannot be saved. 252 That every of the human race who have died since the apostle's time, until her church was set up has been damned, and that they are continually making intercession to her for salvation, which is the occasion of her talking to them in those unknown tongues; 253 and that she gathers her elect from earth and hell. She wholly refuses to give a reason for what she does or says: but says that it is the duty of humankind to believe in her, and receive her instructions, for they are infallible. 254 For a time she prohibited her disciples from propagating their species, but soon after gave them ample license, restricting them, indiscriminately, to the pale of her sanctified church, for that she needed more souls to complete the number of her elect. 255 Among other things, she instructs those who are young and sprightly among her pupils, to practise the most wild, freakish, wanton and romantic gestures, 256 as to that of indecently stripping themselves, twirling round, extorting their features, shaking and twitching their bodies and limbs into a variety of odd and unusual ways, and many other extravagancies of external behavior, 257 in the practice of which they are said to be very alert even to the astonishment of spectators, having by use acquired an uncommon

agility in such twirling, freakish and romantic practices. 258 The old Lady having such an ascendancy over them as to make them believe that those extravagant actions were occasioned by the immediate power of God, it serves among them as a proof of the divinity of her doctrines.

259 A more particular account of this new sectary has been lately published in a pamphlet by a Mr. Rathburn, who, as he relates, was for a time, one of her deluded disciples, 260 but after a while apostatised from the faith, and has since announced to the world the particulars of their doctrine and conduct.

261 Probably there never was any people or country, since the era of historical knowledge, who were more confident than they that they are acted upon by the immediate agency of the divine spirit; 262 and as there are facts now existing in a considerable tract of country, and are notoriously known in this part of America, I take the liberty to mention them, 263 as a knowledge of these facts, together with the concurrent testimony of the history of such deceptions in all ages and nations, might induce my countrymen to examine strictly into the claim and reality of ghostly intelligence in general.

OF THE NATURE OF FAITH AND WHEREIN IT CONSISTS

Ethan Allen

SECTION I

8 Faith in Jesus Christ and in his Gospel throughout the New Testament, is represented to be an essential condition of the eternal salvation of humankind. 2 "Knowing that a human is not justified by the works of the law, but by the faith of Jesus Christ, even we have believed in Jesus Christ, that we might be justified by the faith of Christ, and not by the works of the law, for by the works of the law shall no flesh be justified." 3 Again, "If thou shalt confess the Lord Jesus Christ, and believe in thine heart that God hath raised him from the dead, thou mayst be saved." 4 And again, "You that believeth and is baptised shall be saved, but you that believeth not shall be

damned." 5 Faith is the last result of the understanding, or the same which we call the conclusion, it is the consequence of a greater or less deduction of reasoning from certain premises previously laid down; 6 it is the same as believing or Judging of any matter of fact, or assenting to or dissenting from the truth of any doctrine, system or position; 7 so that to form a judgment, or to come to a determination in one's own mind, or to believe, or to have faith, is in reality the same thing, and is synonymously applied both in writing and speaking, for example, "Abraham believed in God." 8 Again, "for you," speaking of Abraham, "judged him faithful who had promised," and again "your faith was counted unto him for righteousness."

9 It is not only in scripture that we meet with examples of the three words, to wit, belief, judgment, and faith, to stand for the marks of our ideas for the same thing, 10 but also all intelligible writers and speakers apply these phrases synonymously, and it would be good grammar and sense, for us to say that we have faith in a universal providence, or that we judge that there is a universal providence. 11 These three different phrases, in communicating our ideas of providence, do every one of them exhibit the same idea, to all persons of common understanding, who are acquainted with the English language. 12 In fine, every one's experience may convince them that they cannot assent to, or dissent from the truth of any matter of fact, doctrine or proposition whatever, contrary to their judgment; 13 for the act of the mind in assenting to or dissenting from any position, or in having faith or belief in favour of, or against any doctrine, system, or proposition, could not amount to anything more or less, than the act of the judgment, or last dictate of the understanding, 14 whether the understanding be supposed to be rightly informed or not: so that our faith in all cases is as liable to err, as our reason is to misjudge of the truth; 15 and our minds act faith in disbelieving any doctrine or system of religion to be true, as much as in believing it to be so. 16 From hence it appears, that the

mind cannot act faith in opposition to its judgment, but that it is the resolution of the understanding itself committed to memory or writing, and can never be considered distinct from it. 17 And inasmuch as faith necessarily results from reasoning, forcing itself upon our minds by the evidence of truth, or the mistaken apprehension of it, without any act of choice of ours, there cannot be any thing, which pertains to, or partakes of the nature of moral good or evil in it. 18 For us to believe such doctrines, or systems of religion, as appears to be credibly recommended to our reason, can no more partake of the nature of goodness or morality, than our natural eyes may be supposed to partake of it in their perception of colors; 19 for the faith of the mind, and the sight of the eye are both of them necessary consequences, the one results from the reasonings of the mind, and the other from the perception of the eye. 20 To suppose a rational mind without the exercise of faith would be as absurd as to suppose a proper and complete eye without sight, or the perception of the common objects of that sense. 21 The short of the matter is this, that without reason we could not have faith, and without the eye or eyes we could not see, 22 but once admitting that we are rational, faith follows of course, naturally resulting from the dictates of reason.

OF THE TRADITIONS OF OUR FOREFATHERS

SECTION II

23 It may be objected, that the far greater part of humankind believe according to the tradition of their forefathers, without examining into the grounds of it, 24 and that argumentative deductions from the reason and nature of things, have, with the bulk of them, but little or no influence on their faith. 25 Admitting this to have been too much the case, and that many of them have been blameable for the omission of cultivating or improving their reason, and for not forming a better judgment concerning their respective traditions, or a juster and more exalted faith; 26 yet this does not at all invalidate the foregoing

arguments respecting the nature of faith: 27 for though it be admitted that most of the human race do not, or will not reason, with any considerable degree of propriety, on the traditions of their forefathers, but receive them implicitly, they nevertheless establish this one proposition in their minds, right or wrong, 28 that their respective traditions are right, for none could believe in them were they possessed of the knowledge that they were wrong. 29 And as we have a natural bias in favour of our progenitors, to whose memory a tribute of regard is justly due, and whose care in handing down from father to son such notions of religion and manners, 30 as they supposed would be for the well being and happiness of their posterity in this and the coming world, naturally endears tradition to us, and prompts us to receive and venerate it. 31 Add to this, that the priests of every denomination are "'instant in season and out of season,'" in inculcating and instilling the same tenets, 32 which, with the foregoing considerations, induces humankind in general to give at least a tacit consent to their respective traditions, and without a thorough investigation thereof, believe them to be right and very commonly infallible, 33 although their examinations are not attended with argumentative reasonings, from the nature of things; and in the same proportion as they may be supposed to fall short of conclusive arguing on their respective traditions they cannot fail to be deceived in the rationality of their faith.

34 But after all it may be that some of the human race may have been traditionally or accidentally right, in many or most respects. 35 Admitting it to be so, yet they cannot have any rational enjoyment of it, or understand wherein the truth of the premised right tradition consists, or deduce any more satisfaction from it, than others whose traditions may be supposed to be wrong; 36 for it is the knowledge of the discovery of truth alone, which is gratifying to that mind who contemplates its superlative beauty.

37 That tradition has had a powerful influence on the human mind is universally admitted, even

by those who are governed by it in the articles or discipline of their faith; 38 for though they are blind with respect to their own superstition, yet they can perceive and despise it in others. 39 Protestants very readily discern and expose the weak side of Popery, and Papists are as ready and acute in discovering the errors of heretics. 40 With equal facility do Christians and Mahometans spy out each others inconsistencies and both have an admirable sagacity to descry the superstition of the heathen nations. 41 Nor are the Jews; wholly silent in this matter; "O God the heathen are come into thine inheritance, thy holy temple have they defiled." 42 What abomination must this have been in the opinion of a nation who had monopolised all religion to themselves! Monstrous vile heathen, that they should presume to approach the sanctum sanctorum! 43 The Christians call the Mahometans by the odious name of infidels, but the Musslemen, in their opinion, cannot call the Christians by a worse name than that which they have given themselves, they therefore call them Christians.

44 What has been already observed upon tradition, is sufficient to admonish us of its errors and superstitions, 45 and the prejudices to which a bigoted attachment thereto exposes us, which is abundantly sufficient to excite us to a careful examination of our respective traditions, and not to rest satisfied until we have regulated our faith by reason.

OUR FAITH IS GOVERNED BY OUR REASONINGS...
WHETHER THEY ARE SUPPOSED TO BE CONCLUSIVE OR INCONCLUSIVE, AND NOT MERELY BY OUR OWN CHOICE

SECTION III

46 It is written that "Faith is the gift of God." Be it so, but is faith any more the gift of God than reflection, memory or reason are His gifts? 47 Was it not for memory, we could not retain in our minds the judgment which we have passed upon things; 48 and was it not for reasoning, in either a regular or irregular manner, or partly both, there could be no such thing as judging or believing; 49 so

that God could not bestow the gift of faith separate from the gift of reason, faith being the mere consequence of reasoning, either right or wrong, or in a greater or less degree, as has been previously argued.

50 Still there is a knotty text of scripture to surmount, viz: "You that believeth shall be saved, but you that believeth not shall be damned." This text is considered as crowding hard upon unbelievers in Christianity; 51 but when it is critically examined, it will be found not to militate at all against them, but is merely a Jesuitical fetch to overawe some and make others wonder. 52 We will premise, that an unbeliever is destitute of faith, which is the cause of your being thus denominated.

53 The Christian believes the gospel to be true and of divine authority, the Deist believes that it is not true and not of divine authority; 54 so that the Christian and Deist are both of them believers, and according to the express words of the text, "shall be saved," 55 and a Deist may as well retort upon a Christian and call you an infidel, because you differs in faith from Deist, as a Christian may upon the Deist; 56 for there is the same impropriety in applying the cant of infidelity to either, as both are believers; 57 and it is impossible for us to believe contrary to our judgments or the dictates of understanding, whether it be rightly informed or not. 58 Why then may there not in both denominations be honest people, who are seeking after the truth, and who may have an equal right to expect the favour and salvation of God.

A TRINITY OF PERSONS CANNOT EXIST IN THE DIVINE ESSENCE... WHETHER THE PERSONS BE SUPPOSED TO BE FINITE OR INFINITE: WITH REMARKS ON ST. ATHENASIUS'S CREED

Ethan Allen

SECTION I

9 Of all errors which have taken place in religion, none have been so fatal to it as those that immediately respect the divine Nature. 2 Wrong notions of a God, or of His providence, sap its very foundation in theory and practice,

as is evident from the superstition discoverable among the major part of humankind; 3 who, instead of worshipping the true God, have been by some means or other infatuated to pay divine homage to mere creatures, or to idols made with hands, or to such as have no existence but in their own fertile imaginations.

4 God being incomprehensible to us, we cannot understand all that perfection in which the divine essence consists, 5 we can nevertheless (negatively) comprehend many things, in which (positively) the divine essence does not and cannot consist. 6 That it does not consist of three persons, or of any other number of persons, is as easily demonstrated, as that the whole is bigger than a part, or any other proposition in mathematics. 7 We will premise, that the three persons in the supposed Trinity are either finite or infinite; for there cannot in the scale of being be a third sort of beings between these two; 8 for ever so many and exalted degrees in finiteness is still finite, and that being who is infinite admits of no degrees of enlargement; 9 and as all beings whatever must be limited or unlimited, perfect or imperfect, they must therefore be denominated to be finite or infinite: 10 we will therefore premise the three persons in the Trinity to be merely finite, considered personally and individually from each other, 11 and the question would arise whether the supposed Trinity of finites though united in one essence, could be more than finite still.

12 Inasmuch as three imperfect and circumscribed beings united together could not constitute a being perfect or infinite, any more than absolute perfection could consist of three imperfections; 13 which would be the same as to suppose that infinity could be made up or compounded of finiteness; or that absolute, uncreated and infinite perfection, could consist of three personal and imperfect natures. 14 But on the other hand, to consider every of the three persons in the supposed Trinity as being absolutely infinite, it would be a downright contradiction to one infinite and all comprehending essence.

15 Admitting that God the Father is infinite, it would necessarily preclude the supposed God the Son, and God the Holy Ghost from the god-head, or essence of God; 16 one infinite essence comprehending every power, excellency and perfection, which can possibly exist in the divine Nature. 17 Was it possible that three absolute infinites, which is the same as three Gods, could be contained in one and the self-same essence, why not as well any other number of infinites? 18 But as certain as infinity cannot admit of addition, so certain a plurality of infinites cannot exist in the same essence; 19 for real infinity is strict and absolute infinity, and only that, and cannot be compounded of infinities or of parts, but forecloses all addition. 20 A personal or circumscribed God, implies as great and manifest a contradiction as the mind of human can conceive of; it is the same as a limited omnipresence, a weak Almighty, or a finite God.

21 From the foregoing arguments on the Trinity, we infer, that the divine essence cannot consist of a Trinity of persons, whether they are supposed to be either finite or infinite.

22 The creed-mongers have exhibited the doctrine of the Trinity in an alarming point of light, viz.: "Whoever would be saved before all things it is necessary that you hold the Catholic faith, 23 which faith, except every one doth keep whole and undefiled, without doubt you shall perish everlastingly." 24 We next proceed to the doctrine, "The Father is eternal, the Son is eternal, and the Holy Ghost is eternal, and yet there are not three eternals but one eternal." 25 The plain English is, that the three persons in the Trinity are three eternals, individually considered, and yet they are not three eternals but one eternal. 26 To say that there are three eternals in the Trinity, and yet that there are not three eternals therein, is a contradiction in terms, as much as to say, that there are three persons in the Trinity and yet there are not three persons in the Trinity. 27 The first proposition in the creed affirms, that "the Father is eternal," the second affirms that "the Son is eternal," the third

affirms that "the Holy Ghost is eternal," the fourth affirms that "there are not three eternals," and the fifth that there is "but one eternal."

28 The reader will observe, that the three first propositions are denied by the fourth, which denies that there are three eternals, though the three first propositions affirmed, that there were three eternals by name, viz. the Father, Son and Holy Ghost. 29 The fifth proposition is unconnected with either of the former, and is undoubtedly true, viz. "but there is one eternal." 30 "The Father is God, the Son is God, and the Holy Ghost is God, and yet there are not three Gods but one God." 31 Here again we have three Gods by name, affirmed to have an existence by the three first propositions, by the fourth they are negatived, and the fifth affirms the truth again, viz. that there is "but one God."

32 Admitting the three first propositions to be true, to wit, that there are three Gods, the three could not be one and the same God, any more than Diana, Dagan and Moloch may be supposed to be the same; 33 and if three Gods, their essences and providences would interfere and make universal confusion and disorder. 34 "The Father is Almighty, the Son is Almighty, and the Holy Ghost is Almighty, and yet there are not three Almighties but one Almighty." 35 Here we have three Almighties and at the same time but one Almighty. So that the point at issue is brought to this simple question, viz. Whether three units can be one, or one unit three or not? 36 Which is submitted to the curious to determine. Our creed further informs us, that the three persons in the Trinity are co-eternal together and co-equal, but in its sequel we are told that one was begotten of the other; 37 and when we advert to the history of that transaction, we find it to be not quite eighteen hundred years ago, and took place in the reign of Herod, the King of Judea, 38 which faith except "we keep whole and undefined," we have a threat, that "without doubt we shall perish everlastingly."

ESSENCE BEING THE CAUSE OF IDENTITY...
IS INCONSISTENT WITH PERSONALITY IN THE
DIVINE NATURE

SECTION IX

39 One God can have but one essence, which must have been eternal and infinite, and for that reason precludes all others from a participation of His nature, glory, and universal and absolute perfection. 40 When we speak of any being who by nature is capable of being rightfully denominated an individual, we conceive of it to exist but in one essence; 41 so that essence as applied to God, denominates the divine Nature; and as applied to human, it denotes an individual: 42 for although the human race is with propriety denominated the race of human, 43 and though every male of the species, is with equal propriety called man, for that they partake of one common sort of nature and likeness, yet the respective individuals are not one and the same. 44 The person of A is not the person of B, nor are they conscious of each other's consciousness, and therefore the joy or grief of A, is not and cannot be the joy or grief of B; this is what we know to be a fact from our own experience.

45 The reason of this personal distinction is founded in Nature, for though we partake of one common nature and likeness, yet we do not partake of one and the same essence. 46 Essence is therefore, in the order of Nature, the primary cause of identity or sameness and cannot be divided. 47 From hence we infer, that the doctrine of the Trinity is destitute of foundation, and tends manifestly to superstition and idolatry.

THE IMPERFECTION OF KNOWLEDGE...
IN THE PERSON OF JESUS CHRIST, INCOMPATIBLE WITH HIS DIVINITY

SECTION III

48 That Jesus Christ was not God is evident from his own words, where, speaking of the day of judgment, he says, "Of that day and hour knoweth no man, no not the angels which are in Heaven, neither the Son, but the Father." 49 This is giving up all pretention to

divinity, acknowledging in the most explicit manner, that he did not know all things, but compares his understanding to that of man and angels; 50 "of that day and hour knoweth no man, no not the angels which are in heaven, neither the Son." 51 Thus he ranks himself with finite beings, and with them acknowledges, that he did not know the day and hour of judgment, and at the same time ascribes a superiority of knowledge to the lather, for that he knew the day and hour of judgment. 52 That he was a mere creature is further evident from his prayer to the father, saying, "father if it be possible, let this cup pass from me, nevertheless, not my will but thine be done." 53 These expressions speak forth the most humble submission to his father's will, authority and government, and however becoming so submissive a disposition to the divine government would be, in a creature, 54 it is utterly inconsistent and unworthy of a God, or of the person of Jesus Christ, admitting him to have been a divine person, or of the essence of God.

OBSERVATIONS ON THE STATE OF HUMAN, IN MOSES'S PARADISE... ON THE TREE OF KNOWLEDGE OF GOOD AND EVIL, AND ON THE TREE OF LIFE: WITH SPECULATIONS ON THE DIVINE PROHIBITION TO HUMAN, NOT TO EAT OF THE FRUIT OF THE FORMER OF THOSE TREES, INTERSPERSED WITH REMARKS ON THE MORTALITY OF INNOCENT HUMAN

Ethan Allen

SECTION I

10 The mortality of animal life, and the dissolution of that of the vegetable, has been particularly considered in chapter three, section four, treating on physical evils. 2 We now proceed to make an application of those arguments, in the case of our reputed first parents, whose mortality is represented by Moses to have taken place in consequence of their eating of the forbidden fruit. 3 Moses in his description of the garden of Eden acquaints us with two chimerical kinds of fruit trees, which, among others, he tells us were planted by God in the place appointed for the residence of the new made couple; 4 the one he calls by the name of "the tree of knowledge of good and evil," and

the other by the name of "the tree of life." 5 And previous to his account of the apostacy, he informs us, that God expressly commanded the man and woman, saying, "be fruitful and multiply and replenish the earth and subdue it, 6 and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth; 7 and God said, behold I have given you every herb bearing seed, which is upon, the face of all the earth, and every tree, in which is the fruit of a tree yielding seed, to you it shall be for meat." 8 Again, "and the Lord commanded the man saying, of every tree of the garden thou mayest freely eat, but of the tree of knowledge of good and evil thou shalt not eat of it, for in the day that thou eatest thereof thou shalt surely die." 9 "And the Lord said, it is not good for man to be alone, I will make him an help meet for him; 10 and the Lord God caused a deep sleep to fall upon Adam, and he slept, and he took out one of his ribs, and closed up the flesh instead thereof, and the rib which the Lord God had taken from man made he a woman."

11 Thus it appears from Moses's representation of the state of man's innocency, that he was commanded by God to labour, and to replenish the earth; 12 and that to him was given the dominion over the creatures, and that at two several times he was licensed by God himself to eat of every of the fruit of the trees, and of the herbage, except of the tree of knowledge of good and evil; 13 and because it was not good that the man should be alone, but that he might multiply and replenish the earth, our amorous mother Eve, it seems, was formed, who I dare say well compensated father Adam for the loss of his rib.

14 This short description of man's state and condition in innocency, agrees with the state and circumstances of human nature at present. 15 Innocent man was required to labour and subdue the earth, out of which he was to be subsisted; had a license to eat of the fruit of the trees, or herbage of the garden, which pre-supposeth that his nature needed refreshment the same as ours does; 16 for otherwise it would have been impertinent to have granted him a

privilege incompatible with his nature, 17 as it would have been no privilege at all, but an outright mockery, except we admit, that innocent human nature was liable to decay, needed nutrition by food, and had the quality of digestion and perspiration; 18 or in fine, had the same sort of nature as we have; for otherwise he could eat but one belly-full, which without digestion would remain the same, and is too romantic to have been the original end and design of eating. 19 And though there is nothing mentioned by Moses concerning his drinking, yet it is altogether probable, that he had wit enough to drink when he was thirsty. 20 That he consisted of animal nature is manifest, not only from his being subjected to subdue the earth, out of which he was to be subsisted, and from his eating and drinking, or his susceptibility of nutrition by food, 21 but also from his propensity to propagate his kind; for which purpose a helpmate was made for him.

22 Nothing could more fully evince, that Moses's innocent progenitors of humankind, in that state, were of a similar nature to ours, than their susceptibility of propagating the species; 23 and as they required nutrition, their nature must have had the quality or aptitude of digestion and perspiration, and every property that at present we ascribe to an animal nature; 24 from hence we infer, that death, or mortality, must have been the necessary consequence. 25 What would have prevented them from having been crushed to death by a fall from a precipice, or from suffering death by any other casualty, to which human nature is at present liable? 26 Will any suppose that the bodies of those premised innocent progenitors of the human race were invulnerable; were they not flesh and blood? 27 Surely they were, for otherwise they could not have been male and female; as it was written, "male and female created He them:" 28 and inasmuch as animal life has, from its original, consisted of the same sort of nature, and been propagated and supported in the same manner, and obnoxious to the same fate, 29 it would undoubtedly, in the premised day of Adam, required the same order in the external

system of Nature, which it does at present, to answer the purposes of animal life. 30 Was it possible that the Laws of Nature, which merely respect gravitation, could be and were suspended, so as not to be influential on matter, our world would be immediately disjointed and out of order, and confusion would succeed its present regularity; in the convulsions whereof animal life could not subsist. 31 So that not only the laws which immediately respect animal nature in particular, but the laws which respect our solar system, must have been the same in man's innocency, as in his whimsically supposed state of apostacy; and consequently, his mortality the same. 32 From hence we infer, that the curses, which Moses informs us of in chapter three: as being by God pronounced upon human, saying, "dust thou art, and unto dust thou shalt return," could not have been any punishment, inflicted as a penalty for eating the forbidden fruit; 33 for turn to dust he must have done, whether he eat of it or not; for that death and dissolution was the inevitable and irreversible condition of the Law of Nature, which wholly precludes the curse, of which Moses informs us, from having any effect on humankind.

34 The story of the "tree of life" is unnatural. And there being but one of the kind, it may be called an only tree, the world not having produced another of the sort; 35 the fruit of which, according to Moses, had such an efficacious quality, that had Adam and Eve but eaten thereof, they would have lived forever. "And now lest he put forth his hand and take also of the tree of life, and eat, and live forever." 36 To prevent which, they are said to be driven out of the garden, that the eating thereof might not have reversed the sentence of God, which he had previously pronounced against them, denouncing their mortality. 37 "So he drove out the man, and he placed at the east of the garden of Eden, cherubims, and a flaming sword, which turneth every way to keep the way of the tree of life." A bite of this fruit it seems would have reinstated humankind, and spoiled priestcraft. 38 Yet it is observable, that there are no travellers or historians, who have

given any accounts of such a tree, or of the cherubims or flaming sword, which renders its existence disputable, and the reality of it doubtful and improbable; 39 the more so, as that part of the country, in which it is said to have been planted, has for a long secession of ages been populously inhabited. 40 Yet it may be objected, that the tree may have rotted down and consumed by time. But such conjectures derogate from the character of the quality of the tree. 41 It seems, that so marvellous a tree, the fruit of which would have preserved animal life eternally, would have laughed at time, and bid defiance to decay and dissolution, 42 and eternally have remained in its pristine state under the protection of the flaming sword, as a perpetual evidence of the divine legation of Moses, and the reality of man's apostacy for ever. 43 But alas! it is no where to be found, it is perished from off the face of the earth, and such a marvellous fruit is no more, and consequently no remedy against mortality remains.

POINTING OUT THE NATURAL IMPOSSIBILITY OF ALL AND EVERY...

OF THE DIVERSE SPECIES OF BIPED ANIMALS, COMMONLY TERMED HUMAN, TO HAVE LINEALLY DESCENDED FROM ADAM AND EVE, OR FROM THE SAME ORIGINAL PROGENITORS

SECTION II

44 It is altogether improbable and manifestly contradictory to suppose, that the various and diverse nations and tribes of the earth, who walk upon two legs, and are included under the term human, have or possibly could have descended by ordinary generation, from the same parents, be they supposed to be who they will. 45 Those adventurers,-- who have sailed or travelled to the several parts of the globe, inform us, in their respective histories, that they find the habitable part of it more or less populated by one kind or other of rational animals, 46 and that considered as tribes or nations, there is evidently a gradation of intellectual capacity among them, some more exalted and others lower in the scale of being; 47 and that they are specially diverse from each other

with respect to their several animal natures, 48 though in most respects they appear to have one sort of nature with us, viz: more like us that like the brute creation; as they walk erect, speak with human's voice, and make use of language of one sort or other, 49 though many of them are more or less inarticulate in their manner of speaking: and in many other particulars bear a general likeness to us. 50 They are nevertheless considered as distinct tribes or nations, are of different sizes, and as to complexion, they vary from the two extremes of white and black, in a variety of tawny mediums.

51 The learned nations can trace their genealogies, (though somewhat incorrect) for a considerable time, but are certain to be sooner or later lost in the retrospect thereon, 52 and those that are of an inferior kind, or destitute of learning or science have no other knowledge of their genealogies, than they retain by their respective traditions, which are very inconsiderable. 53 They are likewise diverse from each other in their features and in the shape of their bodies and limbs, and some are distinguished from others by their rank smell and the difference in their hair, eyes and visage, but to point out the distinctions would exceed my design.

54 The Ethiopians, though of a shining black complexion, have regular and beautiful features, and long black hair (one of those female beauties captivated the affections of Moses) 55 they differ very materially from the negro blacks, so that it appears impossible that they should have descended in a lineal succession from the same ancestors. 56 They are uniformly in their respective generations essentially diverse from each other, so that an issue from a male and female of the two nations would be a mongrel, partaking partly of the kind of both nations. 57 So also concerning the difference which subsists between us and the negroes; their black skin is but one of the particulars in which they are different from us; 58 their many and very essential differences fully evince, that the white nations, and they, could not according to the law of their

respective generations, have had one and the same lineal original, but that they have had their diverse kind of original progenitors.

59 It is true that the several nations and tribes of the earth, comprehended under the general term human, 60 notwithstanding their diversity to each other in bodily shape and mental powers, bear a nearer resemblance to one another than the brute kind, for which reason they are known by one common appellation: 61 though it is manifest that they could never have lineally descended from the same first parents, whether their names were Adam and Eve, or whatnot. 62 But inasmuch as our genealogies are wholly insufficient for the purpose of explaining our respective originals or any or either of them, 63 or to give us or any of us, considered as individuals or nations, who fall under the denomination of the term human, any manner of insight or knowledge from whom we are lineally descended, or who were our respective original ancestors, or what their names were: 64 we must therefore reason on this subject from the facts and causes now existing, which abundantly evince, that we are of different kinds, and consequently are not of the same lineage.

65 The acquaintance, which we have had with the negro nation in particular, fully evinces the absurdity of supposing them to be of the same blood and kindred with ourselves. 66 But that there are some original intrinsic and hereditary diversity or essential difference between us and them, which cannot be ascribed to time, climate, or to mere contingence. 67 For that we and they are in nature inherently and uniformly diverse from each other in our respective constitutions and generations, and have been so time immemorial. 68 So that the negroes are of a different species of rational beings from us, and consequently must have had their distinct lineal original; 69 was it not so, there could be no such thing as a mongrel or a mulatto, who is occasioned by a copulation between the males and the females of the respective diverse species, the issue partaking of both natures. 70 Had all the nations and tribes of

the world, who are denominated rational, been lineally descended from the same progenitors, mongrelism could never have taken place among them, 71 as in this case they would have been all of the same kind: from hence we infer, that they have had their respective original progenitors.

72 The Dutch colony at the Cape of Good Hope have enacted laws to punish with death such of their Dutch subjects as may be convicted of copulating with the Hottentots: 73 for that their nature is adjusted to be of an inferior species to theirs, so that mixing their nature with them would essentially degenerate and debase their own.

OF THE ORIGIN OF THE DEVIL OR OF MORAL EVIL...
AND OF THE DEVIL'S TALKING WITH EVE; WITH A REMARK THAT THE DOCTRINE OF APOSTACY IS THE FOUNDATION OF CHRISTIANITY

SECTION III

74 Inasmuch as the devil is represented to have had so great and undue an influence in bringing about the apostacy of Adam, and still to continue his temptations to humankind, 75 it may be worth our while to examine into the nature and manner of his being and the mode of his exhibiting his temptations.

76 John's gospel, verses:1 and 3, the Christian's God is the creator of the devil and consequently the original cause of evil in heaven-- 77 and among humans he planted the tree of knowledge of good and evil, and knew at the time he planted it of the awful consequences that would follow. 78 But if it be admitted, that the creature called the devil (who must be supposed to be under the divine government, as much as any other creature) could become inflexible, and perpetually rebellious 79 and wicked, incapable of a restoration, and consequently subjected to eternal punishment (which to me appears to be inconsistent with the wisdom and goodness of the divine government, and the nature, end and design of a probationary agent) 80 yet it would by no means follow from hence, that so stubbornly wicked and incorrigible a creature would have been permitted, by the providence of

God, to tempt, ensnare or seduce humankind, by plying his temptations to their weak side. 81 One thing we are certain of, viz. that the devil does not visit our world in a bodily or organised shape, and there is not in Nature a second way, in which it is possible for him to make known himself to us, 82 or that he could have done it to our progenitors, nor could he ever have communicated to them or to us, any temptations or ideas whatever, 83 any otherwise than by making a proper application to our external senses, so that we could understand him, or receive the ideas of his temptations in a natural way. 84 For supernatural intercourse with the world of spirits or invisible beings has been shown to be contradictory and impossible in the arguments contained in the sixth chapter, to which the reader is referred. 85 Those arguments will hold equally good as applied to either good or evil spirits, and are demonstrative of the utter impossibility of humankind's holding any manner of intercourse or intelligence with them.

86 But should we premise, that, according to the history of Moses, it was in the power of the devil to assume a bodily shape, and that he did in very deed transform himself into the figure, likeness and organisation of a snake, 87 yet by and with that organ he could not have spoken or uttered the following articulate words, which Moses charged him with, 88 to wit, "And the serpent said unto the woman, ye shall not surely die, for God doth know, that in the day ye eat thereof, that your eyes shall be opened, and ye shall be as Gods knowing good and evil."

89 Who speaks the truth in the above passages, the devil, for neither the man nor the woman died for many years after they are said to have eaten of the forbidden fruit, for death is the annihilation of life, and they did not die on the day they eat. 90 As the serpent is by nature incapable of speech, it must have put the devil into the same predicament; 91 admitting that he transformed himself into the same figure or likeness, and consequently for want of the proper and adequate organs of speech, he must necessarily have

been incapable of any other language than that of rattling his tail, 92 and therefore could never have spoken those recited words unto Eve, or communicated any of his temptations unto her by language, while in that similitude. 93 However, admitting that the first parents of humankind were beguiled by the wiles of the devil to transgress the divine law, yet of all transgressions it would have been the most trivial (considered under all the particular circumstances of it) that the mind of human can conceive of.

94 Who in the exercise of reason can believe, that Adam and Eve by eating of such a spontaneous fruit could have incurred the eternal displeasure of God, as individuals? 95 Or that the divine vindictive justice should extend to their unoffending offspring then unborn? And sentence the human progeny to the latest posterity to everlasting destruction? 96 As chimerical as Moses's representation of the apostacy of human manifestly appears to be, yet it is the very basis, on which Christianity is founded, 97 and is announced in the New Testament to be the very cause why Jesus Christ came into this world, "that he might destroy the works of the devil," and redeem fallen human, alias, the elect, from the condemnation of the apostacy; 98 which leads me to the consideration of the doctrine of imputation.

IMPUTATION CANNOT CHANGE, ALIENATE OR TRANSFER... THE PERSONAL DEMERIT OF SIN; AND PERSONAL MERIT OF VIRTUE TO OTHERS, WHO WERE NOT ACTIVE THEREIN, ALTHOUGH THIS DOCTRINE SUPPOSES AN ALIENATION THEREOF

Ethan Allen

SECTION I

11 The doctrine of imputation according to the Christian scheme, consists of two parts; 2 first, of imputation of the apostacy of Adam and Eve to their posterity, commonly called original sin; and secondly, of the imputation of the merits or righteousness of Christ, who in scripture is called the second Adam, to humankind, or to the elect. 3 This is a concise definition of the doctrine, and

which will undoubtedly be admitted to be a just one by every denomination of people, who are acquainted with Christianity, 4 whether they adhere to it or not I therefore proceed to illustrate and explain the doctrine by transcribing a short, but very pertinent conversation, which in the early years of my manhood, I had with a Calvinistical divine: 5 but previously remark, that I was educated in what is commonly called the Armenian principles, and among other tenets to reject the doctrine of original sin, this was the point at issue between the clergyman and me. 6 In my turn I opposed the doctrine of original sin with philosophical reasonings, and as I thought had confuted the doctrine. The reverend gentleman heard me through patiently, 7 and with candour replied, "your metaphysical reasonings are not to the purpose; inasmuch as you are a Christian, and hope and expect to be saved by the imputed righteousness of Christ to you; for you may as well be imputedly sinful as imputedly righteous. 8 Nay, said he, if you hold to the doctrine of satisfaction and atonement by Christ, by so doing you pre-suppose the doctrine of apostacy or original sin to be in fact true; 9 for said he, if humankind were not in a ruined and condemned state by nature, there could have been no need of a redeemer, but each individual would have been accountable to own creator and judge, upon the basis of own moral agency. 10 Further observing, that upon philosophical principles it was difficult to account for the doctrine of original sin, or original righteousness, 11 yet as they were plain fundamental doctrines of the Christian faith, we ought to assent to the truth of them, and that from the divine authority of revelation. 12 Notwithstanding, said he, if you will give me a philosophical explanation of original imputed righteousness, which you profess to believe, and expect salvation by, then I will return you a philosophical explanation of the doctrine of original sin; 13 for it is plain, said he, that your objections lie with equal weight against original imputed righteousness, as against original imputed sin." 14 Upon which I had the candour to

acknowledge to the worthy ecclesiastic, that upon the Christian plan, I perceived that the argument had fairly terminated against me. 15 For at that time I dared not distrust the infallibility of revelation, much more to dispute it. However, this conversation was uppermost in my mind for several months after, 16 and after many painful searches and researches after the truth respecting the doctrine of imputation, resolved at all events to abide the decision of rational argument in the premises, 17 and on a full examination of both parts of the doctrine, rejected the whole; for on a fair scrutiny I found, that I must concede to it entirely or not at all, or else believe inconsistently as the clergyman had argued.

18 Having opened and explained the doctrine, we proceed argumentatively to consider it. Imputation of sin or righteousness includes an alteration or transferring of the personal merits or demerits of sin or righteousness, 19 from those who may be supposed to have been active in the one or the other, to others, who are premised not to have been active therein, otherwise it would not answer the Bible notion of imputation. 20 For if sin or righteousness, vice or virtue, are imputable only to their respective personal proficients or actors, in this case original sin must have been imputed to Adam and Eve, 21 to the exclusion of their posterity, and the righteousness of Christ as exclusively imputed to himself, precluding all others therefrom; 22 so that both the sin of the first Adam and the righteousness of the second, would, on this stating of imputation, have been matters which respect merely the agency, of the demerits or merits of the two respective Adams themselves, 23 and in which we could have had no blame, reward or concern, any more than in the building of Babel.

24 This then is the question that determines the sequel of the dispute for or against the doctrine of imputation, 25 viz. whether the personal merit or demerit of humankind, that is to say, their virtue or vice, righteousness or wickedness can be alienated, imputed to, or transferred from one person to another, or not? 26 If any should object against this

stating of the question now in dispute, it would be the same in reality as disputing against the doctrine of imputation itself, 27 for imputation must transfer or change the personal merit or demerit of the sin or righteousness of humankind or not do it; 28 if it does not do it, the whole notion of original sin or of righteousness, as being imputed from the first and second Adams to humankind, is without foundation, 29 consequently, if there is any reality in the doctrine of imputation, it must needs transfer or change the guilt of original sin, or of the apostacy of Adam and Eve, to their posterity, 30 or otherwise they could need no atonement or imputative righteousness, as a remedy therefrom, but every individual of "humankind would have stood accountable to their creator and judge on the basis of their own moral agency," 31 which is undoubted the true state of the case, respecting all rational and accountable beings; 32 so that if the transferring of the individual merits or demerits of one person to another, is not contained in the act or doctrine of imputation, it contains nothing at all, 33 but is a sound without a meaning, and after all the talk which has been in the world about it, we must finally adopt to old proverb, viz. "every tub stands upon its own bottom."

THE MORAL RECTITUDE OF THINGS FORECLOSES...
THE ACT OF IMPUTATION

SECTION II

34 Imputation confounds virtue and vice, and saps the very foundation of moral government, both divine and human. 35 Abstract the idea of personal merit and demerit, from the individuals of humankind, justice would be totally blind, and truth would be nullified, or at least excluded from any share in the administration of government. 36 Admitting that moral good and evil has taken place in the system of rational agents, yet, on the position of imputation, it would be impossible, that a retribution of justice should be made to them by God or by human, 37 except it be according to their respective personal merits and demerits; which would fix upon the basis of

our own moral agency and accountability, and preclude the imputation of righteousnes.

38 Truth respects the reality of things, as they are in their various complicated and distinct natures, and necessarily conforms to all facts and realities. 39 It exists in, by and with every thing that does exist, and that which does not and cannot exist, is fictitious and void of truth, as is the doctrine of imputation. 40 It is a truth that some of the individuals of humankind are virtuous, and that others are vicious, and it is a truth, that the former merit peace of conscience and praise, and the latter horror of conscience and blame; 41 for God has so constituted the nature of things, that moral goodness, naturally and necessarily tends to happiness in a moral sense, and moral evil as necessarily tends to the contrary; 42 and as truth respects every thing, as being what it is, it respects Nature, as God has constituted it, with its tendencies, dispositions, aptitudes and laws; 43 and as the tendency of virtue is to mental happiness, and vice the contrary, they fall under the cognisance of truth, as all other facts necessarily do; 44 which tendencies will for ever preclude imputation, by making us morally happy or miserable according to our works.

45 Truth respects the eternal rules of unalterable rectitude and fitness, which comprehends all virtue, goodness and true happiness; 46 and as sin and wickedness is no other but a deviation from the rules of eternal unerring order and reason, so truth respects it as unreasonable, unfit, unrighteous and unhappy deviation from moral rectitude, naturally tending to misery. 47 This order of Nature, comprehended under the terms of truth, must have been of all others the wisest and best; in fine it must have been absolutely perfect; 48 for this order and harmony of things, could not have resulted from anything short of infinite wisdom, goodness and power, by which it is also upheld; 49 and all just ideas of equity, or of natural and moral fitness must be learned from Nature, and predicated on it; and nature predicated on the immutable perfection of a God; 50 and to suppose that imputation, in

any one instance has taken place, is the same as to suppose, that the eternal order, truth, justice, equity and fitness of things has been changed, 51 and if so, the God of Nature must needs have been a changeable being, and liable to alter His justice or order of Nature, which is the same thing; 52 for without the alteration of Nature, and the tendency of it, there could be no such thing as imputation, 53 but every of the individuals of humankind would be ultimately happy or miserable, according as their respective proficiencies may be supposed to be either good or evil, agreeable to the order and tendency of Nature before alluded to. 54 For all rational and accountable agents must stand or fall upon the principles of the Law of Nature, except imputation alters the nature and tendency of things; of which the immutability of a God cannot admit.

55 From what has been already argued on this subject, we infer, that as certain as the individuals of humankind are the proprietors of their own virtues or vices, so certain, the doctrine of imputation cannot be true. 56 Furthermore, the supposed act or agency of imputing or transferring the personal merit or demerit of moral good or evil, 'alias', the sin of the first Adam, or the righteousness of the second Adam, to others of humankind, cannot be the act or exertion of either the first or second Adam, from whom original sin and righteousness is said to have been imputed. 57 Nor can it be the act or doings of those individuals, to whom the supposed merit or demerit of original sin or righteous is premised to be imputed; 58 so that both Adam and each individual of humankind are wholly excluded from acting any part in the premised act of imputation; and are supposed to be altogether passive in the matter, 59 and consequently it necessarily follows, that if there ever was such an act as that of imputation, it must have been the immediate and sovereign act of God, to the preclusion of the praise or blame of human. 60 But to suppose, that God can impute the virtue or vice of the person of A, to be the virtue or vice of the person of B, is the same as to suppose that God can impute or change truth into

falsehood, or falsehood into truth, or that He can reverse the nature of moral rectitude itself, which is inadmissable. 61 But admitting, that imputation was in the power and at the option of human, it is altogether probable that they would have been very sparing in imputing merit and happiness, 62 but might nevertheless have been vastly liberal in imputing demerit and misery, from one to another, which is too farcical.

CONTAINING REMARKS ON THE ATONEMENT...
AND SATISFACTION FOR ORIGINAL SIN

SECTION III

63 The doctrine of imputation is in every point of view incompatible with the moral perfections of God. 64 We will premise, that the race of Adam in their respective generations was guilty of the apostacy, and obnoxious to the vindictive justice and punishment of God, 65 and accordingly doomed to either an eternal or temporary punishment therefore, which is the Bible representation of the matter. 66 What possibility could there have been of reversing the divine decree? It must be supposed to have been just, or it could not have had the divine sanction, and if so, a reversal of it would be unjust. 67 But it would be still a greater injustice to lay the blame and vindictive punishment of a guilty race of condemned sinners upon an innocent and inoffensive being, 68 for in this case the guilty would be exempted from their just punishment, and the innocent unjustly suffer for it, which holds up to view two manifest injustices; 69 the first consists in not doing justice to the guilty, and the second in actually punishing the innocent, which instead of atoning for sin, would add sin to sin, or injustice to injustice; 70 and after all, if it was ever just, that the race of Adam should have been punished for the imputed sin of their premised original ancestor, be that punishment what it will, 71 it is so still, notwithstanding the atonement, for the eternal justice and reason of things can never, be altered. 72 This justice always defeats the possibility of satisfaction for sin by way of a

mediator. 73 That physical evils may and have been propagated by natural generation, none can dispute, for that the facts themselves are obvious. 74 But that moral evil can be thus propagated, is altogether chimerical, for we are not born criminals.

REMARKS ON REDEMPTION, WROUGHT OUT BY INFLICTING... THE DEMERITS OF SIN UPON THE INNOCENT, WOULD BE UNJUST, AND THAT IT COULD CONTAIN NO MERCY OR GOODNESS TO THE UNIVERSALITY OF BEING

SECTION IV

75 The practice of imputing one person's crime to another, in capital offences among humans, so that the innocent should suffer for the guilty, has never yet been introduced into any court of judicature in the world, or so much as practised in any civilised country; 76 and the manifest reason in this, as in all other cases of imputation, is the same, viz. it confounds personal merit and demerit. 77 The murderer ought to suffer for the demerit of own crime, but if the court exclude the idea of personal demerit (guilt being always the inherent property of the guilty and of them only) they might as well sentence one person to death for the murder as another: 78 for justice would be wholly blind was it not predicated on the idea of the fact of a personal demerit, on the identical person who was guilty of the murder: 79 nor is it possible to reward merit abstractly considered from its personal agents. These are facts that universally hold good in human government. 80 The same reasons cannot fail to hold good in the divine mind as in that of the human, for the rules of justice are essentially the same whether applied to the one or to the other, having their uniformity in the eternal truth and reason of things. 81 But it is frequently objected, that inasmuch as one person can pay, satisfy and discharge a cash debt for another, redeem you from prison and set you at liberty, therefore Jesus Christ might become responsible for the sins of humankind, 82 or of the elect, and by suffering their punishments atone for them and free them from their condemnation. 83 But it

should be considered, that comparisons darken or reflect light upon an argument according as they are either pertinent or impertinent thereto; 84 we will therefore examine the comparison, and see if it will with propriety apply to the atonement.

85 Upon the Christian scheme, Christ the Son was God, and equal with God the Father, or with God the Holy Ghost, 86 and therefore original sin must be considered to be an offence equally against each of the persons of the premised Trinity, 87 and being of a criminal nature could not be discharged or satisfied by cash or produce, as debts of a civil contract are, but by suffering; 88 and it has already been proved to be inconsistent with the divine or human government, to inflict the punishment of the guilty upon the innocent, 89 though one person may discharge another's debt in cases where lands, chattels or cash are adequate to it; but what capital offender was ever discharged by such commodities?

90 Still there remains a difficulty on the part of Christianity, in accounting for one of the persons in the premised Trinity satisfying a debt due to the impartial justice of the unity of the three persons. 91 For God the Son to suffer the condemnation of guilt in behalf of human, would not only be unjust in itself, but incompatible with His divinity, 92 and the retribution of the justice of the premised Trinity of persons in the god-head (of whom God the Son must be admitted to be one) toward humankind; 93 for this would be the same as to suppose God to be judge, criminal and executioner, which is inadmissible.

94 But should we admit for argument's sake, that God suffered for original sin, yet taking into one complex idea the whole mental system of beings, universally, both finite and infinite, 95 there could have been no display of grace, mercy, or goodness to being in general, in such a supposed redemption of humankind; 96 inasmuch as the same quantity or degree of evil is supposed to have taken place upon being, universally considered, as would have taken place, had finite individuals, or the race of Adam,

suffered according to their respective demerits.

97 Should we admit that there is a Trinity of persons in the divine essence, yet the one could not suffer without the other, for essence cannot be divided in suffering, any more than in enjoyment. 98 The essence of God is that which includes the divine Nature, and the same identical nature must necessarily partake of the same glory, honour, power, wisdom, goodness and absolute uncreated and unlimited perfection, and is equally exempted from weakness and suffering. 99 Therefore, as certain as Christ suffered he was not God, but whether he is supposed to be God or human, or both, he could not in justice have suffered for original sin, which must have been the demerit of its perpetrators as before argued.

100 Supposing Christ to have been both God and human, he must have existed in two distinct essences, viz. the essence of God and the essence of human. 101 And if he existed in two distinct and separate essences, there could be no union between the divine and human natures. 102 But if there is any such thing as an hypostatical union between the divine and human natures, it must unite both in one essence, which is impossible: 103 for the divine nature being infinite, could admit of no addition or enlargement and consequently cannot allow of a union with any nature whatever. 104 Was such an union possible in itself, yet, for a superior nature to unite with an inferior one in the same essence, would be degrading to the former, as it would put both natures on a level by constituting an identity of nature: 105 the consequences whereof would either deify human, or divest God of His divinity, and reduce Him to the rank and condition of a creature; inasmuch as the united essence must be denominated either divine or human.

OF THE IMPOSSIBILITY OF TRANSLATING AN INFALLIBLE... REVELATION FROM ITS ORIGINAL COPIES, AND PRESERVING IT ENTIRE THROUGH ALL THE REVOLUTIONS OF THE WORLD, AND VICISSITUDES OF HUMAN LEARNING TO OUR TIME

Ethan Allen

SECTION I

12 Admitting for argument sake that the Scriptures of the Old and New Testament were originally of divine supernatural inspiration, and that their first manuscript copies were the infallible institutions of God, 2 yet to trace them from their respective ancient dead languages, and different and diverse translations, from the obscure hieroglyphical pictures of characters, in which they were first written, through all the vicissitudes and alterations of human learning, 3 prejudices, superstitions, enthusiasms and diversities of interests and manners, to our time, so as to present us with a perfect edition from its premised infallible original manuscript copies would be impossible. 4 The various and progressive methods of learning, with the insurmountable difficulties of translating any supposed antiquated written revelation would not admit of it, as the succeeding observations on language and grammar will fully evince.

5 In those early ages of learning, hieroglyphics were expressive of ideas; for instance, a snake quirled (a position common to that venomous reptile) was an emblem of eternity, 6 and the picture of a lion, a representation of power, and so every beast, bird, reptile, insect and fish, had in their respective pictures, particular ideas annexed to them, 7 which varied with the arbitrary custom and common consent of the several separate nations, among whom this way of communicating ideas was practised, 8 in some sense analogous to what is practised at this day by different nations, in connecting particular ideas to certain sounds or words written in characters, which according to certain rules of grammar constitute the several languages. 9 But the hieroglyphical manner of writing by living emblems, and perhaps in some instances by other pictures,

was very abstruse, 10 and inadequate to communicate that multiplicity and diversity of ideas which are requisite for the purpose of history, argumentation or general knowledge in any of the sciences or concerns of life; 11 which mystical way of communicating ideas underwent a variety of alterations and improvements, though not so much as that of characters and grammar has done; 12 for in the hieroglyphical way of communicating their ideas, there was no such thing as spelling, or what is now called orthography, which has been perpetually refining and altering, ever since characters, syllables, words or grammar have been brought into use, 13 and which will admit of correction and improvement as long as humankind continue in the world. 14 For which reason the original of all languages is absorbed and lost in the multiplicity of alterations and refinements, which have in all ages taken place, 15 so that it is out of the power of all Etymologists and Lexieonists now living, to explain the ideas, which were anciently connected with those hieroglyphical figures or words, 16 and which may have composed the original of any language, written in characters, in those obsolete and antiquated ages, when learning and science were in their infancy: 17 since the beneficial, art of printing has arrived to any considerable degree of perfection, the etymology of words, in the scientifical and learned languages, has been considerably well understood: though imperfectly, as the various opinions of the learned concerning it may witness. 18 But since the era of printing, the knowledge of the ancient learning has been in a great measure, or in most respects, wholly lost; and inasmuch as the modern substitute is much better, it is no loss at all. 19 Some of the old English authors are at this day quite unintelligible, and others in their respective latter publications, more or less so.

20 The last century and a half has done more towards the perfecting of grammar, and purifying the languages than the world had ever done before. 21 I do not understand Latin, Greek or Hebrew, in which languages, it is said, that the

several original manuscripts of the Scriptures were written; but I am informed by the learned therein, 22 that, the other languages, they have gone through their respective alterations and refinements, which must have been the case, except they reached their greatest perfection in their first composition; of which the progressive condition of human could not admit. 23 So that the learned in those languages, at this day, know but little or nothing how they were spoken or written when the first manuscript copies of the Scriptures were composed; 24 and consequently, are not able to inform us, whether their present translations do, any of them, perfectly agree with their respective original premised infallible manuscript copies or not. 25 And inasmuch as the several English translations of the Bible do materially differ from each other, it evinces the confused and blundering condition in which it has been handed down to us.

26 The clergy often informs us from the desk, that the translation of the Bible, which is now in use, is erroneous, 27 after having read such and such a passage of it, in either Latin, Greek or Hebrew, they frequently give us to understand, that instead of the present translation, it should have been rendered thus and thus in English, 28 but never represent to us how it was read and understood in the antiquated and mystical figures or characters of those languages, when the manuscripts of Scripture were first written, 29 or how it has been preserved and handed down entire, through every refinement of those languages, to the present condition of Latin, Greek and Hebrew. 30 Probably this is too abstruse a series of retrospective learning for their scholarship, and near or quite as foreign from their knowledge as from that of their hearers.

31 It is not to be supposed that all the alterations which have taken place in language, have been merely by improving it. 32 In many instances, ignorance, accident or custom has varied it to its disadvantage, but it has nevertheless been subject to correction, and generally speaking has been altered for the better, 33 yet, by one means or other has

been so fluctuating and unstable, as that an infallible revelation could not have been genuinely preserved, through all the vicissitudes and revolutions of learning, for more than seventeen hundred years last past to this day.

34 The diversity of the English language is represented with great accuracy by Mr. Samuel Johnson, the celebrated lexicographer, in the samples of different ages, 35 in his history of the English language, subjoined to the preface of the dictionary, to which the curious are referred for the observance of the various specimens.

THE VARIETY OF ANNOTATIONS AND EXPOSITIONS...
OF THE SCRIPTURES, TOGETHER WITH THE DIVERSITY OF SECTARIES EVINCES THEIR FALLIBILITY

SECTION II

36 Every commentary and annotation on the Bible, implicitly declares its fallibility; 37 for if the Scriptures remained genuine and entire, they would not stand in need of commentaries and expositions, but would shine in their infallible lustre and purity without them. 38 What an idle phantom it is for mortals to assay to illustrate and explain to humankind, that which God may be supposed to have undertaken to do, by the immediate inspiration of His spirit? 39 Do they understand how to define or explain it better than God may be supposed to have done? This is not supposable; 40 upon what ground then do these multiplicity of comments arise, except it be pre-supposed that the present translations of the Bible have, by some means or other, become fallible and imperfect, and therefore need to be rectified and explained? 41 And if so, it has lost the stamp of divine authority; provided in its original composition it may be supposed to have been possessed of it.

42 To construe or spiritualise the Bible is the same as to inspire it over again, by the judgment, fancy or enthusiasm of humans; 43 and thus the common people, by receiving God's supposed revelation at secondary hands (whether at the thousandth or ten thousandth remove from its first premised inspiration they know not) cannot in fact be taught by the

revelation of God. 44 Add to this the diverse and clashing expositions of the Bible, among which are so many flagrant proofs of the fallibility and uncertainty of such teachings, as must convince even bigots, that every one of these expositions are erroneous, 'except their own!'

45 It has been owing to different comments on the Scriptures, that Christians have been divided into sectaries. 46 Every commentator, who could influence a party to embrace your comment, put yourself, at the head of a division of Christians; as Luther, Calvin, and Arminius, laid the foundation of the sectaries who bear their names; 47 and the Socinians were called after the Scismatical Socinius; the same may be said of each of the sectaries. 48 Thus it is that different commentaries or acceptations of the original meaning of the Scriptures, have divided the Christian world into divisions and subdivisions of which it consists at present. 49 Nor was there ever a division or subdivision among Jews, Christians or Mahometans, respecting their notions or opinions of religion, 50 but what was occasioned by commentating on the Scriptures, or else by latter pretended inspired revelations from God in addition thereto. 51 The law of Moses was the first pretended immediate revelation from God, which respects the Bible, 52 and after that in succession the several revelations of the prophets, and last of all (in the Christian system) the revelations of Jesus Christ and apostles, who challenged a right of abolishing the priesthood of Moses; 53 Christ claiming to be the antitype of which the institution of sacrifices and ceremonial part of the law of Moses was emblematical; 54 but this infringement of the prerogative of the Levitical priests gave such offence, not only to them, but to the Jews as a nation, 55 that they rejected Christianity, and have not subscribed to the divine authority of it to this day, holding to the law of Moses and the prophets. 56 However Christianity made a great progress in the world, and has been very much divided into sectaries, by the causes previously assigned.

57 "Mahomet taking notice of the numerous sects and divisions among Christians, in his journies to Palestine, thought it would not be difficult to introduce a new religion, and make himself high priest and sovereign of the people." 58 This he finally effected, prosecuting his scheme so far, that he new modelled the Scriptures, presenting them, (as he said,) in their original purity, and called his disciples after his own name. 59 He gained great numbers of proselytes and became their sovereign in civil, military and spiritual matters, instituted the order of mystical priesthood, and gave the world a new Bible by the name of the Alcoran; 60 which he gives us to understand was communicated to him from God, by the intermediate agency of the angel Gabriel, chapter by chapter. 61 "His disciples at this day inhabit a great part of the richest countries in the world, and are supposed to be more numerous than the Christians," 62 and are as much, if not more, divided into sectaries, from causes similar to those which produced the division of Christians, viz.: the different commentators on, and expositions of the Alcoran. 63 The Mufti, or priests, represented the doctrines and precepts of the Alcoran in a variety of lights different from each other, each of them claiming the purity of the original and infallible truths prescribed to the world by Mahomet, their great reformer of Christianity. 64 For though the several sectaries of Mahometans differ, respecting the meaning of their Alcoran, yet they all hold to the truth and divine authority thereof, the same as the Christian sectaries do concerning their Bible: 65 so that all the different opinions which ever did, or at present do subsist, between Jews, Christians and Mahometans, may be resolved into one consideration, viz.: the want of a right understanding of the original of the Scriptures. 66 All sat out at first, as they imagined, from the truth of God's word, (except the impostors,) concluded that they had an infallible guide, 67 and have, by one means or other, been guided into as many opposite faiths as human Invention has been capable of fabricating; 68 each sect among the whole, exulting in their

happy ignorance, believing that they are favoured with an infallible revelation for their direction.

69 It alters not the present argument, whether the Scriptures were originally true or not; 70 for though they be supposed to have been either true or false, or a mixture of both, yet they could never have been handed down entire and uncorrupted to the present time, through the various changes and perpetual refinements of learning and language; 71 this is not merely a matter of speculative and argumentative demonstration, the palpable certainty of it stands confessed in every Jewish, Christian and Mahometan sectary.

ON THE COMPILING OP THE MANUSCRIPTS OF THE SCRIPTURES...

INTO ONE VOLUME, AND OF ITS SEVERAL TRANSLATIONS. THE INFALLIBILITY OF THE POPES, AND OF THEIR CHARTERED RIGHTS TO REMIT OR RETAIN SINS, AND OF THE IMPROPRIETY OF THEIR BEING TRUSTED WITH A REVELATION FROM GOD.

SECTION III

72 The manuscripts of Scripture, which are said to have been originally written on scrolls of bark, long before the invention of paper or printing, and are said to compose our present Bible, were in a loose and confused condition, 73 scattered about in the world, deposited nobody knows how or where, and at different times were compiled into one volume. 74 The four gospels are by the learned generally admitted to have been wrote many years after Christ, particularly that of St. John: 75 and sundry other gospels in the primitive ages of Christianity were received as divine by some of its then sectaries, which have unfortunately not met with approbation in subsequent eras of the despotism of the church.

76 The translation of the Scriptures by Ptolemy Phila-delphus, king of Egypt, was before Christ, and therefore could not include the writings of the New Testament in his translation, 77 and "whether by seventy-two interpreters, and in the manner as is commonly related, is justly questioned." 78 But where, at what time, and by whom, the Scriptures of the Old and New Testament were first compiled into one volume, is what

REASON

I do not understand: 79 but was it a longer or shorter period after Christ, it alters not the present argument materially, since the scattered manuscripts were in a loose and confused condition for a long time; 80 and the grand query is, when the compilers of those manuscripts collected them together in order to form them into one volume, 81 how they could have understood the supposed divine writings, or symbolical figures, with the ideas originally connected with them, and distinguish them from those which were merely human, and in comparison of the others are called profane. 82 To understand this distinction would require a new revelation, as much as may be supposed necessary for composing the original manuscripts themselves; 83 but it is not pretended that the compilers or translators of the Bible were inspired by the divine spirit in the doing and completing their respective business; 84 so that human reason, fancy, or some latent design, must needs have been substituted, in distinguishing the supposed divine and human writings apart, and in giving a perfect transcript of the original manuscripts. 85 Now admitting that the compilers were really honest principled men, (which is more than we are certain of,) it would follow, that they would be obliged to cull out of the mixed mass of premised divine and human writings, such as to them appeared to be divine, 86 which would make them to be the sole arbitrators of the divinity that they were compiling to be handed down to posterity as the infallible word of God, 87 which is a great stretch of prerogative for mortal and fallible human to undertake, and as great a weakness in others to subscribe to it, as of divine authority.

88 Mr. Fenning, in his dictionary definition of the word Bible, subjoins the following history of its translations: "The translation of this sacred volume was begun very early in this kingdom," [England,] 89 "and some part of it was done by King Alfred. Adelmus translated the Psalms into Saxon in 709, other parts were done by Edfrid or Ecbert in 730, the whole by Bede in 731 Trevisa published

the whole in English in 1357. 90 Tindal's was brought higher in 1534, revised and altered in 1538, published with a preface of Cranmers in 1549. 91 In 1551, another translation was published, which was revised by several bishops, was printed with their alterations in 1560. 92 In 1607, a new translation was published by authority, which is that in present use." 93 From this account it appears, that from the first translation of the Bible by Trevisa, into English, in 1357, it has been revised altered, and passed through six different publications, 94 the last of which is said to have been done by authority, which I conclude means that of the king, whose prerogative in giving us a divine revelation, can no more be esteemed valid than that of other people, 95 though he may be possessed of an arbitrary power within the limits of his realm to prevent any further correction and publication of it. 96 As to the changes it underwent previous to Trevisa's translation, in which time it was most exposed to corruptions of every kind, 97 we, will not at present particularly consider, but only observe that those translations could not, every one of them, be perfect, since they were diverse from each other, in consequence of their respective revisions and corrections; 98 nor is it possible that the Bible, in any of its various editions could be perfect, any more than all and every one of those persons who have acted a part in transmitting them down to our time may be supposed to be so: 99 for perfection does not pertain to human, but is the essential prerogative of God.

100 The Roman Catholics, to avoid the evils of imperfection, fallibility and imposture of human, have set up the Pope to be infallible; 101 this is their security against being misguided in their faith, and by ascribing holiness to him, secure themselves from imposture; a deception which is incompatible with holiness. 102 So that in matters of faith, they have nothing more to do, but to believe as their church believes. Their authority for absolving or retaining sins is very extraordinary; 103 however, their charter is from Christ, (admitting them to be his vicars,

and the successors of St. Peter,) and the present English translation of the Bible warrants it. 104 The commission is in these words: "And I will give unto thee the keys of the kingdom of heaven, and whoever thou shalt bind on earth, shall be bound in heaven; and whatsoever thou shall loose on earth, shall be loosed in heaven. 105 Whosesoever sins ye remit, they are remitted unto them, and whosesoever sins ye retain, they are retained."

106 That St. Peter or his successors should have a power of binding and determining the state and condition of humankind in the world to come by remitting or retaining sins, is too great a power to be intrusted to humans, 107 as it interferes with the providence and prerogative of God, who on this position would be exempted from judging the world, (as it would interfere with the chartered prerogative of the Popes in their remitting or retaining of sins, admitting it to have been genuine,) 108 precluding the divine retribution of justice; we may, therefore, from the authority of reason, conclude it to be spurious.

109 It was a long succession of ages that all Christendom were dupes to the Sea of Rome, in which time it is too evident to be denied, that the holy fathers obtruded a great deal of pious fraud on their devotees; 110 all public worship was real to the people in unknown languages, as it is to this day in Roman Catholic countries. 111 Nor has the Bible, in those countries, to this time, been permitted to be published in any but the learned languages, which affords great opportunity to the Romish church to fix it to answer their lucrative purposes. 112 Nor is it to be supposed that they want the inclination to do it. The before recited grant of the power of the absolution of sin, to St Peter in particular, was undoubtedly of their contrivance.

113 In short, reason would prompt us to conclude, that had God, in very deed, made a revelation of His mind and will to humankind, as a rule of duty and practice to them, and to be continued as such to the latest posterity, 114 He would in the course of His providence have ordered matters so that it should have been

deposited, translated, and kept, in the hands of people of a more unexceptionable character than those holy cheats can pretend to. 115 Witchcraft and priestcraft, were introduced into this world together, in its non-age; 116 and has gone on, hand in hand together, until about half a century past, when witchcraft began to be discredited, and is at present almost exploded, both in Europe and America. 117 This discovery has depreciated priestcraft, on the scale of at least fifty per cent, per annum, and rendered it highly probable that the improvement of succeeding generations, in the knowledge of Nature and science, will exalt the reason of humankind, above the tricks and impostures of priests, 118 and bring them back to the religion of Nature and truth; ennoble their minds, and be the means of cultivating concord, and mutual love in society, and of extending charity, and good will to all intelligent beings throughout the universe; 119 exalt the divine character, and lay a permanent foundation for truth and reliance on providence; 120 establish our hopes and prospects of immortality, and be condusive to every desirable consequence, in this world, and that which is to come; 121 which will crown the scene of human felicity in this sublunary state of being and probation; 'which can never be completed while we are under the power and tyranny of priests, 122 since as it ever has, it ever will be their interest, to invalidate the Law of Nature and reason, in order to establish systems incompatible therewith.

MORALITY DERIVED FROM NATURAL FITNESS... AND NOT FROM TRADITION

Ethan Allen

SECTION I

13 Such parts or passages of the Scriptures as inculcate morality, have a tendency to subserve humankind, the same as all other public investigations or teachings of it, may be supposed to have; 2 but are neither better or worse for having a place in the volume of those writings denominated canonical; 3 for morality does not derive its nature from books, but

from the fitness of things; 4 and though it may be more or less, interspersed through the pages of the Alcoran, its purity and rectitude would remain the same; for it is founded in eternal right; 5 and whatever writings, books or oral speculations, best illustrate or teach this moral science, should have the preference. 6 The knowledge of this as well as all other sciences, is acquired from reason and experience, 7 and (as it is progressively obtained) may with propriety be called, the revelation of God, which He has revealed to us in the constitution of our rational natures; 8 and as it is congenial with reason and truth, cannot (like other revelations) partake of imposture. This is natural religion, and could be derived from none other but God. 9 I have endeavoured, in this treatise, to prune this religion from those excrescences, with which craft on the one hand, and ignorance on the other, have loaded it; 10 and to hold it up to view in its native simplicity, free from alloy; 11 and have throughout the contents of the volume, addressed the reason of humankind, and not their passions, traditions or prejudices; for which cause, it is noways probable that it will meet with any considerable approbation.

12 Most of the human race, by one means or other are prepossessed with principles opposed to the religion of reason. 13 In these parts of America, they are most generally taught, that they are born into the world in a state of enmity to God and moral good, and are under His wrath and curse, 14 that the way to heaven and future blessedness is out of their power to pursue, and that it is incumbered with mysteries which none but the priests can unfold, that we must "be born again," have a special kind of faith, and be regenerated; 15 or in fine, that human nature, which they call "the old human," must be destroyed, perverted, or changed by them, and by them new modelled, before it can be admitted into the heavenly kingdom. 16 Such a plan of superstition, as far as it obtains credit in the world, subjects humankind to sacerdotal empire; which is erected on the imbecility of human nature. 17 Such of

humankind, as break the fetters of their education, remove such other obstacles as are in their way, and have the confidence publicly to talk rational, 18 exalt reason to its just supremacy, and vindicate truth and the ways of God's providence to humans, are sure to be stamped with the epithet of irreligious, infidel, profane, and the like. 19 But it is often observed of such a person, that you are morally honest, and as often replied, what of that? Morality will carry no human to heaven. 20 So that all the satisfaction the honest person can have while the superstitious are squibbling hell fire at you, is to retort back upon them that they are priest ridden.

21 The manner of the existence, and intercourse of human souls, after the dissolution of their bodies by death, being inconceiveable to us in this life, and fill manner of intelligence between us and departed souls impracticable, 22 the priests have it in their power to amuse us with a great variety of visionary apprehensions of things in the world to come, which, while in this life, we cannot contradict from experience, the test of great part of our certainty (especially to those of ordinary understandings) 23 and having introduced mysteries into their religion, make it as incomprehensible to us, (in this natural state) as the manner of our future existence; 24 and from Scripture authority, having invalidated reason as being carnal and depraved, they proceed further to teach us from the same authority, 25 that, "the natural human knoweth not the-things of the spirit, for they are foolishness unto you, neither can you know them for they are spiritually discerned." 26 A spiritualising teacher is nearly as well acquainted with the kingdom of heaven, as a person can be with own home lot. 27 You knows the road to heaven and eternal blessedness, to which happy regions, with the greatest assurance, you presumes to pilot your dear disciples and unfold to them the mysteries of the canonical writings, and of the world to come; 28 they catch the enthusiasm and see with the same sort of spiritual eyes, with which they can pierce religion through and through, and understand the

spiritual meaning of the Scriptures, 29 which before had been "a dead letter" to them, particularly the revelations of St. John the divine, and the allusion of the horns therein mentioned. 30 The most obscure and unintelligible passages of the Bible, come within the compass of their spiritual discerning as apparently as figures do to a mathematician: 31 then they can sing songs out of the Canticles, saying, "I am my beloved's and my beloved is mine;" and being at a loose from the government of reason, please themselves with any fanaticisms they like best, 32 as that of their being "snatched as brands out of the burning, to enjoy the special and eternal favour of God, not from any worthiness or merit in them, but merely from the sovereign will and pleasure of God, 33 while millions of millions, as good by nature and practice as they, were left to welter eternally, under the scalding drops of divine vengeance;" 34 not considering, that if it was consistent with the perfections of God to save them, His salvation could not fail to have been uniformly extended to all others, whose circumstances may be supposed to be similar to, or more deserving than theirs, 35 for equal justice cannot fail to apply in all cases in which equal justice demands it. 36 But these deluded people resolve the divine government altogether into sovereignty: "even so Father, for so it seemed good in thy sight." 37 And as they exclude reason and justice from their imaginary notions of religion, they also exclude it from the providence or moral government of God. 38 Nothing is more common, in the part of the country where I was educated, than to hear those infatuated people, in their public and private addresses, acknowledge to their creator, from the desk and elsewhere, 39 "hadst thou, O Lord, laid judgment to the line and righteousness to the plummet, we had been in the grave with the dead and in hell with the damned, long before this time." 40 Such expressions from the creature to the creator are profane, and utterly incompatible with the divine character. 41 Undoubtedly, (all things complexly considered) the providence of God to human is

just, inasmuch as it has the divine approbation.

42 The superstitious thus set up a spiritual discerning, independent of, and in opposition to reason, and their mere imaginations pass with each other, and with themselves, for infallible truth. 43 Hence it is, that they despise the progressive and wearisome reasonings of philosophers (which must be admitted to be a painful method of arriving at truth) but as it is the only way in which we can acquire it, I have pursued the old natural road of ratiocination, 44 concluding, that as this spiritual discerning is altogether inadequate to the management of any of the concerns of life, or of contributing any assistance or knowledge towards the perfecting of the arts and sciences, it is equally unintelligible and insignificant in matters of religion: 45 and therefore conclude, that if the human race in general, could be prevailed upon to exercise common sense in religious concerns, those spiritual fictions would cease, and be succeeded by reason and truth.

OF THE IMPORTANCE OF THE EXERCISE OF REASON...
AND PRACTICE OF MORALITY, IN ORDER TO THE HAPPINESS OF HUMANKIND

SECTION II

46 The period of life is very uncertain, and at the longest is but short; 47 a few years bring us from infancy to humanhood, a few more to a dissolution; pain, sickness and death are the necessary consequences of animal life. 48 Through life we struggle with physical evils, which eventually are certain to destroy our earthly composition; and well would it be for us did evils end here; 49 but alas! moral evil has been more or less predominant in our agency, and though natural evil is unavoidable, yet moral evil may be prevented or remedied by the exercise of virtue. 50 Morality is therefore of more importance to us than any or all other attainments; 51 as it is a habit of mind, which, from a retrospective consciousness of our agency in this life, we should carry with us into our succeeding state of existence, as an acquired appendage of our rational nature, and as the

necessary means of our mental happiness. 52 Virtue and vice are the only things in this world, which, with our souls, are capable of surviving death; 53 the former is the rational and only procuring cause of all intellectual happiness, and the latter of conscious guilt and misery; 54 and therefore, our indispensable duty and ultimate interest is, to love, cultivate and improve the one, as the means of our greatest good, and to hate and abstain from the other, as productive of our greatest evil. 55 And in order thereto, we should so far divest ourselves of the incumbrances of this world, (which are too apt to engross our attention) as to inquire a consistent system of the knowledge of religious duty, and make it our constant endeavour in life to act conformably to it. 56 The knowledge of the being, perfections, creation and providence of God, and of the immortality of our souls, is the foundation of religion; 57 which has been particularly illustrated in the four first chapters of this discourse. 58 And as the Pagan, Jewish, Christian and Mahometan countries of the world have been overwhelmed with a multiplicity of revelations diverse from each other, 59 and which, by their respective promulgators, are said to have been immediately inspired into their souls by the spirit of God, or immediately communicated to them by the intervening agency of angels (as in the instance of the invisible Gabriel to Mahomet) 60 and as those revelations have been received and credited, by afar the greater part of the inhabitants of the several countries of the world (on whom they have been obtruded) as super-naturally revealed by God or angels, 61 and which, in doctrine and discipline, are in most respects repugnant to each other, it fully evinces their imposture, and authorises us, without a lengthy course of arguing, to determine with certainty, that not one of them had their original from God; 62 as they clash with each other, which is ground of high probability against the authenticity of each of them.

63 A revelation, that may be supposed to be really of the institution of God, must also be

supposed to be perfectly consistent or uniform, and to be able to stand the test of truth; 64 therefore such pretended revelations, as are tendered to us as the contrivance of heaven, which do not tear that test, we may be morally certain, was either originally a deception, or has since, by adulteration become spurious.

65 Reason therefore must be the standard by which we determine the respective claims of revelation; 66 for otherwise we may as well subscribe to the divinity of the one as of the other, or to the whole of them, or to none at all. 67 So likewise on this thesis, if reason rejects the whole of those revelations, we ought to return to the religion of Nature and reason. 68 Undoubtedly it is our duty, and for our best good, that we occupy and improve the faculties, with which our creator has endowed us, 69 but so far as prejudice, or prepossession of opinion prevails over our minds, in the same proportion, reason is excluded from our theory or practice.

70 Therefore if we would acquire useful knowledge, we must first divest ourselves of those impediments; and sincerely endeavour to search out the truth: 71 and draw our conclusions from reason and just argument, which will never conform to our inclination, interest or fancy; but we must conform to that if we would judge rightly. 72 As certain as we determine contrary to reason, we make a wrong conclusion; 73 therefore, our wisdom is, to conform to the nature and reason of things, as well in religious matters, as in other sciences. 74 Preposterously absurd would it be, to negative the exercise of reason in religious concerns, and yet, be actuated by it in all other and less occurrences of life. 75 All our knowledge of things is derived from God, in and by the order of Nature, out of which we cannot perceive, reflect or understand any thing whatsoever; 76 our external senses are natural; and those objects are also natural; so that ourselves, and all things about us, and our knowledge collected therefrom, is natural, and not supernatural; as argued in the fifth chapter.

77 An unjust composition never fails to contain error and

falsehood. 78 Therefore an unjust connection of ideas is not derived from Nature, but from the imperfect composition of human. 79 Misconnection of ideas is the same as misjudging, and has no positive existence, being merely a creature of the imagination; 80 but Nature and truth are real and uniform; and the rational mind by reasoning, discerns the uniformity, and is thereby enabled to make a just composition of ideas, which will stand the test of truth. 81 But the fantastical illuminations of the credulous and superstitious part of humankind, proceed from weakness, and as far as they take place in the world subvert the religion of reason, Nature and truth.

The Book of Divine Panagogue called

EVIL

THE EVIL EYE

Roswell Park

A PRESIDENTIAL ADDRESS BEFORE THE BUFFALO SOCIETY OF NATURAL SCIENCES

1 Belief in magic has been called by Tylor, one of the greatest authorities on the occult sciences, "one of the most pernicious delusions that ever vexed humankind." 2 It has been at all times among credulous and superstitious people made the tool of envy, which Bacon well described as the vilest and most depraved of all feelings.

3 Bacon, moreover, singled out love and envy as the only two affections which have been noted to fascinate, or bewitch, 4 since they both have "vehement wishes, frame themselves readily into imaginations and suggestions and come easily into the eye." 5 He also noted the fact that in the Scriptures envy was called the Evil Eye.

6 It is to this interesting subject in anthropological and folk-lore study, namely, the Evil Eye, that I wish to invite your attention for a time. 7 Belief in it is, of course, inseparable from credence in a personal devil or some personal evil and malign influence, 8 but in modern times and among people who are supposed to be civilised has been regarded ordinarily as an attribute of the devil. 9 Consideration of the subject is inseparable, too, from a study of the expressions "to fascinate" and "to bewitch." 10 Indeed this word "fascination" has a peculiar etymological interest. It seems to be a Latin form of the older Greek verb "baskanein", or else to be descended from a common root. 11 No matter what its modern signification, originally it meant to bewitch or to subject to an evil influence, particularly by means of eyes or tongue or by casting of spells. 12 Later it came to mean the influencing of the imagination, reason or will in an uncontrollable manner, and now, as generally used, means to captivate or to allure. 13 Its use in our language is of itself an indication of the superstition so generally prevalent centuries ago. 14 It is, however,

rather a polite term for which we have the more vulgar equivalent "to bewitch," used in a signification much more like the original meaning.

15 Belief in an evil power constantly at work has existed from absolutely prehistoric times. 16 It has been more or less tacitly adopted and sanctioned by various creeds or religious beliefs, particularly so by the church of Rome, by mediaeval writers and by writers on occult science. 17 Even now it exists not only among savage nations but everywhere among common people. 18 We to-day may call it superstition, but there was a time when it held enormous sway over humankind, and exercised a tremendous influence. 19 In its present form it consists often of a belief that certain individuals possess a blighting power, and the expression in England to "overlook" is not only very common, but an easily recognisable persistence of the old notion. 20 Evidently St. Paul shared this prevalent belief when he rebuked the foolish Galatians, saying as in our common translation, "Who hath bewitched you that ye should not obey the truth?" 21 In the Vulgate the word translated "bewitch" is "'fascinare'," exactly the same word as used by Virgil, and referring to the influence of the evil eye. 22 Cicero himself discussed the word "fascination," and he explained the Latin verb 'invidere' and noun 'invidia' as meaning to look closely at; whence comes our word envy, or evil eye.

23 All the ancients believed that from the eyes of envious or angry people there was projected some malign influence which could infect the air and penetrate and corrupt both living creatures and inanimate objects. 24 Woyciki, in his Polish Folk-lore, relates the story of a most unhappy Slav, who though possessed of a most loving heart realised that he was afflicted with the evil eye, and at last blinded himself in order that he might not cast a spell over his children. 25 Even among the Scotch Highlanders, if a stranger look too admiringly at a cow the people believe that she will waste away of the evil eye, and they give

you of her milk to drink in order to break the spell. 26 Plutarch was sure that certain humans' eyes were destructive to infants and young animals, and he believed that the Thebans could thus destroy not only the young but strong people. 27 The classical writers are so full of allusions to this subject that it is easy to see where people during the Middle Ages got their prevalent belief in witches. 28 Thus, Pliny said that those possessed of the evil eye would not sink in water, even if weighed down with clothes; hence the mediaeval ordeal by water;-- 29 which had, however, its inconveniences for the innocent, for if the reputed witch sank you evidently was not guilty, but if you floated you was counted guilty and then burned.

30 Not only was this effect supposed to be produced by the fascinating eye, but even by the voice, which, some asserted, could blast trees, kill children and destroy animals. 31 In Pliny's time special laws were enacted against injury to crops by incantation or fascination; 32 but the Romans went even farther than this, and believed that their gods were envious of each other and cast their evil eyes upon the less powerful of their own circle; hence the 'caduceus' which Mercury always carried as a protection.

33 To be the reputed possessor of an evil eye was an exceeding great misfortune. 34 Solomon lent himself to the belief when he enjoined, "Eat thou not the bread of him that hath an evil eye." (Proverb, chapter-23, verse:6). 35 The most inconvenient country in which to have this reputation to-day is Italy, and especially in Naples. The Italians apply the term 'jettatore' to the individual thus suspected, 36 and to raise the cry of "'Jettatore'" in a Neapolitan crowd even to-day is to cause a speedy stampede. 37 For the Italians the worst of all is the "'jettatore di bambini'," or the fascinator of infants. 38 Elworthy relates the case of a gentleman who on three occasions acted in Naples in the capacity of sponsor; singularly all three children died, whereupon he at once got the reputation of having the "'malocchio'" 39 to such an extent that mothers would take all sorts

of precautions to keep their children out of his sight. 40 The great Bacon lent himself also to the belief to such an extent as to advise the carrying on one's person of certain articles, such as rue, or a wolf's tail or even an onion, by which the evil influence was supposed to be averted.

41 A most interesting work was written by Valletta and published in Naples in 1787. It was practically a treatise upon fascination and the jettatore. 42 Valletta himself was a profound believer in all this sort of thing, and finished up his work by offering rewards for answers to certain questions, among which were the following:-- 43 "Which jettatore is most powerful, one who has or one who has not a wig? Whether monks are more powerful than others? 44 To what distance does the influence of the jettatore extend, and whether it operates more to the side, front or back? 45 What words in general ought one to repeat to escape the evil eye?"

46 In ancient times it was believed that women had greater power of fascination then men, a belief to which our sex still hold at the present day, 47 although in modern times the evil eye proper is supposed to be possessed by men rather than by women; 48 monks especially, ever since the establishment of religious orders, being considered to possess this fatal influence. 49 Curiously enough, the late Pope, Pius IX, was supposed to be a most pronounced jettatore, and the most devout Catholics would point two fingers at him even while receiving his blessing. 50 Let me quote Elworthy in this connection:--"Ask a Roman about the late Pope's evil eye, and will answer, 'They say so, and it really seems to be true. If he had not the jettatura it is very odd that everything he blessed made fiasco. 51 We did very well in the campaign against the Austrians in '48; we were winning battle after battle and all was gayety and hope, when suddenly he blessed the cause and everything went to the bad at once. 52 Nothing succeeds with anybody or anything when he wishes well to them. 53 When he went to S. Agnese to hold a great festival down went the floor and the people were all smashed

together. 54 Then he visited the Column to the Madonna in the Piazza di Spagna and blessed it and the workmen. Of course one fell from the scaffold the same day and killed himself. 55 He arranged to meet the King of Naples at Porto d'Anzio, when up came a violent gale and storm that lasted a week. Another arrangement was made and then came the fracas about the ex-Queen of Spain.'"

56 The superstition of the evil eye and of witchcraft goes everywhere with the belief in the power of transformation, 57 which at certain periods of history has been so prevalent as to account for many of the stories of ancient mythology, and will account even for such nursery stories as that of Little Red Riding Hood, as well as for the old-world belief in the 'werewolf'. 58 Indeed, a common expression reminds one of this old belief, since it is a common saying to be ready to "jump out of one's skin for joy." 59 This belief in transformation has begotten an ever-present dread of ill omens which is even now one of the most prevalent of superstitions. 60 In Somerset, to see a hare cross the path in front of one is a sign of death. In India they fear to name any sacred or dreaded animal. The black cat is everywhere an object of maversion, 61 and in some parts of England to meet a person who squints is equal to meeting one possessing the evil eye. 62 Surely I do not need to remind this audience of the fear which many people have of taking any important action on Friday. 63 This fear goes so far in some instances as to lead people to deprecate over-praise or apologise for a too positive statement. Your courteous Turk will not take a compliment without "Mashallah;" 64 the Italians will not receive one without "Grazio a Dio;" while the Irishman almost always says "Glory be to God," and the English peasant "Lord be wi' us;" 65 the idea in every instance being to avert the danger of fascination by these acknowledgments of a higher power.

66 In England during the horrible times when the Black Death raged it was supposed that the disease was communicated by a glance from the distorted eyes of a sick man. 67 In 1603 Delrio, a Jesuit,

published a large six-volume folio work entitled "*A Disquisition on Magic*," in which he takes it for granted that the calamities of mortals are the work of evil spirits. 68 He says, "Fascination is a power derived by contact with the devil, who, when the so-called fascinator looks at another with evil intent, or praises by means known to himself, infects with evil the person at whom he looks." 69 Those familiar with the history of so-called animal magnetism, mesmerism or hypnotism, will see a close connection between these beliefs and the practice of this peculiar form of influence. 70 Mesmerism, in fact, as ordinarily practiced, was more or less dependent upon the influence of touch, or actual contact, whose importance has always been by the credulous rated high. 71 In fact, it will be remembered that many of the miracles of the New Testament were performed by the aid of touch, 72 and in the Old Testament it is recorded how disappointed Naaman was when he went to be cured of his leprosy in that the prophet did not 'touch' him. 73 The influence of the 'royal touch' for the cure of scrofula, known for centuries as the King's Evil, will also not be forgotten. 74 In fact, our word to "bless" signifies to touch by making the sign of the cross on the diseased part, 75 as, for instance, in the West of England, where goitre is rather common, it is believed that the best cure is that the swelling should be touched by the hand of a corpse of the opposite sex.

76 The more we deal with the superstitions now under consideration the more evident it becomes that the principal thought among the simple peoples, or even among some of the religious sects of to-day, has been the propitiation of angry deities, 77 or of destructive influences, rather than the worship and exaltation of beneficent attributes. 78 As Elworthy says, "We find that fear and dread have in all human history been more potent factors in humans' conduct than hope and gratitude or love." 79 Take for example the propitiatory sacrifices of Abel and Cain, or the sacrifice which Abraham proposed to make of his own son, or the very words

which have crept into our language such as 'atonement', etc.

80 With this personification of an evil power or attribute in Nature came also belief in transformation, or metamorphosis, of which the Greek and Roman mythology is full. 81 How many of the Christian symbols of to-day, nearly all of which are of pagan origin, convey to the initiated instances of this belief, can hardly be mentioned in this place. Suffice it to say that their number is very great. 82 But I find too many temptations to wander from my subject, which is essentially the evil eye.

83 In mediaeval symbolism, as in ancient, the intent often was to represent either on some amulet, charm or picture a figure of the thing against which it was most desired that a protective influence should be exercised, hence the general prevalence of the eye in some pictorial representation. 84 The ancient Egyptians, as well as the Etruscans, used to paint a huge eye on the bows of their vessels, which was supposed to be a charm against the evil eye. 85 Even to-day in the Orient I have seen Greek boats with eyes painted on either side of their prows. The eye was a common adornment of Egyptian pottery, usually in combination with various other pictures, 86 but as a symbol it seems during the past century or two to have passed out of common employ, except perhaps in Malta, and among the Free-masons, who simply are perpetuating its use. 87 Nevertheless, wax or silver eyes are seen hung up in some foreign churches. A curious feature of these superstitions has been this, that any feature of indecency or obscenity when attaching to these symbols, amulets, etc., has been supposed to make them much more potent. 88 This probably was because anything strange or unusual was more likely to attract the eye, and therefore divert its influence from the individual to the inanimate object, hence the prevalence of phallic emblems in connection with these fancied protections. 89 Many objects of this kind can be to-day picked up in the jewelry stores of Rome and of Naples.

90 Another of the most efficacious of these amulets takes the general form of a hideous mask, often

called the 'Gorgoneion'. In all probability this was largely for the reason given above-- that it was most likely to attract attention. 91 Symbols of this kind are in very general use among people who know nothing of the reason therefore. Thus, we see them on seals, coins, etc. 92 The gargoyles of mediaeval architecture are frequently given this fantastic appearance and for this same purpose. 93 In Roman times the dolphin was a favourite device for a potent charm against the evil eye, and was pictured on many a soldier's shield. 94 Ulysses adopted it as his especial choice, both on his signet and his shield, perhaps because it was supposed to have been through the agency of the dolphin that Telemachus was saved from drowning.

95 To us in the medical profession it is of no little interest that in Rome, according to Varro, there stood three temples on the Esquiline dedicated to the goddess of Fever and one to Mephitis. 96 Tacitus relates that a temple to Mephitis was the only building left standing after the destruction of Cremona, where there was also an altar dedicated to the Evil Eye. 97 We know, also, that in the very centre of the Forum there stood an altar to Cloacina, the Goddess of Typhoid. 98 What complete sway this goddess has held from ancient times to the present I need scarcely tell you. 99 "When Rome, after the fall of the empire, relapsed into its most insanitary condition this old worship reappeared in another shape, and a chapel arose near the Vatican to the 'Madonna della Febre', the most popular in Rome in times of sickness or epidemic." 100 This simply shows a transfer of ideas, the attributes of Diana being conveyed over to her Christian successor, the virgin, whose cult became equally supreme.

101 The principal symbol of this cult was the horned moon or crescent, and, in consequence, horns in one form or another became the most common of objects as amulets against the Evil Eye. 102 So comprehensive and persistent is this belief in Naples that, in the absence of a horn in some shape, the mere utterance of the name 'corno' was supposed to be an effectual protection. 103 Even more than this, the name 'Un

Corno' became applicable to any and every charm or amulet against the Evil Eye. 104 We may find many references to the Horn in Scripture, where it served both as an emblem of dignity and as an amulet. 105 Most curious it is that the phylactery with which the Pharisees adorned their garments, and which called forth the most scathing denunciation by the Master, was undoubtedly an emblem of a horn, and worn as an amulet against the Evil Eye. 106 At the beginning of the Christian era it had become fashionable to wear these, and how they were enlarged and made not only badges of sanctity but marks of worldly honour, we may read in the New Testament.

107 The horn has been an important feature of Christian symbolism, as of pagan, and we constantly see the ram's horn, which was the successor of the bull's horn, made such from economical reasons, all over the ruins of ancient Rome. 108 The married women of Lebanon wear silver horns upon their heads to distinguish them from the single women. 109 The Jewesses of Northern Africa wear them as a part of their regular costume, and even to-day curious spiral ornaments are worn on either side of the head by the Dutch women. 110 In Naples horns in all shapes are exceedingly common upon the trappings of the cab horses. 111 Indeed the heavy trappings and harness of these overloaded animals are usually protected with a perfect battery of potent charms, so that any evil glance must be fully extinguished before it can light upon the animal itself. 112 Thus, we may frequently see upon the backs of these animals two little brazen flags, said to be typical of the flaming sword which turned every way, and which are supposed to be an unfailing attraction to the eye. 113 The high pommel ends usually in a piece of the inevitable wolf's skin, and many coloured ribbons or worsteds are wound about portions of the harness in such a way as completely to protect all that it encloses.

114 But the most numerous of all these emblems is a 'hand' in various positions or gestures. 115 Probably every other cab horse in

Naples carries the hand about them in some form. In Rome these things are not seen so much on horses' backs, although wolf skins, horns and crescents are common enough, 116 but we see large numbers of silver rings for human fingers, to each of which a little pendant horn is attached. 117 These may be seen in the shop windows strung upon rods and plainly marked 'Annelli contra la Jettatura'. 118 Those who have seen Naples thoroughly have noted how cows' horns, often painted blue, are fixed against the walls, especially at an angle, about the height of the first floor. 119 But one of the most remarkable amulets which I have ever seen hangs outside one of the entries to the Cathedral in Seville, where over a door is hung by a chain the tusk of an elephant, 120 and further out, over the same doorway, swung by another chain, an enormous crocodile, sent as a present or charm of special power to Alfonso, in 1260, by the Sultan of Egypt. 121 These two strange charms hang over the doorway of a Christian church of to-day, indicating the acceptance by a Christian people of a Moslem emblem and amulet.

122 Again, in Rome it is very common to see a small cow's horn on the framework of the Roman wine carts or dangling beneath the axle. 123 Much more common and better known among the Anglo-Saxon peoples is the horse-shoe emblem, which with us has lost all of its original signification, as an emblem of fecundity, and has become a charm against evil. 124 It is hung up over doorways, is nailed up in houses, it guards stable doors and protects fields against malign influences. 125 Even in the Paris Exhibition of 1889, where there was a representation of a street from old Cairo, there hung over several of the doors a crocodile with a horse-shoe on own snout.

126 So far I have said very little about the positions of the hand and certain gestures by which it is intended to ward off the evil eye. 127 The Mohammedans, like the Neapolitans, are profound believers in the efficacy of manual signs; 128 thus outside of many a door in Tangier I have seen the imprint of a hand made by placing

the outstretched hand upon some sticky black or coloured material, 129 which was then transferred as by a type or die to the doorway of the dwelling, where in the likeness of the outstretched manus it serves to guard the dwellers within. 130 This is to me one of the most curious things to be observed in Mohammedan countries. A relic of the same belief I have seen also over the great gate of the Alhambra, 131 in the Tower of Justice, where, in spite of the very strict Moslem custom and belief against representation of any living object, over the keystone of the outer Moorish arch is carved an outstretched upright hand, a powerful protection against evil. 132 It is this position of the hand, by the way, which has been observed in all countries in the administration of the judicial oath. 133 Moreover, the hand in this position is the modern heraldic sign of baronetcy.

134 The hand in the customary position of benediction is sometimes open and extended, while at other times only the first and second fingers are straightened. 135 The power which the extended hand may exert is well illustrated in the biblical account (in Exodus, chapter-17, verse:11) "And it came to pass when Moses held up his hand that Israel prevailed, and when he let down his hand Amalek prevailed." 136 And so it happened that when Moses wearied of the constrained position his hand was supported by Aaron and by Hur. 137 This is only one of numerous illustrations in the holy writings showing the talismanic influence of the human hand. 138 There are comparatively few people who realise, to-day, that the conventional attitude of prayer as of benediction, with hands held up, is the old charm as against the evil eye. 139 In one of the great marble columns in the Mosque of St. Sophia in Constantinople there is a remarkable natural freak by which there seems to appear upon the dark marble the white figure of an outspread hand. 140 This is held in the highest reverence by the superstitious populace, who all approach it to pray for protection from the evil eye. 141 The open hand has also been stamped upon many a coin both in ancient and

modern times, and the general prevalence of the hand as a form of doorknocker can be seen alike in the ruins of Pompeii and the modern dwelling.

142 The hand clenched in various forms has been used in more ways than as a mere signal or sign of defiance. 143 In Italy the 'mano-fica' implies contempt or insult rather than defiance. 144 Among all the Latin races this peculiar gesture of the thumb between the first and second fingers has a significant name and a significant meaning. 145 It is connected everywhere with the fig, and expresses in the most discourteous way that which is implied in our English phrase "don't care a fig." 146 It is in common use as an amulet to be worn from the neck or about the body, and conveys the same meaning as that which the Neapolitans frequently express when they say "May the evil eye do you no harm."

147 Another position of the hand, namely, that with the index and little fingers extended, while the middle and ring fingers are flexed and clasped by the thumb, gives also the rude imitation of the head of a horned animal, and is frequently spoken of as the 'mano cornuta'. 148 A Neapolitan's right hand is frequently, in some instances almost constantly, kept in that position pointing downwards, just as hand charms are made to hang downwards, 149 save when it is desired to use the sign against some particular individual, when the hand is pointed toward one, even at one’s very eyes if one appear much to be dreaded. 150 When, however, the hand in this position is pointed toward one's chin it conveys a most insulting meaning and hints at conjugal infidelity. 151 As the Neapolitan cab-people pass each other the common sign is to wave the hand in gesture and in this position. This is true also of many other places.

152 The sign of the cross is very often made with the hand, usually with the first two fingers extended, and seems to mean a benediction of double potency, because both the hand and the cross itself are utilised in the gesture. 153 I have elsewhere discussed the signification of the sign of the cross, and do not care to take it up

again just now. It is certainly of phallic origin and as certainly antedates the Christian era by many hundred years. 154 It is, in other words, a pagan symbol to which a newer significance has been given. 155 Talismanic power has usually been ascribed to it, and in some form, either as the Greek Tau or the Crux Ansata, has been most frequently employed. 156 In one or the other of these forms it was the mark set upon the houses of the Israelites to preserve them from the destroying angel. 157 In the roll of the Roman soldiery, after a battle, it was placed after the names of those still alive; 158 and we read in Ezekiel, chapter-9, verse:4 of the mark which was to be set upon "the foreheads of the men that cry," which was certainly the Greek Tau, because the Vulgate plainly states this. 159 Upon some of the old Anglo-Saxon coins there was placed a cross on each side, usually the handled cross, and upon various seals it has been in use until a comparatively recent period. 160 It may be seen, also, in many illustrations from the catacombs, for instance, dating back to a time before the cross was a generally received Christian emblem, showing both the use of the cross and the hand in the positions to which I have already alluded. 161 The sign of the cross is made by many a schoolboy in his play before he shoots his marble, and I have often seen it made upon the wooden ball before a man has bowled with it. 162 Many a peasant scratches it upon own field after sowing, and many a housewife has scratched it upon her dough.

163 The hand with the first two fingers and thumb extended in the ordinary position of sacerdotal benediction was certainly a charm against evil long before the Christian era. 164 This is not used so much by the common people, but has been appropriated rather by the priests. By a sort of general consent this has been especially the attitude permitted to the Second Person of the Trinity, 165 although there are numerous instances in mediaeval painting where the hand of the First Person has been shown in this position. 166 Indeed, the expression "'dextera Dei'," or "right hand of God," is conventionalised.

167 In many amulets, images and pictures, other charms are combined with that supposed to be exercised by the human hand. 168 An exceedingly common one was the Egyptian scarab. The Egyptians believed that there were no females of this kind of insect, hence it was considered a symbol of virility and manly force, 169 and in connection with the 'mano pantea' just alluded to gave the amulet power to guard both the living and dead. In fact it was almost as common upon these emblems as the human eye itself.

170 Again, the serpent was a frequent emblem in this same connection. As I have elsewhere written upon the subject of serpent-worship I need scarcely more than allude to it here, 171 save to say that to the serpent were ascribed numerous virtues and powers, and that its use upon any charm was supposed to reinforce the virtues already possessed by it.

172 Among the most curious of all the Italian charms against the Evil Eye, and yet one which has been singularly neglected by most writers, is the sprig of rue or, as the Neapolitans call it, the 'cimaruta'. 173 In its simplest form it was undoubtedly of Etruscan or Phoenician origin. Later, however, it became curiously involved with other symbols and quite complicated. 174 It is worn especially upon the breasts of Neapolitan babies, and is considered their especial protection against the much-dreaded jettatura. 175 In ancient times no plant had so many virtues ascribed to it as had the rue. Pliny, indeed, cites it as being a remedy for 84 different diseases. 176 It used to be hung about the neck in primeval times to serve as an amulet against fascination. 177 In most of these amulet forms it consists of three branches, which were supposed to be typical of Diana Triformis, who used often to be represented in three positions and as if having three pairs of arms.

178 Diana, by the way, was the especial protectress of women in child-birth. Silver was her own metal and the moon her special emblem. 179 Therefore, the expression, "the silver moon" is not so meaningless as it would appear. 180 This will in some

measure account for the fact that corals, to which large virtues were ascribed, used always to be mounted in silver, and that the crescent, or new moon, is also almost invariably made of this same metal. 181 Of the many charms which used to be combined in the 'cimaruta' there is scarcely one which may not be more or less considered as connected with Diana, the Goddess of Infants.

182 Frequently, also, we may see representations of the sea-horse quite like the living hippocampi of to-day, which are worn alike by cab horses and by women in Naples. They are known locally as the 'Cavalli marini'.

183 Protection supposed to be most efficient was and is frequently afforded also by another method, namely, printed or written invocations, prayers, formulae, etc., worn somewhere about the body. 184 Sometimes these were worn concealed from view and at others they were openly displayed. Even today on Turkish horses and Arab camels are hung little bags containing passages from the Koran, 185 while the Neapolitan horses frequently carry in little canvas bags prayers to the Madonna or verses from scripture,-- these as a sort of last resort in case the other charms fail. 186 The good Catholic of to-day, especially if of Irish descent, wears own little scapulary suspended around the neck, which is supposed to be a potent protection. 187 Frommannd's large work on Magic offers us a perfect mine of written spells against fascination, which have often to be prepared with certain mystic observances.

188 The various written charms, as against the bite of the mad dog, are only other illustrations of the same superstition. 189 Indeed, many superstitious people believe that the mere utterance of particular numbers exercises a charm. 190 Daily expression of this belief we see in the credulity about the luck of odd numbers, and the old belief that the third time will be lucky. 191 Military salutes are always in odd numbers. More value attaches in public estimation to the number seven than to any other, as we see in the miraculous powers ascribed to the seventh son of a seventh son.

192 An appeal to luck to-day is the equivalent of the old prayer to the Goddess Fortuna, and is voiced in the common idea about the lucky coin and the various little observances for luck which are so popular. 193 These observances are everywhere inclusive of the popular importance attached to expectoration, which is one of the most curious features of these many widespread beliefs. 194 The habit of spitting on a coin, for instance, is very common, just as the schoolboy spits on his agate when playing marbles or on his baseball, or the bowler upon his wooden ball before rolling it. 195 In fact, this whole matter of spitting has been in all ages an expression of a deep-rooted popular belief. 196 Among the ancient Greeks and Romans the most common remedy against an envious look was spitting, hence it was called "'despuere malum'." 197 Old women would avert the evil eye from their children by spitting three times (observe the odd number) into their bosoms.

198 The virtues and properties attributed to saliva among various peoples have been numerous and exalted. 199 To lick a wart on rising in the morning used to be one of its well-recognised cures, and is to-day a popular remedy for any slight wound. Especially was the saliva of a fasting person peculiarly efficacious. 200 Pliny states that when a person looks upon an infant asleep the nurse should spit three times upon the ground. 201 But the most marvellous virtues were attributed to saliva in the direction of restoration of sight. 202 The most conspicuous illustration of this is the instance mentioned in the New Testament when Christ healed the blind man, for it is related that: "He spat on the ground and made clay of the spittle, and did anoint the eyes of the blind man with the clay."

203 The practice of concealing the eyes is prevalent throughout the Orient, and among the Mohammedans, cannot be referred entirely to male jealousy, 204 for the women themselves confess to the greatest reluctance to show their faces to the stranger, fearing the influence of the evil eye.

205 Again, inasmuch as from time immemorial diseases of all kinds

have been considered the direct result of fascination, it was most natural that charms of varied form should be introduced as a protection. 206 Many persons even of considerable education lend themselves to this superstition. The carrying in one's pocket of a potato, a lump of camphor or an amulet is, among other alleged charms, but an everyday illustration of this belief.

207 It would be possible to go on with an almost endless enumeration of the forms of this still generally prevalent belief in the power of the evil eye, and of the charms by which it may be averted. 208 As has been set forth, it is but a particulate expression of a general and widespread belief in the existence of an evil being, 209 for some vague and almost unsubstantial, for others assuming almost the proportions of the personal devil of mediaeval theology, or even of the Tyrolean Passion Plays. 210 A discussion in a general way of this topic I have held to be not entirely foreign to the purpose of this society, it being one of the most interesting subjects of folklore study, 211 and it may perhaps be considered just at the present to have a more particular interest for us in that we have so recently been favoured with a most delightful and scholarly essay on the "*Salem Witchcraft*" by Prof. John Fiske, 212 in which he graphically set forth the mechanism and the consequences of an aggravated expression of this belief, 213 which constitutes the most serious blot which can be found upon the history of the Protestant white races in this country.

THANATOLOGY
A QUESTIONNAIRE AND A PLEA FOR A NEGLECTED STUDY

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2 Is it possible to watch the "vital spark of heavenly flame," as it quits "this mortal frame" and not be overcome by the mystery of death as the termination of that even greater mystery, life? 2 Is there inspiration in the pagan emperor's address to his soul--

those Latin verses which Pope has so beautifully translated?

3 To the speculative philosopher death may have a different significance, and one not altogether included in that given to it by the physiologist. 4 To the former it is a subject for transcendental speculation; to the latter it is the terminal stage of that adjustment of internal and external relations which, for Spencer, constitutes life. 5 For us its primary and immediate significance is purely mundane, yet it deserves such serious study from a practical viewpoint as it seldom receives.

6 What is death? When does it actually occur? 7 How can it occur when the majority of cells in the previously living organism live on for hours or for days or, under certain favouring circumstances, retain potentialities of life for indefinite periods? 8 These and numberless related questions constitute a line of inquiry that may well call for a separate department of science. 9 Pondering in this wise, I long ago coined an expression which years later I found had been incorporated in the scientific dictionaries, though never before heard by me or encountered in my reading. 10 "Thanatology" is this word, and it may be defined as the study of the nature and causes of death. Inseparable from it, however, are certain considerations regarding the nature and causes of life. 11 Yet I would not introduce a compound term such as "biothanatology," wishing so far as possible to limit the study and the meaning.

12 Let us ask ourselves a few more questions. Does life inhere in any particular cell? In the leukocytes? In the neurons? Both are capable of stimulated activity long after the death of their host. 13 In fact, by suitable electric stimulation, nearly all the phenomena of life may be reproduced after death, save consciousness and mentality alone. Do these then constitute life, and their suppression or abolition death? 14 If so what about the condition of trance, or of absolute imbecility, congenital or induced? 15 Or, again, how can a decapitated frog go on living for hours? Is it perhaps because the heart is 'the' vital organ that the

hearts of some animals will continue to palpitate for hours after their removal from the bodies? 16 Yet the animals which have lost them certainly promptly die. Suddenly stop a human's heart-action by electrocution, or the guillotine, or a bullet, and one dies, we say, instantly. 17 Let it stop equally suddenly under chloroform and there is a period of several minutes during which it may be set going. 18 Let a person apparently drown and this viable period becomes even longer-- say a goodly fraction of an hour. 19 During the interval is one alive or dead, or is there an intermediate period of absolutely suspended animation? And if so, in what does it consist?

20 Is there a vital principle? If so what is it? Is such a thing conceivable? Can such a concept prevail among physicists? 21 Can we consent even to entertain in this direction the notion of what is so vaguely called "the soul?" 22 Of course, those who talk most lucidly about the soul know least about it, and no human can define it in comprehensible terms; 23 but can consideration of the soul (whatever it may be) be omitted from our thanatology? 24 Probably not, at least by many thinkers who cannot segregate their physics from their theology. 25 Sad it is that theology, which might be so consolatory had it any fixed foundation, should be utterly impotent when so much is wanted of it. 26 Theology, however, has little if aught to do with thanatology.

27 Is protoplasm alive? If so, then why may we not believe, with Binet, in the psychic life of micro-organisms? 28 He seems to have advanced good reason for assuming that we may do so, albeit such manifestations in either direction may be scarcely more than expressions of chemiotaxis. 29 But if protoplasm be alive in any proper sense, as it would appear (else where draw the line?), just when does it so appear and whence comes its life? 30 If it be alive, then life inheres in the nitrogen compounds composing it, or else is an adjunct of matter, imponderable, elusive, something 'un'-conceivable if undeniable. 31 The vitalists are of late perhaps attaining an ascendency which for

decades they had lost, since they maintain that life is not to be explained by chemical activities alone. 32 And yet it is possible to set going in the eggs of certain sea animals the phenomena of life, or to liberate them by certain weak solutions of alkaline cyanides, without the pressure or assistance of fructifying spermatozoa. 33 In such cases life or death are determined by ionisation and certain chemicals, or by their absence. 34 Where then, again, is the vital principle? Or is it inherent in the ion, and was Bion correct when he said "electricity is life?" 35 The life of a cell is then necessarily quite distinct from the life of its host, nor can the latter be composed simply of the numerical total lives of its components. 36 Some lower animals bear semi-division, in which case each half soon becomes a complete unit by itself. Others seem to bear the loss of almost any individual part without loss of life, and it is hard to say just which is the vital part. 37 The central pumping organ is perhaps the 'sine qua non', when it exists. But when non-existent, then what? 38 Again, while a living organism may be artificially divided into viable portions, no method seems known by which a series of separate cells may be, as it were, assembled or combined into one, of which a new unit may result from assemblage or combination. 39 The more highly specialised or complex the cell, the more easily does it part with life, and the more difficult becomes its preservation and its reproduction. 40 We may assume that after the death of a human your most specialised cells are the first to die, or more, that their death has perhaps preceded your own. 41 In the ante-mortem collapse seen in many diseases and poisonings, has not this very thing occurred, i. e., that the patient has outlived own most important cells? 42 Certainly when a patient dies of progressive gangrene one has outlived, perhaps, a large proportion of own millions of competent cells. Viewed properly, what a strange spectacle is here presented! 43 Perhaps twenty per cent. of the cells actually dead, the rest bathed in more or less poisonous media, still their host endures yet a little while.

44 "Behold, I show you a great mystery." About which of the poisoned cells does the flame of life still flicker?

45 The life-giving germ-and sperm-cells may exist and persist for some time after the body dies, as numerous experiences and experiments have shown. 46 Ova and spermatozoa do not die the instant the host dies. 47 And herein appears another great mystery, that cells from the undoubtedly dead body may possess and unfold the potentialities of life when properly environed. 48 Among the lower forms of life cells but slightly differentiated go on living and even creating new organisms, though the larger organisms be dead. 49 Moreover, in what way shall we regard the division of one ameboid cell into two, equally alive and complete? 50 Here two living organisms are made out of one, without death intervening, and by permutation alone may one calculate, 51 through how few generations cells need pass in order to be numbered by millions, without a death necessary to the process.

52 Thus far we have had in mind life and death in the animal kingdom alone. But most of what has been said, and much that has not, is equally true in the vegetable kingdom. 53 Even in the mineral kingdom-- as some think-- the invariable and inevitable tendency to assume definite crystalline form represents the lowest type of life. 54 Indeed it might fall in with Spencer's definition as evincing a tendency to adjust internal to external relations, though exhibited only after such ruthless disturbance as liquefaction by heat or solution. 55 But then, is not every disturbance of relations "ruthless," because it follows inexorable habits of Nature? 56 Even a crystal will reform as frequently as appear certain other phenomena of life, if made to do so. 57 Were atoms alive they would suffer with every fresh chemical change, and who knows but that they do?

58 But in the vegetable world we certainly have all the features of life and death in complete form: 59 fructification of certain cells by certain others, development in unicellular form or in most profuse

and complex form, a selection of necessary constituents of growth from apparently unpromising soil, and the production of startling results. 60 Does not the sensitive plant evince a contact sensibility almost equal to that of the conjunctiva? And who shall say that it does not suffer when rudely handled? 61 Does not the production of the complex essential oils and volatile ethers which give to certain flowers their wonderful fragrance, indicating what strange combinations of crude materials have been effected within their cells, 62 show as wonderful a labouratory as any concealed within the animal organisms? 63 Yet death comes to these plants with equal certainty, and presents equally perplexing mysteries. 64 When dies the flower? When plucked and separated from its natural supply or when it begins to fade (a period made more or less variable by the care given it), or when it ceases to emit its odour? 65 And is then death a matter of hours? When the floral stem was snapped what else snapped with it? At what instant did the floral murder occur?

66 Every seed and every seedling possesses marvelous potentiality of life, and so long as it does we say it is not dead; nor yet is it alive. 67 It resists considerable degrees of heat, will bear the lowest temperature, will remain latent for long periods, and still its cells will instantly respond to favouring stimuli. 68 Its actual life is apparently aroused by purely thermic and chemical (electrionic?) activities environing it. In what do its life and its death consist?

69 But life and death are influenced-- we say "strangely" only because it all seems strange to us-- by uncommon or purely artificial conditions. 70 Radium emanations have always an injurious effect on embryonic development. Under their influence, for example, the eggs of amphibia become greatly disturbed. 71 Cells that should specialise into nerve, ganglion and muscle fail to develop, and consequently there may be produced minute amphibian monsters, destitute of nerves and muscles, but otherwise nearly normal. 72 Hertwig has submitted

the sperm-cells of sea urchins to these rays, without killing them, but invariably with consequent abnormal development.

73 The effect of cathode or 'x'-rays is even more widely recognised and has been more generally demonstrated. They seem to possess properties injurious to most cell-life and even fatal to some.

74 Still more puzzling, and weird in a way, are the results of experiments, now widely practiced, 75 which have to do with juggling, as it were, with ova, larvæ and embryos, by all imaginable combinations of subdivision and reattachment of parts, so that there have resulted all kinds of monstrosities and abnormalities. 76 To such an extent has this labouratory play been carried that almost any desired product can be furnished--living creatures with two heads, two tails, or whatever combination may be determined.

77 Among the most remarkable of these efforts have been those of Vianney, of Lyons, who has shown that it is possible to remove the head end of several different insect larvæ without preventing their development and metamorphosis into the butterfly stage. 78 In 'Bombyx' larvæ, for example, the butterflies arrived at the mature stage, with streaked wings and beautiful colouration, but almost headless. These anencephalous insects lived for some time.

79 Few animals survive exposures of any length to a temperature much over 150 F., and most of them are killed by considerably less heat. 80 Freezing has always been considered equally fatal. Gangrene is the common result of freezing a part of the human body, and that means local death. 81 Extraordinary pains must be taken with a frozen ear or finger if its vitality is to be restored. 82 And so even with the hibernating, or the cold-blooded animals, a really low temperature has been generally regarded as fatal.

83 But the recent experiments of Pictet, who did so much in the production of exceedingly low temperatures, freezing of gases, etc., have shown some startling results in the failure to kill goldfish and other of the lower

animals by refrigeration. 84 For instance, goldfish were placed in a tank whose water was gradually frozen while the fish were still moving therein. The result was a cake of ice with imprisoned supposedly dead fish. 85 This ice was then reduced to a still lower temperature, at which it was maintained for over two months. It was then very slowly thawed out, whereupon the fish came to life and moved in apparently their normal and natural ways as if nothing had happened.

86 This confirms Pictet's early experiments and convictions, that if the chemical reactions of living organisms can be suspended without causing organic lesions the phenomena of life will temporarily disappear, to return when conditions are again as usual. 87 It is worth relating that his fish frozen in this way could be broken in small pieces just as if they were part of the ice itself.

88 How often during these recent decades when events have seemed to move faster, when discoveries and inventions have been announced at such frequent and brief intervals that we fail to note them all for lack of time, 89 when haste and rush characterise habits alike of life and thought, do we find that we simply must stop, as it were for breath, while we unload a large amount of accumulated mental rubbish and clear a space in our storage capacity for up-to-date knowledge! 90 It is a decennial mental house-cleaning process. We must unlearn so much of that which ten to forty years ago we so labouriously learned. We must adopt new and improved reasoning processes. 91 But it is hard to do all this. For instance, as a boy I learned the old chemistry quite thoroughly. During a subsequent interval, when I did not need to study it, came the new chemistry, 92 and when I again required it I had not only to study a practically new science-- which was not so bad-- but to rid my brain of much that had really found firm lodgment there, and this was difficult or impossible. 93 So it is with one who, having been brought up on Euclidean geometry, finds oneself confronted with the comparatively new non-Euclidean, 94 and who has then not merely to forget, but to unlearn all

those fundamental axioms which seemed so plain and so indisputable, that is, if one would accept the teachings of Bolyai and others. 95 For example, that a straight line is not necessarily the shortest route between two points shocks our Euclidean orthodoxy, and is at the same time, 'to us', inconceivable; 96 as also that parallel lines indefinitely prolonged 'may' touch, and the like; likewise the concept of four-dimensional spaces, or worse yet, 'n'-dimensional. 97 And now, in somewhat like manner and to a certain degree, must we revise our previous conceptions of death, at least to this extent: 98 Not that we yet know much better than we did what it really is, but that we know more about what it is not. 99 Even save, perhaps, in its instantaneous happening it is 'but a step' toward dissolution, usually not the first, certainly not the last, but yet the most conspicuous.

100 Death is in many respects a biochemical fact. 101 It is so intertwined with ionic changes in the arrangement of matter that we may hope for more information regarding some of its aspects as knowledge of the latter accumulates. But, evidently, we need to clarify our notions as we rearrange our facts. 102 Somatic death is, after all, a most complex process. It may be shortened by instant and complete incineration, but scarcely in any other way. Even dynamite would scarcely simplify the problem. 103 As to conscious death, that is 'probably' (though not certainly) a matter of seconds only or possibly fractions of a second. 104 While we have no accurate appreciation of what constitutes consciousness, nor even just where it resides, the central nervous system appears to be its most probable seat. 105 But conscious death may occur almost instantly without injury to this system, as when a bullet passes through the thorax and the heart, without injuring the spine. 106 But what is it that suddenly checks all concerted and interdependent activity? Or does something or some controlling agency suddenly leave the body?

107 A recent theory, having features to commend it, is to the effect that life is a property or a feature of the ultimate 'corpuscles'

which compose the atom. 108 Since these corpuscles bear to their containing atom a relative size comparable to that of the tiniest visible insect winging its way in a large church edifice, the intricacies of this particular theory readily appear. 109 But it does seem as though among ourselves life has much to do with the hitherto neglected and despised nitrogen atom or molecule, since life inheres 'par excellence' in nitrogen compounds. 110 Moreover, 'vitality is conspicuously a feature of those chemical elements which have the lowest atomic weight', while at the other end of the table of atomic weights stands radium, of whose destructive emanations I have already spoken.

111 Another phase of the general subject of thanatology was suggested especially by Osier, who a few years ago called attention to the fact that but few, if any patients really die of the disease from which they have been suffering. 112 This is not a paradox, and needs only reason and observation to confirm it. 113 His statement was a preliminary to the consideration of terminal infections and toxemias, which of itself would be sufficient to erect thanatology into a dignified special study. 114 Take, for instance, a patient who has long suffered from diabetes. The end is characterised by coma, i. e., an evidence of profound toxemia, and is in large measure due to acetonemia. 115 A patient with chronic Bright's disease dies of uremic poisoning, or one with pneumonia dies of genuine heart-failure. 116 The terminal stage of cancer is, again, toxemia of one kind or another, according as it has interfered with digestion, with respiration, or some other vital function, or has broken down, thus saturating the patient with septic products.

117 This aspect of the subject will bear any amount of study and elabouration, and its mention here should be sufficient for my purpose. 118 Accordingly as it is properly appreciated, it will be recognised as having an important practical bearing, since, if we may foresee the direction from which the final danger threatens, it may be the better and the longer averted.

119 Another very important and practical subject is wrapped up in this one, namely, the utilisation of apparently dead, or at least of only potentially living material (tissue) in the various methods of grafting or transplantation, which are to-day a part of the surgeon's work. 120 The methods are themselves a transplantation of experiences gained by work in the vegetable kingdom. 121 What wonder that the marvels revealed in one department should have incited work along parallel lines in the other? 122 That flowers and fruit of one kind may be made to grow on a tree of a very different kind excites but a small amount of the astonishment it deserves, mainly because it is now a common occurrence, though properly regarded it might seem a miracle.

123 Differing only in minor respect is, for example, the removal of thyroidal tissue from one human being and its implantation into another, with functional success. 124 One may ask just here, how is this matter concerned with thanatology? And the reply is: If this tissue were taken from a fresh corpse it would be by most people regarded as dead tissue. If so, does the dead come to life? 125 Without violating the proper scientific use of the imagination one may fancy something like the following: Let a healthy young woman meet accidental and instantaneous death. It would be possible to use no inconsiderable portion of her body for grafting or other justifiable surgical procedures. 126 The arteries and nerves could be used, both in the fresh state, and the former even after preservation, for suitable transplantation or repair work on the vascular and nervous systems of a considerable number of other people. 127 So also could the thyroid, the cornea, the ovaries and especially the bones. All the teeth, if healthy, could be reimplanted. 128 With the thin bones, ribs especially, plastic operations-- particularly on the noses-- of fifty people could be made. 129 And then the exterior of the body could be made to supply any amount of normal integument with which to do heterologous dermatoplastic operations, 130 or would furnish an almost inexhaustible supply of epidermis for Thiersch grafts, which latter

material need not be used in the fresh state, but could be preserved and made available some days and even weeks later. 131 A portion of the muscles might possibly be made available for checking oozing from bleeding surfaces of others, if used while still fresh and warm, 132 and possibly portions of the ureters or some other portion of the remains might be utilised for some unusual purpose. 133 Then what extracts or extractives might be prepared from other parts of the body, pituitary, adrenals, bone-marrow, etc.? 134 The tendons might also be prepared for sutures. Every one of these procedures would give promise of success, the technic being in every respect satisfactory.

135 But the possible limit is not yet reached, since with each kidney might be carried out experiments like those feats of physiologic jugglery such as Carrel has shown us, 136 by implanting one, say in the neck, connecting up the renal with the carotid artery, and the renal vein with the jugular, while some receptacle would have to be provided as a terminal for the ureter. 137 This is, after all, not a fantastic dream, nor such an extreme picture as would at first appear, since every organ or tissue above-mentioned-- and more-- has been used as indicated, and with success. 138 But imagine the dead body affording viable products, even indirectly life itself, to (possibly) so many others! Does this complicate the study of death? 139 And what must become of the simple credulous faith of the zealot who believes in the actual and absolute resurrection, at some later date?

140 There is something more than mere transcendentalism in the science of thanatology; it has a plausible medico-legal and pragmatic import. 141 Right glad should I be if I might arouse a deserved interest in it. How may I more fittingly conclude than by quoting a few lines from our own Bryant's "*Thanatopsis*":

142 "Earth that nourished thee, shall claim
Thy growth, to be resolved to earth again,
And, lost each human trace, surrendering up
Thine individual being, shalt thou go
To mix forever with the elements."

143 Though were I minded to rehearse certain difficulties met in the preparation of this paper, which I have long had in mind, I might also add the following lines from the same poet's "*Hymn to Death*":

144 "Alas! I little thought that the
stern power
Whose fateful praise I sung, would
try me thus
Before the strain was ended."

145 One may well quote, at this point, Lamartine, who asked, "What is life but a series of preludes to that mystery whose initial solemn note is tolled by death?" 146 (On this theme Liszt built up that wonderful symphonic tone poem "*Les Preludes*.")

Even infinity is now questioned by the mathematicians. This being the case, where shall we, where can 'we' stop?

NOTE

147 While writing the foregoing paper there came to my notice the recent book "*Death; Its Causes and Phenomena*," by Carrington and Meader (London, 1911). 148 It is interesting, but save that it contains a helpful bibliography, is of little assistance to one wishing to pursue the study from its pragmatic aspect. 149 One of the authors is committed to a personal theory that death is caused by cessation of the vibrations which during life maintain vital activity; 150 the other that death is, as it were, the culmination of a bad habit of expectancy that something of the kind must occur, into which we have fallen, 151 in spite of the fact that other living beings below human undergo the same fate, though not capable of expecting anything.

SERPENT-MYTHS AND SERPENT-WORSHIP

A PRESIDENTIAL ADDRESS BEFORE THE BUFFALO SOCIETY OF NATURAL SCIENCES

3 Since the dawn of written history, and from the most remote periods, the serpent has been regarded with the highest veneration as the most mysterious of living creatures. 2 Being alike an object of wonder, admiration and fear, it is not strange that it became early connected with numerous superstitions; 3 and

when we remember how imperfectly understood were its habits we shall not wonder at the extraordinary attributes with which it was invested, nor perhaps even why it obtained so general a worship. 4 Thus centuries ago Horapollo referring to serpent symbolism, said: "When the Egyptians were representing a universe they delineated the spectacle as a variegated snake devouring its own tail, 5 the scales intimating the stars in the universe, the animal being extremely heavy, as is the earth, and extremely slippery like the water; 6 moreover it every year puts off its old age with its skin as, in the universe, the recurring year effects a corresponding change, and becomes renovated, 7 while the making use of its own body for food implies that all things whatever which are generated by divine providence in the world undergo a corruption into them again."

8 In all probability the annual shedding of the skin and the supposed rejuvenation of the animal was that which first connected it with the idea of eternal succession of form, subsequent reproduction and dissolution. 9 This doctrine is typified in the notion of the succession of ages which prevailed among the Greeks, and the similar notion met with among nearly all primitive peoples. 10 The ancient mysteries, with few or perhaps no exceptions, were all intended to illustrate the grand phenomena of Nature. 11 The mysteries of Osiris, Isis and Horus in Egypt; of Cybele in Phrygia, of Ceres and Proserpine at Eleusis, of Venus and Adonis in Phoenicia, of Bona Dea and of Priapus in Rome, all had this in in common, 12 that they both mystified and typified the creation of things and the perpetuation of life. 13 In all of them the serpent was conspicuously introduced as it symbolised and indicated the invigourating energy of Nature. 14 In the mysteries of Ceres, the grand secret which was communicated to the initiates was put in this enigma,-- "The bull has begotten a serpent and the serpent a bull," the bull being a prominent emblem of generative force. 15 In ancient Egypt it was usually the

bull's horns which served as a symbol for the entire animal. When with the progress of centuries the bull became too expensive an animal to be commonly used for any purpose, the ram was substituted; 16 hence the frequency of the ram's horns, as a symbol for Jove, seen so frequently, for example, among Roman antiquities.

17 Originally fire was taken to be one of the emblems of the sun, and thus most naturally, inevitably and universally the sun came to symbolise the active, vivifying principle of Nature. 18 That the serpent should in time typify the same principle, while the egg symbolised the more passive or feminine element, is equally certain but less easy of explanation; 19 indeed we are to regard the serpent as the symbol of the great hermaphrodite first principle of Nature. 20 "It entered into the mythology of every nation, consecrated almost every temple, symbolised almost every deity, was imagined in the heavens, stamped on the earth and ruled in the realms of eternal sorrow." 21 For this animal was estimated to be the most spirited of all reptiles of fiery nature, inasmuch as it exhibits an incredible celerity, moving by its spirit without hands or feet or any of the external members by which other animals effect their motion, 22 while in its progress it assumes a variety of forms, moving in a spiral course and darting forward with whatever degree of swiftness it pleases.

23 The close relationship if not absolute identity among the early races of human between Solar, Phallic and Serpent worship was most striking; so marked indeed as to indicate that they are all forms of a single worship. 24 It is with the latter that we must for a little while concern ourselves. How prominent a place serpent worship plays in our own Old Testament will be remarked as soon as one begins to reflect upon it. 25 The part played by the serpent in the biblical myth concerning the origin of human is the first and most striking illustration. 26 In the degenerated ancient mysteries of Bacchus some of the persons who took part in the ceremonies used to carry serpents in their hands and

with horrid screams call "Eva, Eva;" the attendants were in fact often crowned with serpents while still making these frantic cries. 27 In the Sabazian mysteries the snake was permitted to slip into the bosom of the person to be initiated and then to be removed from below the clothing. This ceremony was said to have originated among the Magi. 28 It has been held that the invocation "Eva" related to the great mother of humankind; 29 even so good an authority as Clemens of Alexandria held to this opinion, but Clemens also acknowledges that the name Eva, when properly aspirated is practically the same as Epha, or Opha, which the Greeks call Ophis, which is, in English, serpent. 30 In most of the other mysteries serpent rites were introduced and many of the names were extremely suggestive. 31 The Abaddon mentioned in the book of Revelation is certainly some serpent deity, since the prefix Ab, signifies not only father, but serpent. 32 By Zoroaster the expanse of the heavens and even Nature itself was described under the symbol of the serpent. 33 In ancient Persia temples were erected to the serpent tribe, and festivals consecrated to their honour, some relic of this being found in the word Basilicus, 34 or royal serpent, which gives rise to the term Basilica applied to the Christian churches of the present era. 35 The Ethiopians, even, of the present day derive their name from the Greek Aithiopes, meaning the serpent gods worshipped long before them; 36 again, the Island of Euboea signifies the Serpent Island and properly spelled should be Oub-Aia. 37 The Greeks claimed that Medusa's head was brought by Perseus, by which they mean the serpent deity, as the worship was introduced into Greece by a people called Peresians. 38 The head of Medusa denoted divine wisdom, while the Island was sacred to the serpent. 39 The worship of the serpent being so old, many places as well as races received names indicating the prevalence of this general superstition; 40 but this is no time to catalogue names,-- though one perhaps should mention Ophis, Oboth, Eva in Macedonia, Dracontia, and last but not least,

the name of Eve and the Garden of Eden.

41 Seth was, according to some, a semi-divine first ancestor of the Semites; Bunsen has shown that several of the antedeluvian descendants of Adam were among the Phoenician deities; 42 thus Carthagenians had as God, Yubal or Jubal who would appear to have been the sun-god of Esculapius; or, spelled more correctly, Ju-Baal, that is Beauty of Baal. 43 Whether or not the serpent symbol has a distinct phallic reference has been disputed, but the more the subject is broadly studied the more it would seem that such is the case.

44 It must certainly appear that the older races had that form of belief with which the serpent was always more or less symbolically connected, that is, adoration of the male principle of generation, 45 one of whose principal phases was undoubtedly ancestor worship, while somewhat later the race adored the female principle which they symbolised by the sacred tree so often alluded to in Scripture as the Assyrian grove. 46 Whether snakes be represented singly, coupled in pairs as in the well known Caduceus or Rod of Esculaipius, 47 or in the crown placed upon the head of many a god and goddess, or the many headed snake drinking from the jewelled cup, 48 or a snake twisted around a tree with another approaching it, suggesting temptation and fall,-- in all these the underlying principle is always the same. 49 Symbols of this character are met with not only in the temples of ancient Egypt but in ruins antedating them in Persia and the East; 50 in the antiquities belonging to the races that first peopled what is now Greece and Italy, in the rock markings of India and of Central Europe, in the Cromlechs of Great Britain and Scandinavia, 51 in the Great Serpent Mound which still remains in Ohio, and in many other mounds left by the mound builders of this country, in the ruins of Central America and Yucatan, and in the traditions and relics of the Aztecs and Toltecs,-- 52 in fact wherever antiquarian research has penetrated or where monuments of ancient peoples remain.

53 There never has been so widespread a superstition, and no

matter what later forms it may have assumed we must admit that it, first of all, and for a long time was human's tribute to the great, all powerful and unknown regenerative principle of Nature, 54 which has been deified again and again, and which always has been and always will be the greatest mystery within the ken of humankind.

55 Brown in his "*Great Dionysiak Myth*" says the serpent has these points of connection with Dionysus, 56 (1) as a symbol of and connected with wisdom, (2) as a solar emblem, (3) as a symbol of time and eternity, (4) as an emblem of the earth, life, (5) as connected with the fertilising mystery, (6) as a phallic emblem. 57 Referring to the last of these he says: "The serpent being connected with the sun, the earth, life and fertility, must needs be also a phallic emblem, and was appropriate to the cult of Dionysos Priapos." 58 Again, Sir G. W. Cox says, "It is unnecessary to analyse theories which profess to see in it worship of the creeping brute or the wide-spreading tree; 59 a religion based upon the worship of the venomous reptile must have been a religion of terror. 60 In the earliest glimpses which we have the serpent is the symbol of life and of love, nor is the phallic cultus in any respect a cult of the full grown branching tree." 61 Again, "This religion, void of reason, condemned in the wisdom of Solomon, probably survived even Babylonian captivity; 62 certainly it was adopted by the sects of Christians which were known as Ophites, Gnostics and Nicolaitans."

63 Another learned author says: "By comparing the varied legends of the East and West in conjunction we obtain a full outline of the mythology of the ancients. 64 It recognises as the primary element of things two independent principles of Nature, the male and female, and these, in characteristic union as the soul and body, constitute the Great Hermaphrodite Deity, 65 the one, the universe itself, consisting still of the two separate elements of its composition, modified though combined in one individual, of which all things are regarded but as parts." 66 In fact the

characteristics of all pagan deities, male or female, gradually mould into each other and at last into one or two; 67 for as William Jones has stated, it seems a well-founded opinion that the entire list of gods and goddesses means only the powers of Nature, principally those of the sun, expressed in a variety of ways with a multitude of fanciful names.

68 The Creation is, in fact, human rather than a divine product in this sense, that it was suggested to the mind of human by the existence of things, while its method was, at least at first, suggested by the operation of Nature; 69 thus human saw the living bird emerge from the egg, after a certain period of incubation, a phenomenon equivalent to actual creation as apprehended by your simple mind. 70 Incubation obviously then associated itself with creation, and this fact will explain the universality with which the egg was received as a symbol in the earlier systems of cosmogony. 71 By a similar process creation came to be symbolised in the form of a phallus, and so Egyptians in their refinement of these ideas adopted as their symbol of the great first cause a Scarabaeus, indicating the great hermaphroditic unity, since they believed this insect to be both male and female. 72 They beautifully typified a part of this idea also in the adoration which they paid to the water lily, or 'Lotus', so generally regarded as sacred throughout the East. 73 It is the sublime and beautiful symbol which perpetually occurs in oriental mythology, and, as Maurice has stated, not without substantial reason, for it is its own beautiful progeny and contains a treasure of physical instruction.

74 The lotus flower grows in the water among broad leaves, while in its center is formed a seed vessel shaped like a bell, punctured on the top with small cavities in which its seeds develop; 75 the openings into the seed cells are too small to permit the seeds to escape when ripe, consequently they absorb moisture and develop within the same, shooting forth as new plants from the place where they originated; 76 the bulb of the vessel serving as a matrix which shall nourish them until they are large enough to burst open and

release themselves, after which they take root wherever deposited. 77 "The plant, therefore, being itself productive of itself, vegetating from its own matrix, being fostered in the earth, was naturally adopted as a symbol of the productive power of the waters upon which the creative spirit of the Creator acted, in giving life and vegetation to matter. 78 We accordingly find it employed in every part of the northern hemisphere where symbolical religion, improperly called idolatry, existed."

79 Further exemplification of the same underlying principle is seen in the fact that most all of the ancient deities were paired; thus we have heaven and earth, sun and moon, fire and earth, father and mother, etc. 80 Faber says "The ancient pagans of almost every part of the globe were wont to symbolise the world by an egg, hence this symbol is introduced into the cosmogonies of nearly all nations, 81 and there are few persons even among those who have made mythology their study to whom the mundane egg is not perfectly familiar; 82 it is the emblem not only of earth and life but also of the universe in its largest extent." 83 In the Island of Cyprus is still to be seen a gigantic egg-shaped vase which is supposed to represent the mundane or Orphic egg. 84 It is of stone, measuring thirty feet in circumference, and has upon it a sculptured bull, the emblem of productive energy. 85 It is supposed to signify the constellation of Taurus, whose rising was connected with the return of the mystic re-invigourating principle.

86 The work of the Mound Builders in this country is generally and widely known, still it is perhaps not so generally known how common upon this continent was the general use of the serpent symbol. 87 Their remain are spread over the country from the sources of the Allegheny in N. Y. state westward to Iowa and Nebraska, to a considerable extent through the Mississippi Valley, and along the Susquehanna as far as the Valley of Wyoming in Pennsylvania. 88 They are found even along the St. Lawrence River; they also line the shore of

the Gulf from Florida to Texas. 89 That they were erected for other than defensive purposes is most clear; without knowing exactly what was the government of their builders the presumption is that it combined both the priestly and civil functions, as obtained centuries ago in Mexico. 90 The Great Serpent Mound, already alluded to, had a length of at least 1,000 feet; the outline was perfectly regular and the mouth was widely open as if in the act of swallowing or ejecting an oval figure, also formed of earth, whose longest diameter was one hundred and sixty feet. 91 Again near Granville, Ohio, occurs the form of an alligator in connection with which was indubitable evidence of an altar. Near Tarlton, Ohio, is another earth work in the form of a cross. 92 There is every reason to think that sacrifices were made upon the altars nearly always found in connection with these mounds. 93 Among the various animal effigies found in Wisconsin, mounds in the form of a serpent are most frequently met with, while circles enclosing a pentagon, or a mound with eight radiating points, undoubtedly representing the sun, were also found.

94 There would seem in all these representations to be an unmistakable reference to that form of early cosmogony in which every vivification of the mundane egg constituted a real act of creation. 95 In Japan this conceptive egg is allegorically represented by a nest-egg shown floating upon an expanse of water, against which a bulb is striking with horns. 96 The Sandwich Islanders have a tradition that a bird, which with them is an emblem of deity, laid an egg upon the waters, which burst of itself and thus produced the Islands. 97 In Egypt, Kneph was represented as a serpent emitting from his mouth an egg, from which proceeds the divinity Phtha. 98 In the Bible there is frequent reference to seraphs; Se Ra Ph is the singular of seraphim, meaning, splendor, fire or light. 99 It is emblematic of the fiery sun, which under the name of the Serpent Dragon was destroyed by the reformer Hezekiah; or, it means, also, the serpent with wings and

feet, as used to be represented in funeral rituals.

100 Undoubtedly Abraham brought with him from Chaldea into lower Egypt symbols of simple phallic deities. 101 The reference in the Bible to the Teraphim of Jacob's family reminds us that Terah was the name of Abraham's father, and that he was a maker of images. 102 Undoubtedly the Teraphim were the same as the Seraphim; that is, were serpent images and were the household charms of the Semitic worshippers of the Sun-God, to whom the serpent was sacred. 103 In the Bible book of Numbers, chapter-21, the serpent symbol of the Exodus is called a seraph; 104 moreover when the people were bitten by a fiery serpent Moses prayed for them, when Jehovah replied, "Make them a fiery serpent, (literally seraph) and set it upon a pole, and it shall come to pass that every one who is bitten when he looketh upon it shall live." 105 The exact significance of this healing figure of the serpent is far to seek.

106 In this connection it must be remembered also, that among several of the Semitic tongues the same root signifies both serpent and phallus, which are both in effect solar emblems. 107 Cronus of the ancient Orphic theogony, probably identical with Hercules, was represented under the mixed emblem of a lion and a serpent, or often as a serpent alone. 108 He was originally considered Supreme, as is shown from his being called Il, which is the same as the Hebrew, El, which was, according to St. Jerome, one of the ten names of God. 109 Damascius in his life of Isidorus mentions that Cronus was worshipped under the name of El. Brahm, Cronus and Kneph each represented the mystical union of the reciprocal or active and passive regenerative principles.

110 The Semitic Deity, Seth, was certainly a serpent god, and can be identified with Saturn and with deities of other people. 111 The common name of God, 'Eloah', among the Hebrews and other Semites, goes back into the earliest times; indeed Bryant goes so far as to say that El was the original name of the Supreme deity among all the nations of the East. 112 He was the same as Cronus, who

again was the primeval Saturn. Thus Saturn and El were the same deity, and like Seth were symbolised by the serpent.

113 On the western continent this great unity was equally recognised; in Mexico as Teotl, in Peru as Varicocha or the Soul of the Universe, in Central America and Yucatan as Stunah Ku, or God of gods. 114 The mundane egg was everywhere received as the symbol of the original, passive, unorganised formless nature, and later became associated with other symbols referring to the creative force or vitalising influence, which was often represented in emblem by a bull. 115 In the Aztec Pantheon all the other gods and goddesses were practically modified impersonations of these two principles. 116 In the simpler mythology of Peru these principles took the form of the Sun, and the Moon his wife. 117 Among the ruins of Uxmal are two long massive walls of stone thirty feet thick, whose inner sides are embellished with sculpture containing fragments of colossal entwined serpents which run the whole length of the walls; in the center of the wall was a great stone ring.

118 Among the annals of the Mexicans the woman whose name old Spanish writers translated "The woman of our Fish" is always represented as accompanied by a great male serpent. 119 This serpent is the Sun-God, the principal deity of the Mexican Pantheon, while the name which they give to the goddess mother of primitive man signifies "Woman of the Serpent."

120 Inseparably connected with the serpent as a phallic emblem are also the pyramids, and, as is well known, pyramids abound in Mexico and Central America. 121 As Humboldt years ago observed pyramids existed through Mexico, in the forests of Papantha at a short distance above sea-level; on the plains of Cholula and of Teotihuacan, and at an elevation which exceeds those of the passes of the Alps. 122 In most widely different nations, in climates most different, human seems to have adopted the same style of construction, the same ornaments, the same customs, and to have placed yourself under the

government of the same political institutions. 123 Mayer describing one of his trips says, "I constantly saw serpents in the city of Mexico, carved in stone and in the various collections of antiquities." The symbolic feathered serpent was by no means peculiar to Mexico and Yucatan. 124 Squier encountered it in Nicaragua on the summits of volcanic ridges; even among our historic Indian tribes, for example among the Lenni Lenape, they called the rattlesnake "grandfather," and made offerings of tobacco to it. 125 Furthermore in most of the Indian traditions of the Manitou the great serpent figures most conspicuously.

126 It has been often remarked that every feature of the religion of the new world discovered by Cortez and Pizarro indicates a common origin for the superstitions of both continents, for we have the same worship of the sun, the same pyramidal monuments, and the same universal veneration of the serpent. 127 Thus it will be seen that the serpent symbol had a wide acceptance upon this continent as well as the other, 128 and among the uncivilised and semi-barbaric races; that it entered widely into all symbolic representation with an almost universal significance.

129 Perhaps the latest evidences of the persistence of this belief may be seen in the tradition ascribing to St. Patrick, the credit of having driven all the serpents from Irish soil; 130 or in the perpetuation of rites, festivals and representations whose obsolete origin is now forgotten. For instance the annual May-day festival, scarcely yet discontinued, is certainly of this origin, 131 yet few if any of those who participate in it are aware that it is only the perpetuation of the vernal solar festival of Baal, and that the garlanded May-pole was anciently a phallic emblem. 132 Among people of my own craft the traditions of Aesculapius are familiar. Aesculapius is, however, inseparably connected with the serpent myth and in statues and pictures he is almost always represented in connection with a serpent. 133 Thus he is seen with the Caduceus or the winged wand entwined by two serpents, or, sometimes with serpents' bodies wound around his own; but rarely ever without some serpent

emblem. 134 Moreover the Caduceus is identical with the simple figure of the Cross by which its inventor, Thoth, is said to have symbolised the four elements proceeding from a common center. 135 In connection with the Cross it is interesting also that in many places in the East serpent worship was not immediately destroyed by the advent of Christianity. 136 The Gnostics for example, among Christian sects, united it with the religion of the Cross, as might be shown by many quotations from religious writers. 137 The serpent clinging to the Cross was used as a symbol of Christ, and a form of Christian serpent worship was for a long time in vogue among many beside the professed Ophites. 138 In the celebration of the Bacchic mysteries the mystery of religion, as usual throughout the world, was concealed in a chest or box. The Israelites had their sacred Ark, and every nation has had some sacred receptacle for holy things and symbols. 139 The worshippers of Bacchus carried in their consecrated baskets the mystery of their God, while after their banquet it was usual to pass around the cup which was called "The Cup of the Good Daemon," whose symbol was a serpent. 140 This was long before the institution of the rite of the Last Supper. The fable of the method by which the god Aesculapius was brought from Epidaurus to Rome, 141 and the serpentine form in which he appeared before his arrival in Rome for the purpose of checking the terrible pestilence, are well known. 142 The serpentine column which still stands in the old race course in Constantinople is certainly a relic of serpent worship, though this fact was not appreciated by Constantine when he set it up.

143 The significance of the Ark is not to be overlooked. First, Noah was directed to take with him into the Ark animals of every kind. 144 But this historical absurdity, read aright and in its true phallic sense, means that the Ark was the sacred Argha of Hindoo mythology, which like the moon in Zoroastrian teachings, carries in itself the germ of all things. 145 Read in this sense the thing is no longer incomprehensible. As 'En Arche'

(in the beginning) Elohim created the Heavens and the Earth, so in the Ark were the seeds of all things preserved that they might again repopulate the earth. 146 Thus this Ark of Noah, or of Osiris, the primeval ship whose navigation has been ascribed to various mythological beings, was in fact the Moon or the Ship of the Sun, in which his seed is supposed to be hidden until it bursts forth in new life and power. 147 But the dove which figures so conspicuously in the biblical legend was consecrated to Venus in all her different names, in Babylon, in Syria, in Palestine and in Greece; it even attended upon Janus in his Voyage of the Golden Fleece. 148 And so the story of Jonah going to Joppa, a seaport where Dagon, the Fish-God was worshipped, and of the great fish, bears a suspicious relation to the same cult, for the fish was revered at Joppa as was the dove at Nineveh.

149 It has been impossible to dissociate serpent and serpent worship from Aesculapius. This is not because this mythological divinity is supposed to have been the founder of my profession, 150 but because he has been given at all times a serpentine form and has been, apparently, on the most familiar terms with the animal. 151 Pausanias, indeed, assures us that he often appeared in serpentine form, and the Roman citizens of two thousand years ago saw in this god "in reptilian form an object of high regard and worship." 152 When this divinity was invited to make Rome his home, in accordance with the oracle, he is represented as saying:

153 "I come to leave my shrine;
This serpent view, that with ambitious play
My staff encircles; mark him every way;
His form though larger, nobler, I'll assume,
And, changed as God's should be, bring aid to Rome."
(Ovid: Metamorphosis XV)

154 When in due time this salutary serpent arrived upon the island in the Tiber he began to assume his natural form, whatever that may have been;

EVIL

155 "And now no more the drooping city mourns,
Joy is again restored and health returns."

156 Considering then the intimate relation between the founder of medicine and the serpent it will not seem strange to you that the serpent myth is a subject of keen interest to every student of the history of medicine.

157 This devotion to serpent worship appears to have lingered a long time in Italy, for so late as the year 1001 a bronze serpent on the basillica of St. Ambrose was worshipped. 158 De Gubernatis speaking of it says, "Some say it was the serpent Aesculapius, others Moses, others that it was the image of Christ; 159 for us it is enough to remark that it was a mythological serpent before which the Milanese mothers offered their children when they suffered from worms, in order to relieve them," a practice which was finally suppressed by San Carlo. 160 Moreover, there has persisted until recently what is called a snake festival in a little mountain church near Naples, where those participating carry snakes around their persons, 161 the purpose of the festival being to preserve the participants from poison and sudden death and bring them good fortune. (Sozinskey).

162 The power of the sun over health and disease was long ago recognised in the old Chaldean hymn in which the sun is petitioned thus:

163 "Thou at thy coming cure the race of human;
Cause the ray of health to shine upon you;
Cure your disease."

164 Probably some feeling akin to that voiced in this way gave rise to the following beautiful passage in Malachi, chapter-4, verse:2: "The Sun of Righteousness shall arise with healing in His wings."

165 As a purely medical symbol the serpent is meant to symbolise prudence; long ago people were enjoined to be "As wise as serpents" as well as harmless as doves. 166 In India the serpent is still regarded as a symbol of every species of learning. 167 It has also another medical meaning, namely, 'convalescence', for which there is

afforded some ground in the remarkable change which it undergoes every spring from a state of lethargy to one of active life.

168 According to Ferguson, the experience of Moses and the Children of Israel with brazen serpents led to the first recorded worship paid to the serpent, which is also noteworthy, since the cause of this adoration is said to have been its intrinsic healing power. 169 The prototype of the brazen serpent of Moses in latter times was the Good Genius, the 'Agathodaemon' of the Greeks, which was regarded always with the greatest favour and usually accorded considerable power over disease.

170 The superstitious tendency to regard disease and death as the visitation of a more or less capricious act by some extra mundane power persists even to the present day. 171 For example, in the Episcopal book of Common Prayer, it is stated, in the Order for the Visitation of the Sick, "Wherefore, whatsoever your sickness be, know you certainly that it is God's visitation," 172 while for relief the following sentiment is formulated in prayer, "Lord look down from heaven, behold, visit and relieve these, thy servants," 173 thus voicing the very ideas which were current among various peoples of remote antiquity and eliminating all possibility of such a thing as the regulation of disease or of sanitary medicine.

IATRO-THEURGIC SYMBOLISM

AN ADDRESS BEFORE THE MAINE MEDICAL ASSOCIATION, PORTLAND, JUNE 2ND, 1898

4 So soon as had subsided the feeling of surprise, caused by a most unexpected invitation to address you, I began at once to cast about for a subject with which I might endeavour so to interest you as to justify the high and appreciated compliment which this invitation mutely conveyed. 2 And so, after considerable reflection, it appeared to me that it was perhaps just as well that medical people should be entertained, even at such a gathering as this, 3 by something which if not 'of' the profession was at least 'for' the profession, and

still not too remote from the purposes which have drawn us together. 4 Accordingly I decided to forsake the beaten path and, instead of selecting a topic in pathology or in surgery, upon which I could possibly speak with some familiarity, 5 to invite your attention to a subject which has always been of the greatest interest to me, yet upon which it has been hard, without great labour and numerous books, to get much information. 6 If I were to attempt to formulate this topic under a distinctive name I could perhaps call it 'Medico-Christian' Symbolism.

7 It is well known to scholars that practically all of the symbols and symbolism of Christianity have come from pagan sources, having been carried over, as one might say, across the line of the Christian era, 8 from one to the other, in the most natural and unavoidable way, although most of these symbols and caricatures have more or less lost their original signification and have been given another of purely Christian import. 9 To acknowledge that this is so is to cast no slur upon Christianity; it is simply recording an historical fact. It would take me too far from my purpose to-night were I to go into the reasons which brought about this change; 10 I simply want to disavow all intention of making light of serious things, or of reflecting in any way upon the nobility of the Christian Church, its meanings or its present practices. 11 But, accepting the historical fact that Christian symbols were originally pagan caricatures, I want to ask you to study with me for a little while the original signification of these pagan symbols, 12 feeling that I can perhaps, interest you in such a study providing that it can be shown that almost all of these emblems had originally an essentially medical significance, 13 referring in some way or other either to questions of health and disease, or else to the deeper question of the origin of humankind and the great generative powers of Nature, at which physicians to-day wonder as much as they did two thousand years ago. 14 Considering then the medical significance of such study I have been tempted to incur the

charge of being pedantic and have coined the term 'Iatro-Theurgic Symbolism', which title I shall give to the essay which I shall present to you to-night.

15 As Inman says, "Moderns who have not been initiated in the sacred mysteries and only know the emblems considered sacred, have need of both anatomical knowledge and physiological lore ere they can see the meaning of many signs." 16 The emblems or symbols then, to which I shall particularly allude, are the 'Cross', the 'Tree' and 'Grove', the 'Fish', the 'Dove', and the 'Serpent'. 17 And first of all the Cross, about which very erroneous notions prevail. It is seen everywhere either as a matter of personal or church adornment, or as an architectural feature, and everywhere the impression prevails that it is exclusively a Christian symbol. 18 This, however, is the grossest of errors, for the world abounds in cruciform symbols and monuments which existed long before Christianity was thought of. 19 It is otherwise however with the Crucifix which is, of course, an absolutely Christian symbol. 20 The image of a dead man stretched out upon the Cross is a purely Christian addition to a purely pagan emblem, though some of the old Hindoo crosses remind one of it very powerfully. 21 No matter upon which continent we look we see everywhere the same cruciform sign among peoples and races most distinct. 22 There perhaps has never been so universal a symbol, with the exception of the serpent. 23 Moreover the cross is a sort of international feature, and is spoken of in its modifications as St. Andrew's, St. George's, the Maltese, the Greek, the Latin, etc. 24 Probably because of its extreme simplicity the ages have brought but little change in its shape, and the bauble of the jeweller of to-day is practically the same sign that the ancient Egyptian painted upon the mummy cloth of his sacred dead. 25 Thus it will appear that the shadow of the Cross was cast far back into the night of ages. The Druids consecrated their sacred oak by cutting it into the shape of a cross, and when the natural shape of the tree was not sufficient

it was pieced out as the case required. 26 When the Spaniards invaded this continent they were overcome with surprise at finding the sign of the Cross everywhere in common use. 27 It was by the community of this emblem between the two peoples that the Spaniards enjoyed a less war-like reception than would otherwise have been accorded to them.

28 That the Cross was originally a phallic emblem is proven, among other things, by the origin of the so-called Maltese Cross, which originally was carved out of solid granite, 29 and represented by four huge phalli springing from a common center, which were afterward changed by the Knights of St. John of Malta into four triangles meeting at a central globe; thus we see combined the symbol of eternal and the emblem of constantly renovating life. 30 The reason why the Maltese Cross had so distinctly a phallic origin, and why the Knights of St. John saw fit to make something more decent of it, is not clear, 31 but a study of Assyrian antiquities of the days of Nineveh and Babylon shows that it referred to the four great gods of the Assyrian Pantheon, and that with a due setting it signifies the sun ruling both the earth and heavens. 32 Schliemann discovered many examples of it on the vases which he exhumed from the ruins of Troy.

33 But probably the most remarkable of all crosses is that which is exceedingly common upon Egyptian monuments and is known as the 'Crux-Ansata', that is the handled cross, which consisted of the ordinary Greek 'Tau' or cross, with a ring on the top. 34 When the Egyptian was asked what he meant by this sign he simply replied that it was a divine mystery, and such it has largely remained ever since. It was constantly seen in the hands of Isis and Osiris. 35 In nearly the same shape the Spaniards found it when they first came to this continent. The natives said that it meant "Life to come."

36 In the British Museum one may see, in the Assyrian galleries, effigies in stone of certain kings from whose necks are suspended sculptured Maltese crosses, such as the Catholics call the Pectoral

Cross. 37 In Egypt, long before Christ, the sacred Ibis was represented with human hands and feet, holding the staff of Isis in one hand and the Cross in the other. 38 The ancient Egyptian astronomical signs of planets contained numerous crosses. 39 Saturn was represented by a cross surmounting a ram's horn; Jupiter by a cross beneath a horn, Venus by a cross beneath a circle (practically the Crux-Ansata), the Earth by a cross within the circle, and Mars by a circle beneath the cross; many of these signs are in use to-day. 40 Between the Buddhist crosses of India and those of the Roman church are remarkable resemblances; the former were frequently placed upon a Calvary as is the Catholic custom to-day. 41 The cross is found among the hieroglyphics of China and upon Chinese pagodas, and upon the lamps with which they illuminated their temples. 42 Upon the ancient Phoenician medals were inscribed the Cross, the Rosary and the Lamb. 43 In England there has been for a long time the custom of eating the so-called Hot-Cross Buns upon Good Friday:-- 44 this is no more than a reproduction of a cake marked with a cross which used to be duly offered to the serpent and the bull in heathen temples, as also to human idols. 45 It was made of flour and milk, or oil, and was often eaten with much ceremony by priests and people.

46 Perhaps the most ancient of all forms of the cross is the cruciform hammer known sometimes as Thor's Battle Ax. 47 In this form it was venerated by the heroes of the North as a magical sign, which thwarted the power of death over those who bore it. 48 Even to-day it is employed by the women of India and certain parts of Africa as indicating the possession of a taboo with which they protect their property. 49 It has been stated that this was the mark which the prophet was commanded to impress upon the foreheads of the faithful in Judah. (Ezekiel, chapter-9, verse:4).

50 It is of interest also as being almost the last of the purely pagan symbols to be religiously preserved in Europe long after the establishment of Christianity, since to the close of the Middle

Ages the Cistercean monk wore it upon his stole. 51 It may be seen upon the bells of many parish churches, where it was placed as a magical sign to subdue the vicious spirit of the tempest.

52 The original cross, no matter what its form, had but one meaning; it represented creative power and eternity. 53 In Egypt, Assyria and Britain, in India, China and Scandinavia, it was an emblem of life and immortality; 54 upon this continent it was the sign of freedom from suffering, and everywhere it symbolised resurrection and life to come. 55 Moreover from its common combination with the yoni or female emblem, we may conclude, with Inman, that the ancient Cross was an emblem of the belief in a male Creator and the method by which creation was initiated.

56 Next to the Cross, the 'Tree of Life' of the Egyptians furnishes perhaps the most ancient and universal symbol of immortality. 57 The tree is probably the most generally received symbol of life, and has been regarded as the most appropriate. 58 The fig tree especially has had the highest place in this regard. From it gods and holy people ascended to heaven; 59 before it thousands of barren women have worshipped and made offerings; under it pious hermits have become enlightened, and by rubbing together fragments of its wood, holy fire has been drawn from heaven.

60 An anonymous Catholic writer has stated, "No religion is founded upon international depravity. 61 Searching back for the origin of life, humans stopped at the earliest point to which they could trace it and exalted the reproductive organs in the symbols of the Creator. 62 The practice was at least calculated to procure respect for a side of Nature liable, under an exclusively spiritual regime, to be relegated to undue contempt. 63 Even Moses himself fell back upon it when, yielding to a pressing emergency, he gave his sanction to serpent worship by his elevation of the brazen serpent upon a pole or cross, 64 for all portions of this structure constituted the most universally accepted symbol of sex in the world."

65 As perfectly consistent with the ancient doctrine that deity is both male and female take this thought from Proclus, who quotes the following among other Orphic verses: "Jupiter is a man; Jupiter is also an immortal maid;" 66 while in the same commentary we read that "All things were contained in the womb of Jupiter." 67 In this connection it was quite customary to depict Jupiter as a female, sometimes with three heads; often the figure was drawn with a serpent and was venerated under the symbol of fire. 68 It was then called Mythra and was worshipped in secret caverns. The rites of this worship were quite well known to the Romans.

69 The hermaphrodite element of religion is sex worship; gods are styled he-she; Synesius gives an inscription on an Egyptian deity, "Thou art the father and thou art the mother; thou art the male and thou art the female." 70 Baal was of uncertain sex and his votaries usually invoked him thus, "Hear us whether thou art god or goddess." 71 Heathens seem to have made their gods hermaphrodites in order to express both the generative and prolific virtue of their deities. 72 I have myself heard one of the finest living Hindoo scholars, a convert to Christianity, invoke the God of the Christian Church both as father and as mother.

73 The most significant and distinctive feature of Nature worship certainly had to do with phallic emblems. 74 This viewed in the light of ancient times simply represented allegorically that mysterious union of the male and female principle which seems necessary to the existence of animate beings. 75 If, in the course of time, it sadly degenerated, we may lament the fact, while, nevertheless, not losing sight of the purity and exalted character of the original idea. 76 Of its extensive prevalence there is ample evidence, since monuments indicating such worship are spread over both continents and have been recognised in Egypt, India, Assyria, Western Europe, Mexico, Peru, Hayti and the Pacific Islands. 77 Without doubt the generative act was originally considered as a solemn sacrament in honour of the Creator. 78 As Knight has insisted, the indecent ideas later attached to

it, paradoxical as it may seem, were the result of the more advanced civilisation tending toward its decline, as we see in Rome and Pompeii. 79 Voltaire speaking of phallic worship says "Our ideas of propriety lead us to suppose that a ceremony which appears to us so infamous could only be invented by licentiousness, 80 but it is impossible to believe that depravity of manners would ever lead among any people to the establishment of religious ceremonies. 81 It is probable, on the contrary, that this custom was first introduced in times of simplicity, and that the first thought was to honour a deity in the symbol of life which it gives us."

82 The so-called Jewish rite of circumcision was practiced among Egyptians and Phoenicians long before the birth of Abraham. 83 It had a marked religious significance, being a sign of the Covenant, and was a patriarchal observance because it was always performed by the head of the family. 84 Indeed on the authority of the Veda, we learn that this was the case also even among the primitive Aryan people.

85 Later in the centuries, as Patterson has observed, obscene methods became the principal feature of the popular superstition and were, in after times, even extended to and intermingled with gloomy rites and bloody sacrifices. 86 The mysteries of Ceres and Bacchus celebrated at Eleusis were probably the most celebrated of all the Grecian observances. 87 The addition of Bacchus was comparatively a late one, and this name Bacchus was first spelled Iacchos; the first half, 'Iao', being in all probability related to 'Jao' which appears in Jupiter or Jovispater, and to the Hebrew Yahve, or Jehovah. 88 Jao was the Harvest God and consequently the god of the grape, hence his close relation to Bacchus. 89 How completely these Eleusinian mysteries degenerated into Bacchic orgies is of course a matter of written history.

90 I have not yet alluded to the reverence paid to the fish, both as phallic emblem and as a Christian symbol. 91 The supposition that the reason why the fish played so

large a part in early Christian symbolism was because of the fact that each letter of the Greek word 'Ichthus' could be made the beginning of words which when fully spelled out, read Jesus Christ, the Son of God, etc., is altogether too far-fetched; 92 though it be true it is a scholastic trick to juggle with words in this way rather than to find for them a proper signification.

93 Among the Egyptians and many other nations, the greatest reverence was paid to the fish. Among the natives the rivers which contained them were esteemed more or less sacred; 94 the common people did not feed upon them and the priests never tasted them, because of their reputed sanctity, while at times they were worshipped as real deities. 95 Cities were named after them and temples built to them. In different parts of Egypt different fish were worshipped individually; the Greek comedians even made fun of the Egyptians because of this fact. 96 Dagon figures as the Fish-god, and the female deity known as Athor, in Egypt, is undoubtedly the same as Aphrodite of the Greeks and Venus of the Romans, who were believed to have sprung from the sea. 97 Lucian tells us that this worship was of great antiquity; strange as this idolatry may appear, 98 it was yet most wide-spread and included also the veneration which the Egyptians, before Moses, paid to the river Nile.

99 It is important to remember that Nun, the name of the father of Joshua, is the Semitic word for fish, while the phallic character of the fish in Chaldean mythology cannot be gainsaid. 100 Nim, the planet Saturn, was the fish-god of Berosus, and the same as the Assyrian god Asshur, whose name and office are strikingly similar to those of the Hebrew leader Joshua. 101 Corresponding to the ancient phallus or lingam, which was the masculine phallic symbol, we have the Kteis or Yoni as the symbol of the female principle; 102 but an emblem of similar import is often to be met with in the shape of the shell, the fig leaf or the letter delta, as may be frequently seen from ancient coins and monuments. 103 Similar attributes were at other

times expressed by a bird, using the dove or sparrow, which will at once make one think of the prominence given to the dove in the fable of Noah and the Ark. 104 Referring again to the fish symbol let me say that the head of Proserpine is very often represented surrounded by dolphins; sometimes by pomegranates which also have a phallic significance. 105 In fact, Inman in his work on Ancient Faiths says of the pomegranate, "The shape of this fruit much resembles that of the gravid uterus in the female, and the abundance of seeds which it contains makes it a fitting emblem of the prolific womb of the celestial mother. 106 Its use was largely adopted in various forms of worship; it was united with bells in the adornment of the robes of the Jewish High Priest; it was introduced as an ornament into Solomon's Temple, where it was united with lilies and with the lotus." 107 Its arcane meaning is undoubtedly phallic. 108 In fact, as Inman has stated, the idea of virility was most closely interwoven with religion, though the English Egyptologists have suppressed a portion of the facts in the history which they have given the world; 109 but the practice which still obtains among certain Negroes of Northern Africa of mutilating every male captive and slain enemy is but a continuance of the practice alluded to in the 2nd Book of Kings, chapter-20, verse:18; Isaiah, chapter-39, verse:17; and 1st Samuel, chapter-18, verse:26.

110 Frequently in sacred Scripture we find allusions to the Pillar as a most sacred emblem, as for example in Isaiah, chapter-19, verse:19, "In that day there shall be an altar to the Lord in the midst of the land of Egypt and a pillar to the border thereof to Jehovah," etc. 111 Moreover God was supposed to have appeared to His chosen people as a 'pillar of fire'. Nevertheless when among idolatrous nations 'pillars' were set up as a part of their rites we find them noticed in Scripture as an 'abomination', 112 as for example, Deuteronomy, chapter-12 verse:3, "Ye shall overthrow their altars and break their pillars;" Leviticus. Chapter-26, verse:1, "Neither rear ye up a standing image."

113 Among the Jews the pillar had much the same significance as the pyramid among the Egyptians or the triangle or cone among votaries of other worships. 114 The Tower of Babel must have been purely a mythical creation but in the same direction. 115 Although Abraham is regarded as having emigrated from Chaldea in the character of a dissenter from the religion of his country (see Joshua, chapter-24, verses:2-3), his immediate descendants apparently had recourse to the symbols to which I have alluded. 116 Thus he erected altars and planted pillars wherever he resided, and conducted his son to the land of Moriah to sacrifice him to the deity, as was done among the Phoenicians. 117 Jeptha in like manner sacrificed his own daughter Mizpeh, and the temple of Solomon was supposed to have been built upon the site of Abraham's ancient altar. 118 Jacob not only set up a pillar at the place which he called Bethel but made libations; Samuel worshipped at the High Places at Ramah, and Solomon at the Great Stone in Gibeon. 119 It remained for Hezekiah to change the entire Hebrew cult. 120 He removed the Dionysiac statues and phallic pillars as well as the conical and omphallic symbols of Venus and Ashtaroth, broke in pieces the brazen serpent of Moses and overthrew the mounds and altars. 121 After him Josiah removed the paraphernalia of sun worship and destroyed the statues and emblems of Venus and Adonis, (2nd Kings, chapter-23, verses:4-20).

122 The Greek Hermes was identical with the Egyptian Khem, as well as with Mercury and with Priapus, also with the Hebrew Eloah; 123 thus when Jacob entered into a covenant with Laban his father-in-law, a pillar was set up and a heap of stones made and a certain compact entered into; similar land marks were usual with the Greeks and placed by them upon public roads.

124 As Mrs. Childs has beautifully said, "Other emblems deemed sacred by Hindoos and worshipped in their temples have brought upon them the charge of gross indecencies. 125 If light with its grand revealings, and heat, making the earth fruitful with beauty,

excited wonder and worship among the first inhabitants of our world, is it strange that they likewise regarded with reverence the great mystery of human birth? 126 Were they impure thus to regard it? Or are 'we' impure that we do 'not' so regard it?"

127 Constant, in his work on Roman Polytheism says, "Indecent rites may be practiced by religious people with the greatest purity of heart, 128 but when incredulity has gained a footing among these peoples then those rites become the cause and pretext of the most revolting corruption."

129 The phallic symbol was always found in temples of Siva, who corresponds to Baal, and was usually placed as are the most precious emblems of our Christian temples to-day, in some inmost recess of the sanctuary. 130 Moreover lamps with seven branches were kept burning before it, these seven branched lamps long antedating the golden candlestick of the Mosaic Tabernacle. 131 The Jews by no means escaped the objective evidence of phallic worship; in Ezekiel, chapter-16, verse:17, is a very marked allusion to the manufacture by Jewish women of gold and silver phalli.

132 As a purely phallic symbol and custom mark the significance of certain superstitions and practices even now prevalent in Great Britain. 133 Thus in Boylase's 'History of Cornwall' it is stated that there is a stone in the Parish of Mardon, with a hole in it fourteen inches in diameter, through which many persons creep for the relief of pains in the back and limbs, 134 and through which children are drawn to cure them of rickets, this being a practical application of the doctrine of regeneration. 135 In 1888 there was printed in the 'London Standard' a considerable reference to passing children through clefts in trees as a curative measure for certain physical ailments. 136 The same practice prevails in Brazil and in many other places, and within the present generation it has been customary to split a young ash tree and, opening this, pass through it a child for the purpose of curing rupture or some other bodily ailment.

137 The phallic element most certainly cannot be denied in Christianity itself, since in it are many references which to the initiated are unmistakable. 138 From the fall of man with its serpent myth and its phallic foundation to the peculiar position assigned to the Virgin Mary as a mother, phallic references abound. 139 However, it should not be forgotten that whatever were the primitive ideas on which these dogmas were based, they had been lost sight of or had been received in a fresh aspect by the founders of Christianity. 140 The fish and the cross originally typified the idea of generation and later that of life, in which sense they were applied to Christ. 141 The most plainly phallic representation used in early Christian Iconography, is undoubtedly the 'Aureole' or elliptical frame work, containing usually the figure of Christ, sometimes that of Mary. 142 The Nimbus also, generally circular but sometimes triangular, is of positive phallic significance, even though it contain within it the name of Jehovah. 143 The sun flowers which sometimes are made to surround the figure of St. John the Evangelist are the lotus flowers of the Egyptians. 144 The divine hand with the thumb and two fingers outstretched, even though it rests on a cruciform nimbus, is a phallic emblem, and is used by the Neapolitans of to-day to avert the Evil Eye, although it was originally a symbol of Isis. 145 Indeed the Virgin Mary is the ancient Isis, as can be most easily established, since the virgin "Succeeded to her form, titles, symbols, rites and ceremonies." (King). 146 The great image still moves in procession as when Juvenal laughed at it, and her proper title is the exact translation of the Sanskrit and the equivalent of the modern Madonna, the Lotus of Isis, and the Lily of the modern Mary. 147 Indeed, as King has written, "It is astonishing how much of the Egyptian symbolism passed over into usages of the following times." 148 The high cap and hooked staff of the god became the bishop's mitre and crozier. The term Nun is purely Egyptian and bore its present meaning. 149 The Crux Ansata, testifying the union of the male

and female principle in the most obvious manner, and denoting fecundity and abundance, is transformed by a simple inversion into an orb surmounted by a cross, the ensign of royalty.

150 The teaching of the Church of Rome regarding the Virgin Mary shows a remarkable resemblance to the teachings of the ancients concerning the female associate of the triune deity. 151 In ancient times she has passed under many and diverse names; she was the Virgin, conceiving and bringing forth from her own inherent power; she was the wife of Nimrod; she has been known as Athor, Artemis, Aphrodite, Venus, Isis, Cybele, etc. 152 As Anaitis she is Mother and Child, appearing again as Isis and Horus; even in ancient Mexico Mother and Child were worshipped. 153 In modern times she reappears as the Virgin Mary and her Son; she was queen of fecundity, queen of the gods, goddess of war, Virgin of the Zodiac, the mysterious Virgin "Time" from whose womb all things were born. 154 Although variously represented she has been usually pictured as a more or less nude figure carrying an infant in her arms. (Inman, "Ancient Faiths").

155 Inman declares without hesitation that the trinity of the ancients is unquestionably of phallic origin, 156 and others have strenuously contended and apparently proven that the male emblem of generation in divine creation was three in one, and that the female emblem has always been the triangle or accepted symbol of trinity. 157 Sometimes two triangles have been combined forming a six-rayed star, the two together being emblematical of the union of the male and female principles producing a new figure; 158 the triangle by itself with the point down typifies the delta or yoni through which all things come into the world.

159 Another symbol of deity among the Indians was the Trident, and this marks the belief in the Trinity which very generally prevailed in India among the Hindoos. 160 As Maurice says, "It was indeed highly proper and strictly characteristic that a three-fold deity should wield a triple scepter." 161 Upon the top of the

immense pyramids of Deoghur, which were truncated, and upon whose upper surface rested the circular cone-- that ancient emblem of the Phallus and of the Sun, was found the trident scepter of the Greek Neptune. 162 It is said that in India is to be found the most ancient form of Trinitarian worship.

163 In Egypt it later prevailed widely, but scarcely any two states worshipped the same triad, though all triads had this in common at least that they were father, mother and son, or male and female with their progeny. 164 In the course of time, however, the worship of the first person was lost or absorbed in the second and the same thing is prevalent among the Christians of today, 165 for many churches and institutions are dedicated to the second or third persons of the Trinity but none to the first.

166 The transition from the old to the new could not be effected in a short time and must have been an exceedingly slow process, 167 therefore we need not be surprised to be told of the ancient worship that after its exclusion from larger places it was maintained for a long time by the inhabitants of humbler localities; 168 hence its subsequent designation, since from being kept up in the villages, the 'pagi', its votaries, were designated 'pagani', or pagans.

169 Even now some of these ancient superstitions remain in recognisable form. 170 The moon is supposed to exert a baneful or lucky influence according as it is first viewed; the mystic horse-shoe, which is a purely uterine symbol, is still widely employed; 171 lucky and unlucky days are still regarded; our playing cards are indicated by phallic symbols, the spade, the triadic club, the omphallic distaff and eminence disguised as the heart and the diamonds. 172 Dionysius reappears as St. Denys, or in France as St. Bacchus; Satan is revered as St. Satur or St. Swithin; 173 the Holy Virgin, Astraea, whose return was heralded by Virgil as introducing the Golden Age, is now designated as the Blessed Virgin, Queen of Heaven. 174 The Mother and Child are to-day in Catholic countries adored as much as were Ceres and Bacchus, or Isis and the infant Horus, centuries ago. 175 The nuns

of Christian to-day are the nuns of the Buddhists or of the Egyptian worshippers of Isis, and the phallic import is not lost even in their case since they are the "Brides of the Saviour." 176 The libations of human blood which were formerly offered to Bacchus found most tragic imitation in the sacrifices of later days. 177 The screechings of the ancient prophets of Baal, and of the Egyptian worshippers, preceded the flagellations of the penitentes. 178 Even recently, during Holy Week in Rome, devotees lash themselves until the blood runs, as did the young men in ancient Rome during the Lupercalia. 179 And even yet in New Mexico the Indian 'penitentes' repeat the cruel flagellations and cross-bearing taught by the Spanish priest, to the extent-- sometimes-- of an actual crucifixion. 180 In the ancient Roman catacombs are found portraits of the utensils and furniture of the ancient mysteries, and one drawing shows a woman standing before an altar offering buns to a certain god. 181 In fact we may say there is no Christian fast nor festival, procession nor sacrament, custom nor example, that do not come quite naturally from previous paganism.

182 The Creation is in fact a 'human rather than a divine product', in this sense that it was suggested to the mind of human by the existence of things, while its method was, at least at first, suggested by the operations of Nature; 183 thus human saw the living bird emerge from the egg, after a certain period of incubation, a phenomenon equivalent to actual creation as apprehended by your simple mind. 184 Incubation obviously then associated itself with Creation, and this fact will explain the universality with which the egg was received as a symbol in the earlier systems of cosmogony. 185 By a similar process creation came to be symbolised in the form of a phallus, 186 and so the Egyptians, in their refinement of these ideas, adopted as their symbol of the first great cause, a Scarabaeus, indicating the great hermaphroditic unity since they believed this insect to be both male and female.

187 Further exemplification of the same underlying principle is seen

in the fact that most all of the ancient deities were paired, thus we have heaven and earth, sun and moon, fire and earth, father and mother, etc. 188 Faber says,-- "The Ancient Pagans of almost every part of the globe were wont to symbolise the world by an egg; hence this symbol is introduced into the cosmogonies of nearly all nations, 189 and there are few persons even among those who have made mythology their study to whom the mundane egg is not perfectly familiar; 190 it is the emblem not only of earth and life but also of the universe in its largest extent."

191 I began this essay with the intention of demonstrating the recondite but positive connection between the symbolism of the Church of to-day and the phallic and iatric cults of pre-christian centuries. 192 Much of the subject matter contained in chapter-3 may be profitably read in this connection. 193 As a humble disciple of that Aesculapius who was the reputed founder of our craft, I have felt that every genuine scholar in medicine should be familiar with these relations between the past and the present.

THE RELATION OF THE GRECIAN MYSTERIES TO THE FOUNDATION OF CHRISTIANITY

5 Ever since mentality has been an attribute of humankind, human has appreciated that you are surrounded by a vast incomprehensible mystery which ever closes in upon you, and from whose environment you may never free yourself. 2 The endeavour to solve this mystery has on one hand stimulated your reasoning power, and on the other nearly paralysed it. 3 Having no better guidance you have in all time attributed to a Great First Cause powers and faculties, even shape and form, more or less human; 4 thus from time immemorial God or the gods have been given a kingdom, a throne, some definite form, and even offspring. 5 To Him or them have been given purely human attributes, and they have been supposed to possess human passions and to be capable of love, wrath, strength, etc. 6 In nearly all

ages lightning, for instance, has been regarded as an expression of divine fury. 7 As intelligence advanced the number of gods was reduced and their manifestations classified and studied more or less imaginatively; 8 and so while humans have always acknowledged the impossibility of explaining the great mysteries of creation and of space, 9 they have seemed to find it necessary to create other equally inscrutable mysteries of purely human invention, such as the incarnation, the trinity, the resurrection, vicarious salvation, metempsychosis, and the like.

10 History shows the love of mystery to be contagious as well as productive of its kind, and the origin of mystic teachings as well as of most secret societies bears out these statements. 11 Secrets, guarded by fearful oaths, personified by meaningless emblems, concealed either in language unintelligible to others, 12 or else hidden in terms whose special meaning is known only to the initiated, made attractive by special signs, symbols, innocent rites, or barbarous observances,-- 13 all of these means were designed solely to keep people banded together for the purpose of forming a propaganda intended to perpetuate yet other mysteries in which the initiates were especially interested. 14 Since history began such associations of people have existed for most diverse ends, all having this in common, that only by this means could they secure and maintain influence and power. 15 And so the series of pictures which represent human in this role may be regarded as a panorama, led by garlanded priests carrying images of Isis or droning hymns to Demeter of Eleusis, or Druids preparing for their human sacrifices; 16 followed by gay and voluptuous Bacchantes, succeeded by white-robed Pythagoreans; next may come the suffering Essenes bearing crosses, then the Latin Brotherhoods, followed by the German and English Guilds, the Stone Masons with their implements, the Crusader Knights, 17 those coming first having an appearance of actual humility and devotion, while those who follow are haughty and contemptuous to a degree. 18 Then would follow the

black-robed Penitentes and the members of the Society of Jesus, sanctimonious, with eyes cast down, human machines, mere tools in the hands of their superiors; 19 the panorama continuing with a widely assorted lot of scholars, artisans and people of all conditions in various regalia, and terminated with an indistinguishable multitude of variously adorned people, 20 some sleek and fat, others ill-conditioned, some devout and sincere, others mere jesters and knaves from every walk of life.

21 It was most natural and to be expected that primitive humans should be most profoundly impressed with the forces of Nature, 22 often terrifying and frightful, often winsome and attractive, and that they should bow themselves down to the unknown cause of these manifestations. 23 With their extremely finite mind they necessarily personified them; after having done this they proceeded to propitiate them by worship with certain forms of ritual. 24 Perhaps fire first and most of all attracted them in this way, and drew from them the earliest acts of worship, 25 for in spite of the general views to the contrary fire is often of natural origin, and must have been known to humans before they became able to produce it by their own efforts. 26 From practical to generalised concepts was a natural step, and thus mythology had its beginnings; 27 the earliest distinctions were as between that which is overhead, i. e. Heaven, and that which is beneath, namely, the earth; these are the beginnings of all cosmogonies. 28 Next the gods were given the attributes of sex; Heaven was represented as masculine, fructifying, powerful; Earth as conceptive, female and gentle. 29 By the union of these two were produced sun, moon and their progeny-- the stars. 30 Later the sun became Poseidon or Neptune, because it appeared from and disappeared into the sea. 31 Then the imagination began to run riot, and gave rise to many individual divinities, gods and goddesses, all with human passions and attributes, mingling and propagating after human fashion, 32 and begetting dynasties and half human races, whose

doings were the subject of countless epics, dramas, myths and romances.

33 Thus time passed on and the original sense or meaning of these myths, descending slowly by oral tradition, became lost, while the myths themselves were for a long time accepted as historical facts. 34 Nevertheless in all ages there have been people who, like Aristotle, Cicero and Plutarch, have questioned the accuracy of these statements and shown themselves intelligent and active sceptics. 35 During all these times, however, a wily priest-craft had lived and thrived on the superstitions of the common people and the practices in which they have indulged; 36 by these people, thus conditioned, any active doubt was regarded as subversive of the system by which they were supported, and as one not to be tolerated;-- 37 this condition pertaining not only to antiquity, since it is too significant a feature even of the early years of the twentieth century. 38 A more or less honest though misinformed priesthood has, in all times, been in favour of the purification of the theology in vogue in their times and among their inner circles, 39 and has in the main given the most rationalistic interpretation to the obscure things which they taught, and practised what their education and environment would permit. 40 But in order to preserve the mysteries, to maintain them as such, and save themselves from becoming superfluous, not to say intolerable, 41 these same mysteries have been tricked out with mysticism, symbolism of the most fantastic character, and allegory of the most bewildering kind; 42 moreover this has often been accomplished by dramatic representations and by moralising or demoralising ceremonies. 43 The countries in which these "mysteries," as they have since been known, were most commonly practised and most widely believed were Egypt, Chaldea and Greece.

44 The sources of the Egyptian mysteries, like those of Egyptian civilisation, are the most difficult to discover. 45 The Nile is necessarily the basis of Egyptian history, geography, activity and habits, and consequently must be also of the Egyptian cult. 46 The

people who were known as Egyptians invaded the land of the Nile from the direction of Asia, and found there a race of negro type whom they subdued and with whom they later mingled. 47 The Semites called the land Misraim; the Greeks finally changed the name of its great river to Neilos. 48 The country is a land of enigmas. Who built those pyramids, and why? Who originated the system of pictorial writing which we call the hieroglyphic? 49 Who planned those wonderful temples now either in ruins, as in upper Egypt, or buried beneath the desert sands, as in lower Egypt? 50 Who brought and erected those mighty blocks of stone or massive slabs from enormous distances, and handled them as we could scarcely do to-day with the best of modern machinery?

51 In course of time two hereditary classes were formed, the priests who dominated the minds, and the warriors who controlled the bodies of the conquered people and the lower classes. 52 The latter kept the throne of Egypt occupied, while the former, having a monopoly of the knowledge of the time, prescribed for the people what they must believe, 53 yet were very far from accepting these precepts for themselves, and in their inner circles made light of that which they preached to the despised classes without.

54 The Egyptians named their Sun God RE, but assigned the various attributes of the sun to different personalities; they had moreover not only gods for the whole land, but Ptah was God of Memphis, Ammon God of Thebes, etc. 55 Local deities were often constructed out of inspiring objects or from animals inhabited by spirits, and thus the fetichism of the original negro race exerted no little influence upon the higher cult of their lighter coloured conquerors. 56 Worship was paid to animals not for their own sake but because of the gods who were supposed to reside within them; thus their prominent gods were represented with the head of some animal. 57 This honour belonged not to any individual animal but of necessity to the entire species, certain representatives of which were maintained at public expense in the temples, where they were

carefully guarded and waited upon by the faithful. 58 To harm one of these animals was to be severely punished, to kill one of them was to die. 59 Conversely when a God failed in responding to the prayers of the faithful his fetich had to suffer, and the priests first threatened the animal, and if menaces were unavailing they killed the sacred beast, albeit in secret, lest the people should learn of it.

60 As time went on there was less of zoölatry, and the Sun-gods and their associates figured more largely among the cult of the people. 61 The sun's course was not represented as that of a chariot, as among the Persians and Greeks, but rather as the voyage of a Nile boat, upon which the God Re navigated the heavens; 62 from which it will appear that the priestly religion was making slow progress to monotheism by means of oligotheism. 63 The secret teaching of the priests was now more and more to the effect that the gods stood not so much for themselves as for something else. 64 During the fourth dynasty the lower Egyptian city Anu was known as the City of the Sun, hence the Greek name for the place, Heliopolis. 65 Still more characteristic was the giving of the name of Osiris, who figured as God of Abdu, which the Greeks called Abydos, 66 in upper Egypt, to the God of the Sunset, who was king of the lower domains and of death, brother and at the same time husband of Isis, brother also of Set, who slew him, and father of Horus, i. e. God of the new sun, who figures after each sunset. 67 Horus fought with Set, but being unable to completely destroy him left him the desert as his kingdom, while himself holding to the Nile valley. 68 This story of the gods was publicly represented in various scenes on certain holidays, but only the priests, i. e., the initiated, knew the real meaning of the representations. 69 Even the name of Osiris and his abode were kept secret, and outsiders heard only of the "great God" dwelling somewhere in "the West."

70 These were the most famous of all the old Egyptian mysteries, though to them were added many others, including that of Apis, the sacred bull of Memphis, who

served also as the symbol of the Sun and of the fructifying Nile; 71 beneath his tongue was to be seen the sacred beetle, and the behaviour of the great animal was supposed to be prophetic and his actions to mean oracular sayings. 72 The Sphinx again was a sun-God his image being repeated throughout the Nile region, and was always thought of as a male; 73 the head was represented as that of some king, while the whole figure stood for the Sun-God Harmachis; although the sphinx later introduced into Greece was always female.

74 While the Egyptians did not attribute to their numerous gods divine perfection, they nevertheless regarded religious practices as a means of currying favour with their divinities, a custom apparently still in favour. 75 The priests believed in a Sun-God as the only true deity, but not so the people; 76 thus the priests in the various cities praised their local and tutelary God as supreme and made him identical with Re, whose name they appended to the original, as for instance 'Amon-Re'. 77 The king, no matter where he was, prayed always to the local deity as lord of heaven and earth, yet in words always the same.

78 At last during the eighteenth dynasty, about 1460 B. C., Amenhotep IV realised that the power of the priesthood was a menace to the crown and therefore proclaimed the Sun as the sole God, not in human shape, but in that of a disk. 79 He ordered all other images of other gods associated with the sun to be destroyed; the priests of these deposed gods lost their places and estates, which latter were confiscated. 80 But his sons-in-law who succeeded him restored the deposed monarchs. Nevertheless they were marked as heretics by those priests who were reinstated in their former power. 81 In consequence of this conflict, which was violent and prolonged, the intellectual life of Egypt was paralysed and the mystic teachings of the priests were henceforth not disturbed by any wave of progress or advance. 82 The people again sank into a stupid and unredeemable formalism, demonism and sorcery. 83 With the purpose of amusing them the

priests furnished gorgeous sacrificial processions and festivals, while at the same time drawing them away from the true God by teaching them a worship of deceased kings and queens. 84 They also built temples, to only the outer portion of which were the people generally admitted, while the innermost portions were guarded by these priests lest the mysteries thus protected be such no longer. 85 They also procured the building of the ancient Labyrinth, near Lake Moeris, of which Herodotus tells us that there were fifteen hundred chambers above ground and as many more under ground, 86 which latter were never shown except to the initiated, and which contained the remains of sacred crocodiles and of the Pharaohs.

87 The Egyptian priests taught that human was made up of 'body', a material essence or the 'soul', 88 which in the shape of a bird left the body at death, and an 'immaterial spirit' which held to the human the same relation which a God held to the animal in which one dwelt, and which at death departed from the body like the image of a dream. 89 They taught also that, if the soul and spirit were to live on, the body should be embalmed and laid in a rock chamber, and that then the relatives must supply meat, drink, and clothing for its use. 90 The spirit took its way to Osiris and by means of a magic formula the dead would be made one with Osiris; 91 hence in the Egyptian "*Book of the Dead*" the deceased was addressed as Osiris with his own name added, and could now lead a happy life in the other world, 92 which life was portrayed on the walls of the Sepulchres in pictures which are still to be seen, showing how the creature comforts of this world were to be enhanced in the next. 93 Having reached the outer world, and having escaped the host of demons that threatened one on one’s passage, one could then revisit this earth at will in any form.

94 The Egyptian priests also taught that there was a judgment of the dead, and that new comers had to appear before Osiris, with his forty-two Assessors, and disclaim the commission of each one of forty-two sins; 95 all of which was

a magic formula for obtaining bliss according to their notion rather than anything intended as a true statement. 96 The hippopotamus figured as an active agent in the Book of the Dead, appearing always as the accuser, when the sins and the good deeds were being weighed in the balance, while the God Thot was the "attorney for the defense."

97 All these secret doctrines of a priestcraft necessitated secret associations, at least of the higher priests, to which the king was always admitted, the only Egyptian outside of the priesthood to be thus taught their secrets. 98 This was purely for protection; having less fear of foreigners these priests often initiated distinguished men from foreign lands, Greeks especially. 99 Thus Orpheus, Homer, Lycurgus, Solon, Herodotus, Pythagoras, Plato, Archimedes, and many others, received the secret doctrine. 100 The ritual was a long and tedious but significant ceremony, taught by degrees like the Masonry of to-day, and necessitated in some cases the right of circumcision; all who passed it were pledged to the most strict silence. 101 According to Diodorus the Orphic Mysteries were in large degree a repetition of the Egyptian, while the Greek legislators, philosophers and mathematicians whom I have named drew their knowledge from the same source; all of which is probably a very gross exaggeration. 102 Nevertheless it would appear from the hieroglyphic remains that high grade schools were conducted by the Egyptian priests, and that foreign scholars could obtain for themselves instruction in the exact sciences of the day. 103 Only the priests, however, were able to write the hieroglyphics, at least in the earlier centuries of Egyptian history.

104 There can be no doubt but that the secret doctrine of the Egyptian priests was both philosophic and religious, and was sharply distinguished from the popular belief which mistook tradition for truth; 105 that it was monotheistic, that it rejected polytheism and zoölatry, and that the true signification of Egyptian mythology was expounded in private. 106 Moreover an essential

part of this mystery concerned the interpretation of myths as allegorical accounts of personified natural phenomena. 107 For instance Plutarch ("Isis and Osiris") writes-- "When we hear of the Egyptian myths of the gods, their wanderings, their dismemberment and other like incidents, we must recall the remarks already made, 108 so as to understand that the stories told are not to be taken literally as recounting actual occurrences."

109 Without now going into the subject of the relative age of the Egyptian and Chaldean cults, I will remind you that the secret wisdom of one race was not excelled by that of the other. 110 The Chaldean races are undoubtedly of Turanian origin, and their form of religion was peculiar to the Ural-Altaic stock and the Turkic races, who originated the Cuneiform writing. 111 Their most ancient writings represented evil spirits as coming from the desert in groups of seven, and contained formulas for exorcising them; 112 they were presided over by the heavens, while from the higher spirits evolved gods and Goddesses in countless number. 113 Upon the original ground work of Chaldean ideas a Semitic race built a superstructure, and the first traces of the Babylonians and Assyrians appeared some four thousand years B. C. 114 Their highest God was an individual whom they named Baal, while the sun and moon were his images. 115 As in Egypt the priests were held in great reverence, standing next after the king, who was 'ex officio' high priest; they too had a secret doctrine withheld from the vulgar. 116 Although the Chaldeans were astrologers rather than astronomers, they were yet familiar enough with the heavens to estimate astral phenomena for what they really were, 117 instead of holding them to be gods, though they may have represented them as such to the common people. 118 Their literature contained numerous mythological poems, so obscure that to understand them a key was required, which key was only in the possession of the priests. 119 Inasmuch as Abraham came from Ur in Chaldea, with him crept into biblical literature

much of the Chaldean tradition and folklore. 120 The Chaldeans had also their Noah, and their deluge, in which the dove figured as in the biblical account. 121 When the proprietor of the Ark finally freed the animals he erected an altar and offered sacrifice, to which the gods gathered "like masses of flies." 122 This story contributes but one section of the great Chaldean epic in which are recounted the exploits of a hero corresponding with the Nimrod of the Hebrew Bible, dating from the twenty-third century B. C., 123 and reminding one forcibly of the Herculean and many other myths recounted in other ancient languages.

124 An off-shoot of the Chaldean culture was that of Persia, whose priestly class were far removed above the warriors and farmers that constituted the other two classes. 125 Priests married only among their own race, possessed all the knowledge, made their king 'ex officio' one of themselves, and practised itinerant teaching, but solely among their own caste. 126 In the holy city, Ragha, the priests alone held rule and no secular power prevailed; Zoroaster was their founder; they were the physicians, astrologers, interpreters of dreams, scribes and officers of justice, 127 while they impressed upon the minds of the people their exclusive duties;-- to reverence the holy fire, which was their greatest mystery, to listen to the teaching of passages from the sacred book, and to perform numerous ceremonies of purification. 128 Only the initiated were taught the meaning of the strife between the good Ormuzd and the evil Ahriman, which was probably the alternation of day and night, and of summer and winter.

129 In India the intense feeling with regard to caste but little altered the condition of things from that obtaining as above described, 130 though the Brahmins were further away from the other castes than in other countries where the priests came from the common people; 131 by the latter the Brahmins used to be regarded as gods and did all they could to perpetuate this feeling. By this fact alone they became a self-constituted mystic organisation, being themselves pantheists while

the people were idolators. 132 Though they taught pantheism in their sacred books, the second and third castes, namely the warriors and farmers, did not understand the teaching, and the fourth caste dared not read them at all.

133 In this pantheism, penitents and hermits were esteemed as above kings and heroes; 134 but even the life of a hermit was not exacting enough for them, so they organised the idea of a soul of the universe so incomprehensible that, as they themselves acknowledged, no human could comprehend it or instruct another in it. 135 Despairing of solving the problem they finally fancied that the universe was a phantasm, and that the earth and all things earthly were nothing. 136 They taught that through countless aeons of time humans grew always worse, and were born only to suffer and die, or to do penance in the torments of an indescribable Hell. 137 Naturally of all these things the people could only understand the teachings pertaining to hell and future punishment, and so the Brahmins contrived for them a supreme deity, having the same name as their Soul of the Universe, namely Brahma, whom they made the creator but playing a passive part. 138 The people were not content, however, with an absentee passive God, but paid much more attention to Vishnu the preserver, and the dreaded Siva, the destroyer. 139 After a while these three gods were united in a sort of trinity, represented by a three headed figure, but without temples or sacrifices. 140 The Brahmins continued their subtleties and divided the people into parties, like the scholiasts and disputants of the middle centuries of our present Christian era, and so the Hindoo religion became more and more debased.

141 However, in the sixth century B. C., Buddha, that great figure in early history, endeavoured to save it by a reform which found much more encouragement in the West, and to the far East of India, than in India itself, 142 and which has since assumed a more composite character by fusion with the religions of the surrounding countries. 143 Buddha formed first a monastic society based upon ethical doctrines, whose

underlying principle was that only by a renunciation of everything can human find safety, peace and comfort. 144 Buddha's first teachings were mystic and for the initiated only; his followers believed also in reincarnation. 145 After his death and that of those who were supposed to have lived before him, and who were expected to appear again, and who had been raised to the dignity of gods, 146 (and after their number had been added to that of the popular Hindoo gods and to the gods of the other people), then Buddhism became a polytheism, 147 and because of the variety of possible explanations and the necessary exegesis, assumed in the end the dimensions of a secret mystic doctrine.

148 The Hellenes undoubtedly did, in the beginning, worship natural forces under the form of animals, especially of serpents; 149 later human and animal forms were united, and so they had deities with heads of animals, or with the bodies of horses like the Centaurs, or with the hoofs of goats like the Satyrs. 150 But the natural Greek taste for the beautiful early asserted itself; the figures of gods came by degrees to express the ideal of physical perfection, that is the human shape, 151 and the Grecian religion became essentially a worship of the beautiful, and not as among Oriental religions a worship of the unnatural or hideous. 152 They forgot the astronomic and cosmic significance of the early myths and held rather to personifications of the normal forces, of which their poets sang as of mortal heroes. 153 They never dreamt of dogma, creed or revelation, demanded only that human honour the gods, but left it to the taste of each one how you should suitably perform your acts of reverence. 154 It must be confessed, however, that in candor and chastity they left much to be desired; but this may be explained when we remember that their own gods set them a very poor example in these respects. 155 Still history will forgive them much because they loved much. 156 The Greeks were exceedingly liberal in their interpretations concerning the gods, while the various peoples constituting the Greek race were not at all agreed

as to the number and respective rank of the gods whom they worshiped. 157 Thus one would be disowned here, another there; while in one place greater honour would be paid to one, or elsewhere to another; exactly as in the case of the Saints among the Catholic people of to-day. 158 They went so far in their worship of the beautiful as to divide the gods among the localities which possessed statues of them, which gods came to be regarded as distinct individuals; 159 so that even Socrates doubted whether Aphrodite of the sky and Aphrodite of the people were or were not the same person.

160 Furthermore in their liberality they made gods to hand for every emergency, and even worshiped the unknown gods, as St. Paul long ago recorded. 161 For the Greeks these gods were neither monsters like those of Egypt, India and Chaldea, nor incorporeal spirits like the gods of Persia and of Israel, but human beings with all the human attributes. 162 For the Greeks neither Jehovah existed, nor a personal devil in any form. 163 Like the Greeks themselves their gods had many human failings, though in them religion survived many mythological creations like the Centaurs, the Satyrs, etc. 164 These were merely folklore beings enacting parts ranging from terror to farce, and never receiving divine honours.

165 Grecian religion was, so to speak, the established church of the Greek states, but came to be in time a cloak for the designs of the politicians; in which respect history has many times repeated itself. 166 For instance Socrates was made to drink his cup of hemlock on the pretext that he had apostatised from the state religion. Still even in his day heresy played no part except among politicians. 167 Every one could plainly state his convictions, and Aristophanes in his comedies introduced gods in the most ridiculous and compromising situations. 168 So long as the public worship of the gods went on, the state cared little for the upholding of positive or suppressing of negative beliefs. 169 The gods were entitled to sacrifices and the people to divine aid, but they could regulate the interchange to suit themselves. 170 The greatest public crimes were

violation of temples and profanation of sacred things; one must leave the images alone even if you did not believe in the gods they represented. 171 Punishment of blasphemy was only inflicted when complaint was made. 172 Foreign gods could be introduced and worshiped at will, providing only that the customary honours were rendered to those at home.

173 Such religious freedom could naturally only exist during the minority or the absence of a priestly class. 174 Anyone could transact business with the gods or conduct sacrifices; priests were employed only in the temples, and outside of them they had neither business, influence nor privileges. 175 Their pantheism was comprehensive; the gods were everywhere, and the honour done to them consisted in invocations, votive offerings and sacrifices. 176 The Grecian religion recognised no official revelation which all were required to believe, though it did not deny the possibility of revelations at any time. 177 Their oracles were obtainable only in particular places and through duly qualified individuals. 178 At one time in ancient Greece conjuration was in vogue, but the gods and demons who indulged in it were all borrowed from foreign sources, and in time it degenerated into pure magic.

179 The Greeks, however, could not get away from the sentimental notion that belief in the gods must have an ethical side and must be subordinate to their faith; 180 in other words that human nature was something entirely different from the divine to which it was subject. 181 Alienation from the God in which they believed led necessarily to the impulse to seek Him, which was the leading motive in the institution of the Grecian mysteries,-- gods who were human's equals were not sufficient for the Greeks. 182 In the beginning of these mysteries they borrowed the art of the popular religion, disregarded the science of the day as well as the philosophic doctrines of their great people, 183 held in contempt both human power and human knowledge, and devoted themselves almost entirely to self-introspection, meditation on revelation, incarnation and resurrection, 184 and presented

these things in dramatic forms and ceremonies, by which illusions they hoped to make more or less impression upon the senses. 185 The Grecian mysteries were the opposite of genuine Hellenism. 186 The true Greek was cheerful, happy, clear in perception, and their gods appeared to them as do their statues to us to-day. 187 But Greek mysticism was full of gloom, symbolism and fantastic interpretations; in every way it was unhellenic and abnormal, having no fit place in their soil nor in their age. 188 It always has been the case that sentimental, romantic or mystical dispositions find delight in the mysterious, while logical minds are unmoved by it. 189 From the Mysteries no human was excluded, save those who had shown themselves unworthy of initiation. 190 They had their origin in the early rites of purification and atonement; the former being at first only bodily cleansing, which later took on a moral significance; 191 while the atonement was a sort of expiation which came with the consciousness of sin and desire for forgiveness. 192 Atonement was most called for in case of blood guiltiness, and consisted largely in the sacrifices of animals, burning of incense, etc. 193 In all the ancient mysteries these two features of purification and expiation played a great part.

194 Of them all the oldest and most celebrated were those instituted at Eleusis, in Attica, in honour of the Goddess Demeter (Latin Ceres), and her daughter Persephone (Latin Proserpina). 195 To these were added later a masculine deity, known at first as Iacchos, whose name is probably related to Jao, which appears in Jovispater or Jupiter, and to the Hebrew Yahve or Jehovah. 196 Later, however, B was substituted for I and Iacchos was made to read Bacchus. Jao was the Harvest God, and consequently God of the grape, hence the close relation to Bacchus. 197 The Greek word Eleusis means 'advent', and commemorates the visit of Demeter while wandering in search of her daughter,-- which reminds one of the Egyptian story of Isis. 198 Moved by gratitude, Demeter bestowed upon the people of Eleusis the bread-grain and the mysteries. 199 From this

city the cult of these two deities spread over all Greece and most of Asia Minor, passed into Italy in modified form, and thus became widely accepted. 200 The people built at Eleusis a temple in pure Doric style and a Mystic House in which the secret festivals were held. 201 The city was connected with Athens by a Sacred Way, which was flanked with temples and sanctuaries, while in Athens itself was a building, the Eleusinion, in which a portion of the mysteries were celebrated. 202 The buildings at Eleusis were in good preservation until the fourth century A. D., when they were destroyed by the Goths under Alaric, and at the instigation of monkish fanatics. 203 You will see, then, that the mysteries were widely observed in Asia Minor, and at a time when they must have deeply tinged the religious views and habits of a large portion of the population prior to the beginning of the Christian Era.

204 The Eleusinian mysteries were always under the direction of the Athenian government, and the report of their celebration was always rendered to the grand council of Athens. 205 The function of the priests was an hereditary and exclusive privilege and the mysteries as a whole were under the immediate care of a sacred council. 206 The people contented themselves mainly with honouring the gods, while in these mysteries the original endeavour was to emphasise the preëminence of the divine over the human, hence their careful guardianship by the authorities of the state. 207 Both were offshoots of pantheism, one seeing the divine in all earthly things, the other constantly searching for it there, and striving to unite with it. 208 Monotheism, that is absolute separation of the human from the divine without hope of union, is a purely Oriental conception, quite incomprehensible to the Greek mind. 209 No ancient Greek ever conceived of a creative deity in the Egyptians' sense, nor of a vengeful Jehovah like that of the Hebrews.

210 The Eleusinian mysteries were most highly venerated among the Greeks; so much so that during their celebration hostilities were suspended between opposing armies, while those who witnessed

them uninvited or betrayed the secret teaching, or ridiculed them, were executed or banished. 211 So late even as the period of the Roman supremacy the Roman Emperors took an interest in maintaining these mysteries, and some of the early Christian Emperors, like Constantius II. and Jovian, while forbidding nocturnal festivals made an exception of these.

212 The sum of the original Eleusinian doctrine is a myth based upon the rape of Demeter's daughter Persephone by Pluto, all of which is the old story of the seasons and the changes brought about in their regular succession; 213 and as Persephone was ultimately united with Bacchus but returned to the lower world for the winter, we see typified first, the fruitfulness of the Sun God; 214 secondly, the fecundity of the soil, and, thirdly, the resurrection of the body, which having been dropped like the grain into the earth was supposed to rise from it again after a similar fashion. 215 How much this may have to do with present Christian beliefs concerning the resurrection may not be easily decided. 216 Nevertheless it is of interest that the doctrine of the resurrection is of pre-Christian origin and is traceable through heathen teachings, even if having no greater support than the analogy above cited. 217 The central teaching of the mysteries was probably that of a personal immortality analogous to the return of bloom and blossom to plants in the spring.

218 There were two festivals held at Eleusis, the 'lesser' in March, when the ravished Persephone came up out of the nether world into the sunlight; and the 'greater' in October when she had to follow her sullen spouse into Hades again. 219 The preliminary celebration was held at Athens, and lasted six days, from October 15th to 20th. They all assembled upon that day and went down to the seashore for the rite of purification, the other days being spent in sacrificing and marching in solemn procession. 220 On the last of them came the grand Bacchic procession, when thousands of both sexes wended their way along the sacred road to Eleusis; the distance to be traveled

was fourteen miles, but many stops were made. 221 Arrived at Eleusis the first evening was devoted to drinking the decoction called 'kykeon', by which Demeter was originally comforted during her wanderings. 222 During the first days the initiated feasted and performed their mystic rites, consisting largely of torch light processions at night. 223 After these were over the festival became a scene of merriment and athletic competition. 224 The fasting and solemn cup, along with others of their rites, remind one of certain Christian observations perpetuated to the present day, 225 while the severe tests to which those desiring initiation were subject have been more or less imitated by the Free Masons and other secret societies of mediaeval or modern times. 226 The Mystic House must have been furnished with all the resources of the stage and the most ingenious stage carpentry of that day, and makes one think of Scottish Rite Masonry of this. 227 The initiates regarded their chances in the next world as much better than those of the common people, as all the ancient Greek writers acknowledge.

228 In age and renown the mysteries of the Cabiri, in the island of Samothrace, rank next to those of Eleusis. They date back to a time preceding the evolution of several of the Grecian deities. 229 These Mysteries implied originally an astro-mythology, losing in time its astral meaning. In these Samothracian mysteries the reproductive forces of Nature figured most prominently, and through them the Phallic worship of the Orientals was transmitted to the Greeks. 230 Into these mysteries women and even children were initiated. 231 There were also Cabirian mysteries in several other Islands in the Grecian Archipelago, as well as on the continent. 232 Mysteries were also celebrated in the Island of Crete, in honour of Zeus. 233 We know but little concerning them save that in the spring time the birth of the God was commemorated in one place, and his death at another, and that amid loud noises the story of the childhood of Zeus was enacted by the young.

234 As already remarked the worship of Bacchus was imported and in him was personified the influence of the sun upon the growth of the vine, 235 while the ultimate tendency was to the glorification of life and force; in other words, it was eminently materialistic and appealed to the grosser senses. 236 The Dionysian mysteries originated in Thrace, and among a people of Pelasgian stock, who were naturally gloomy save when aroused, when their enthusiasm became exaggerated into transports of frenzy. 237 In time a distinction obtained between the Dionysian mysteries and the festivals. At least seven different non-mystic festivals occurred in Attica during the year, which were of popular character, during which the Phallic worship, if any, predominated. 238 The fabled adventures of Bacchus were enacted and the dramatic stage originated at this time and from this beginning. 239 On the other hand, a triennial festival of Dionysos was held in which women participated who, saturated with wine, lost all restraint and humility and were called 'maenades' or mad women, while their festivals were spoken of as 'orgia', whence our modern term orgies. 240 These were conducted at night, upon the mountains, by torch-light, in mid-winter, while the women, who were clothed in skins, shunned all association with men, and drank, danced, sang and committed all sorts of excesses, 241 finally sacrificing a bull, in honour of the god, whose flesh they devoured raw. 242 They then raved about the death of their god and how he must be found again; all hope in rediscovering him centering in the quickening springtime.

243 Bacchus worship, bad as it was in Greece, was surpassed in Rome, Livy even comparing the introduction of the Bacchic cult into Rome to a visitation of the plague. 244 In its Etruscan and Roman form it became simple debauchery with a thin veneering of religion. So abominable did it become in time that in 186 B. C., the Consul Albinus was compelled to suppress it. 245 Seven thousand persons were implicated at that time, and the ringleaders and a multitude of their accomplices

were condemned to death or exile. 246 The senate decreed that the Bacchanalia should never again be held in Rome or Italy, and the places sacred to Bacchic worship were to be destroyed. 247 These orgies continued unchecked outside of Italy, and in time reappeared again even upon Italian soil, until the days of the Roman Emperors, when they reached a pitch of absolute shamelessness, as in the case of the notorious Messalina.

248 Time fails in which to mention all of the other debased mysteries which were met with in the various parts of Greece and Italy. 249 Among them, however, must be recorded those of the mother of Rhea, those of Sebazios, and those of Mithras, all of which were finally collected by the sect of Orpheans. 250 Among the Persians Mithras was the Light, and his worship was perhaps the purest cult that could be imagined. 251 Later it was combined with sun worship, and Mithras became a Sun God, and as such generally recognised among the different peoples. 252 To the early Greeks Mithras was unknown, but in the later days of the Roman Empire his mysteries made their appearance and gained great prominence. 253 The monuments represented a young man in the act of slaying a bull with a dagger, while all around are human and animal figures, the youth standing for the Sun God who, on subduing Taurus in May, begins to develop his highest power. 254 The original beautiful rites later degenerated and became orgies. Among the original rites was a form of baptism and the drinking of a potion made of meal and water. Human sacrifices were in some places a part of the cult.

255 The most disreputable of all these mysteries appear to have been the Sabazian, which were made up of several earlier forms, and were mere excuses for gluttony and lewdness, while the priests of the cult were most impudent beggars. 256 Thus in time the mysteries were stripped of all the beauties of a heavenly origin and became of earth exceedingly earthy, 257 while their initiates, lost to all shame and decency, persisted nevertheless in their sacred hypocrisy, until the

hideous night of the gods disappeared before the glow of a brighter morning.

258 After this rather long preliminary portion, we are now prepared, as otherwise we could not be, to consider the relation between the Christian religion and these ancient mysteries. 259 Granting that Jesus was the founder of the Christian religion, we must remember, nevertheless, that he was distinctly a Jew, spent his life in Judea, and based his teachings upon Judaism; 260 also that long before his day Judaism was thoroughly indoctrinated with Greek elements, and that after his crucification the propaganda was carried on not so much by Jews as by Greeks and people of Grecian education. 261 Between the Greeks and the Jews there were then, as now, the greatest differences; differences which have already been epitomised, but which may be thus summarised. 262 On one side the closest union between God or the gods and human, most lofty sentiments and finest sense of art-form, a priesthood making no pretentions and exerting little influence, a nation sustaining active commercial relations with the world, and all imbued with eagerness to adopt whatever was novel; 263 on the other side, the widest separation between Jehovah and human, a substitution of theology and religious poetry for a study of Nature, a nation ruled by priests and protected against all access from without, either by sea or caravan, adhering determinedly to the old and distrusting whatever was new.

264 After the Jews were liberated from Babylon, by Cyrus, they dispersed widely, living largely under Persian rule, and subjected after Alexander's conquest to Greek influences. 265 Later they were scattered still more widely, becoming in time a mercantile race. 266 In Egypt they enjoyed greater privileges than elsewhere, and in Alexandria saw the acme of Grecian art and teaching. 267 While retaining their reverence for their scriptures and for the temple at Jerusalem, they quite generally adopted the language of the country, and particularly was this true of the Jews living in Alexandria in the third century, B. C, during which the Pentateuch

was translated into the Septuagint, 268 the remainder of the Hebrew bible being translated about 125 B. C. Thus the Greeks gained an introduction to Jewish theology, while the Hellenist Jews learned for the first time a Grecian philosophy; 269 thus, too, among the scholars of one race was begotten a high esteem for the sages and philosophers of the other, while from the polytheism of one and the monotheism of the other was constructed a new mysticism. 270 In this Alexandrian mysticism appeared in particular and for the first time the new idea of divine revelation, which was applied by enthusiasts alike to the Old Testament and to the Grecian writings. 271 The Jew Aristobulus devised a most ingenious allegorical interpretation of the Old Testament, and traced to it all the wisdom of the Greeks, who until recently had never heard of it; 272 and Philo, another Hebrew philosopher, contemporary with Christ, yet of whom he knew nothing, so construed the traditions of his race as to see in the four rivers of Eden the four cardinal virtues, in the trees of paradise the lesser virtues, 273 and in the great figures of Jewish history personifications of various moral conceptions, all of which was out-doing the manner in which his Grecian friends had developed their own mysteries. 274 Moreover, and this is very important, Philo taught that God had made a world of ideas and according to this model had subsequently made a corporeal world; the former having for its central point the Word. 275 This statement that the 'Word' was the first and the 'World' his second deed passed later into the gospel of St. John, which opens "In the beginning was the 'word', and the 'word' was God."

276 Philo founded a sect based upon the doctrine that the soul's union with the body is to be regarded as a punishment from which human should free yourself, for your soul's sake. 277 This sect was known as the Essenes, who in spite of claims to the highest antiquity really were founded during the first century B. C, and who constituted in effect a secret society. 278 They were the true socialists of their day, and held things in common. They invented

a peculiar nomenclature for the angels and imposed upon their new members to keep these names secret. 279 As a society they did not long survive the beginning of the Christian era, being made superfluous by Christian asceticism. 280 The Essenes, however, were of importance in this regard that they constituted the middle terms between the Grecian mysteries and Christianity, as they did between Grecian philosophy and Judaism. 281 They were, in effect, a Jewish imitation of the Pythagorean league. 282 'When with Grecian mysticism were associated the nobility of Socrates, the philosophy of Plato, the science of Aristotle and the Jewish belief in one God, 283 it is not strange that out of these elements, combined with the teachings of simple humanity enunciated by Christ, there resulted a power which transformed the world.' 284 The view that all humankind are brothers, originally Jewish, was also of independent Greek origin 285 and came especially from the Stoics, who had to lie dormant until some tie stronger than mere political association held people together. This tie subsequently became a religious one. 286 Polytheism had nothing more to give up; all the forces had been worked over in the God-making process, the Pantheon was full, and people ridiculed alike the gods, their oracles and their priests. 287 These same priests smiled at each other when they met, and forfeited all public respect by the lives they led. 288 Olympic wantoning and derision of the gods must necessarily have ended so soon as anything better could be substituted therefor.

289 The long felt want was for a God of definite character, of approved prowess, with human feelings, human wrath, and human love, made after human's own likeness, who should stand for a doctrine of personal immortality, and give some promise of a hereafter. 290 The Jews, the only monotheists of the time, were prepared to furnish such a God, but he was too spiritual, and was worshiped by altogether too indefinite rites and peculiar usages. 291 Nevertheless the God of the Jews was utilised for this purpose while the mystic elements

with which he was to be surrounded were furnished by the ancient Grecian mysteries and the doctrines of the Pythagoreans and Essenes. 292 So completely did the Jews and Greeks mingle in Egypt and in Judea, that the idea prevailed among both races that the time had come for something new in them desired direction. 293 The various secret leagues demanded a separation of the divine from the human and their subsequent reconciliation, all of which was subsequently furnished to their satisfaction in the accounts of the origin and death of Christ. 294 Even during the early years of the Roman Empire people looked for a new kingdom in the East, and both Jews and Heathen awaited some divine intervention. 295 This took more definite form in the Jewish expectation of a Messiah who should restore the kingdom of Israel, and in their worship of Jehovah, while the Greeks yearned for something to take the place of their degenerate polytheism.

296 The times were thus ready for the appearance of Jesus, who lived for most of his life in obscurity, and of whose career no mention is made by contemporary Greek and Roman writers. 297 This was perhaps fortunate for his followers, for none could contradict what any other might choose to say of Him who rose above the bigotry of his day and people, 298 who was executed because of his independence of the priests and scribes, and who was thus regarded as the longed for Messiah. 299 On the Jewish branch of his real origin were grafted Grecian mystical off-shoots of superhuman origin;-- an immaculate conception, a vicarious sacrifice, a resurrection and an assumption of a portion of the God-head. 300 Thus, in what has come down to us concerning the Founder of the Christian church, truth and fiction mingle; the former being that which is consistent with highest laws and natural phenomena; and the latter that which conflicts with these. 301 Jesus himself never made pretentions to being more than a man. When he spoke of his father he spoke of him as equally the father of all humankind; 302 he was the greatest moral reformer that ever lived, and he differed

widely from the Essenes in that he sought to save human, not by Essenism and withdrawing you from the world, but by living with you and setting you a beautiful example.

303 The ancients were firm believers in signs and portents from the heavens which were supposed to serve both for the instruction and warning of humankind. 304 Stars, meteors, the aurora, comets and sudden lights of any kind were regarded as presaging events like the birth of gods, heroes, etc. 305 Great lights were supposed to have appeared both at the conception and birth of Buddha, and of Crishna. 306 The sacred writings of China tell of like events in the history of the founder of her first dynasty, Yu, and of her inspired sages. 307 The Greeks and Romans had similar traditions regarding the birth of Aesculapius and several of the Caesars. 308 In Jewish history we read that a star appeared at the birth of Moses, and of Abraham--for whom an unusual one appeared in the East. 309 The prominence which a similar star in the East played in the legends of the Founder of Christianity and the effect which, as also in the case of Moses it had upon Magi, needs here no rehearsing. 310 A very different significance was attached to eclipse or to any phenomena by which unexpected darkness is produced. The Greeks held that at the deaths of Prometheus, Hercules, Aesculapius and Alexander, a great darkness overspread the earth. 311 In Roman history the earth was shadowed in darkness for six hours when Romulus died. Much the same thing is reported to have occurred when Julius Caesar died. 312 So also one of the most conspicuous features attending the crucifixion of Jesus was a similar phenomenon which is made to play a most conspicuous part, for we read in three of the gospels that "darkness spread over the earth from the sixth to the ninth hour;" 313 although the only evangelist who claims to have been present says nothing about it, nor do historians of that time, like Seneca and Pliny, make note of any such event in Judea.

314 In view of all these, however, to deny the star in the East, and the

hours of darkness following the crucifixion, is regarded by many pious people as rank blasphemy or heresy of the deepest dye.

315 The parables in which Jesus taught so unmistakably were similes adapted to the simple comprehension of his people, who likewise often made use of such figurative language. 316 Those who followed him used this form of speech much more freely, and quickly erected his personality into the dignity of a God, magnified him and his mission, 317 and soon saw him generally accepted as the equivalent of the Messiah, for whom Greeks and Jews alike had longed. 318 His alleged miracles were unnecessary, in addition to being contradictory to all known natural sequences, because the simple and sublime truths which he preached could not be made more expressive by any such help. 319 In the light of to-day they seem unnecessary juggleries, quite unworthy of so grand a character. 320 They probably represent the effort of his followers, who portrayed his life and personality in colours which would make them more generally acceptable.

321 Of such transformations as that by which the son of a carpenter was made to appear of divine origin history has no lack. The Grecian polytheism furnished numerous illustrations; 322 Apollo appeared on earth as a shepherd, Herakles, the son of Zeus, and Romulus (who was also the son of a 'virgin' and of 'Mars'), were founders of cities, states and nations. 323 The Jewish accounts of creation stated that God walked the earth, and why not in human form? Why also should not the founder of a religion be the son of God and of a virgin? 324 The rest of the beautiful story upon which we were all brought up must be regarded as fanciful embellishment, beautiful in its imagery, but having no foundation in fact or scientific possibility. 325 The annunciation, the star in the East, the slaughter of the innocents, etc., can only be regarded in this light.

326 The stories of the miracles are probably distinctively purposive. In the Grecian mysteries Demeter and Dionysos figured as givers of bread and wine; 327 Jesus, too, was made lord and giver of these two

sacred viands, all of which appears in his changing water into wine, multiplying the loaves, and later in the institution of the Last Supper, at which bread and wine became a part of these Christian mysteries which are still widely perpetuated. 328 In his quieting the storm, walking upon the water, finding the penny in the fishes' mouth, and the draught of fishes, are portrayed his power over the forces of Nature and lower forms of life. 329 His power over disease was personified by stories of healing paralytics, lepers, blind, deaf and dumb people, casting out devils, and even by restoring the dead to life. 330 Apparitions were common according to the history of his life, as of the holy spirit in form of a dove, his encounter with Satan, the appearance of Moses and Elias, etc. 331 The ancient tendency to personify appears again in the form of Satan or a personal devil, namely the power of evil, while in the Transfiguration is personified the superiority of the new law over the old. 332 Finally the miracles attending his last days, the darkening of the sun, the rending of the veil and the Resurrection, were all occurrences which it would be impossible to omit from the closing scenes in the life of anyone who has figured as a God. 333 They betoken the mourning of Nature, while the Ascension personified the belief in an everlasting Redeemer and the individual immortality of those who believed in him.

334 In thus epitomising the events in the life of Jesus upon which, from his day until now, people have laid such fearful stress, and upon whose acceptance the present life as well as the future of all humans has been conditioned, 335 I should be far from doing justice to myself should I fail to point out my own attitude in the matter. I hold it true that the self-evident truth, 336 as well as the wonderful sublimity of Christ's teachings, become apparent upon the study of the same, and are weakened rather than strengthened by insistence upon all that is supernatural, mysterious and inconceivable in the generally accepted account of his life and labour. 337 My mind is freed from the necessity for the mysterious which the Graeco-Jewish people demanded, and

which the superstitious people of to-day still demand, 338 and I prefer to let Jesus stand for what he seems to me to be,-- 'the greatest moralist and teacher of all time', 339 rather than to surround Jesus with a veil of imagery and with statements so impossible of belief as to make it impossible to accept one part without accepting them all. 340 The Jews already had doctrines of unity of God and love for others; the Grecian philosophy antedated Jesus in insisting upon elevation of life to a higher plane than that of mere gratification of the senses, 341 and everywhere his predecessors and contemporaries could furnish miracles by the hundred, but in force, grandeur and simplicity of his teachings, in his comprehensive humanity, in his directness of appeal, in his condemnations of those who departed from the model which he set, 342 Jesus never has had and probably never will have an equal. In his self-abasement and love for others he was as irresistible as have been these principles in civilising and, in this sense, christianising the world.

343 In Jesus' own day there was no hair-splitting theology; devotion, love of fellow-men, charity, repentance, these were all that were needed. 344 But the beautiful simplicity of his teaching was lost with the death of his first disciples. The system was esteemed too simple, too unadorned to appeal to the people used to something quite the contrary. 345 And so Stephen the Martyr, who was of Grecian education, was stoned because he demanded a repudiation of certain Jewish teachings, although the congregation at Antioch adopted his views.

346 Paul the great leader was an epileptic and had frequent fits and visions, and these made a strong impression, not only on himself but on his followers. 347 On the creations of his imagination the doctrine of the resurrection is largely based. 348 He set up the God-man Jesus as the counterpart of the first man Adam, who represented sin and death, and who was to be crucified and born anew in Christ. 349 Between Paul, the great Gentile Christian, and Peter, the Jewish Christian, the church was quickly split into two parties;

these two soon subdividing into others, and among them all arose the New Testament literature, whose Alexandrine dialect establishes the influence of Greek education.

350 Thus did Christianity develop out of the secret associations of the ancient world. The early Christians themselves constituted, at least while under persecution, a sort of secret society. 351 Their worship was mystical, but not because Jesus so taught;-- rather because of their environment and traditions. 352 The practice of baptism, the last supper and the doctrines of incarnation and resurrection have been as certainly added to the Nazarene's sublime code of ethics as to them in turn, 353 in the centuries to follow, were added every conceivable notion, mystery and stupid absurdity which the diseased minds of humans could imagine, 354 and which have been the cause of more departure from Christ's original teachings, and of more strife and bloodshed than any other feature in the history of humankind.

355 Indeed it is one of the greatest inconsistencies of history that the doctrines of love, unity and peace, taught by the Founder of Christianity, should have been the greatest of all factors to rend humankind apart, 356 beget feelings of hatred, and result in the death, from this cause, of millions of people such as Jesus himself most loved.

THE KNIGHTS HOSPITALLER OF ST. JOHN OF JERUSALEM

6 The three great militant, mendicant and monastic orders of the middle ages were the Knights Hospitaller of St. John, the Knights Templar, and the Teutonic Order. 2 In addition were numerous others, smaller, shorter lived, less important in every respect, scarcely mentioned in even the larger histories, like the knights of Calatrava, Alcantara, Santiago de Compostella, and the English Knights of the Holy Sepulchre. 3 These orders were the immediate as well as the indirect outgrowth of mediaeval conditions for which both the Church and the State were responsible. 4 The secret tenets of the Christians had

been made public, and those who held to them had for some time ceased to be a secret society; 5 their faith was now a part of that church which was essentially the State, and which occupied a goodly part of Europe. 6 Sad to say the Church was rent, and the State suffered accordingly from constant strife between sects and parties, who contested, even to the death, over interpretations to be given to the scriptures, and the matter of creeds. 7 Thus while discussing at point of the sword whether the soul is to be saved by good works, or by grace of God, they disregarded the very essence of the simple teachings of Jesus, 8 and brought upon theology, even in those days, the contempt and ridicule of the liberal minded and the non-believer, so that even to-day it suffers because of the unfortunate light in which it was made to appear. 9 That theology should lead to war is the antithesis of the Christian doctrine, yet no wars have been so fierce and bloody as those waged in "spreading the cross" and propagating a misinterpreted gospel. 10 And so theology suffered doubly from the Monks who perverted it, and from the Knights and the State that inculcated it with fire and sword.

11 For a thousand years nothing of importance was added to human knowledge, and mental confusion reigned supreme. At the end of this period all the original teachings of Christ were forgotten, 12 and after passing through the hands and tongues of fanatics or deluded and ignorant people, Christianity was left with the semblance of a monotheistic basis on which had been crudely built up certain doctrines borrowed from Egyptian and Grecian sources, 13 among which may be mentioned the Trinity, Immaculate Conception, Resurrection and Ascension, as well as certain practices like that of the Lord's Supper, plainly borrowed from pagan customs. 14 There was in all these so much to challenge belief, and so much at first unacceptable to minds not trained to believe it, that, in order to be effective their propaganda had to be carried on with the sword.

15 Moreover to the Christian mystic, anxious to unify the self

with the hidden, unknown deity the idea of Moslem unbelievers in possession of the high places which they regarded with such reverence, was simply intolerable and repugnant beyond description. 16 Hence the Crusades undertaken order to regain the Sepulchre; in which by Papal decree the Monks joined the Knights, 17 and under command of emperors and the greatest generals of their day, made temporary conquest of the Holy Land, founding the kingdom of Jerusalem. 18 The immediate outcome of the general movement was that alliance, made wise and even necessary, when theology and chivalry joined hands, from which resulted the foundation of such orders as those mentioned at the beginning of this paper. 19 These allies of which they were composed, all took the monastic vows of poverty, chastity and obedience, 20 and for a time kept them, until the possession of power and the acquisition of wealth brought their inevitably accompanying temptations. 21 Each of these orders and many of the others passed through the successive stages of poverty, with meekness and constant benefaction, succeeded sooner or later by temporal aggrandisement, selfishness, greed, and rapacity, with all the crimes in the calendar, and the inevitable ultimate downfall. 22 Of them all the Hospital Knights bore by all means the least smirched record, on which account, partly, as well as because of their most prominent purpose, i. e., their work among the sick, wounded and distressed, I deem their careers worthy of more particular study.

23 For this purpose we may quickly dismiss the Teutonic knights from present consideration, simply reminding you that they were really the founders of modern Prussia. 24 They had their own origin in the commendable public spirit of the merchants of Lübeck and Bremen, 25 who during the siege of Acre made tents out of the sails of their ships, in which their wounded countrymen might be nursed and attended. Most of their active service against the Saracens was in Spain.

26 Of the Knights Templar a little must be said here. About 1119 two

Knights, Hugo (or Hugh) of Payens, and Godfrey of St. Omers, associated with themselves six other French Knights in a league of military character, 27 styling themselves "Poor Knights of Christ," and pledged themselves to keep safe for pilgrims the highways of the Holy Land. 28 They prospered and grew, and came into the favour of Baldwin I, king of that kingdom of Jerusalem already mentioned. 29 Inasmuch as their Monastery occupied a part of the site of Solomon's temple of old they were known as 'Templars'. 30 At the synod of Troyes, in 1128, they were recognised as a regular Order, and received monastic rules and habits, with a special banner. 31 They were also known as "Poor Companions of the Temple of Jerusalem," a name which did not very long befit them. 32 At first, like the Hospital Knights, they begged their food, fasted, kept vows, worshipped diligently, and cared for the poor and infirm. 33 Beard and hair were cropped short, the chase was forbidden, and they took the usual vows of chastity. But as they acquired property they forgot the simple life and habit, as well as their vows of obedience and chastity, 34 while their pledge to protect the pilgrim on his way became in time a farce, not alone through their indifference and negligence, but through their treasonable dealings with the Saracens, and even treacherous surrender of their strongholds.

35 Thus, whatever their pristine purpose, lucre and power became the later objects of their strife and the impelling motives of their lives. 36 By the accession of so-called "affiliated members" they avoided the rule of celibacy, and admitted married knights and those engaged to be married.

37 Their Grand Masters in time ranked next after Popes and Monarchs. While the former favoured them it was mainly because they feared them. 38 They were exempt from all episcopal jurisdiction, and subject only to the Pope. 39 So rich and powerful did they become that at the time of their suppression they controlled an Empire of five provinces in the East and sixteen in the West, while the Order possessed some 15,000 houses. 40 They aimed to make all Christendom dependent upon

themselves, with only the Pope as their nominal head.

41 Of their personal bravery, which was usually impeccable, of their affluence and intolerable effrontery, and of many of their traits and characteristics, one may form an excellent idea by reading 'Ivanhoe', where these seem to be quite faithfully depicted. 42 It is, to me I confess, just a little amusing as well as saddening to see the people, who name their secret Masonic associations after the founders of the Order, 43 displaying and imitating, at least in public where alone they can be judged by outsiders, only those features of Templar Knighthood which marked the period of their decadence or their downfall. 44 As imitations they may be historically accurate, but as worthy of emulation, or even of imitation such displays are matters of questionable taste, at least, to those who read medieval history.

45 The Templars in their days of splendour and later downfall, were neither pious, nor learned, nor good Christians. 46 Many of their secret doctrines were of heretical origin, taken from the Waldenses or the Albigenses, and they cared far more for their own possessions than for the Holy Land. 47 They promulgated the shameful excuse that God evidently willed that the Saracen should win; that the defects of the Crusaders were evidently according to His decision, 48 and that therefore they were released from their vows, and could return to Europe, where indeed they rested-- after their fashion,-- from their labours, and passed their time in doing everything their founders had vowed not to do.

49 But this is not intended to be an epitome of Templar history; rather a brief statement of the reasons why they went proudly and sometimes stoically to their final downfall, 50 and why the Hospital Order, though not always keeping up to its earlier standards, nevertheless so far eclipsed them, as to become the recipients of very much of the Templars' enormous resources and wealth, being thought worthy to be thus entrusted. 51 And so it happened that, in 1307, Philip of France had all the Templars in France arrested and their property sequestrated.

This led to a tripartite dispute in which were involved the Templars, the Pope and the King. 52 In 1310 fifty-four Templar Knights were burned alive in Paris. At last the Pope, to prevent their property from falling into secular hands, made over to the Hospitallers most of the Templar estates, excepting however those in Spain. 53 The Grand Master Molay and another Templar were burned to death on an island in the Seine.

54 So much then in brief, for purposes of contrast. Now to the avowed subject of this paper.

55 During the seventeenth century there rose a controversy as to the foundation of a hospital already in existence in Jerusalem, named after the Asmorean prince John Hyrcanus, (the son and successor of Simon Maccabaeus, 56 who restored the independence of Judea and founded a monarchy over which his descendants reigned till the accession of Herod. He died 105 B. C.). 57 This was at a time when the pious merchants of Amalfi planned a refuge for their pilgrims. It was this John whom many suppose to have been the patron of the order, 58 though it seems now clearly established that the first sponsor or the first St. John, in this connection, was the Greek patriarch John surnamed Eleëmon, or the Charitable, because of his practical philanthropy. (See "St. John the Almsgiver," Rev. H. T. F. Duckworth, 1901). 59 But by the time the Crusaders, under Godfrey of Bouillon, had taken Jerusalem from the Saracens, St. John Baptist seems to have become the acknowledged patron saint of the hospital, 60 his image being worn by epileptic patients, and being later adopted as the regular badge for those engaged in hospital work.

61 But this term 'hospital' must not be regarded in its present acceptance; it was used in a broader sense to imply any house of refuge, even from wild animals; in fact a 'hospice'. 62 This particular hospice seems to have been erected on the ruins of one founded by St. Gregory in 603, where it is known that the French Benedictines worked. 63 Two centuries later Charlemagne had claimed the title of Protector of the

Pilgrims. ("De Prime Origine Hospitaliorum," by La Roulx. Paris. 1885). 64 This institution was naturally located in close proximity to the most sacred places, which early Christian traditions made such to the pilgrims who came from all over Western Europe. It was in existence in 1099. 65 It was made doubly necessary by not only the hardships of travel, but by the ill usage of the natives, at a time when the Holy City was in the hands of the Moslems, who demanded an entrance fee often beyond the pilgrims' means. 66 Thus subjected to indignities indescribable, robbed often before their arrival, these misguided pilgrims often died of want, or returned with their primary pious object unattained. 67 Had it not been for one Gerard, the first administrator of the hospice, their hardships had been even greater.

68 The buildings of the Order, at first meagre, were finally enlarged to cover a square, nearly 500 ft. on each side, with one side on the Via Dolorosa and another fronting the Bazaar, and all a little south of the Church of the Holy Sepulchre. 69 Nearby were other churches and hospices. This was the arrangement before the establishment of the kingdom of Jerusalem in 1099. 70 During the next century the Order, under Raymond du Puy, had enlarged the church of St. John Eleëmon into the conventual church of St. John Baptist, while along the south of the square above mentioned ran an excellent building, the hospital of St. John. 71 When Saladin recaptured Jerusalem, in 1187, this church was converted by the Turks into a mad-house, known as the "Muristan," this being finally ceded to Germany in 1869.

72 From the new kingdom of Jerusalem the Hospitallers obtained a constitution, and the Gerard above mentioned was made their first "Master." 73 He was succeeded in 1118 by du Puy, while Baldwin II was the Latin King of Jerusalem. 74 The Hospital had been recognised by the Archbishop of Caesarea in 1112, and had widely extended its sphere of usefulness. 75 It was King Baldwin who was anxious to stamp upon the Order a military character, similar to that conferred

upon the Order of the Temple in 1130. 76 This was natural since the kingdom was isolated, surrounded by fanatic enemies and always beset by and in danger from them. 77 Thus the necessities of the times and the environment made it requisite that all who were able should bear arms, and coöperate for mutual defence.

78 Thus it came about that the Order was divided into three divisions, the first in rank being the Knights of Justice, each of whom must be of noble rank or birth, and have received the accolade of knighthood from secular authority. 79 The second division comprised the ecclesiastics, who were later divided into two grades, the Conventual Chaplains, who were assigned to duty at headquarters, and the Priests of Obedience who served other priories and commanderies in various parts of Europe. 80 The third grade were the Serving Brothers, also divided into the Servants at arms or Esquires, and the Servants at office. 81 The Servants at arms attended the Knights of Justice as their Esquires, and might eventually become eligible to the first division. The Servants at office were little if anything more than menials or domestics. 82 Even these latter, however, possessed certain privileges and emoluments which made admission to this grade advantageous to people of humble origin and faculties.

83 The dress of the Order was a black robe with cowl, having a white linen cross of eight points over the left breast, and was at first worn by all. 84 Later, under Pope Alexander IV, the fighting knights wore their white crosses upon a ground gules.

85 The first recorded appearance of a body of Hospitaller knights in actual war was at Antioch, in 1119, while the complete military constitution of the Order of St. John was achieved in 1128. 86 During the balance of the existence of the Kingdom of Jerusalem then, two colleges or companies of military monastic knights existed, side by side, in the Holy Land, the "chief props of a tottering throne." (Bedford). 87 Between these rival bodies arose in time such jealousy, and within them such intrigues,-- aggravated

always by the animosities of the ordinary clergy, who took offence at the patronage bestowed upon the orders by the Popes, 88 aggravated also by similar difficulties on the part of the knights of the Teutonic Order and that of St. Lazarus,-- 89 that the best interests of the kingdom and of the Church suffered as much from intestine dangers as from those arising from the Moslems surrounding them. 90 Nevertheless it may be said that the Order of the Hospital never lost sight of its primary purposes, and never disgraced itself by the treasonable and treacherous dealings, 91 and correspondence with enemies which disgraced not a few members of other and rival Christian organisations.

92 The result of such disreputable actions lead-- as ever-- to disunion and final disruption, and this to final capitulation and surrender of Jerusalem, in 1187. 93 This meant the abandonment not only of their old home, but of their usefulness there. The Saracens occupied their buildings and premises from that time till ruin overtook them. 94 Thus rudely compelled to emigrate the Order moved the same year (1187) to the town of Margat, where was also a castle of the same name. 95 But the work in Jerusalem had not been abruptly discontinued, since Sultan Saladin, in evidence of his esteem, allowed them possession of their hospital for another year, 96 in order that their charitable work should not be abruptly interrupted, and even made them liberal donations. 97 When during the third Crusade, in which Richard Coeur de Lion bore so valiant a part, Ptolemais was captured, it was then and there that the Order established its headquarters, in 1192, wherefore the town became named St. Jean d'Acre. Here they abode nearly a century.

98 Various other towns in Palestine held out for a time against the Turks, e. g., Carac, Margat, Castel Blanco and Antioch, 99 and in spite of the intense rivalry between the Orders, Thierry, the Grand Master of the Templars, reported in a letter to King Henry II, that the Hospitallers bore themselves even with fervor and the greatest bravery, 100 and praised the aid they gave in the capture of the

Turkish fleet, at Tyre, when seventeen Christian galleys manned by friars, and ten Sicilian vessels commanded by General Margarit, a Catalan, 101 defeated the infidels, and captured their admiral and eight Emirs, with eleven ships, the rest being run aground, where Saladin later burned them, to keep them from falling into Christian hands. (Bedford).

102 Notwithstanding all these, however, the joint occupation of Acre with the Templars had a bad effect on both Orders, who turned not only to luxury and license, but their swords against each other. 103 Acre was at this time a most cosmopolitan city; here mingled at least seventeen different nationalities and languages, each occupying its own part of the city, so that in time extravagance and lust flourished to the last degree of demoralisation. 104 The Hospitallers were at this time far more wealthy than the Templars, who were exceedingly jealous thereof, and both at Margat and still worse at Acre this jealousy was exhibited in many bloody affairs. 105 Weakened thus by this intestine strife they were in reverse proportion strengthened. 106 The Pope who had defended them as against the scathing censure of Emperor Frederick, found need, in 1238, to accuse the knights-- alike of both orders-- 107 of sheltering loose women within their precincts, of owning individual property, both of these in violation of their vows of chastity and poverty, and of treacherously assisting the enemy. 108 Yet many bore witness to the actual good they accomplished, even at this time. In 1259 Pope Alexander, bewailing the lack of a more distinctive dress, permitted the decree that the fighting knights might wear black mantles, while in war they were permitted to wear red surcoats, with a white cross.

109 Later it was permitted to women to join the Order, and many ladies of high degree took advantage of the permission, rivalling in religious zeal and in charitable deeds the most sanctified of the brethren. 110 As the King of Hungary wrote, at one time, after visiting some of their houses, "In a word the Knights of St. John are employed, sometimes

like Mary in contemplation, and sometimes like Martha in action, 111 and this noble militia consecrate their days either in their infirmaries or else in engagements against the enemies of the cross."

112 The deterioration of Acre was not so great as to make cowards of our Knights, however, and with the continued and aggressive siege laid by the Saracens against that city the Hospitallers and the Templars finally made common cause, each endeavouring to outdo the other in deeds of bravery and daring. 113 Though defeated again and again, the Moslem ranks were renewed by fresh soldiers, while the militant and other monks imprisoned within the city saw their combined members steadily diminish. 114 At last it remained for John Villiers, Grand Master, with his few surviving fighters, to carve their way to their boats, leaving no combatants behind them, and then to embark in their galleys to seek a harbour of refuge in the island of Cyprus.

115 'Cyprus and Rhodes.' Settled in Cyprus, the Knights renewed their zeal and their resources. Here they began to build that fleet of galleys which, increased later in Rhodes, became most formidable. 116 When they and the Templars left forever the Holy Land the Templars took the position that their vow to protect the holy places was now either fulfilled or at least at an end, 117 and they distributed themselves among their numerous preceptories all over Europe, where they made themselves 'personae non gratae' to their civil rulers, 118 because of their own real power, their oriental ostentation, and their secularisation and distasteful entrance into and interference with the social and political life and customs of their new environment. 119 Things went from bad to worse, public feeling was more and more aroused, and their extermination was only a matter of time. 120 Finally Pope Clement V and King Phillip le Bel undertook this task with barbarous ruthlessness. Kings, nobility and the people joined hands in the common task. 121 The Templars had acquired various properties, by capture, by bequest, and in every lawful and unlawful manner, which yielded in the aggregate

relatively enormous revenues, too strong a temptation for needy secular rulers to resist. 122 The Pope had at last to intervene in order to prevent the total secularisation of all these great spoils, and thus it happened that no small proportion of it was, after its sequestration, allotted to the Order of St. John, 123 whose Grand Masters and Knights had not forgotten nor abandoned their original vows and purposes, 124 and who held that the inviolacy of their obligations required their continuous residence in some such oriental city as Rhodes.

125 And here we may part company, as did they, only quite peacefully, with the Templar Knights. 126 Driven from Europe they made their last stand in Great Britain, and of their lives and deeds there we have no more readable nor interesting historical account than Scott has given us in Ivanhoe. 127 Any further allusion to them here will be most casual. They offer the conventional picture, only 'in extenso', of original poverty and self-abnegation, coupled with devotion and valour, 128 changed to arrogance, treason, abandonment of purpose, unbridled lawlessness leading to crime and cruelty, all brought about because of affluence, acquired power, selfishness, cupidity and every debasing human weakness. 129 Small wonder then, that they could be no longer tolerated in Christendom.

130 So turn we again to the Hospitallers, now made rich and powerful at the expense of their old rivals and at last enemies. It had soon been made evident that Cyprus did not meet their wants and necessities. 131 Its king was not over friendly, and they sought further. Their gaze fixed on the island of Rhodes, which possessed a fertile soil, a city with an excellent harbour, not too far from the main land, i. e. 132 not too isolated, which was under the-- by that time merely nominal-- suzerainty of the Emperor of the Eastern or Greek empire. 133 After several futile efforts they at last, in 1310, under the twenty-fourth Grand Master Villaret, captured the island, where under their ceaseless energy both hospitals and forts were built. 134 To

Rhodes were brought also Christian refugees from the various Turkish provinces, and thus their numbers were rapidly strengthened. 135 Their fleet, already begun ('vide supra') was greatly increased, and with it they had many a conflict with the Turkish corsairs, whose inroads they practically checked.

136 About the beginning of the fourteenth century changes had been made in the Order, which was now divided into Langues, 137 or arranged according to nationalities, yet without materially altering the original division into the three classes (Knights, Chaplains and Serving Brothers). 138 In this way the Order was apportioned between seven nations or languages, Provence, Auvergne, France, Italy, Aragon, England and Germany. 139 Finally under pressure from Spain the Langue of Aragon was divided into two, Aragon and Castile, the latter including Portugal. 140 The various dignities and offices were divided among these langues, whose principals became a kind of Privy Council to the Grand Master, and were known as Conventual Bailiffs. 141 They were given different names in each country; thus the Grand Commander of the English langue was known as the Turcopolier, of France the Grand Hospitaller, of Italy the Admiral, etc. 142 As the new fortifications arose around the city of Rhodes, each was placed in charge of one of these langues or divisions, while each erected quarters for its own people. 143 It did not follow, however, that every member of each langue came from the country which it represented. 144 While Scotland was an independent kingdom it contributed to the Turcopolier, while many Scotchmen belonged to the French or even the other langues. 145 At this time the inhabitants of the City of Rhodes consisted largely of Christian refugees, who owed their security, even their lives, to the fact that the Knights Hospitaller still adhered to their primary objects, 146 the liberation of the captive and giving assistance to the sick and distressed. This they afforded through their fleet and their hospices. 147 When Smyrna nearly fell into the hands of Timour the

Tartar, about the middle of the fourteenth century, the Order strengthened their habour by erecting a new fort, 148 which they named Budrum (corrupted from Petros-a Rock), where any Christian escaping from slavery found shelter. 149 Here was also kept a remarkable breed of dogs, who were trained not only as watch dogs but to render services similar to those afforded by the Alpine dogs of St. Bernard.

150 As time went on the Sultans became more and more jealous of the naval power possessed by the Order. 151 With the fall of the Eastern Empire and the final retaking of Constantinople by Mahomet II, in 1453 (See "Prince of India"), it was made evident that danger to the Order from this direction was rapidly increasing. 152 This became so urgent that in 1470, after Mahomet had taken the island of Negropont, the Grand Master commanded that all members of the Order should repair at once to Rhodes. 153 In 1476 d'Aubusson began the most active measures for the defense of the place, and thus was ready for the attack, in May, 1480, when 80,000 men in 160 ships, landed on the island coast. 154 In this siege no small part was played by renegade traitors, the most prominent being one George Frapant, a German, whom the Grand Master finally hung in July. 155 In the last sorties which terminated this siege deeds of the greatest bravery were performed; 156 yet here we can only commemorate the fact that the Turks were summarily defeated, leaving 3,500 corpses on the ground after the last decisive attack. 157 The losses of the besieged were small as compared with those suffered by the Turks.

158 Later in the same year the island suffered from a severe earthquake. Mahomet died not long after this, was succeeded by his son Bo-jazet who made truce with the Order, 159 presenting them with a relic of supposedly inestimable value, namely the hand of St. John, which the Turks had taken at Constantinople.

160 Years of comparative quietude succeeded until in the following century, in 1522, Solyman the Magnificent landed upon the island in July, with 100,000

soldiers and 60,000 pioneers. 161 Again ensued all the horrors of a siege. The defenders did their part so bravely that the Sultan publicly disgraced his generals. 162 But the inevitable famine wrought consequent disaffection on the part of the native population, who clamoured for capitulation, and sought treasonable terms therefor, because of which one of the most prominent of them was tried, found guilty and executed. 163 Finally under stress of circumstances no longer endurable, Grand Master Adam agreed to honourable surrender, and on the first of January, 1523, the Hospitaller Knights relinquished the island, 164 the Sultan himself speaking in terms of extravagant praise of their heroism, while at the same time he scathingly censured the Christian monarchs of Europe who had failed to come to their relief. 165 Thus after two hundred and twenty years of occupation and rule of the island of Rhodes, some 5,000 Knights and other members of the Order, and natives, left it to take abode for a short time in their Priory at Messina. 166 Driven from here by plague, they moved on to Viterbo, while their Grand Master travelled in search of a new home. 167 'Malta.' Malta had been early proposed for this purpose, and offered by Charles V, while many wishes turned to the city of Modon, in Greece. 168 After seven years of wandering and indecision Grand Master L'Isle Adam accepted Malta as the best solution of the difficulty. 169 Thither the Order now removed, and there Adam died in the Castle of St. Angelo, erected by the Norman Count Roger of Sicily, still active in improving its existing defences. 170 In 1555 the Order lost nearly all of its fleet in consequence of a violent hurricane, which accident for a while laid the island open to piratical attacks, especially of a corsair named Dragut; 171 but he did little damage, save that with the knowledge of the island and its defences thus gained he persuaded Solyman to undertake another attempt to crush the Order, 172 the latter being justly furious because some galleys belonging to the Order had captured a ship that happened to be loaded with rich valuables belonging to the ladies

of his harem. Therefore war was again declared in 1565.

173 The Turkish fleet was made up of 130 galleys with 50 smaller boats, and carried the Janissaries and 34,000 other soldiers, against whom the Grand Master could only oppose some 9,000 men, 174 700 of whom, however, were desperate men, released from the galleys of the enemy, and eager for vengeance. 175 On May twenty-fourth the siege of St. Elmo was in reality begun by a fierce bombardment, the walls being soon battered, and the garrison forced to take shelter in excavations made in the solid rock. 176 And now the besiegers' force was augmented by the arrival of Dragut, in those days the dreaded corsair of the sea, who came with thirteen more ships and 1,500 more men. 177 June thirteenth saw a desperate conflict when, after six hours of fierce fighting and the loss of only 300 men, the besiegers were repulsed. Soon after this Dragut was killed. 178 Again on June twenty-third another general attack was repulsed, though the garrison was thereby reduced to 60 men. 179 Even this small force, many crippled and maimed, repulsed the first onslaught of the Turks, but had later to sell their lives as dearly as they could. 180 The Turkish general Mustapha took barbarous revenge, even on the corpses of the Knights which he decapitated and then tied to planks that they might float past St. Angelo. 181 La Vallette retaliated by beheading some of his captives and firing their heads at the Turks from his cannon.

182 At this juncture the garrison was reinforced by the arrival of 700 men and 42 Knights from Sicily. Refusing all opportunities to surrender and all parley under flags of truce, 183 Grand Master La Vallette built new defences and strengthened the old, in spite of a fierce July sun. 184 Meanwhile the Turks, also reinforced, prepared for still more desperate sorties, selecting for the land attack men who knew not how to swim, 185 in order that they might fight the more fiercely, and drawing off the boats as soon as their loads were emptied, so that no retreat could be possible. 186 One thousand Janissaries were embarked in ten

large barges, but nine of these were sunk by the artillery fire from the forts. 187 On the other side of the defences a large attacking column was completely routed. The loss to the Turks this day was 3,000 men, that of the garrison 250. 188 And so the siege went on; attack after attack, with but small success to the investing army. 189 But the heroic defenders suffered increasingly under the constant strain, and both armies were exhausted, the Turks losing 800 men from dysentery alone. 190 To such an extent was this true that when the Turkish officers drove their soldiers to the charge by blows of their own swords, it was but necessary to cut down those who led the charges, when the rest would turn and fly.

191 And now came other long expected reinforcements from Sicily, when a fleet landed 8,500 men and returned for 4,000 more. 192 Being now quite unequal to the continuation of the siege the Turks evacuated all the ground they had gained, and finally made a hasty and complete flight, harassed in every way, in their endeavours to escape, by the now victorious garrison.

193 The losses during the period of siege, with its numerous engagements, were estimated at some 30,000 Turks, and 8,000 men and 260 Knights of the Order. 194 Is it strange that by contributions from all over Christian Europe there was soon built up a town bearing the name of Valetta, thus commemorating the heroism and military prowess of the Order's 195 Grand Master La Valette, as well as the "glorious issue" of the struggle for Malta, and the confirmation of the Order as a sovereign independent community? 196 Thus secured from further probable struggle this city of Valetta acquired a certain degree of glory, later even of magnificence. 197 From all parts of Europe, wherever any commandery of the Order was maintained, was paid tribute to the Grand Master, as may be adjudged even to-day, long after French rapacity had robbed the city of many of its treasures. 198 Individual Knights vied with each other in their gifts, and palaces arose wherein were received the

envoys and even ambassadors of foreign courts. 199 The fleet was constantly busied in clearing the Mediterranean of Moslem and other pirates, and many Christians were released from the galleys in which they had been chained to the oars. 200 In this restoration the English langue took a rather small part, and their officers and members had often to be rebuked or punished for insubordination or worse crimes. 201 The Reformation in England interfered, and furnished some reason for their diminishing zeal. 202 The galleys of the Order became more and more like pleasure boats, and many of their cruises were in effect pleasure excursions. 203 Later in their decadence their adventures became more like piratical incursions, until, under letters of marque issued by a decadent Admiralty, the Malta privateer was equivalent to the pirate. (Maroyat). 204 These facts were scarcely offset by that other, that the last fleet of the Order, which left Valetta in 1783, was sent to the relief of earthquake sufferers in Sicily.

205 With regard to their activities in the matter of succouring the sick let it be noted that the Knights found on their arrival at Malta a hospital or hospice already existing. 206 In the buildings of a nunnery still standing may be seen the gateway of their own first hospital. In 1575 they erected one much larger, which had a passageway connected with the waterfront, so that patients could be brought directly from the ships. 207 This building in some part still remains in use as a military hospital. Its great ward is 500 feet in length, and 30 feet high, divided by partitions 15 feet in height. 208 In its best days patients were served from silver utensils. It was under the charge of the Regent of the French Knights, who had as his staff five doctors and three apothecaries. Other knights and servants acted as male nurses. 209 The knights were luxuriously cared for, and 150 beds were always in reserve for those returning from expeditions who might need them. 210 In 1796, only a year before the disintegration of the Order began, the patients numbered from 350 to 400. There

existed also a hospital for women, with 230 beds, and a foundling hospital where some fifty waifs were sheltered.

211 A curious bit of history connecting the middle ages with the more recent past relates to the hospital interests of the Order. 212 The nobles of Dauphigny had founded a fraternity of Hospitallers for the relief of sufferers from St. Anthony's fire (erysipelas), which was erected into the regular Antoine order in 1218. 213 About 550 years later, or to be exact in 1777, a compact was made by which the Order of St. John took over their property, under certain conditions, which involved, among other considerations, a larger expenditure. 214 The Antonine estates, in France and Savoy, were confiscated in 1792, thus entailing a tremendous loss to the Order, so great, in fact that the Valetta treasury became insolvent. (Bedford). 215 From this time we may date the rapid downfall of the Order. Malcontents and traitors gained the supremacy, and in 1798, after treacherous negotiations, Napoleon landed part of his army in Malta, and Valetta surrendered. 216 Thus, as Bartlett says, "ignominiously came to a close, on June 12th, 1798, the once illustrious Order of St. John of Jerusalem, having subsisted for more than 700 years." 217 At this time it consisted of 328 enrolled knights, and a military force of some 7,000 men. 218 Napoleon expressed his surprise at the strength of the fortifications, furnished them with one thousand cannon, left a garrison of 3,000 men, took with him the disciplined soldiers he found there, rifled the island of its treasures, its art work and its bullion, and sailed for Egypt. 219 Several of the traitor knights were put to death by the infuriated populace, whose anger was not appeased by Nelson's victory at Aboukir-- the battle of the Nile-- but took form in open surrection. 220 The French garrison finally took refuge in the old fortifications, where they withstood for two years a siege by the combined insurgents and an English fleet. 221 Finally reduced by famine and disease they capitulated to the English forces

under Gen. Pigot. The latter then selected Capt. Sir Alexander Ball, Nelson's representative, Governor of the Island. 222 At the Peace of Amiens the effort was made to restore the Order as ruling authority, under the protectorate of the Great Powers, but the Maltese themselves objected so vehemently 223 that after no small amount of trouble and dispute the inhabitants of the island elected to place themselves under the sovereignty of Great Britain, an arrangement finally and definitely confirmed at the Congress of Vienna in 1814.

224 Thus disappeared from history one of the most interesting and longest enduring institutions recorded in its pages, and certainly the most long-lived of any of its kind. 225 I say disappeared, meaning thereby only to indicate its disruption, as it were into fragments, its primary purpose, i. e. 226 aid to the needy, being kept ever in view by some, while others preferring the life of a soldier, took service under various rulers or military leaders. 227 The traitors who were responsible for surrender to Napoleon fared badly according to their deserts, though it does not appear that any of them were hung. 228 In the migration England seemed to attract many, perhaps the majority of those who were still inclined to good deeds. 229 The title of Grand Master was still continued, under some pretension to perpetuation of the Order. 230 In Russia the Czar Alexander, in 1801, upon the death of his predecessor Paul, announced himself a Protector of the Order, and designated Count Soltikoff to exercise the functions of the Grand Master. 231 Thus dismembered, disunited and scattered, the fragmentary langues of the Order underwent, on their way to final dissolution, various vicissitudes, through which they cannot here be followed. 232 Complete extinguishment was the eventual fate of most of them. I shall only concern myself now with that of the English langue, and its partial revival in 1830.

233 Rev. Dr. Peat, chaplain to George IV, was one of those to whom the remnants of the English langue appealed, 234 with the result that in 1827 certain notable English gentry, of eminent

attainments, undertook to revive the Order in England, only under quite different conditions from those previously obtaining. 235 In 1831 Dr. Peat was invested with the authority and functions of Grand Prior. 236 It will be at once seen how the matter of religious belief now separated the English Order from all the survivors of the previous regime, and why the last ties were severed. 237 Under the new regime members of the Order dropped all pretense of playing a military role; one may read thereafter of real hospital activity. 238 The Life Boat movement and ambulance work were gradually incorporated into their plans and scope. When First Aid to the Injured began to be publicly taught public and general interest was quickly aroused, and the energetic cooperation of eminent men was assured. 239 In other words the Order gradually took up just that class of work which is now done under the Red Cross. 240 Sir Edward Lechmere established, in 1867, a commandery of the Order in one of his castles, and in 1874 was instrumental in the acquisition of the St. John Gate, which still stands, an example of Tudor architecture as also a well preserved monumental relic of the time, 241 beginning about 1180, when the Order had founded a hospital in Clerkenwell, while the ladies of the order were housed in Bucland, in Somersetshire. 242 The old Priory of the Order in Clerkenwell was practically destroyed in 1381, by the mob led by Jack Straw, in an insurrection which had, along with other results, as an incident, the beheading of Sir Robert Hales, the Prior of the Order. 243 In the slow process of rebuilding the present Gate was not completed till 1504. On the North and South fronts remain projecting towers, while in the Western tower a spiral stair case is still in use. 244 Bedford's work, from which I have drawn heavily, gives excellent pictures of the Gate as it appears to-day, and of the old priory restored.

245 Colonel Duncan, also, deserves honourable mention in this connection; he became Director of the Ambulance Movement in 1875. 246 Finally we have to record here that under a new Charter, granted in 1888, the then Prince of Wales,

later King Edward, became the Grand Prior. 247 Therefore the Order of the Hospital, in England of St. John of Jerusalem is, in fact, the legitimate successor-- one might say the lineal descendant-- of the old Order of Knights Hospitaller, 248 though it is to-day a secular and voluntary society, keeping to the traditions of the past, no longer military nor militant, save as it fights disease and best of all teaches others how to do the same. 249 To follow it further is no longer necessary. Its work is essentially that of the Red Cross. 250 It has, for instance, a depot at old St. John's Gate, whence all the material required in teaching and illustrating as well as rendering first aid is issued. 251 Its work was begun with a two-wheeled litter, an old Esmarch triangular bandage from Germany, and a stretcher from France. Now it distributes all these things throughout the British Empire. 252 Now, too, it maintains ambulances all over the city of London, which do for their own hospitals just what each of our hospitals at home has to do for itself. 253 The German "Samariter-Verein" is virtually a Chapter of the English Order in its revivified form. 254 In 1883 a branch of the Order was organised in India, where among others the native police are instructed in "First Aid." 255 In 1882, by a Firman of the Turkish Sultan, an Ophthalmic Hospital was opened, under the auspices of the Order, in Jerusalem. 256 Only those who have travelled in the East can appreciate what this means to the poor, where squalour vies with ignorance, and, as in Egypt though not so universally, both conspire to the ruin of that greatest of all blessings-- eyesight. 257 But I will not delay to write further of what the Ambulance Brigade of London, and its affiliated corps, have accomplished in many parts of the world; 258 in South Africa, for example, it works under the general supervision of the Order of St. John, as it now exists in London. 259 It does everything that in our country is accomplished by the Red Cross for the general public, and by the Hospital Corps and their Medical Officers for our Army and Navy. 260 Over the graves of eleven members of the

brigade, who died at their posts in South Africa, in St. Paul's, London, not far from the crypts where lie the remains of Nelson and Wellington, has been erected a monument to their memory. 261 Another bearing among other inscriptions this beautiful scriptural quotation:-- "Greater love hath no man than this, that he lay down his life for his friends," 262 was unveiled by His Royal Highness, acting as Grand Prior, in St. John's Church, Clerkenwell, June 11th, 1902. 263 Fifteen hundred men enrolled in the Order had left that church before their departure for the Front, and of these about seventy sacrificed their lives to this sort of duty. 264 Do not the dead deserve all praise and respect, and the survivors all commendation?

265 A few years ago my friend Sir George Beatson, surgeon to the Royal Infirmary in Glasgow, published a little monograph-- "The Knights Hospitallers in Scotland and their Priory at Torphichen" (Printed by Hedderwick and Sons, Glasgow,)-- 266 which aroused my interest sufficiently to prompt a visit to this, the last home of the old Order in that part of the world. 267 The little village Torphichen lies about midway between Glasgow and Edinburgh, and three miles south from the town of Llinlithgow. 268 Here had been founded, in 1124, one of the great Priories or Preceptories under control of the English 'langue'. 269 Here they settled in a magnificent and fertile area, the Grampian hills to their north; to their west could be seen the snow-capped top of what is now known as Ben Lomond. 270 By donation, by cultivation of the arable soil, and by wise management of their resources, they prospered greatly, from the worldly point of view. 271 Here they erected that building, a part of which still exists, and which makes a picturesque ruin which is not yet a scene of desolation. 272 The members of the Order took, here as elsewhere, the view that the best way to serve God was by 'remaining in it' and working, not by 'fleeing from it' into lazy, selfish and profitless solitude as did too many of the monks.

273 In common with other monasteries the Torphichen

Preceptory possessed the Right of Sanctuary, and in its churchyard still stands the short stone pillar, carved with a Maltese cross on its upper surface, 274 which meant that within a mile in every direction therefrom all those charged with any crime, save murder only, might find temporary protection.

275 Here for four hundred years, and until the Reformation upset everything, the Hospitallers carried on their affairs. 276 In 1560 their last Preceptor or Grand Prior made over to the Crown all their properties and effects. The Crown in return made these possessions a temporal Barony, carrying with it the title of Lord of Torphichen. 277 From this time the property began to suffer-- from time, storm, vandalism of the people and neglect. Still the present Lord Torphichen has proven himself a better guardian than did some of his predecessors. 278 A parish church has been built, partly upon the sight of the old structure, partly into it. 279 Dr. Beatson has urged that a combination between the present Order of St. John, in London, and the St. Andrew's Ambulance Association might be effected which might work to the benefit of both, by reviving some of the work done here in days gone by.

280 I have ventured this brief reference to Torphichen, partly because of my interest in the place itself, associated with my visit there, 281 and partly because every such visit to the monuments of past grandeur and usefulness should strengthen our interest and zeal in what human is accomplishing to-day, 282 and should help link together the Past and the Present in a manner not merely fascinating but inspirational, and keep us from forgetting that motto of the Order,

"PRO UTILITATE HOMINUM"
FOR THE WELFARE
OF HUMANKIND.
Giordano Bruno

7 The Renaissance was the fourth of the great events in the history of the Christian Era; 2 the first being the decline of Rome, the second the introduction of the Christian cult, and the third, the intrusion

into Southern Europe of the Teutonic and Slavonic tribes. 3 With none of these however, save the fourth, is this paper primarily concerned, and not even with the fourth save indirectly, though it deals with a special feature of it. 4 Protestants and Catholics alike impeded progress and the self-evolution of reason in every possible way. 5 Italy gave the world the Roman Republic, then the Roman Empire and finally the Roman Church; after that arose a new storm centre in the North which swept toward the Mediterranean. 6 The Teutons effaced the Western Empire, adopted Christianity, and completely modified what remained of Latin civilisation. 7 Then the Roman Bishops separated the Latin from the Greek Church, and under the captious title of The Holy Roman Empire bound Western Europe into what has been called a "cohesive whole." 8 While Romans and Teutons never actually blended homogeneously, they had yet a common bond of union. When this coalition was for a time freed from both Papacy and Empire-- 9 then began intellectual activity and independence of thought, taking form in Italy as the Renaissance; in Germany as the Reformation. 10 In the South it was known as the Revival of Learning. It furnished a 'lux a non lucendo'. Italy gave freedom rather to the mind, Germany rather to the soul. 11 Toward the South people still took refuge behind that form of modified paganism which became Catholicism. 12 In the North they attained a more complete emancipation because of their violent opposition to the Papacy and all that went with it.

13 In the long run both attained the same result, i. e., liberation of the mind from artificial impediments and fetters, though they of the North achieved it in its full extent far earlier. 14 (I am speaking of course, relatively; people's minds are far from free even today, but the state we have reached is a great advance upon that of Bruno's time). 15 The Reformation led people to be far more outspoken than they dared be in the South; the free thinkers of Italy were still content to do homage to a thoroughly corrupt Papal

hierarchy. 16 As critics and warriors Luther and Calvin rank as liberators of the human mind, but later, as founders of mutually hostile sects, they only retarded civilisation, and the churches they founded are today as stagnant pools.

17 In 1548, in the midst of this stormy period in Italian history Bruno was born, in the little village of Nola, not far from Naples, whence Vesuvius was visible in the picturesque distance. 18 His father was a soldier, his mother of very humble origin. Of his family history nothing is known; little explanation is thus afforded, by the doctrine of heredity, for the marvelous mental faculties which he subsequently displayed. 19 Nevertheless his father was a man of some culture, at least, for he was a friend of Tansillo, a poet, under whose influence the growing boy subsequently came. 20 Bruno has told us himself how one Savolino (probably an uncle) annually confessed his sins to his Curé, of which "though many and great" his boon companion readily absolved him. 21 But only once was full confession necessary; each subsequent year Savolino would say: "Padre mio, the sins of a year-- to-day,-- you may know them;" to which the Curé would reply "son, thou knowest the absolution of one year ago;-- go in peace, and sin no more."

22 In those days as in many others superstition was everywhere rife and effective. Its influence must not be disregarded as one studies the formation of Bruno's character. 23 When he was about eleven years old Bruno was sent to Naples to be taught logic, dialectics and humanities. 24 When fifteen he entered the Dominican Monastery in Naples, and assumed the clerical habit of that order. Here he gave up his baptismal name of Filippo and assumed that of Giordano, according to the monastic custom. In 1572 he was ordained priest. 25 His reasons for thus entering the Church are scarcely far to seek. Of intellectual bent, and studious rather than martial in his habits and inclinations, there was but one career open to him. 26 To be sure the Dominican Order was the most narrow and most bigoted of all, as

the current punning expression "'Domini canes'" will indicate. 27 Still it was at that time the most powerful, especially in the kingdom of Naples, which was then ruled by Spain. 28 The old cloister had been once the home of St. Thomas Aquinas, whose works Bruno claimed at his trial he had always by him, "continually reading, studying and restudying them, and holding them dear."

29 This was the age when efforts to put down every heresy had been redoubled. The fanaticism of Loyola, and the decision of the Council of Trent "to erase with fire and sword the slightest traces of heresy," 30 made a poor frame work in which to place the picture of a liberal minded scholar. Bruno soon learned this at his cost. Even during his novitiate he was accused of giving away images of the saints, and of giving bad advice to his associates. 31 In 1576 he was accused of apologising for the heresy of Arius, that the Son was begotten of the Father, and so not consubstantial nor coeternal with Him, but created by Him and subordinate to Him; 32 (which was condemned by the Council of Nice, 325, and contradicted in the Nicene Creed;) admiring its scholastic form, rather than its abstract truth. 33 Disgusted with his treatment he left Naples and went to Rome. Even here he was molested in the Cloister of Minerva (note the pagan name), and was met with an accusation of 130 specifications. 34 He then abandoned his garb and his cloister and escaped from Rome, beginning thus the nomadic life which he continued until immured in the dungeons of the Inquisition at Venice, sixteen years later. 35 Through these wanderings one must follow him, if one would become familiar with his life and traits.

36 He now resumed for a time his baptismal name, and traveled to a town on the Gulf of Genoa, where he taught youth and young gentlemen. 37 Then he passed on to Turin and Venice, where he spent weeks in futile attempts to find work. But the schools and the printing houses were closed because of the plague. 38 In Venice however he managed to print his first book on "*The Signs of the Times*;" or rather this was

his first book to appear in print. It seems that before he left Naples he wrote "*The Ark of Noah*," a satirical allegory. 39 In this he represented that the animals held a formal meeting in the Ark, to settle questions of precedence and rank, and that the presiding officer, the Ass, was in danger of losing his position and his influence, because his power lay rather in hoofs than horns. 40 Throughout most of his life Bruno constantly scored and criticised Asinity; 41 it was frequently the topic of his invective, and those who read between his lines were probably quite justified in regarding these frequent allusions as references to the ignorance, bigotry and credulity of the Monks.

42 From Venice Bruno went to Padua, where some of the Dominican friars persuaded him to resume monastic costume, since it made travel easier and safer. Thence by way of Brescia and Milan he may be followed to Bergamo. 43 At Milan he first heard of his future friend Sir Philip Sydney. From Bergamo he resolved to go to Lyons, but learning that he would find anything but welcome there he turned aside and crossed the Alps, arriving in Geneva in the Spring of 1579. 44 Here he was visited by a distinguished Neapolitan exile, the Marquis De Vico, who persuaded him again to lay aside his clerical garb, and who gave him the dress of a gentleman, including a sword. 45 Here is raised the great question,-- Did Bruno adopt Calvinism? 46 Before the Inquisition fifteen years later he practically denied this, yet acknowledged attending the lectures of Balbani, of Lucca, as well as of others who taught and preached in Geneva. 47 Under the regulations of the Academy (University), where he had already registered, certain regulations must be complied with, and Bruno appears to have obeyed them in at least a certain degree. 48 But the immediate cause for his departure from Geneva appears to have been one of his outbreaks of cynicism and accurate scholarship, 49 since in 1579 he was called before the Council for having caused to be printed a document enumerating twenty errors made by the Professor of Philosophy (de la

Faye) in one of his lectures. 50 The latter was incensed and outraged at this criticism and disparagement of his views and learning, and the quarrel assumed unexpected magnitude, 51 since Bruno, on his second appearance before the Consistory or supreme tribunal of the Church, denied the charges and called the ministers "pedagogues." 52 These gentlemen decided to refuse him communion unless he should confess and repent of his faults and make due apology. 53 His acceptance of these conditions not being hearty enough to suit his judges, he was admonished and excluded from the communion. 54 These steps lead to greater contrition on his part, and the ban of excommunication was withdrawn. 55 This sentence of exclusion was the only one within the power of the Consistory to pass, but does not prove that Bruno had accepted the protestant faith, nor partaken of its communion. 56 In fact at his trial he steadfastly denied this. It seemed however, to disgust him with Calvinism, against which thereafter he never ceased to inveigh. 57 Later he contrasted it with Lutheranism which was far more tolerant, and still later gave him a heartier welcome. 58 Calvin, it must be remembered, had written a polemic against Servetus, "in which it is shown to be lawful to coerce heretics by the sword." 59 As between the council of Trent and Calvin it certainly must have been hard, in those days, to select either a faith, or an abiding place where that faith might be peaceably practised. 60 Doubtless Bruno's views concerning the philosophy of Aristotle conflicted with those of the church authorities, 61 for Beza (Calvin's follower), had stated that they did not propose to swerve one particle from the opinions of that Greek philosopher, to whom, though of pagan origin, the Church, both Roman and Protestant, was for centuries so firmly bound.

62 And so shaking the dust of Geneva from his feet he journeyed to Lyons, where he failed utterly to find occupation, and then on to Toulouse, where he remained about two years. 63 Here he took a Doctorate in Theology in order to compete for a vacant chair. To this he was elected by the students, as

the custom then was in most of the 'scholia' or universities. 64 For two sessions he lectured on Aristotle. Had this University required of him that he should attend mass, as did some others, he could not have done so, owing to his excommunication; 65 though just why exclusion from a Calvinistic academy should debar him from Catholic mass does not appear. Toulouse was a 'warm' place for heretics; the burning of 14,000 of them at its capture will prove this. 66 A few years (35) after he left it Vanini was burned for heretic notions. It is hardly to be believed that Bruno could pass two years or more here without controversies arising from his teaching. 67 But his nominal reason for leaving, in 1581, and going to Paris, was the war then raging in Southern France, under Henry of Navarre.

68 Before leaving Toulouse he completed his "'Clavis Magna'" or "Great Key," the last word-- as he seemed to think-- on the art of memory. 69 Only one volume of this great work, which, in his peculiarly egotistical way, he said is "superlatively pregnant," was ever published, and that in England, the "'Sigillus Sigillorum'." 70 It must not be forgotten that it was on both teaching and practising this art of memory that Bruno, throughout his career, prided himself. 71 He was even not averse, at least at certain periods of his career, to the belief that he had some secret system for this purpose, or even received occult aid. 72 But when summoned before Henry III, to whose ears had come his fame, and asked whether the memory he had and the art he professed were natural or due to magic, 73 he proved that a good memory was a cultivated natural product. He then dedicated to the King a book on "'*The Art of Memory*'." 74 But this was shortly after his arrival in Paris, in 1581, where he quickly became famous. 75 A course of thirty lectures on "'*The Thirty Divine Attributes*'" of St. Thomas Aquinas would have given him a chair, could he have attended mass.

76 His residence in Paris was marked by an extraordinary literary activity. He published in succession '*De Umbris Idearum*' (Shadow of Ideas), dedicated to

Henry III, (this included the Art of Memory just mentioned) '*Cantus Circaeus*' (Incantation of Circe) dedicated to Prince Henry; 77 '*De Compendiosa Architectura et Complemento Artis Lulli'* (Compendious Architecture); '*Il Candelaio*' (The Torchbearer); these all appeared in 1582. These varied greatly in character. 78 The first was devoted to the metaphysics of the art of remembering, with an analysis of that faculty, and these second was given up to the same general topic. 79 It was all obscure, hence perhaps its popularity. Brunnhofer says that it was "a convenient means of introducing Bruno to strange universities, gaining him favour with the great, or helping him out of pressing need of money. 80 It was his exoteric philosophy with which he could carefully drape the philosophy of a religion hostile to the Church, and ride as a hobby horse in his unfruitful humours."

81 Nevertheless we must believe in his sincerity. The "Compendious Architecture" is the first of his works in which Bruno deals with the views of Raymond Lully, a "logical calculus and mnemonic scheme in one" (McIntyre) that had many imitators. 82 For Lully, Bruno seems to have the greatest regard, this appearing in many ways. Lully, by the way, was a Spanish scholastic and alchemist, who was born on one of the Balearic Islands in 1235. 83 He went as a missionary to the Mahommedans, and spent much time in Asia and Africa. He figures largely in the history of the alchemists and as a practitioner of the occult. 84 The "*Torchbearer*" was a work of very different character. It was described as a "Comedy" by one who described himself as "Academico di nulla academia, ditto il fastidito: In tristitia hilaris, hilaritate tristis." 85 It is essentially a satire on the predominant vices of pedantry, superstition and selfishness or sordid love. 86 Though lacking in dramatic power it is regarded as second to nothing of its kind and time. Its 'dramatis personae' are personified types, not individuals. 87 It was realistic even in its vulgarity, for obscenity was prevalent in the literature of those days. But in it Bruno struck at

what seemed to him his greatest enemy, i. e. pedantry.

88 There were at this time in Paris two great Universities, one the College de France, with liberal tendencies, and opposed to the Jesuits and all pedantry; 89 the other the Sorbonne, for centuries the guardian of the Catholic faith, endowed with the right of censorship, which must have been exercised over Bruno's works. 90 In which of these, though surely in one of them, Bruno was made an Extraordinary Lecturer history has failed to record. 91 He must have offended both, since he was anxious to be taken back into the Church, yet was revolutionary in his teaching. 92 More than thirty years later Nostitz, one of his pupils, paid tribute to his versatility and skill, 93 saying "he was able to discourse impromptu on any suggested subject, to speak extensively and elabourately without preparation, so that he attracted many pupils and admirers in Paris." (McIntyre). 94 But Bruno belonged to the literally peripatetic school, and in 1583 he forsook Paris for London, because as he says of "tumults," leaving it to the imagination whether these were civil or scholastic.

95 Elizabeth reigned at this time; her influence made England a habour of safety for religious and other mental suspects. 96 She had a penchant for Italians and their language; two of her physicians were Italians, and Florio was ever welcome at her court. 97 To this court Bruno also was welcomed, and, basking for sometime in the sunshine of her regard and patronage, passed there the happiest portion of his unhappy life. 98 Oxford was at that time the stronghold of Aristotelianism. One of its statutes ordained that "Bachelors and Masters who did not follow Aristotle faithfully were liable to a fine of five shillings for every point of divergence, and for every fault committed against the Logic of the Organon." (McIntyre). 99 In Oxford at this time, unfortunately, theology was the only live issue; of science as of real scholarship there was little or none. 100 (Its predominant trait of those days is still, perhaps, its dominant feature to-day). To this university Bruno addressed a letter, couched in vainglorious and

egotistical terms, craving permission to lecture there. 101 This was not received with favour, while his doctrines met with small encouragement at this ancient seat of learning, which Bruno later stigmatised as the "widow of true science." 102 But opportunity was afforded him to dispute publicly before a noble visitor in June, 1583, a Polish prince; one Alasco, for whom great public entertainment had been provided. 103 His opponent, defeated by fifteen unanswerable syllogisms, resorted to scurrility and abuse. This public exhibition put an end to the lectures on the Immortality of the Soul which Bruno had been allowed to give, and he returned to London.

104 Shortly after this he published his 'Cena' (Ash Wednesday Supper) in which he ridiculed the Oxford doctors, saying among other things that they were much better acquainted with beer than with Greek. 105 But he criticised too cynically and lost thereby in popularity. This led to the appearance of the '*Causa*', a dialogue, in which he was less vindictive. 106 He admitted in this that there was much in the old institution which was admirable; that it was even the first in Europe, that speculative philosophy first flourished there, 107 and that thence, "the splendor of one of the noblest and rarest spheres of philosophy, in our times almost extinct, was diffused to all other academies in civilised lands." 108 What he most condemned was the too great attention given to language and words while the realistics for which words stand were neglected. 109 Doctors were easily made and doctorates too cheaply bought. His charge in brief was that they mistook the shadow for the substance; a charge even yet too commonly justified among the strongholds of theology and other speculative dogmas.

110 Returning to London after this experience Bruno went to live with Mauvissiere, the French Ambassador. 111 While the English records make no mention of his presence it is yet quite certain that he was frequently at Court, and that men like Sydney, Greville, Temple and others were his frequent associates. 112 But as the Ambassador's influence was on

the wane, he was not equal to his great trust. 113 At this time our philosopher spoke of himself as one "whom the foolish hate, the ignoble despise, whom the wise love, the learned admire," etc. (McIntyre). 114 Of Queen Elizabeth he wrote in most fulsome phrases, such as she too dearly loved. 115 Before his judges, a few years later, Bruno apologised for his exaggerated expressions concerning a Protestant ruler, 116 claiming that when he spoke of her as "divine" he meant it not as a term of worship, but as an epithet like those which the ancients bestowed upon their rulers; claiming further that he knew he erred in thus praising a heretic.

117 Bruno published seven works in England. The first was "'*Explicatio triginta Sigillorum*'," the Thirty Seals thus explained being hints for acquiring, arranging and remembering all arts and sciences. 118 To it was added his '*Sigillus Sigillorum*' for comparing and explaining all mental operations. Then came an Italian dialogue "'*La Cena de le Ceneri*'" or Ash Wednesday Supper. 119 This was written in praise and extension of the Copernican theory, 120 indeed quite exceeding it in teaching the identity of matter, the infinity of the universe, the possibility of life on other spheres, with a painstaking attempt to show that these notions do not conflict with those of Mother Church. 121 Next came "'*De Causa, Principio et Uno'*." (Cause, Principle and Unity). This treated of the immanence of spirit, the eternity of matter, the potential divinity of life, the origin of sin and death, and many other similar abstruse topics. 122 It was followed by '*De l'Infinito Universo ed Mondi*', with numerous reasons for believing the universe to be infinite and full of innumerable worlds, with the divine essence everywhere pervading. All these works appeared in 1583. 123 In 1584 appeared his "'*Spacio de la Bestia Triofante*'" or Expulsion of the Triumphant Beast. In this prose poem Jupiter, repenting his errors, resolves to expel the many beasts that occupy his heavenly sphere--the constellations-- and to substitute for them the virtues.

124 In the council of the gods convened by him many subjects are discussed, among them the history of religions, the contrasts between natural and revealed religions and the fundamental forms of morality. 125 In this allegory Jupiter represents of course the human spirit; the Bear, the Scorpion, etc., are the vices to be expelled. 126 Unfortunately the book was quite generally regarded as attack upon the Church or the Pope, though what he really struck at was the credulity of humankind. It was dedicated to Sir Philip Sydney.

127 Then came his "'*Cabala del Cavallo Pegasio*'" or Cabal, dedicated to a suppositious Bishop who was made to impersonate the spirit of ignorance and sloth. 128 It is a mordant satire on Asinity, including credulity and unquestioning faith. 129 After this he dedicated another work to Sidney. "'*Degl' Heroici Furori*'" (Enthusiasms of the Noble), a collection of sonnets with prose commentaries, 130 like Dante's 'Vita Nuova', touching on the love for spiritual beauty arising from that for physical beauty attaining a climax in a sort of ecstasy by union with the divine. 131 These sonnets possess a very high literary value aside from their other interest.

132 When his ambassadorial patron was recalled Bruno probably returned to Paris with him, during the latter part of 1585. Here he spent a year amidst constant turmoil and excitement, and at his own expense. 133 Though he attempted reconciliation with the Church he was regarded as an apostate. 134 He held one more public disputation in which he advanced one hundred and twenty theses against the teaching of the Sorbonne, his side being taken by its rival, the College de France. 135 The outcome cannot have been brilliantly favourable, since he soon after left Paris, in June, 1586. 136 The collection of charges above alluded to was published in Paris after Bruno's departure, and again in Wittenberg, under the title "'*Excubitor*'" (The Ambassador). 137 It was an arraignment of the Aristotelians, based on the words of that great master himself. Bruno claimed the same right to criticise Aristotle that the latter claimed to

criticise his predecessors. 138 In it Bruno says, "It is a poor mind that will think with the multitude because it is a multitude; truth is not altered by the opinions of the vulgar or the confirmation of the many;"-- 139 and again-- "it is more blessed to be wise in truth in face of opinion than to be wise in opinion in face of truth." (McIntyre). 140 In addition to this Bruno had also published, before leaving Paris, a commentary on the Physics of Aristotle.

141 Tarrying somewhat by the wayside Bruno reached Wittenberg, where, in 1586, he matriculated at its University, Marburg having curtly rejected him. Describing him here McIntyre styles him the "Knight Errant of Philosophy." 142 Here Lutheranism dominated the theological faculty, while the philosophical faculty was dominated by Calvinism; 143 views concerning the person of Christ, the "Real Presence," and the doctrine of Predestination keeping them apart in spite of Melancthon's attempt to reunite the two factions. 144 From the Lutheran party Bruno obtained permission to lecture, and so for two years he taught from the Organon of Aristotle, as well as the writings of Raymond Lulli. 145 To the University senate he dedicated a work on Lulli, "'*De Lampade Combinatoria Lulliana*'," whose chief purpose was to teach one how to find "an indefinite number of propositions and middle terms for speaking and arguing." 146 He regarded it as the only key to the Lullian writings, as well as a clue to a great many of the mysteries of the Pythagoreans and Cabalists. 147 It was soon followed by "'*De Progressu et Lampade Venatoria Logicorum*'," intended to enable one to "dispute promptly and copiously on any subject."

148 But again fate compelled a change of residence, for the Calvanistic and Ducal party gained in political ascendancy, to which party Bruno, as a Copernican, would have appeared as a heretic. 149 After delivering an eloquent address of farewell he moved on, his next abiding place being Prague, where Rudolph II, of Bohemia, was posing as the friend

of all learned people. 150 Here he already had friends at court, and here he introduced himself with another Lullian work. 151 To the Emperor he next dedicated a work of iconoclastic type, "One hundred and sixty articles against the mathematicians and philosophers of the day." 152 For this the Emperor granted him the sum of three hundred dollars, and in January, 1589, he shifted again to Helmstadt, in Brunswick, where he matriculated again in the then youngest of the German Universities.

153 This had been founded only twelve years before by Duke Julius, who was extremely liberal in his views, and intended to found a model institution, in which theology should not play too dominant a part. 154 But while he received here a certain recognition fate again sported with him, for the Duke died four months after his arrival. 155 Bruno obtained permission to pronounce a funeral oration, desiring to express his gratitude to the memory of one who had opened such an institution, 156 so free to all lovers of the Muses and to exiles like himself, who were here protected from the greedy maw of the Roman wolf, 157 whereas in Italy he had been chained to a superstitious cult. It was full of allusions to the papal tyranny which was infecting the world with the rankest poison of ignorance and vice.

158 The fatuous simplicity and the worldly blindness which Bruno displayed, in ever setting foot inside of Italian or papal territory after the delivery of this 'Oratio Consolatoria', may in one way be appreciated but never understood or explained. 159 Moreover he had made himself 'persona non grata' as well to the Protestants, who were scarcely more liberal than the Catholics. 160 It appears that the great Boethius, superintendent of the Church at Helmstadt, had acted both as judge and executioner, and publicly excommunicated Bruno without a hearing, since there is extant a letter appealing from his arbitrary judgment and malice. 161 The grounds for this judgment were never made clear, since no attention was ever paid to the appeal; 162 but inasmuch as Bruno never really joined the Protestant

profession it must have been meant to inflict some species of social ostracism. 163 Boethius had himself to be suppressed later. But Bruno, finding too many enemies, left for Frankfort in 1590, "in order to get two books printed."

164 These were his two great Latin Works, "*De Minimo*" and "*De Immenso*," the introduction to the latter being the "*De Monade*." He worked at these with his own hands. 165 In the introduction to the former his publisher stated that before its final revision Bruno had been hurriedly called away by an unforseen chance. 166 This sudden departure may have been due to a refusal of the town Council to permit his residence there, or it may have been a call to Zürich, where he spent a few months with one Hainzel, who had a leaning toward the Black Arts. 167 Bruno wrote for him "'*De Imaginum Compositione*'," a manual of his Art of Memory. 168 In this Swiss city he also dictated a work "'*Summa Terminorum Metaphysicorum*'," which was not published until 1609, and then in Marburg. 169 But Bruno returned to Frankfort in 1591, where he obtained permission to publish his '*De Minimo*'. This work was on the "three fold minimum and measurement, being the elements of three speculative and several practical sciences." 170 This like the two next mentioned was a Latin poem, after the fashion of Lucretius. 171 The '*De Monade, Numero et Figura*' dealt with the Monad, and with the elements of a more esoteric science, while in the '*De Immenso et Innumerabilibus*', the Immeasurable and Innumerable, he dealt with the Universe and the worlds. 172 These three poems contain Bruno's complete philosophy of God and Nature.

173 While thus staying in Frankfort for the second time Bruno was invited by a young Venetian patrician to pay him a visit, and become his tutor in those arts in which the philosopher excelled. 174 It was the most unfortunate event in Bruno's unhappy life when he accepted this apparently tempting invitation. Mocenigo, his host, was of good family, but shallow, vain, weak-minded and dishonest, with the fashionable taste of his day for the black arts.

175 It is quite possible that he was moreover the tool of the Inquisition, which had long desired to entrap Bruno. 176 It is probable moreover that the latter quite failed to appreciate how unenviably he was regarded by that Church to which he still felt that he belonged. 177 Furthermore Venice was then a Republic and free, and he longed for his beloved Italy again. 178 En route to Venice he spent three months in Padua, teaching there and gathering around himself pupils, even in that short time. 179 He had barely left it when Galileo was invited there to teach; as Riehl has said, "the creator of modern science following in the steps of its prophet."

180 Early in 1592 Bruno went to live in Mocenigo's house. Trouble soon began. Entirely apart in temperament and characteristics, they soon disagreed. 181 The pupil was deeply disappointed at not acquiring that mastery over the secrets of Nature for which he had hoped, and found that there was no quick way to acquire a retentive and replete memory. 182 And so Mocenigo announced to his friend Ciotto, the bookseller, his intent to gain from Bruno all he could and then denounce him to the Holy Office. 183 While others were thus conspiring against him Bruno was writing a work on "*The Seven Liberal Arts*" and on "*Seven Other Inventive Arts*," intending to present it to the Pope, hoping thus to obtain absolution and be released from the ban of excommunication. 184 When Bruno at last appreciated the dangers by which he was surrounded he announced his intent to go again to Frankfort to have some of his books printed, and so took his leave of Mocenigo. 185 On the following day, in May, 1592, Bruno was seized by six men, using force, who locked him in an upper story of Mocenigo's house. 186 The next day he was transferred to an underground cellar, and the following night to the prison of the Inquisition. May 23rd his former host denounced him, with a cunning and lying statement concerning some of his views and teachings. 187 Thus he was reported as stating that Christ's miracles were only apparent, that He and the apostles

were magicians, that the Catholic faith was full of blasphemies against God, 188 that the Friars befouled the world and should not be allowed to preach, that they were asses, and the doctrines of the Church were asses' beliefs, etc. (McIntyre). 189 This was followed two days later by a second denunciation in which Mocenigo went to a diabolical extreme of deceit and hypocrisy; stating that all the time he was entertaining Bruno he was promising himself to bring him before the Holy Office. 190 Within forty-eight hours the Holy Tribunal met to consider the matter; before them appeared the book-sellers who had known Bruno in Zürich and Frankfort, and before them came Bruno in his own behalf, professing his entire willingness to tell the whole truth. 191 Within a few days Mocenigo made yet another deposition, denouncing Bruno's statements about the infallible Church. On the following day Bruno was again heard in his own defense, 191 and appealed to the famous and fallacious doctrine of two-fold truth, acknowledging that he had taught too much as a philosopher rather than as an honest man and Christian, 192 and that he had based his teachings too much on sense and reason and not enough on faith;-- so specious had become his argument with the terrors of the Inquisition before him. 193 He further claimed that his intent had been not to impugn the faith but to exalt philosophy. 194 He then beautifully epitomised his own views, claiming that he believed in an infinite universe, in an infinite divine potency, holding it unworthy of an infinite power to create a finite world, when he could produce so vast an infinity; 195 with Pythagoras he regarded this world as one of many stars,-- innumerable worlds. 196 This universe he held to be governed by a universal providence, existent in two forms;-- one Nature, the shadow or footprint of deity, the other the ineffable essence of God, always inexplicable. 197 Concerning the triune Godhead he confessed certain philosophic doubts as well as concerning the use of the term "'persons'" in these distinctions, while he quoted St. Augustine to the same effect. 198 The miracles he had always

believed to be divine and genuine; concerning the Holy Mass and the Transubstantiation he agreed with the Church. 199 As the days went by he became the more insistent upon his orthodoxy. He condemned the heretic writings of Melancthon, Luther and Calvin, expressed respect for the writings of Lulli because of their philosophical bearings, while for St. Thomas Aquinas he had the most profound regard.

200 Other counts in the indictment which he had to face were his doubts concerning the miracles, the sacraments and the incarnation, his praise of heretics and heretic princes and his familiarity with the magic arts. 201 He finally made a formal solemn abjuration of all the errors he had ever committed, and the heresies he had ever uttered, or doubts expressed or believed, praying only that the Holy Office would receive him back into the Church where he might rest in peace. 202 Further examinations were held and the earlier processes against him in Naples and Rome recalled. After this there was a period of apparent quiet save that he remained in prison. 203 It is not known to what tortures he may have been subjected, but it is recorded that he knelt before his judges asking their pardon, and God's, for all his faults, 204 and professed himself ready for any penance, apparently not yet realising the fate in store for him.

205 A little later it transpired that the Sacred Congregation of the Supreme Tribunal of the Holy Office, in Rome, desired to assume all further responsibility for the process against so distinguished a heretic. 206 Accordingly the machinery of the Church was put in motion to this end. Negotiations with the Venetian Republic, somewhat tedious and complicated, which need not detain us now, were at last concluded. January 7, 1603, 207 the Venetian procurator reported of Bruno that "his faults were exceedingly grave in respect of heresies, though in other respects he was one of the most excellent and rarest natures, and of exquisite learning and knowledge," (McIntyre) 208 but that the case was of unusual gravity, Bruno not a Venetian subject, the Pope most anxious, etc. It was then decided to

remit him to the Tribunal of the Inquisition at Rome; 209 whereat it is duly reported, the Pope was deeply gratified. To Rome then he went and here he was lost, so far as documentary records go, for a period of six years.

210 How to explain this fact and this apparent clemency has bothered the biographers not a little. 211 Whether this time was spent in an examination of his voluminous writings, which would seem incredible, 212 or whether the Dominicans laboured so long to procure his more absolute recantation in order to prevent scandal in and reflection on their order, 213 or whether Pope Clement himself regarded kindly-- in some degree-- the great scholar who was so anxious to dedicate to him a '*magnum opus*';-- to these queries history answereth not. 214 The Dominicans pretended-- years later-- to doubt if he ever had been put to death, or whether he had ever really belonged to their order. These statements are too characteristic to provoke more than a sad smile.

215 Finally matters were hastened to an end by the efforts of Fathers Commisario and Bellarmino; the latter being the zealous bigot who decided that Copernicanism was a heresy, who later laid the indictment against Galileo. 216 Through their machinations Bruno was, in February, 1599, decreed on eight counts as a dangerous heretic, who might still admit his heresies, and he was to be granted forty days in which to recant and repent. 217 But this period was stretched out some ten months, until December, when it was reported that Bruno refused to recant, having nothing to take back. 218 Among the Tribunal at this time was San Severino, fanatical, bitter because of his failure to secure the papacy, who had declared that St. Bartholomew's was "a glorious day, a day of joy for Catholics." 219 It was decided that the high officers of the Dominicans should make one last effort to compel or coax Bruno to abjure. This he declined to do, 220 Whereupon, January 20th, 1600, it was decreed that "further measures be proceeded to, 'servatis servandis', that sentence be passed, and that the said Friar Giordano be handed

over to the secular authority." 221 A few days later Bruno was degraded, excommunicated and handed over to the Governor of Rome, with the usual hypocritical recommendation to "mercy," 222 and that he be punished "without effusion of blood," which meant of course burning at the stake. 223 Bruno's reply to his judges deserves to be printed in letters of gold whenever it can be recorded;-- "'Greater perhaps is your fear in pronouncing my sentence than mine in hearing it.'" 224 Let us spare ourselves a too minute account of his execution. Some reports are to the effect that his tongue was tied, because he refused to listen to the exhortations of those members of the Company of St. John the Beheaded, 225 better known as the Brothers of the Misericordia, who accompanied the condemned to the scaffold or the stake, 226 resorting to the most cruel methods in order to provoke at least some appearance of recantation or repentance during the last moments of life.

227 Right here let it be said of Bruno that whatever may have been his weaknesses before the Inquisition at Venice, he stood firmly by his creed when put to the final test, 228 and died an ideal martyr's death because his creed did not agree with that of his persecutors. 229 And so terminated the life of one of Italy's greatest ornaments and scholars. The occasion had not then the importance we assign it now. 230 The burning of a heretic was a frequent spectacle, and the year 1600 was the year of Jubilee, in which the death of one unbeliever more was but the incident of a day. 231 He had himself foreseen it, saying, "Torches, fifty or a hundred, will not fail me, even though the march past be at mid-day, should it be my fate to die in Roman Catholic Country."

232 There remains yet to comment on his character and to analyse his views. 233 The greatest blot upon the former is his attitude before the Venetian Tribunal. Here he was at first defiant, even polemical, strong in his asserted right to use the natural light of sense and reason. 234 Under greater stress he modified this to one of absolute and indignant denial, and finally became submissive to the last

degree, cringing and finally begging for pardon on bended knees. 235 That this attitude changed with his better realisation of his predicament is undeniable. Moreover what keen and sensitive natures may do under the influence of torture is never to be predicated. 236 How many of us could resist the persuasiveness of the rack when it came to modifying our beliefs? 237 But whatever may have been his weakness at that time, he completely rehabilitated himself before his end, 238 for were not his ashes scattered to the winds as a token that he completely failed to recant? 239 Surely no martyr to science or dogma ever died a more dignified death, for the edification or example of others.

240 What shall be said of his persecutors and prosecutors? Let us here be charitable; let us be just. 241 Have we yet that absolute knowledge of right and wrong which can enable us to pass final judgment on people of the past, their motives and actions? 242 Moral perceptions are the product of the race, the age and the environment; they vary greatly with the times. 243 There is no crime in or out of the Decalogue which has at all times and by all peoples been regarded as such. 244 The Church during several centuries enjoyed a monopoly of wisdom or learning as well as of opportunities for acquiring them. 245 Zealotry, bigotry, intolerance, fanaticism, were the natural products of such conditions. So were cruelty and disregard of human life. 246 Join the mind of a bigot to the body of one who knows not fear, and the result will be a Loyola, or a St. Louis of France, who held that the only argument a layman should engage in with a heretic should be a sword thrust through the body.

247 If then heresy was a crime, punishable by a cruel death in all the capitals of Europe, let us blame less the people who were trained and grew up with these notions, but rather more the Church which preached them, whether Catholic or Protestant. 248 Only if one of these really were, as it still claims to be, 'infallible', then what has become of its infallibility? 249 Or if heresy be held still a crime then what shall we say of the Church's

ethics? 250 If one were God-given the other is un-Christ-like. But no free thinker can engage in theological polemics, or with jesuitical sophistries, without letting own reason excite own emotions; 251 and when the emotions enter the door logic flies out of the window.

252 Let us say then that Bruno was in some respects so far ahead of his day and generation that they understood him not. And yet he was a 'torch bearer', 253 save at his own last funeral pyre, shedding forth a light which illumed the centuries to come, and helping to make the period of the Italian Renaissance one of the most important and glorious in the world's history. 254 If better known and more widely studied, he would be by English and American students placed on that pinnacle which he deserves in the Hall of Fame.

255 What shall be said of Bruno as a philosopher? He, first of all men in the middle ages, taught that Nature was lovable and worthy of study. 256 Loving Her, trusting, confiding in Her, he found himself at outs with all the mental processes of his fellow scholars. 257 In this way the natural method was brought into direct opposition with the ponderously artificial and strained methods of his day. 258 He held that our eyes were given us that we might open and look upward. "Seeing, I do not pretend not to see, nor fear to profess it openly," he says. 259 His philosophy was rather a product of intuition than of ratiocination, which became his real religion, 260 for which Catholicism was a cloak, because in those days one was compelled to wear a cloak or live but a short life, and that within prison walls. 261 What the medieval church, Catholic and even Protestant, has to answer for, as to the suppression of truth and provocation of hypocrisy, is beyond the mensuration of human. 262 For the argument from authority he had the greatest contempt, and herein he set the world of thinkers a valuable lesson. 263 "To believe with the many because they were many, was the mark of a slave," (McIntyre). 264 Before Bacon, before Descartes, he saw the necessity of "first clearing the

mind of all prejudice, all traditional beliefs that rest on authority." He thus begins one of his sonnets:-- 265 "Oh, holy assinity! Oh, holy ignorance, holy folly and pious devotion; which alone makest souls so good that human wit and zeal can go no further," etc.

266 By the independence of his mental processes he was thrown quite upon his own resources, and his nature, already dignified and reserved, was made more introspective and self-conscious. 267 In this way he developed strains of vanity and egotism which led him at times to the bombastic self-laudation of a Paracelsus. 268 He had nothing but disgust for the common people and the sort of scholars (pedants) whom they admired. 269 The vulgar mind was more influenced by sophisms, by appearance, by failure to distinguish between the shadow and the substance. 270 Take but two or three of Bruno's conceptions:-- He perhaps first during the middle ages taught the transformation of lower into higher organisms, 271 following the Greeks who first enunciated the doctrine of evolution, which it remained for Darwin and Wallace to edit and illustrate as that law of the organic continuity of life, which we call 'evolution'. 272 He further wrote of the human hand as a factor in the evolution of the human race, in a way which should have commended him to the author of the Bridgewater treatise. 273 He wrote of the changes on the earth's surface brought about by natural processes, 274 which have changed not only the external configuration of the same but the fate and destiny of nations; of the identity of matter throughout the universe; of the universal movement of matter. 275 Long before Lessing he showed how myths may contain the germs of great truths, and should be regarded as indications thereof. 276 In this way, he told us, the Bible was to be regarded, holding its more or less historical statements to be quite subordinate to its moral teachings.

277 When we realise how to such highly developed reasoning powers as Bruno possessed, were added a phenomenal memory, a tremendous power of assimilation,

a developed imagination, a poetic nature, 278 the gift of easy and accurate speech and a temperament easily excited to fervor in attack or defence, we may the better appreciate his dominating greatness as well as his trifling weakness; 279 the former being entirely to his own credit while the latter are ascribed largely to the faults of his time, and the fact that he was really living far ahead of his day and generation. 280 He was not only the forerunner of modern science, he was the prototype of the modern biblical critic, foreshadowing the modern higher criticism, albeit in veiled terms, and as a matter of esoteric teaching; 281 because the biblical critic of those days was burned at the stake, while to-day he is barely ostracised by the shallow and narrow minded, with whom he has at best nothing mentally in common. 282 So much have four centuries of labour and vicarious suffering accomplished for the emancipation of the human mind.

283 Bruno 'had' a creed, but it was too simple for his times. He rejected certain orthodox dogmas, (e. g. the Trinity, the Immaculate Conception) which commend themselves still less to the emancipated and cultivated minds of to-day. 284 He absolutely rejected authority, which was a step toward reason comparable to the freeing of the slaves or serfs. 285 He evolved a theory of evolution from 'a priori' concepts, which it remained for Darwin to complete and demonstrate. He believed in the natural history of religions. 286 His motives were of the loftiest, though his methods were not always those of to-day. He believed that the essence of truth inhered in those differences which kept humans apart, and still sever them. 287 He believed the 'law of love' and that it sprang from God, which is the Father of All, that it was in harmony with Nature, 288 and that by love we may be transformed into something of His likeness. 289 As Bruno himself says:--"This is the religion, above controversy or dispute, which I observe from the belief of my own mind, and from the custom of my fatherland and my race." (McIntyre).

290 And yet this sublime man was burned as a heretic! 291 Let us stop

when we hereafter pass through the Campo dei Fiori, as I have done many a time, and take off our hats to the memory of this great man, 292 who, while small in some human traits, yet was the greatest thinker in Italy during the sixteenth century, whose memory may help us to forget some of the hypocrisies and cant so generally prevalent during the age which and among the people who condemned him. 293 Let us also thank God that there is no Tribunal of the Inquisition to-day, to pass misguided judgment upon us for having gone further than Bruno ever dreamed, though along the same lines, and to condemn us therefore to the Flames.

294 This paper has already been prolonged, perhaps tiresomely, nevertheless I cannot refrain from quoting a few paragraphs from that most versatile student of this period, Symonds, whose estimate of Bruno is as follows:-- (Renaissance in Italy; Catholic Reaction, II Chap. ix). 295 "Bruno appears before us as the man who most vitally and comprehensively grasped the leading tendencies of his age in their intellectual essence. 296 He left behind him the mediaeval conception of an extra-mundane God, creating a finite world, of which this globe is the center, 297 and the principal episode in the history of which is the series of events from the Fall, through the Incarnation and Crucifixion, to the Last Judgment. 298 He substituted the conception of an ever-living, ever-acting, ever-self-effectuating God, immanent in an infinite universe, 299 to the contemplation of whose attributes the mind of human ascends by the study of Nature and interrogation of his conscience."

300 "Bolder even than Copernicus, and nearer in his intuition to the truth, he denied that the universe had "flaming walls" or any walls at all. 301 That "*immaginata circonferenza,*" "*quella margine immaginata del cielo*," on which antique science and Christian theology alike reposed, was the object of his ceaseless satire, his oft-repeated polemic. 302 What, then, rendered Bruno the precursor of modern thought in its various manifestations, was that he grasped the fundamental truth upon which modern science rests,

and foresaw the conclusions which must be drawn from it. 303 He speculated boldly, incoherently, vehemently; but he speculated with a clear conception of the universe, as we still apprehend it. 304 Through the course of three centuries we have been engaged in verifying the guesses, deepening, broadening and solidifying the hypotheses, which Bruno's extension of the Copernican theory, and his application of it to pure thought suggested to his penetrating and audacious intellect."

305 Bruno was convinced that religion in its higher essence would not sufferer from the new philosophy. 306 Larger horizons extended before the human intellect. The soul expanded in more exhilarating regions than the old theologies had offered.

307 "Lift up thy light on us and on thine own,
O soul whose spirit on earth was as a rod
To scourge off priests, a sword to pierce their God,
A staff for human's free thought to walk alone,
A lamp to lead you far from shrine and throne
On ways untrodden where your fathers trod
308 Ere earth's heart withered at a high priest's nod,
And all humans' mouths that made not prayer made moan.
From bonds and torments, and the ravening flame,
Surely thy spirit of sense rose up to greet
Lucretius, where such only spirits meet,
And walk with him apart till Shelley came
To make the heaven of heavens more heavenly sweet,
And mix with yours a third incorporate name."

STUDENT LIFE IN THE MIDDLE AGES

AN ADDRESS GIVEN BEFORE THE CHAS. K. MILLS SOCIETY OF STUDENTS OF THE UNIVERSITY OF PENNSYLVANIA, FEBRUARY 19, 1902.

8 I assume that every university student of today realises that your possibilities and your opportunities are better in every way than were those enjoyed by students of

bygone times. 2 I take it, also, that you would not be averse to listening to an account of the habits, the surroundings, the privileges, and the disadvantages which surrounded students at a time when universities were young and when customs in general, as well as manners, were very different from those of to-day. 3 With all these in view, I shall ask your attention to a brief account of Student Life in the Middle Ages, with especial reference to that of the medical student. 4 Measured by its results, the most priceless legacy of mediæval times to humankind was the university system, which began in crude form and with an almost mythical origin, but which gradually took form and shape in consequence of many external forces. 5 It represented an effort to "realise in concrete form an ideal of life in one of its aspects." 6 Such ideals "pass into great historic forces by embodying themselves in institutions," as witness, for instance, the case of the Church of Rome.

7 The use of words in our language has undergone many curious perversions. Take our word "bombast," for instance. Originally it was a name applied to the cotton plant. 8 Then it was applied to any padding for garments which was made of cotton. Later it was used as describing literary padding, as it were, as when one filled out an empty speech with unnecessary and long words, and, at last, it came to have the meaning which we now give it. 9 So with the word "university." "Universitas" in the original Latin meant simply a collection, a plurality, or an aggregation. It was almost synonymous with "collegium." 10 By the beginning of the thirteenth century it was applied to corporations of masters or students and to other associated bodies, and implied an association of individuals, not a place of meeting, nor even a collection of schools. 11 If we were to be literal and consistent in our use of terms, for the place where such collections of people exercise scholastic functions the term should be "'studium generale'," 12 meaning thereby a place, not where all things are studied, but where students come together from all

directions. 13 Very few of the mediæval studia possessed all the faculties of a modern university. Even Paris, in its palmiest days, had no faculty of law. 14 The name 'universitas' implies a general invitation to students from all over the world to seek there a place for higher education from numerous masters or teachers. 15 The three great 'studia' of the thirteenth century were Paris, transcendent in theology and the arts; 16 Bologna, where legal lore prevailed; and Salernum, where existed the greatest medical school of the world's history. 17 In spite of the fact that these, like all the other 'studia' of the Middle Ages, were under the influence of the Church, from them sprang most of the inspiration that constituted the mainspring of mediæval intellectual activity, 18 although how baneful such influence could be may be illustrated by the Spanish-- that is, the ultra-Catholic University of Salamanca, where not until one hundred years ago were they allowed to teach the Copernican system of astronomy.

19 Under the conditions existing during the Middle Ages, with relatively few institutions of advanced learning, and in the presence of that spirit which led people to travel long distances, and very widely out of the provinces, to the cities of the great scholia, or, as we call them now, universities, 20 the most imperative common want was that of a common language; and so it happened that not only were the lectures all given in Latin, but that it was very commonly used for conversational purposes, and appears to have been almost a necessity of university life. 21 Early in the history of the University of Paris a statute made the ability of the petitioner to state his case before the rector in Latin a test of his bona-fide studentship. 22 This may perhaps, in some measure account for the barbarity of mediæval Latin. Still, as the listener said about Wagner's music, "it may not have been as bad as it sounded," 23 since the period of greatest ignorance of construction and rhetoric had passed away before the university era began. 24 John Stuart Mill even praised the schoolmen of the Middle Ages for their inventive

capacity in the matter of technical terms. 25 The Latin language, which was originally stiff and poor in vocabulary, became, in its employment by these mediæval thinkers, much more flexible and expressive. 26 It was the Ciceronian pedantry of the sixteenth and seventeenth centuries which killed off Latin as a living language. Felicity in Latin counted, then as now, as a mark of scholarship, 27 and six hundred years ago a schoolmaster could come up to the university and, after performing some exercises and passing such an examination as the doctors of music do to-day, could write one hundred verses in Latin in praise of the university, and take his degree. 28 The boys who went to the universities learned their Latin at inferior grammar schools, often in university towns. These schools were mainly connected with cathedrals or churches, 29 although, in the later Middle Ages, even the smallest towns had schools where a boy might learn to read and write at least the rudiments of ecclesiastical Latin. 30 In those days not only were the clergy Latin scholars, but the bailiff of every manor kept his accounts in Latin, 31 and a tutor even formed part of the establishment of a great noble or prelate who had either a family or pages in own care.

32 In those good old days boys were accustomed to seek the university at the ages of thirteen to fifteen. A Paris statute required them to be at least fourteen, and naturally many were older. 33 Many of these students were beneficed, and boys were canons or even rectors of parish churches. 34 In this capacity they obtained leave of absence to study in the universities, and so it was quite common at one time for rectors and ecclesiastics of all ages to appear in the rôle of university students. 35 At the close of the fourteenth century, in the University of Prague, in the law school alone there appeared on the list of students one bishop, one abbot, nine archdeacons, 290 canons, 187 rectors, and still other minor ecclesiastics. 36 At one time in the University of Bologna, in the registry of German corps, more than half the students were church

dignitaries. 37 Sad to relate, many of these clerical students were among the most disorderly and troublesome of the academic population, the statutes vainly prescribing that they should sit "as quiet as girls;" 38 while, as Rashdall says, "even spiritual thunders had at times to be invoked to prevent them from shouting, playing, and interrupting."

39 Considering the youthfulness of what we may call the freshmen, as many of them went up to the universities at the early age already mentioned, it is not strange that we hear of "fetchers" or "carriers" or "bryngers," who were detailed to escort them home; 40 but we must remember that the roads were dangerous in those days, and that protection of some kind was necessary even for men. 41 Proclamations against bearing arms usually made exceptions in favour of students travelling to or from the university. 42 Students, many of them, lived in halls, or, as we would say now, dormitories, and one of them assumed the rôle of principal, or was delegated to exercise certain authority. 43 Quite often this was the man who made himself responsible for the rent, whose authority came only from the voluntary consent of his fellow-students, or who was elected by them.

44 When it came to the matter of discipline, the good old-fashioned birchen rod was not an unknown factor in university government. 45 There seems to have been always a certain relationship between classic studies and corporal punishment. In mediæval university records allusions to this relationship began about the fifteenth century. 46 In Paris, about this time, when there were so many disgraceful factional fights, the rectors and proctors had occasionally to go to the colleges and halls and personally superintend the chastisement of the young rioters. 47 We find also in the history of the University of Louvain that flogging was at one time ordered by the Faculty of Arts for homicide or other grave outrages. 48 It is worthwhile to recall for a moment how grave offences were dealt with in those days. 49 At the University of Ingolstadt one student killed

another in a drunken quarrel, and was punished by the university by the confiscation of his scholastic effects and garments, but he was not even expelled. 50 At Prague a certain Master of Arts assisted in cutting the throat of a friar bishop, and was actually expelled for the deed. 51 In those days drunkenness was rarely treated as a university offence. The penalties which were inflicted for the gravest outrages and immoralities were for the greater part puerile in the extreme. 52 In most serious cases excommunication or imprisonment were the penalties, while lesser offences were punished by postponement of degree, expulsion from the college, temporary banishment from a university town, or by fines.

53 In Leipzig, in 1439, the fine of ten new groschen was provided for the offence of lifting a stone or missile with a view of throwing it at a master, but not actually throwing it; 54 whereas the act of throwing and missing increased the penalty to eight florins, while successful marksmanship was still more expensive. 55 Later statutes made distinction between hitting without wounding and wounding without mutilation, expulsion being the penalty for actual mutilation. 56 With the beginning of the sixteenth century the practice of flogging the very poorest students appears to have been introduced. 57 During these Middle Ages they had a peculiar fashion of expiating even grave offences. 58 For example, at the Sorbonne, if a fellow should assault or cruelly beat a servant he was fined a measure of good wine-- not for the benefit of the servant, but for all the culprit's fellow-students. 59 Those were the days, too, when trifling lapses incurred each its own penalty. 60 A doctor of divinity was fined a quart of wine for picking a pear off a tree in the college garden or forgetting to shut the chapel door. 61 Clerks were fined for being very drunk and committing insolences when in that condition. The head cook was fined for not putting salt in the soup. 62 Most of these fines being in the shape of liquors or wines, I imagine that the practice was more general because the penalty was shared in by all who were near.

63 With lapse of time the statutes of the German universities gradually grew stricter until they became very minute and restrictive in the matter of unacademical pleasures. 64 A visit to the tavern, or even to the kitchen of the college or hall, became a university offence. 65 There were statutes against swearing, against games of chance, walking abroad without a companion, being out after eight in the winter or nine in the summer, making odious comparisons of country to country, etc. 66 This was particularly true of the English universities, where a definite penalty was imposed for every offence, ranging from a quarter of a penny for not speaking Latin to six shillings eight pence for assault with effusion of blood.

67 The matter of constantly speaking Latin led to a system of espionage, by which a secret system of spies, called "'lupi'" or wolves, was arranged; 68 these were to inform against the "'vulgarisantes'," or those offenders who persisted in speaking in their mother tongue. 69 It was the students of those days who set the example and the fashion of initiating, or, as we would say now, of hazing the newcomers. 70 This custom of initiation, in one form or another, seems to have an almost hoary antiquity. As Rashdall puts it, three deeply rooted instincts of human nature combine to put the custom almost beyond suppression. 71 It satisfies alike the bullying instinct, the social instinct, and the desire to find at once the excuse and the means for a carouse. 72 In the days of which we are speaking the 'Bejaunus', which is a corruption of the old French 'Bec-jaune' (or yellow bill), as the academic fledgling was called, 73 had to be bullied and coaxed and teased in order to be welcomed as a comrade, and finally his "jocund advent" had to be celebrated by a feast furnished at his own expense. 74 A history of the process of initiating would furnish one of the most singular chapters in university records. 75 At first there were several prohibitions against all 'bejaunia', for the unfortunate youth's limited purse ill afforded even the first year's expenses.

76 As the years went by certain restrictions were imposed, and by the sixteenth century the 'depositio cornuum' had become in the German universities a ceremony almost equal in importance to matriculation. 77 The callow country youth was supposed to be a wild beast who must be deprived of his horns before he could be received into refined society in his new home. 78 This constituted the 'depositio' for which he was supposed to arrange with his new masters, at the same time begging them to keep expenses as low as possible. 79 Soon after he matriculated he was visited in his room by two of the students, who would pretend to be investigating the source of an abominable odour. 80 This would be subsequently discovered to be due to the newcomer himself, whom they would take at first to be a wild boar, 81 but later discovery to be that rare creature known as a 'bejaunus', a creature of whom they had heard, but which they had never seen. 82 After chaffing comments about his general ferocious aspect it would be suggested, with marked sympathy, that his horns might be removed by operation, the so-called 'depositio'. 83 The victim's face would then be smeared with some preparation, and certain formalities would be gone through with--clipping his ears, removal of his tusks, etc. 84 Finally, in fear lest the mock operation should be fatal, the patient would be shriven; one of the students, feigning himself a priest, would put his ear to the dying man's mouth and then repeat his confession. 85 The boy was made to accuse himself of all sorts of enormities, and finally it was exacted as penance that he should provide a sumptuous banquet for his new masters and comrades.

86 This latter ceremony consisted of a procession headed by a master in academic dress, followed by students in masquerading costume. 87 Certain further operative procedures were then gone through with, the beast was finally dehorned and his nose held to the grindstone, 88 while a little later his chin was adorned with a beard made of burnt cork, and his wounded sensibilities assuaged by a dose of salt and wine. 89 All this

constituted a peculiar German custom, although some means of extorting money or bothering those who were initiated was practically universal.

90 In Germany this ceremony of 'depositio' seems to have led later to the bullying and fagging of juniors by seniors, that gave rise to indignities 91 while at the same time it more than exceeded in brutality anything of which we have read in the English grammar schools. 92 These excesses reached their highest in the seventeenth century, and for a long time defied all efforts of both government and university authorities to suppress them.

93 In southern France this initiation assumed somewhat different form. Here the freshman was treated as a criminal, and had to be tried for and released by purgation from the consequences of his original sin. 94 At Avignon this purgation of freshmen was made the primary purpose of a religious fraternity formed under ecclesiastical sanction, and with a chapel in the Dominican church. (Rashdall). 95 The preamble of its constitution piously boasted that its object was to put a stop to enormities, drunkenness and immorality, but its practices were at extreme variance with its avowed purposes. 96 The matter of academical dress may interest for a moment. During the Middle Ages there was for the undergraduate nothing which could be properly called academic dress. 97 In the Italian universities the students wore a long black garment known as a "cappa." 98 In the Parisian universities every student was required by custom or statute to wear a tonsure and a clerical habit, 99 such "indecent, dissolute, or secular" apparel as puffed sleeves, pointed shoes, coloured boots, etc., being positively forbidden; 100 and so the clothes of uniform colour and material, like those worn in some of the English charitable schools, have been the result of the uniform dress of a particular colour which mediæval students were supposed to wear, and which indicated that at the time they were supposed to be clerks. 101 At one time the so-called Queen's Men in Oxford University were required to wear bright red garments, and differences of colour and ornament

still survive in the undergraduate gowns of Cambridge. 102 While the students usually wore dark-hued material, the higher officials of the universities wore more and more elabourate garments, until the rector appeared in violet or purple, perhaps with fur trimmings. 103 The hoods, which are still worn to-day, were at one time made of lamb's wool or rabbit's fur, silk, such as those which we wear, coming in as a summer alternative at the end of the fourteenth century. 104 The birretta, or square cap, with a tuft on the top, in lieu of the modern tassel on top of the square cap, was a distinctive badge of membership, 105 while doctors and superior officers were distinguished by the red or violet colour of their birrettas.

106 This so-called "philosophy of clothes" throws much light upon the relation of the Church to the universities, as well as on the use and misuse of the term "clericus." 107 That a man was a 'clericus' in the Middle Ages did not necessarily imply that he had taken even the lowest grade of clerical orders. It simply implied that he was a clerk, i. e., a student. 108 Even the wearing of a so-called clerical dress was rather in order that the wearer might enjoy exemption from secular courts and the privileges of the clerical order. 109 The lowest of the people even took the clerical tonsure simply in order to get the benefit of clergy; 110 and to become a clerk was at one time almost equivalent to taking out a license for the commission of murder or outrage with comparative immunity. 111 Nevertheless, the relation between clerkship and minor orders is still quite obscure.

112 It is quite evident that students of those days were not worked as hard as those of the present day. Three lectures a day constituted a maximum of work of this kind, 113 beside which there were disputations and "resumpciones," which seem to have corresponded very much to the quizzes of to-day, scholars being examined or catechised, sometimes even by the lecturer himself. 114 Gradually supplementary lectures were introduced, but there was a period during which the university seemed to decline and decay rather

than the reverse, when intellectual life was not nearly as active and studies not nearly as closely pursued. 115 In the days of Thomas Aquinas intellectual vigour was at its highest, but in the fifteenth century there was a distinct falling off.

116 During these centuries, too, it was not unusual that students attended mass or religious services before going to lectures. This practice grew during the latter portion of the Middle Ages. 117 Attendance was not, however, compulsory. Even at Oxford the statutes of the New College were the first which required daily attendance at mass. 118 In those days lectures began at six in the morning in summer, and sometimes as late as seven in the winter mornings. 119 There is every reason to think that often lectures were given in the darkness preceding dawn, and even without artificial light. 120 It should be said that these lectures were sometimes three hours in duration, and hence it might appear that three such lectures a day were about all that could be expected of a student.

121 The standard of living for the mediæval student was not always so bad as has been sometimes represented. 122 University students then, as now, were recruited from the highest as well as the poorest social classes, and the young sons of princely families often had about them quite an establishment. 123 At the lower end of the university social ladder was the poor scholar who was reduced to begging for his living or becoming a servant in one of the colleges. 124 In Vienna and elsewhere there were halls whose inmates were regularly sent out to beg, the proceeds of their mendicancy being placed in a common chest. 125 Very poor scholars were often granted licenses to beg by the chancellor. This was not regarded as a particular degradation, 126 however, because the example of the friars had made begging comparatively respectable. Those who would have been ashamed to work hard were not ashamed to beg.

127 This custom, for that matter, is by no means yet abandoned. When I was first studying in Vienna, in

1882, I remember a young German nobleman who was reduced to such an extent that he lived absolutely on the charity of others. 128 He kept a little book in which he had it set down that on such a day such a person had promised to give him so much toward his support, 129 and he called regularly on his list of supporters, and almost daily, in order that the gulden which they had promised him might be forthcoming.

130 There is the good old story you know, also, of the three students who were so poor that they had but one cappa or gown between them, in which they took turns to go to lectures. 131 In the small university towns, where thousands of students gathered together during a part of the year-- where means of carrying food were scanty, and food itself not abundant-- it is not strange that student fare was often of the most meagre sort.

132 The matter of food was not the only hardship of student life in those days about which we are talking. 133 At that time such a thing as a fire in a lecture-room was unknown, there being no source of warmth or comfort, save, perhaps, straw or rushes upon the floor. 134 The winter in the northern university towns must have been severe, but it is not likely that either in the lecture-room or in his own apartments did the student have any comfort from heat. 135 This was true to such an extent that they often sought the kitchens for comfort. 136 In Germany it was even one of the duties of the head of the college to inspect the college-rooms lest the occupants should have supplied themselves with some source of heat. 137 In some places, however, there was a common hall or combination room in which a fire was built in cold weather. 138 You must remember, also, that glass windows were an exceptional luxury until toward the close of the period under discussion. In Padua the windows of the schools were made of linen. 139 In 1643 a glass window was for the first time introduced into the Theological School at Prague. 140 In 1600 the rooms inhabited by some of the junior fellows at Cambridge were still unprovided with glass windows. 141 Add to these hardships the relative expense of

lights, when the average price of candles was nearly two pence per pound, and you will see that the poorest student could not afford to study by artificial light. 142 Some of the senior students may have had bedsteads, but the younger students slept mostly upon the floor. 143 In some places there were cisterns or troughs of lead, or occasionally pitchers and bowls were provided, but usually the student had to resort to the public lavatory in the hall.

144 Along with these hardships consider the amusements of this period, which were for the greater part conspicuous by their absence. 145 Statutes concerning amusements were often more stringent than those concerning crime or vice. 146 These were essentially military times, and tournaments, hunting, and hawking, which were enjoyed by the upper social classes, were considered too expensive and distracting for university students, and were consequently forbidden. 147 "Mortification of the flesh" was the cry of those days, as even now among some religious fanatics. 148 Even playing with a ball or bat was at times forbidden, along with other "insolent games." 149 A statute of the sixteenth century speaks of tennis and fives as among "indecent games" whose introduction would create scandal in and against the college. 150 Games of chance and playing for money were also forbidden; nevertheless, they were more or less practised. 151 Even chess enjoyed a bad reputation among the mediæval moralists, and was characterised by a certain bishop of Winchester as a "noxious, inordinate, and unhonest game." 152 Dancing was rather a favourite amusement, but was repressed as far as possible, since the celebrated William of Wykeham found it necessary to prohibit dancing and jumping in the chapel. 153 Apparently, then, in those days a good student amused himself little, if at all, and had to find his relaxation in the frequent interruptions caused by church holidays. 154 At St. Andrew's, in Scotland, however, two days' holiday was allowed at carnival time expressly for cock-fighting. 155 On the evenings of festival days entertainments were

occasionally provided by strolling players, jesters, or mountebanks, who were largely patronised by students.

156 Altogether, it is not strange that students in those days fell into dissolute habits, many having to be expelled or punished. 157 We can even understand how some of them actually turned highwaymen and waylaid their more peaceful brothers as they approached the universities with money for the ensuing season. 158 In the archives of the University of Leipzig there are standard forms of proclamation against even such boyish follies as pea-shooting, destruction of trees and crops, throwing water out of the window upon passers-by, 159 shouting at night, wearing of disguises, interfering with a hangman in the execution of his duty, or attending exhibitions of wrestling, boxing, and the like.

160 Evidently, then, university life had its exceedingly wild side. One needs only to recall the history of the famous Latin Quarter in Paris to be convinced of this. 161 This was the students' quarter in the old city of Paris as extended by Philip Augustus across the river. Paris then was surrounded by a cordon of monasteries, whose abbots exercised jurisdiction over their surrounding districts. 162 Just to the west of the student quarter stood the great Abbey of St. Germain. Between the monks of this monastery and the students there were frequent conflicts, 163 and it is recorded that in 1278, for instance, a pitched battle occurred between the monks, under their provost, on one side, and the unarmed and defenceless boys and masters, on the other, during which many were badly wounded, and some mortally. 164 The matter was finally carried to court, and the monks were required to perform certain penances and to pay certain fines. 165 Their brutality, however, was not effectually suppressed. In 1304 the Provost of Paris hanged and gibbetted a student, and was punished therefor by the king; while the subsequent history of Paris is one of constant conflict between students and the clerical orders. 166 On the other hand, the clerical tonsure in which the Parisian scholar clothed himself enabled him to indulge in all kinds

of crime, without fear of that summary execution which would have been his fate had he been merely an ordinary beggar.

167 Bibulousness was another striking characteristic of mediæval university life. In those days they knew not tea nor coffee nor tobacco, but spirituous liquors in some form were far from unknown to them. 168 No important event of life could be transacted without its drinking accompaniment. At all exercises, public or private, wine was freely provided, and many of the feasts and festivals which began with mass were concluded with a drunken orgie.

169 You have observed that so far I have made frequent mention of clerical matters. In truth, in northern Europe the Church included practically all the learned professions, 170 including the civil servants of the government, the physicians, architects, secular lawyers, diplomatists, and secretaries, who were all ecclesiastics. 171 It is true that in order to be a "clerk" it was not really necessary to take even minor orders, but it was so easy for a king or bishop to reward his physician, his lawyer, or his secretary by a monastic office rather than by a large salary, 172 that the average student, at least in the larger places, looked to holy orders as his eventual destination. 173 How much of insincerity and hypocrisy there were among those reverend gentlemen thus constituted you may imagine better than I can picture. 174 The Reformation, as well as the increasing corruption of the monastic orders, brought about changes which were not rapid, but which became almost complete, and led finally to the partial restoration of the ancient dignity of the early Church.

175 Without pursuing this part of the subject further, it may be imagined what a general alteration and reformation in all branches of study, as well as in the general intellectual life of the people, the founding of the universities accomplished. 176 For the greater part designed for the confirmation of the faith, they often brought about a reaction against it. 177 Like the other integral portions of the university, the medical departments of nearly all the

mediæval institutions came into existence through voluntary associations of physicians and would-be teachers. 178 For a long time medicine was included under the general head of philosophy, whose standard-bearers were Aristotle and the Arabians. 179 At Tübingen, in 1481, the medical student's days were divided about as follows: In the morning you studied Galen's 'Ars Medici', and in the afternoon Avicenna on 'Fever'. 180 During the second year, in the forenoon you studied Avicenna's 'Anatomy and Physiology', and in the afternoon the ninth book of Rhazes on 'Local Pathology'. 181 The forenoons of your third year were spent with the 'Aphorisms' of Hippocrates, and in the afternoon you studied Galen. 182 If any text-book on surgery at all were used it was usually that of Avicenna. Some time was also given to the writings of some of the other Arabian physicians. 183 At that time any person who had studied medicine for three years and attained the age of twenty-one might assume the rôle of teacher if you saw fit, being compelled only, at first, to lecture upon the preparatory branches. 184 You was at that time called a 'baccalaureus'. After three years' further study you became a 'magister' or 'doctor', although for the latter title a still further course of study was usually prescribed. 185 The courses of medical instruction were quite stereotyped in form, and were carefully watched over by the Church. 186 Nevertheless, it came about that the study of medicine once more was taken up by thinkers, although, unfortunately, not logical thinkers, whereas previously it had been almost entirely confined within the ranks of the clerics or clergy.

187 The most celebrated of all these mediæval philosophers in science and medicine was Albert von Bollstaedt, usually known as Albertus Magnus, who died in 1280. 188 His works which remain to us fill twenty-one quarto volumes, in which he discussed both anatomical and physiological questions. 189 It is exceedingly illustrative of the foolishly speculative vein in which many of these discussions were carried on, 190 that they seriously discussed such questions as whether the

removal of the rib from Adam's side, out of which Eve was formed, really caused Adam severe pain, 191 and whether at the judgment day that loss of rib would be compensated by the insertion of another. 192 Those were the days, also, when it was seriously discussed whether Adam or Eve ever had a navel.

193 In spite of such follies, however, Albertus Magnus left an impression upon scholarship in science, in a general way, which long outlasted him. 194 These were the days when the students organised themselves into so-called "nations," whence arose that conspicuous features of German university life of today of so-called students' Corps. 195 These nations-- each composed, for the main part, of men of one nationality-- had their own meeting-places, their own property, etc. 196 One of the principal means of instruction in those days was disputations, or, as we would say, debates, held between students, often of different nations, in which they were expected to prove their knowledge and mental alertness. 197 When it is recalled that universities were larger-- i.e., better attended-- in those days than now, it will be seen to what an extent these nations were developed. 198 Oxford, in 1340, is said to have had no less than 14,000 students; Paris about the same time had 12,000; and Bologna had some 10,000 students, the majority of whom were studying law.

199 The title of doctor came into vogue about the twelfth century. At first it was confined to teachers proper, and was bestowed upon the learned-- i.e., 200 those who had almost solely studied internal medicine, and who were required to take an oath to maintain the methods which had been taught them. 201 For the title of doctor certain fees were paid, partly in money and partly in merchandise. The so-called presents consisted of gloves, clothes, hats, caps, etc. 202 At Salernum it cost about $60 to graduate in this way, while at Paris the cost was sometimes as high as $1,000, and this at a time when money had much more purchasing value than it has to-day. 203 It was then, as now, a peculiar feature of

the English universities that but little systematic instruction in medical science was given. 204 Just as the majority of English students at present study in London rather than at one of the great universities, so in those days did they go to Paris or Montpellier. 205 This will be perhaps as good a place as any to emphasise the fact that the clergy, having so long monopolised all learning and teaching, and having, at the same time, an abhorrence for the shedding of blood, 206 which indeed had been prohibited by many papal bulls and royal edicts, permitted the practice of the operative part of medicine-- i. e., surgery-- to fall into the hands of the most illiterate and incompetent men. 207 Inasmuch as the Church prohibited the wearing of beards, and as many of the religious orders also shaved their heads, there were attached to every monastery and to every religious order a number of barbers, whose duty was to take care of the clergy in these respects. 208 Thus into their hands was gradually committed the performance of any minor operation which involved the letting of blood, 209 and from this, as a beginning, it came about that no really educated man concerned himself with the operations of surgery, but left them entirely to the illiterate servants of the Church. 210 This is really the reason that the barbers for many centuries did nearly all the surgery, and why, at the same time, surgery fell into such general and wide-spread disrepute.

211 From this it was only revived about one hundred years ago. Did time permit, this would be a most appropriate place to digress from the subject of this paper and rehearse to you the various stages in the evolution of the surgeon from the barber; 212 but time does not permit it, and it constitutes a chapter in history by itself, which must be relegated to some other occasion.

213 It was about the beginning of the fifteenth century that the better class of physicians began to belong to the laity, and were called "physici" in contrast to the "clerici." 214 Later they were known as "doctores." Until the fourteenth century most of them studied in Italian or French

universities, the Germans even being compelled to go to these foreign institutions. 215 In Paris they were required to take an oath that they would not join the surgeons. This regulation was founded as much upon spite and envy as upon any other motive. 216 Many of the clerical physicians belonged to the lower class, and were so ignorant that even the Church itself was forced to declare many of their successes miracles. 217 Although monks and the clergy in general had been frequently forbidden to practice medicine, the decrees to this effect were quite generally disregarded, except in the matter of surgical operations. 218 In the ranks of the higher clergy it must be said that well-educated physicians were occasionally found. 219 There is, for instance, the record of a certain bishop of Basel, who was deputed to seek from Pope Clement V. an archbishopric for another person, 220 but finding the Pope seriously ill, cured him, and received for himself in return the electorate of Mayence, which was perhaps one of the largest honourariums ever given to a physician.

221 These were the days when magic, mingled with mystery, played no small rôle in the practice of medicine, and when disgusting and curious remedies were quite in vogue. 222 Superstition and ignorance everywhere played a most prominent part. For instance, it was, in those days, an excellent remedy to creep under the coffin of a saint. 223 When a person was poisoned it was considered wise to hang him up by the feet and perhaps to gouge out one of your eyes, in order that the poison might run out. 224 It should be noted that putting out the eyes was frightfully common in the Middle Ages, mainly as a matter of punishment. 225 It is said, for instance, that the Emperor Basil II. on one occasion put out the eyes of 15,000 Bulgarians, leaving one eye to one of every thousand, in order that he might lead his more unfortunate fellow-sufferers back to their ruler, who, it is said, at the sight of this outrage swooned and died in two days. 226 It is said, too, that this is the reason why the Emperor Albrecht was one-eyed.

227 What the revival of learning could thus and did accomplish

under these conditions as above portrayed may be readily appreciated. 228 The restoration of Greek literature, the revival of anatomy, the habit of independent observation-- all told materially in this renaissance of medicine. 229 The Italian universities became the objective point of all who desired a thorough medical education. The students chose the lecturers and officers of the university and had a large voice in the construction of the curriculum. 230 The officers of their selection negotiated with those of the State, at least until the close of the sixteenth century.

231 In spite of this general renaissance of medical learning and the impetus felt by the inspired few during the sixteenth century, it must be said that the general condition of medical science and of those who practised it was not greatly improved. 232 The superstition of the common people and the timidity and indolence of all concerned were about as marked as they have ever been in the history of human error, 233 and the practice of medicine was at least a century behind the applied knowledge of the other arts and sciences. 234 At that time the best physicians and doctors were to be found in the Italian universities, the French coming next, and, last of all, the German. 235 The Italian universities were the Mecca sought by those who desired the best education of the day, and of all the Italian medical faculties those of Bologna, Pisa, and Padua ranked highest.

236 Those were the days, also, of the travelling scholars-- a very marked feature of mediæval life. 237 They migrated from one of the Latin schools to another, and from one famous teacher to another, sometimes travelling alone, at other times in groups or bands, and practising often the worst barbarities while 'en route', supporting themselves by begging and stealing. 238 On their marches they stole almost everything which was not tightly fastened down, and prepared their food even in the open fields. 239 The result was that most of them fell into dissolute habits of life. A somewhat better class of vagrant students sang hymns before doors and received food as pay. Some earned money singing in the churches. 240 They

apparently both drank more beer and at less cost than at present. At that time the cost of beer was about one cent for a large glass.

241 The younger students were called "schutzen," and, like apprentices in trades, were obliged to perform the most menial duties. 242 The older students were known as the "bacchanten," and each bacchant was honoured in proportion to the number of "schutzen" who waited upon him. 243 When, however, this bacchant himself reached the university he was compelled to lay aside his rough clothing and rude manners and take an oath to behave himself.

244 Not only the students, however, wandered from place to place, but even the professors of the sixteenth century were nomadic, wandering from one university to another; 245 for example, Vesalius, the great teacher of anatomy, taught in Padua, in Pisa, in Louvain, in Basel, in Augsburg, and in Spain. 246 These habits may be partly accounted for by the fact that the students elected at least some of their teachers, and the professors who failed of re-election certainly may be considered to have had a motive for moving on. 247 Salaries were certainly not large in those days. Melanchthon, the great theologian, received during his first eight years a salary of $43 per annum, and by strict economy was able during this period to buy his wife a new dress. 248 During his later years his salary attained the sum of $170, which would be equivalent to $750 to-day. When Vesalius died his salary was $1,000 per annum, to which certain fees were added. 249 It is not strange, therefore, that many of the professors pursued reputable occupations during their odd hours or that they took students to board. 250 We hear to-day of frequent illustrations of the pursuit of knowledge under difficulty, but certainly during the ages to which I have referred the ardent student, were he undergraduate or professor, 251 put up with an amount of hardship, meagre fare, and trouble of all kinds which would stagger most of the young people of to-day.

252 People were human then as now, and the universities were not

above disputes and quarrels, which sometimes became very bitter and dishonourable, but were the indirect instrument of good, since they led in not a few instances to the founding of other universities. 253 Thus, about the beginning of the sixteenth century, Pistorius and Pollich were both teachers in Leipzig, but holding antagonistic views regarding the nature of syphilis, 254 became so embittered that they could not bear each other's presence, and each resolved to seek another home. 255 The former influenced the elector to select Frankfort-on-the-Oder as the site of a new university, while the latter was the means of founding another at Wittenberg.

256 It is pretty hard to keep away from the relation of the barber to the anatomist and surgeon when discussing this subject. 257 In another place I have dealt with the evolution of the surgeon from the barber, and have endeavoured to show that the principal factor which operated to keep back the progress of surgery during the eighteen centuries previous to the last 258 was the influence of the Church, which opposed the study of anatomy and degraded the practice of surgery. 259 In the times to which I am referring now, an operation which caused the shedding of blood was considered beneath the dignity of an educated physician, and, in some circles, was regarded even as disreputable.

260 It was, therefore, left to the only class of men who were supposed to know how to handle a knife or sharp instrument, i. e., the barbers. 261 When operations were done in universities papal indulgences were often required, and these cost money, since in those days the Pope gave nothing for nothing. 262 Public dissection required also papal indulgences, although in Strasburg, in 1517, permission to dissect the body of an executed criminal was granted by the magistrates in spite of papal prohibition.

263 The ceremonies attending demonstrations of this kind were both fantastic and amusing. 264 A corpse was ordinarily regarded as disreputable, and had first to be made reputable by reading a decree to that effect from the chief magistrate or lord of the land, and then, by order of the University,

stamping the body with the seal of the corporation. 265 It was carried upon the cover of the box in which it had been transported into the anatomical hall, which cover, upon which it rested through the ceremonies, was taken back afterward to the executioner, who remained at some distance with his vehicle. 266 If the corpse was that of one who had been beheaded, the head during the performance of these solemn ceremonies lay between its legs. 267 After the completion of the ceremonies the occasion was graced with music by the city fifers, trumpeters, etc., or an entertainment was given by itinerant actors (Baas).

268 In time, however, this folly was given up, and by the latter half of the sixteenth century public anatomical theatres were established. 269 The most celebrated was built by Fabricus ab Aquapendente, in Padua. It was so high, however, and so dark that dissections even in broad daylight could only be made visible by torchlight. 270 The zeal with which gradually the better class of physicians pursued their scientific studies became more and more conspicuous, 271 evidenced in many ways by the hardships with which some of them had to deal, as witness the struggles of many of the great anatomists of those days.

272 And so in time the clergy disappeared almost entirely from the ranks of public physicians, and after the Thirty Years' War completely lost their supremacy even in literary matters, this being gradually usurped by the nobility and the more educated laymen; 273 but even then knowledge was pursued under difficulties, especially the study of anatomy. It was not until 1658 that a mounted skeleton could be found in Vienna. Strasburg obtained one in 1671. 274 The handling of the dead body, which we regard as so necessary, was in those days avoided as much as possible. 275 The professor of anatomy rarely, if ever, touched it himself, but he lectured or read a lecture while the actual dissection was done with a razor by a barber, under his supervision.

276 Practical instruction in obstetrics, which would seem almost as important as that in anatomy, was not given in those days; male students only studied it

theoretically. 277 In the Hôtel Dieu, in Paris, that part which was devoted to instruction in midwifery was closed against men. 278 It was the midwives in those days who enjoyed the monopoly of this teaching, and upon whom the greatest dependence for obstetrical ability was placed. 279 The physicians proper, or 'medici puri' of the seventeenth century, were individuals of greatest dignity and profoundest gravity, who wore fur-trimmed robes, perukes, and carried swords, who considered it beneath them to do anything more than write prescriptions in the old Galenic fashion. 280 Some continuation of this is seen in the distinction made even to-day in England between the physicians who enjoy the title of doctor and the surgeons who affect to disdain it. 281 These old physicians knowing nothing of surgery, nevertheless demanded to be always consulted in surgical cases, claiming that only by this course could things go right. 282 Still when elements of danger were introduced, as in treating the plague, they were glad enough to send the barber surgeons into the presence of the sick, whom they merely inspected through panes of glass. 283 Very entertaining pictures could be furnished you illustrating the habits of the physicians of two or three hundred years ago in dealing with these contagious cases. 284 The masks and armor which they wore and the precautions which they took would seem to indicate protection rather against the weapons of mediæval warfare. 285 At one time they were advised that if they must go into actual contact with these patients they should first repeat the Twenty-second Psalm. 286 You may find in the old books, if you will hunt for them, curious pictures illustrating the precautions taken a few hundred years ago against the pestilence, of whose nature they knew nothing, 287 and seeing them you may imagine the vague dread and even the abject fear which led the 'physici puri' or physicians to send the barbers in to minister to plague-stricken patients, while they contented themselves with ministering at long range to their needs.

288 But gentlemen, I fear lest I weary you with a longer rehearsal

of mediæval customs and student follies. 289 While they have all passed away some of them have survived either in tradition or in modified form, as will surely have occurred to you while they were rehearsed. 290 You will not fail to note the steady progress of an ethical evolution which has toned down the barbarities and the asperities of the past, 291 and which has substituted a far more ennobling life-purpose and method of its accomplishment than seemed to actuate your predecessors of long ago. 292 It is small wonder that the students of those days bore an ill-repute with their surrounding neigbours. 293 You may see better now, perhaps, why the medical student even of to-day has to contend with a prejudice against both own calling and ownself, 294 a prejudice begotten of the many debaucheries and misdeeds of own predecessors, and, I am sorry to say, even certain excesses of to-day. 295 I do not know how I may more fittingly terminate these remarks than by reminding you that the profession which you students hope to enter has suffered most seriously in time past from the character of the people who have entered it, 296 and that even to-day certain of its members fail to have a proper regard for its dignity. 297 It is axiomatic that those slights and indignities from which we often suffer, and the neglect and indifference of which we often complain, are in effect the result of our own shortcomings, 298 and that we are ourselves largely to blame because of that which does not suit us. 299 I beg you then to remember that even at the outset of student life there should be ever before you such an ideal of intellectual force and dignity, of power, of co-ordination of mind and body, as may keep you ever in the right way, 300 so that when you at last attain your goal you may deserve that sort of benediction which I find in one of Beaumont and Fletcher's plays ('Custom of the Country', v. iv.):

301 "So may you ever
Be styled the 'Hands of Heaven,'
Nature's restorers;
Get wealth and honours, and, by your success
In all your undertakings, propagate
A great opinion in the world."

EVIL

A STUDY OF MEDICAL WORDS, DEEDS AND HUMANS

ADDRESS IN MEDICINE, DELIVERED JUNE 24, 1902, AT YALE UNIVERSITY COMMENCEMENT.

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'STUDY NATURE FOR FACTS; STUDY LIVES OF GREAT PEOPLE FOR INSPIRATION HOW TO USE THEM'

9 Never have I more earnestly craved the gift of eloquence than on occasions like this, 2 when young people are about to leave the halls in which and the people with whom they have grown into human's estate, 3 in order to assume the solemn and weighty responsibilities not only of their own lives but those as well of others. 4 The day upon which you are thus released from duties of one kind to assume those of another, welcome and joyous though it may be, should nevertheless be interspersed with some serious and earnest thoughts and resolutions. 5 Old Yale sets now her stamp upon you. It will prove a passport to many homes, but must never be abused. 6 It will entitle you to the society of the cultivated and to the respect of scholars everywhere. 7 It will admit you to the ranks of the learned and cause you to be treated with respect and equality by some of the profoundest and most scholarly thinkers the world has even known. 8 Yale has now furnished you with that which her ripe experience has shown to be requisite for young people commencing professional careers. 9 As contrasted with the total of human knowledge its aggregate is not large, but it has not for centuries been the custom for people to grow gray in studies before undertaking to practice medicine, 10 and when your own qualifications are compared with those which we of the passing generation possessed at the corresponding period of our lives, 11 the comparison will furnish at the same time the most startling illustration of the rapid advance of medicine in the past twenty-five years.

12 Yale has always been eminent for the versatility and originality of her teachers. 13 Her medical history has been so well told

during the past year by one of her most honoured sons, Dr. Welch, that it is not necessary nor wise to go now into such historical details. 14 The trend of science to-day is along the lines of comparative investigation, and the Bible is by no means the only literary collection which to-day is being subjected to the "higher criticism." 15 The inspiration claimed for the contributors to that great ancient Collection is denied to the writers of great modern works, 16 where, nevertheless, fundamental truth is as requisite for the welfare of the body as in the other for that of the soul. 17 Only by painstaking research, labouriously repeated, do we clear the old paths of the rubbish of centuries or discover totally new ones.

18 Pathfinders of this description have always abounded in this great institution, drawn by common impulses or attracted by some centripetal force. 19 And though it were perhaps invidious to mention names, I nevertheless must select two of Yale's great teachers whose names are still green in the memory of all people, 20 and ask you to note how the examples they have set and the work they have done may furnish the line of thought in which I wish you to follow me for a little while.

21 The science of comparative philology would seem to be far removed from that of medicine. Still, it is based upon an ultimate analysis of parts of speech, 22 and men like Professor Whitney were, not only the comparative anatomists, but even the histologists-- if I may use the phrase-- of words. 23 Comparative philology then is to medical terminology what embryology and comparative anatomy are to a study of the structure of the human body. 24 The philologist loves to dissect words and trace them back through rudimentary stages and roots to their earliest forms. 25 He loves also to study the evolution of an idea as conveyed by a word, and trace atavism or reversion in human speech.

26 Again you have here at Yale a wonderful collection of extinct animal remains restored with marvellous accuracy to semblance of their original form and appearance. 27 The indefatigable industry and wonderful ability of

Professor Marsh and his co-workers have enabled us to form ideographs of the living forms of earlier geologic ages upon this earth, 28 which could not have been furnished had it not been for their remarkable knowledge of morphology and skill in synthesis. 29 Indeed, where have powers of analysis and synthesis been more brilliantly displayed than by these men. 30 It used to be said of Cuvier, the great French comparative anatomist, that if given a tooth from any beast, past or present, he could describe the animal and its habits as well as reconstruct his skeleton, so wonderfully are minute differences perpetuated, and so familiar was he with them.

31 Let us see, then, if it be possible to take some of our common medical words and by applying to them the methods of Whitney and of Marsh follow them back to their early forms and significances, 32 and then construct from them ideographs of the customs, habits and superstitions of the people who used them. 33 Such a plan systematically carried out might furnish both a fitting and a novel introduction to the history of medicine.

34 Coleridge, you know, said we might often derive more useful knowledge from the history of a word than from the history of a campaign. 35 Take, for instance, our word 'idiocy'. The Greeks, especially the Athenians, were a race of politicians. Private citizens who cared little or naught for office were the 'idiotai', as distinguished from the public officials and office holders. 35 It came about in time that people of such retiring habits and modest tastes were regarded as persons of degraded intellect and taste. And so the 'iviwrai' were considered of inferior intellectual capacity. 36 In other words, the idiot of those days was the person content with private life. How different from the present day when conditions seem so nearly reversed.

37 Our kindred word 'imbecile' has also present reference to those of feeble, dwarfed or perverted intellect, and refers rather to mental than physical defects, though both must often be associated. 38 But originally the lame and the deformed who were

obliged to use artificial support, walked as it was said, 'in bacillum', upon a stick or crutch, and from this expression we derive our word imbecile.

39 Let us trace, for instance, again, the etymology of our word 'palate'. The Latin 'palatum' is the same as 'balatum', that is, the bleating part. 40 The ancient shepherds of the region of the Campagna watched the sheep as they went bleating ('balatans') over those hills, one of which subsequently became the 'Palatine'.

41 Or take again our word 'mania'. It is derived from 'unv' the moon, meaning the moon-sickness, and corresponds to lunacy from 'luna'. 42 You see the ancient superstition concerning the influence of the moon abides in the name. This brings up again the old ideas concerning the metal silver which was sacred alike to Diana and the moon, and consequently feminine in sex and attributes. 43 Hence comes the mediæval alchemistic term 'lunar caustic', and hence, too, comes its use in the treatment of epilepsy for which it was formerly much in use, since epilepsy was regarded as a form of mania caused by the evil influence of the moon. 44 By the way, this may also remind us of the peculiar views of the alchemists of the middle ages, who believed that the property of sex inhered in the metals. 45 They believed, for example, that arsenic was masculine in sex, and so named it from 'arsen', male, and 'arsenikos', masculine. 46 Medical, like comparative philology, is the more or less direct outcome of the earth's physical features as they have influenced the commingling of races and the conquest of nations.

47 Medicine seems a science of Aryan parentage; in the Sanscrit the literature of medicine is rich; it was cultivated by the Greeks, but it lost much of its original significance by virtue of Roman supremacy, as the Latin races took it over. 48 Under the Arabians it flourished after a fashion. With the revival of Greek learning there was a restoration of much that had been lost, 49 but the supremacy of the Church kept it within extremely narrow limits, though the clericals could not eliminate all the Arabian words which had crept

into its terminology. 50 Greek is to-day the language to which we turn for aid when it becomes necessary to invent new terms by which to indicate fresh discoveries or concepts.

51 The debt of medicine to our Aryan forefathers is great. Surgery was then a dignified branch of the science. 52 Their autoplastic methods were conceived with great ingenuity and carried out with much, albeit with crude skill. 53 The so-called Indian method of reconstructing a nose bears witness to their ability in plastic art. Their itinerant surgeons performed many capital operations; i. e., lithotomy and coeliotomy. 54 There is good reason to believe that Hippocrates knew nothing of practical anatomy, whereas, long before him Susruta urged that all physician priests should dissect the human body in order that they might know its structure; and gave, moreover, directions for the selection of suitable subjects. 55 The Sanscrit writers knew the properties of many plants and of at least five of the metals. Many Greek names of drugs are derived from the Sanscrit, or else they had a common Aryan origin. 56 Thus the Greek equivalents for our words castor, musk, cardamon, chestnut, hemp, mace, pepper, sandal-wood, ginger, nerve, marrow, bone, heart, and head, are unmistakably of much older, i. e., Sanscrit or Aryan stock, 57 several of them coming down in Romanised form, but almost unchanged-- e. g., os, cor, moschus, cannabis, castorion.

58 Although many of the ancient Greeks visited India, it appears that but relatively few words have come to us from this ancient source. 59 Our word sulphur, though, is of Sanscrit origin, the Greek word 'theion' indicating its divine or god-given purifying power, with possible allusion to its utility in that lower world with which the theologians most often associate it. 60 The Greek word appears in our chemical nomenclature as dithionic, trithionic, etc.

61 We note also an almost complete absence of Egyptian words, though many cultured Greeks visited Egypt. 62 Nevertheless, the latter looked

with small favour on barbarisms of speech, and our word pyramid is one of the very few which they thus adopted. 63 The term surgery is of very distinct Greek origin, and meant handwork as distinguished from the action of internal remedies. 64 Medicine seems to be derived from 'medeo' to take care of, to provide, and physic and physician from 'phusis', i. e., nature. 65 The physici were originally naturalists, or scientists, like Aristotle, medical science being but a part of their study. 66 Campbell in his book ("The Language of Medicine") gives a list of at least two dozen common terms of to-day which were employed by Homer. 67 In addition to these, many other Homeric terms are still in use, but with more or less altered or perverted meanings; 68 for example, æther, when used in the sense of its being a narcotic agency; astragalus, which originally meant a die, since the analogous bones of the sheep were used for dice; amoeba, from 'amoibe', change or alteration, alluding to constant change of shape. 69 Ammon originally meant a young lamb, iris a halo, meconium has reference to the juice of the poppy, from 'mekon', opium; 70 molybdenum was so named from its resemblance to lead, narcosis originally meant numbness; the pleura was the side; 71 the original phial was a saucer; the phalanges were so called because they were arranged side by side as it were in a phalanx; 72 our troche was at first a wheel; and our tympanum was the original Greek drum, the word still persisting in musical terminology. 73 The arteries were so named because they were supposed to contain air, while the veins were the gushers, from 'phleo', to gush or flow. 74 The original confusion of nerves and tendons appears in the term aponeurosis.

75 Long ago there were two rival medical factions among the Greeks, the Empirics, from 'empeirikos', meaning experimental-- 76 who believed there were no philosophic underlying principles of medical science, and that experience alone was the safe guide,-- 77 and the Methodists, from 'methodos', who believed it better to follow the

'hodos', or "middle of the road." The present use of the word empiric shows the contempt with which the former came to be regarded.

78 As cure ('curo') meant to care for, so did medicus have the same meaning, as already remarked, 79 while the Greek slave, 'therapon', who waited on his master, became later the therapeutist who cared for his ailments. 80 Our word to heal has also a somewhat similar dislocated meaning, since originally it meant protection, i. e., covering. 81 The same root persists in hell, i. e., hades, referring to a certain supposititious locality so well covered that from it there is no escape.

82 Note, too, the influence of ancient mythology in medical phraseology. Jupiter Ammon, the horned god, is recognised in hartshorn or ammonia. 83 Mars, the god of war, whose symbol is iron, persists in the so-called martial preparations or ferruginous tonics. 84 Venus and Aphrodite naturally appear in venereal and aphrodisiac, while Vulcan's rôle is indicated in the heat to which caoutchouc is subjected in vulcanising rubber. 85 Mercury appears not only in Roman form as a metal, but in his Greek rôle as Hermes, not to be forgotten when receptacles are hermetically sealed. 86 Let us cut short a longer list by simply noting in passing how the Greek Cupid Eros and his mate Psyche are perpetuated in our terms erotic and psychiatry, 87 while Morpheus, the god of sleep, can never be forgotten so long as morphine is in use. 88 That the wrath of the gods was to be dreaded is indicated in our word plague, from 'plege', meaning a 'blow' from that source, that is their vengeance. 89 You thus see the antiquity of the notion that epidemics were a divine visitation, and not due to bad sanitation.

90 Melancholia, 'melas' and 'chole', meant originally black bile. In ancient physiology the bile played a very important part, and the results of hepatic insufficiency were not only indicated by this name, 91 but the advantages of the use of calomel were amply emphasised by its name, 'kalos' and 'melas', for it was a beautiful remedy for this blackness. 92 Another condition indicating

trouble with the liver, which we call jaundice to-day (from the French 'jaunisse'), was known as icterus from 'ikteros', a yellow bird. 93 The poultice which the average housewife of to-day is so fond of using, was originally a 'poltos', or pudding, or perhaps a bean porridge.

94 In the days of ancient sacrifices one part of the animal was not placed upon the altar as an offering to delight the gods. It was that now known as the 'sacrum', which is usually defined to have been considered the sacred bone. 95 The adjective 'sacer' (sacrum), had not only the meaning generally ascribed to it, but meant also execrable, detestable, accursed. The sacrum meant then rather the part that was not acceptable to those to whom it was offered. 96 The word 'calculus', like the term to calculate, must remind us of the presence of pebbles and their early use in facilitating reckoning, 97 while our common terms testimony, testify, must necessarily recall the ancient sacred but phallic methods of oath-taking. 98 Another superstition connected with deity is perpetuated in the term 'iliac passion', formerly applied to volvulus, or one form of acute bowel obstruction with its violent pain, which has been compared to that produced by the spear-point as part of the suffering upon the cross.

99 A keen analysis of the situation at the beginning of the Christian Era reveals the subtlety of the Greek character. 100 The names of those organs which called for deep investigation or dissection are taken directly from the Greek, e. g., hepatic, sphenoid, ethmoid, the aorta, while many of the superficial parts have Latin names, e. g., temporal, frontal.

101 It is to the Greek that all nations almost invariably turn when they seek to fashion new terms with which to characterise or name new discoveries. 102 The Romans showed their appreciation of that which was good when they so readily adopted the science and learning of the Greeks, and were willing to take over even their gods. 103 The Latin races have always been good imitators but poor originators, save perhaps in war and politics. Had they been

willing to imitate the Greeks in these their history might have been very different. 104 When the Latin translators of Greek medical literature lacked for a word they cheerfully took the original, sometimes giving it a Latin dress. 105 For instance, that which we now call the duodenum, meaning only twelve, was originally the dodekadaktulon, meaning that it was of a length equal to the width of twelve fingers, while they twisted the name 'eileon', the twisted intestine, into 'ileum'. 106 But the names of most diseases, like those of the more concealed parts, they copied almost exactly. 107 While in later ages the Church completely dominated, then subordinated, and then finally almost terminated the study of the natural sciences, it is yet of no small interest to note the effect of the rise of Christianity upon the study of medicine. 108 It has been well said that the same "cross which brought light to religion cast a gloom over philosophy" (Campbell). 109 Certain it is that the creed and the tenets which were for centuries the mainstay of Christianity, and which did so much for the uplifting of humankind, were made the excuse for the gradual suppression of all tendency toward investigation of natural phenomena, 110 and the monasteries, where scholars congregated, became the graves of scientific thought and study. 111 And so in time knowledge was exiled from Christian domiciles and transplanted to a Mohammedan environment. 112 With Christian mythology and mysticism soon came also Christian demonology, and disease was generally regarded as an evidence of diabolical possession. 113 This gave rise then, as even now, to the imposters who pretended to cure it by exorcism of evil spirits or invocation of divine or superhuman aid. 114 It has always been a sorry time for rational medicine when superstition is rife. 115 Even under the Arabians, science flourished to but a limited extent. Their religion forbade the portrayal of any living object, animal or vegetable, consequently their works contained mere descriptions, never any illustration of any kind. 116 This, by the way, is the

explanation of their fondness for geometric tracery and of the richness of their ornamental designs. 117 They professed the same horror of the dead body that was later inculcated by the Church and most of them scorned dissection. 118 What wonder then that under Christianity and Islam alike our profession fared badly.

119 But very little now remains in our terminology to remind us of the period of Arabian supremacy. The Arabic words naphtha, sumach, alkali, alcohol, elixir and 'nucha' (neck) are almost the only ones which have survived the renaissance. 120 How different the monkish Latin sometimes is from the classic may appear in the use of the two words os and bucca for mouth, or os frontis and glabella for the frontal bone. 121 But this enumeration must not be prolonged unduly. Let us select three or four more examples almost at random and then pass on. But few will associate Christianity with cretinism. 122 The early Christian inhabitants of the Pyrenees were known as 'Christaas', or in French, as to-day, as Chretiens. 123 A mountainous region did for them what it has done in Switzerland for the races of to-day, and dwarfed the intellects of many while their thyroids underwent great enlargement. 124 Such degenerates are known everywhere to-day as cretins, i. e., Christians.

125 Tarentum was the old Calabrian city later known as Tarento, where during the middle ages the dancing mania appeared in aggravated form. 126 The frenzy was known in consequence as 'tarantism', while the spider whose bite was supposed to cause it was called 'tarantula', and a rapid dance music which alone would suit such rapid movements is still known as the 'tarantella'.

127 Nightmare has reference to the old Norse deity or demigod Mara, who was supposed to strangle people during sleep.

128 The Sardonic grin has reference to a tradition that in Sardinia was found a plant which when eaten caused people to laugh so violently that they died.

129 But turn we now from words to those deeds which are reputed to proclaim yet more loudly the manner and the worth of their

authors. 130 Where may one look for a profession which shall afford greater opportunities? And where may you find one in which incentives are so small? 131 The world's great rewards have been paid to the great destroyers of our race rather than to its saviours. 132 Do you suppose that if Napoleon had saved as many lives as he lost he would have figured in history with his present lustre? 133 It is true that Lister's discovery has saved many more lives than Napoleon took. If so, the Hôtel des Invalides should, when the time comes, contain Lister's monument and not that of a great murderer.

134 Personal courage is one of the noblest characteristics which any human can display, particularly so when it combines the moral and the physical type. 135 Public bravery brings nearly always its meed of public recognition. In fact, publicity is often the stimulus to a kind of bravery which without it would hardly respond to the tests. 136 But your really courageous person is you who cares not for a search-light to reveal your deeds, 137 one who dares and does within the quietude of own environment that from which own weaker fellows would shrink.

138 The soldier stirred to frenzy by the intensity of own passion will accomplish with but little dread that which might easily baffle the resolution of a reasoning person in a calm mood. 139 The religious fanatic, be you Mussulman or Christian, may permit yourself to be rent asunder rather than recant; 140 but your motives are essentially selfish, since you looks forward to the Mohammedan's or the Christian's paradise, and so they are far from altruistic. 141 But for that quiet heroism which shuns publicity, which calls for the highest quality of both mental and physical courage, which looks forward neither to the golden present nor the mystical yet sensuous future, commend me daily, 142 yes hourly, to the sick rooms of patients suffering from diseases which menace the welfare of others, the infectious, the dangerous, the loathsome. 143 One may read of late many stories of army surgeons doing heroic deeds under fire, 144 and one's heart naturally thrills with emotion as

you imagines the scenes and wonders what manner of daring may lead a person to risk own life after this fashion. 145 But I submit to you, that brave as is such a deed and worthy of all possible honour, it has been hundreds of times for one exceeded in the actual devotion to duty 146 and the resolution required to brave the elements, or to face death elsewhere than on the battlefield, or to surrender strength or mayhap life itself, or to invite disaster by infection, 147 or to wear out and work out life in the constant grinding altruistic work of doing for others, who perhaps have violated every known sanitary law and forfeited their every right to live. 148 Here is a theme that might well stir the most eloquent poet or orator that ever lived. How then shall I do it justice? Joanna Bailie has well put it:

149 "The brave person is not you
who feels no fear,
For that were stupid and irrational;
But you whose nobler soul its fear
subdues,
And bravely dares the danger nature
shrinks from."

150 This recognition of our profession was accorded much more unstintingly nearly two thousand years ago, at a time when it was much less deserved, 151 when Cicero wrote ('De Natura Deorum') "'*Homines ad Deos nulla re propius accedunt, quam salutem hominibus dando*.'" (Humans are never more godlike than when giving health to humankind).

152 But we can hardly delay longer here and at this time with the subject of heroism in medicine. 153 I shall not have completed the matters which I wish to present to you to-day until I invite your attention to a short sketch of the careers of four or five of the men who, during the past two or three hundred years have set the example for humans of all times and most climes, 154 whose lives are so replete with that which is interesting, instructive or important that they may be well held up before a graduating class as illustrations of everything which may be advantageously imitated. 155 They belong to that class of whom Longfellow wrote:

"Lives of great people all remind us
We can make our lives sublime."

156 One of those was Jean Fernel, who was born in France about 1497 and died in 1558. I do not know that his life history offers anything so very startling, 157 although he came to be regarded as the most memorable physiologist of his generation, but he adopted a motto which I think we all might well select for our own, 158 and it was because of this motto that I have mentioned his name at this point. It was this: "'Destiny reserves for us repose enough.'" 159 If each of you will take this individually to yourself you will find in it stimulus enough for all kinds of hard work.

160 The first of the eminently great men now to be mentioned in this connection was Herman Boerhaave, born in 1668 and died in 1738. He enjoyed the reputation of being perhaps the most eminent physician who ever lived. 161 The eldest son of a poor clergyman with a large family, he was originally intended for theology, and with this in view studied philosophy, history, logic, metaphysics, philology and mathematics, as well as theology. 162 A mere accident, resulting from intense party spirit and doctrinal differences, prevented his devoting his life to theology, 163 and he turned next to mathematics and then to chemistry and botany, subsequently studying anatomy and medicine. 164 He graduated in 1693 and began at once to practice in Leyden, with such success that he was early offered the position of ordinary surgeon to the king, which, however, he had the moral courage to decline. 165 Subsequently he taught medicine and botany, to which chairs was also added later that of chemistry. 166 This fact of itself will show to you something of the condition of medical science of that day, when one man could teach chemistry, botany and medicine. 167 His rarest talents, however, were developed in the direction of clinical instruction, and in this particular field he won such repute that hearers were attracted to Leyden from all quarters of the world and in such numbers that no university lecture-room was large enough to contain them. 168 His practice grew in extent and remunerativeness in pace with his reputation, and when

he died he left an estate of two millions. 169 So famous was he that it is said of him that a Chinese official once sent to him a letter addressed simply "To the Most Famous Physician in Europe." 170 That he had fixed convictions and practices may be better understood from the fact that so little difference did he make between his patients 171 that he kept Peter the Great waiting over one night to see him, declining to regulate his visiting list by the means or position of his patients.

172 Boerhaave was universally regarded as a great student and a great physician, but it was probably his qualities as a man which led to the astonishing extent of his reputation. 173 Essentially modest, not disputatious nor belligerent, he had a remarkable influence over the young people who came near him, 174 while he had a habit of speaking oracularly or in aphorisms, which are not always so profound as they sound and yet often make a person's dicta celebrated. 175 Save that he introduced the use of the thermometer and the ordinary lens in the examinations of his patients, his teachings do not form any really new system. 176 In the classification of people he would be regarded as a great eclectic, in the purer sense of the term. 177 Probably his greatest service to medicine was in the permanent establishment of the clinical method of instruction, 178 and perhaps his next greatest real claim to glory is the character of the instruction and the inspiration which he gave to two of his greatest scholars, viz.: Haller and Van Swieten. 179 He was not the founder of a school. He left no great nor memorable doctrines for which others should contend, but he left a name for studiousness, honest and logical thinking, which was a priceless heritage for the university with which he was connected.

180 The next great scholar to whose life and works I would invite your attention for a moment, is Morgagni, born in Italy in 1682, died in 1772. He was a pupil of Valsalva, whose assistant he became at the age of nineteen. 181 Brought up in this way, as it were in the domain of anatomy, it is not strange that he devoted his

attention throughout his life especially to the anatomical products of disease. 182 It matters little to us now that he was wont to regard these products as the causes of disease and thus neglected their remote causes. 183 He it was who taught us to apply to pathological anatomy the same scrupulous attention to tissue alterations and changes which the ordinary anatomist would note in dissecting a new animal form. 184 He was scarcely the founder of the science of pathological anatomy, for this credit belongs to Benivieni, but he did very much to popularise the study and to show its importance. 185 More than this, he wrote a work which for his day and generation was colossal. It bore the title "'*De Sedibus et Causis Morborum per Anatomen Indagatis.*'" It consisted of five books. 186 The first appeared in Venice in 1761. This proved a perfect mine of information to which one may often turn even to-day, and read with wonder the observations published one hundred and fifty years ago. 187 They stamp Morgagni as a great scientist as well as anatomist. His industry will be indicated by the fact that even after he became blind he did not cease to work.

188 Perhaps the most wonderful figure in the whole history of modern medicine is that of Albrecht von Haller, of Berne, born 1708, died 1777, and often known as the Great. 189 No more versatile genius than his has ever adorned our profession. A most precocious child, he developed remarkable abilities in the direction of poetry and music, as well as medicine, 190 and the only wonder is that he lived to such a ripe old age, enjoying the fruits of his labours, having displayed throughout his entire life an industry and productiveness which were most remarkable. 191 Before he reached the age of ten he had written a Chaldee grammar, a Greek and Hebrew vocabulary, and a large collection of Latin verses and biographies. 192 During the next few years he translated many of the Latin authors, and wrote an original epic poem of some four thousand verses on the Swiss Confederacy. 193 All of these work he had completed by the age of twenty-one. It is not

strange that among those who knew of his precocity he was generally known and regarded as a "wonder child." 194 It will thus be seen, too, that medicine was but one of the many subjects of his study. He studied a year in Tübingen, where the riotous living of his fellow students repelled him; 195 then he went to Leyden, falling there under the influence of the illustrious Boerhaave. How much he drew from this source no person may accurately say at present, but a more brilliant example he certainly could not have had. 196 He finished his studies in Leyden before he was twenty and then traveled through England and France, but was compelled to flee from Paris to escape arrest for hiding cadavers in his room for purposes of dissection. 197 This will prove an evidence of taste for study if not of taste in other directions.

198 Suddenly developing a passion for mathematics, he went to Basle and worked so hard as to almost ruin his health. 199 This necessitated a trip to the mountains and here his interest in botany was aroused and indirectly that in medicine continued. 200 Soon after he returned to Berne to take up the practice of medicine. Here he studied and worked so hard as to arouse a suspicion of his sanity, 201 but he kept up his health by frequent trips to the Alps in search of flowers. His fondness for botany and his taste for poetry seemed to grow with equal pace 202 and he seems to have been among the first of modern students to appreciate the beauty and grandeur of Swiss mountain scenery. 203 When he was twenty-five years of age appeared the first edition of his poems, many editions appearing later. 204 Here in Berne also he published so many essays on botany, anatomy and physiology that widespread attention was attracted to his eminent learning, 205 and he was called to fill the chair of anatomy and botany in the new university of Göttingen, where he spent seventeen years of extraordinary mental activity, publishing countless papers and at the same time continuing his poetic and his nomadic habits. 206 He established in Göttingen a great botanic garden, founded scientific

societies, published five books on anatomy, all elabourately illustrated, printed a series of commentaries on Boerhaave's lectures, 207 and is said to have contributed altogether thirteen thousand articles relating to almost every branch of human knowledge. 208 It is not strange that the fame of the University of Göttingen depended largely upon Haller's reputation.

209 But Haller developed a clear case of nostalgia, and after being fêted by the nobility, honoured by almost every monarch in Europe, and receiving every honour that universities and philosophic societies confer, he resigned from his chair in Göttingen and returned to Berne, to his 'fatherland'. 210 Here, amid his old home surroundings, he worked for twenty years more at the same tremendous rate, discharging diverse duties of state and private citizenship, 211 founding and promoting industries and asylums, and serving constantly upon commissions of all kinds. 212 While thus engaged appeared that phenomenal work, his great Treatise on Physiology, so full of original observations that it has been stated that should discoveries which have been re-discovered since Haller be collected they would fill several quarto volumes. 213 The physiological institute of Berne is to-day known as the 'Hallerianum', as it should be, for it is distinctly the product of his genius. 214 He died at a ripe age, after having performed an incredible amount of work, the greatest scholar of his own or perhaps of any century, 215 revered and honoured, faithful to the last and exhibiting in his last moments that "philosophic calmness of the cultivated intellect" of which Cicero loved to write. 216 It is related of him that on his deathbed he kept his fingers on his own wrist, watching the ebbing away of his own existence and waiting for the last pulsation from his radial artery. 217 Finally he exclaimed, "I no longer feel it," and then joined the great majority. 218 Perhaps Haller's greatest contribution to physiological lore was his doctrine of irritability of tissues. 219 It took the place of much that had caused previous discussion and is accepted to-day

as explaining, as nearly as we can explain, numerous phenomena.

220 In this same great wonder-century lived also John Hunter, the greatest of England's medical students, the most famous surgeon of his day and the most indefatigable collector in natural history and natural science that ever lived. 221 He was born in 1728 and died in 1783. He was led to study medicine by the fame of his illustrious brother William, and began his studies by acting as prosector for him. 222 He soon became a pupil of Cheselden, perhaps the most famous English surgeon of his generation. 223 Hunter developed very early those extraordinary powers of observation and that originality in investigation which later made him so famous. 224 Early in his medical career he came for a time under the influence of Percival Pott. This was at a time when surgery had emerged from barbarism and when the French Academy of Surgery had erected it into the dignity of a science. 225 He entered St. George's Hospital in 1754 as a surgeon's pupil. Later he became a partner with his brother in the latter's private school of anatomy, 226 but John, being a poor lecturer, was distinguished by his services in the dissecting-room rather than in the amphitheater. 227 The customs of his time and the jealousies of the various medical factions then existing in London led to numerous acrimonious disputes, 228 in the literary part of which William Hunter, who was much the more cultured student, took the lead, while John, who lacked in scholastic ability and had much less education, was relied on to supply the anatomical data. 229 John was painfully aware of his deficiencies in literary culture and is said once to have replied to the disparaging remarks of an opponent: 230 "He accuses me of not understanding the dead languages, but I could tell him that on the dead body which he never knew in any language living or dead."

231 It was in this way that he was led into unseemly encounters with the Munros, of Edinburgh, and with his late teacher, Pott. 232 The same sort of dispute finally separated the two brothers, and

they parted company after a very unseemly exhibition of jealousy and fraternal discord. 233 After studying human anatomy for several years, John Hunter became profoundly impressed with the need for much larger knowledge of comparative anatomy, but about this time ill health compelled a temporary change and so he went into the army as a staff surgeon. 234 This was at the time when Europe was engaged in the sanguinary Seven Years' War, and so it happened that Hunter had ample opportunity for studies and observations in military surgery-- 235 at the siege of Belleisle and later in the war in the Peninsula. Here he made many of those observations on gunshot wounds which he published at various periods later and which helped to make him famous.

236 He resumed his work in London in 1763, and here again he had to undergo a long trial of those qualities of passive fortitude and active perseverance under difficulties which were his prominent characteristics. 237 His personal needs were small but his scientific requirements were large, and to these latter he devoted every guinea which he could earn in his small but slowly growing practice. 238 His own manners were so brusque, and he was so lacking in the refinement of many of his colleagues and competitors, that it took rare mental qualities to force him to the front, to which he nevertheless rapidly advanced. 239 Bacon has said, "He that is only real had need of exceeding great parts of virtue, as the stone had need be rich that is set without foil," and this was never more true than in John Hunter's case. 240 His leisure hours were never unemployed. He obtained the bodies of all animals dying in the public collections in London and so began to form that enormous collection which became known later as the Hunterian Museum. 241 As his means afforded it he built and added to his accommodations and carried on those vast researches into animal anatomy and physiology to which the balance of his life was devoted. 242 Although his practice gradually increased and he became in time the most famous surgeon and consultant in London, 243 he used, nevertheless,

to spend three or four hours every morning before breakfast in dissection of animals, and as much of the rest of the day as he could spare. 244 Pupils and students who wished to consult him had to come early in the morning, often as early as four o'clock, in order to find him disengaged. 245 He had that rare ability to do a maximum of work with a minimum of sleep which has been so conspicuous in the case of Virchow. 246 Before he died, Hunter attained to a large competence, and his anatomical collection, consisting of some ten thousand preparations, made largely with his own hands, 247 was purchased after his death by the Government, for seventy-five thousand dollars, and presented to the College of Surgeons where it forms the chief part of the so-called Hunterian Museum.

248 Hunter's principal claims to greatness obtain in this, that he not only brought the light of physiology to bear upon the practice of our art, but by his writings and teachings and especially by his example led people to follow along the paths he cleared for them. 249 It is no small claim to glory to be known by such pupils as Hunter had. 250 By these, by his colossal industry in building up his museum, and by his writings, he will ever be known as the most prominent figure in the medical history of Great Britain.

251 The fifth man in this quintette of geniuses which I am presenting to you to-day was Francis Xavier Bichat, who was born in France in 1771, and died in 1802. 252 Although he was thirty-one years old at his death, his career was so phenomenal, almost meteoric, that it deserves to be held up as showing what one can do in the early period of his life, if he will but work. 253 As one reads of his originality and talent one is led almost insensibly to compare them with those of some of the world's famous musicians who, also, have died in early humanhood after giving to the world their immortal works, e. g., Schubert, Mozart and Mendelssohn. 254 Bichat was the son of a physician and applied himself early to medical studies in Nantes, Lyons, Montpellier and finally in Paris, where he became the pupil and trusted friend of Desault, then the greatest Parisian

surgeon. 255 When Desault died, in 1795, this young man began lecturing for him, at the age of twenty-four. He displayed a wonderful, almost feverish scientific activity, more particularly in the direction of general and pathological anatomy. 256 He was the originator of the phrase which he made famous: "Take away some fevers and nervous troubles, and all else belongs in the domain of pathological anatomy." 257 Coming upon the stage shortly after Morgagni left it, he was able by his genius, his logical acumen and his graces of speech and manner, to give an attractiveness and importance to this subject which it had hitherto lacked.

258 It was his great service to more clearly differentiate closely related diseased conditions and to insist upon a study of post-mortem appearances in connection with previously observed clinical phenomena. 259 He also established the tendency of similar tissues to similar anatomical lesions. In fact our view of what we call general tissue systems we in reality owe to him, 260 since without use of the microscope he distinguished twenty-one kinds of tissue, which he studied under the head of general anatomy, while he held that descriptive anatomy had to do with their various combinations.

261 To Bichat was largely due the overthrow of purely speculative medicine because he placed facts far in advance of theories and ideas. 262 Books he said are or should be merely "memoranda of facts." 263 That he made many such memoranda will appear from the fact that before his untimely death he had published nine volumes of essays and treatises, nearly all bearing on the general subject of anatomy, normal and morbid. 264 He also had not only his limitations but his faults. He strangely denied the applicability of so-called physical laws to body processes, he minimised the importance of therapeutics, and he sought to place the vitalistic system upon a realistic basis. 265 Nevertheless he set an example not only for the young people of France, but of all times and climes, which should be often held up before them.

EVIL

266 And so I have thus placed before you five bright and shining illustrations of what brains and application can accomplish, 267 selected from different lands in order to show that medicine has no country, and from a previous century in order that you may the better realise how meagre was their environment in those days as compared with that which you enjoy. 268 Perhaps you will say, "there were giants in those days." True, but the race has not entirely died out. 269 While Spencer and Virchow live one may not call the race extinct, nor can the times which have produced such people as Helmholtz, DuBois-Reymond, Darwin, Huxley, Leidy or Marsh, fail to still produce an occasional worthy successor. 270 But it is time now to draw this rather rambling discourse to an end. The effort has been partly to attract your attention to some of the side lights by which the vista of your futures may be the more pleasantly illumined, 271 and partly, by placing before you brief accounts of the careers of some of your illustrious predecessors, 272 to show that eminence in medical science inheres in no particular nationality nor race, neither comes it of heredity nor by request. 273 Like salvation it is available to all who fulfill the prerequisites. It is a composite product of application, direction, fervour in study, logical powers of mind, honesty of purpose, capability of observation, alertness to improve opportunities, 274 all combined with that somewhat rare gift of tact, which last constitutes the so-called personal equation by which many humanitarian problems are solved. 275 'Study Nature for facts; study lives of great people for inspiration how to use them.'

276 "Were a star quenched on high
For ages would its light,
Still traveling downward from the sky,
Shine on our mortal sight.
So when a great person dies
For years beyond our ken,
The light one leaves behind lies
Upon the paths of humans."

277 If then you regulate your mental habits by such a code other habits will of necessity fall into the proper line. 278 The only other admonition I would give you in

parting is summed up in these beautiful lines of our own Bryant:

279 "So live that when thy summons comes to join
The innumerable caravan which moves
To that mysterious realm where each shall take
Your chamber in the silent halls of death,
Thou go not like the quarry slave at night,
Scourged to your dungeon, but sustained and soothed
By an unfaltering trust, approach thy grave
Like one who wraps the drapery of own couch
About you and lies down to pleasant dreams."

280 That the sentiment is not new, however, will appear in this other and ancient version which Sir William Jones has thus rendered from the Persian:

281 "On parent knees, a naked newborn child,
Weeping thou satst while all around thee smiled,
So live that, sinking to thy last long sleep,
Calm mayst thou smile while all around thee weep."

THE CAREER OF THE ARMY SURGEON

COMMENCEMENT ADDRESS AT THE ARMY MEDICAL SCHOOL, WASHINGTON, D. C., MAY 29, 1909.--FROM "'THE MILITARY SURGEON'," JULY, 1909.

10 The experience of listening to a so-called Commencement Address under these peculiar circumstances is doubtless as novel to you as is to me its preparation. 2 So different is this occasion from that usually spoken of as Commencement Day, that it taxed my judgment as much as it did my ability to-- as it were-- "meet the indication," and to try to say the appropriate thing. 3 It behooves me to remember that this is in effect not an address to a class of students just entering a learned profession, but an effort on the part of one on the borderland of experiences gathered from a civil surgeon's work, 4 yet enjoying a quasi military title, with strong ties and leanings-- to some extent inherited-- toward the course of the army surgeon and the fascinations of the soldier's life.

5 Self-evident it is that you need no admonition which I could give, for the very fact of your presence here indicates that your selection by your superior officers stamps their approval of your ability as well as your character.

6 Time has wrought vast changes in the personnel of the army medical corps, as in every other branch of the service. 7 From the days of Xenophon, with his selection of the best material afforded, to the dark middle ages with practically no provision, 8 then to the later centuries with their menial barbers and barber surgeons, and then the very gradually improved conditions which bettered the service, down to the present time, 9 when the best is none too good, there has been that same evolution which has characterised all the rest of humankind's surroundings and human's realisation of own public and private duties.

10 From the days when the first duty of the so-called army surgeon was to minister to own commanding general, and when the private soldier received but the scantiest if any attention, 11 we have arrived at that time when the good health of the entire army is the aim and pride of the medical corps, 12 and when public opinion demands for every enlisted person a degree of watchful care greater than many parents bestow upon their own families. 13 The line officer of to-day can no longer afford to disregard the advice of own medical officers, and camp sanitation is now of even greater importance than operative technique, 14 because preventable sickness and the incapacity caused by disease are recognised as far more to be dreaded than the bullets of the enemy.

15 Public estimate of our duties to the sick and wounded has varied largely during different epochs. 16 Thus Homer makes Nestor say:

17 "A surgeon skilled our wounds to heal,
Is more than armies to the public weal."

18 Homer also lauded the services of the two sons of Aesculapius, whom he deified as the grandest of heroes and the wisest of surgeons, 19 and thus wrote of them at the

siege of Troy, twelve hundred years before the birth of Christ:

20 "Of two great surgeons,
Podalirius stands
This hour surrounded by the Trojan bands,
And great Machaon, wounded, in his tent
Now wants the succor which so oft he lent."

21 Again he thus describes an operation:

"Patroclus cut the forky steel away;
While in his hand a bitter root he pressed,
The wound he washed and styptic juice infused;
The closing flesh that instant ceased to glow,
The wound to torture, and the blood to flow."

22 Contrast the tender mercies thus described with an incident occurring during one of the exciting experiences of Ambroise Paré, 23 who one day, during a battle, saw three desperately wounded soldiers placed with their backs against a wall. 24 An old campaigner inquired, "Can those fellows get well?" "No," answered Ambroise. Thereupon the old campaigner went up to them and cut all their throats, "sweetly and without wrath." 25 Note, if you will, the expression, "sweetly and without wrath," since it implies a primitive form of humanity in providing euthanasia for the hopelessly wounded.

26 While it has been from time immemorial the custom to attach surgeons to various armies, some idea of prevailing notions of antiquity may be gained from the statement that Xenophon had but eight field surgeons with his 10,000 troops. 27 In his army the sick and wounded were cared for in adjoining villages, or, when on the march, were carried in the rear of the troops, being cared for by women from "the baggage." 28 Whether these women were the "vivandieres" of those days I do not quite make out, nevertheless they must have been much the same thing.

29 In the days of Rome's greatest glory each cohort of 420 men had four surgeons, while each legion of ten cohorts had one legionary physician. 30 In the navy there was also one physician to each trireme; nevertheless the wounded on land

or sea received scant attention, 31 although it is interesting to read that each soldier carried with him the most necessary bandages ready for use, an emergency packet supposed to be quite modern.

32 A few hundred years later, in the Eastern Empire, the Emperor Maurice ordered that throughout every division of from two hundred to four hundred cavalry eight or ten of the strongest men be selected, 33 in order to bring to the rear those who were severely wounded, to supply them with water, and to collect the weapons lying upon the field. 34 These mounted cavalrymen received a small reward for each person rescued.

35 Three hundred years later this arrangement was continued in operation by Leo VI. Wherever it was possible the sick and wounded soldiers were cared for by monks or by sisters, 36 in the numerous hospices and institutions which abounded throughout the East, and although the care was often of the worst the efforts made were in the right direction. 37 Holy oil, laying on of hands, supplication, and the use of holy relics constituted a large part of the treatment in vogue; 38 nevertheless these remedies were not quite so injurious as some of the other and more disgusting ones whose use prevailed in those days.

39 Without doubt the two army surgeons who during the last 500 years achieved more fame than any of their colleagues were Ambroise Paré, and Baron Larrey. 40 Such commanding figures were they, not only in their professional work, but in the general influence which they wielded alike upon sovereign and common soldier, that they will ever be regarded as among the most memorable characters of common history. 41 Paré died in 1590, Larrey in 1842. Each was passed along from one ruler or commander to his successor, and each was regarded as about the most priceless legacy which could be thus transmitted.

42 Paré's name has always been most conspicuously mentioned in connection with the history of the introduction of the ligature as a substitute for the cautery iron or boiling oil, 43 previously in use for the checking of hemorrhage, and for his teaching concerning the

nature of gun-shot wounds, which had been previously and universally considered as necessarily poisoned wounds; 44 but his new practice and his new views in these respects were but a small part of the general services which he rendered. 45 It is not worthwhile to try to even epitomise here to-day the history of the ligature; though while its introduction has been widely credited to Paré, you must not forget that it was in use many centuries before his time, and was frequently mentioned by the early writers. 46 What Paré really did was, first, to abolish a barbarous and unscientific method of dealing with hemorrhage, 47 and then to re-introduce or promote the employment of the ligature as a far preferable substitute, more humane, more clean, and more desirable.

48 And so rather than do scant justice by incomplete reference to Paré's actual contributions to knowledge I prefer rather to speak of the other side of this great man's character, 49 and to remind you of some of the many ways by which he secured such marvellous influence over those around him, and made his remarkable personality of the greatest use. 50 As he passed through one campaign after another his reputation became more and more firmly established, and inspired surgeons the world over with the desire to visit him. 51 In almost his every act his sagacity was conspicuously displayed, while, whenever they were called for, his personal courage and absolute lack of fear were equally apparent. 52 Deprived of the benefits of early and liberal training he probably, on that very account, developed his power of thought, his memory and his analytical powers all the more keenly, inasmuch as these were made to take the place of what he might have learned from books.

53 The following anecdote will serve to illustrate, for instance, the general esteem in which he was held. In October, 1552, the army of Charles V. was besieging the city of Metz, and Charles himself came to take command. 54 In the beleaguered city were gathered the nobility and the bluest blood of France, while at the head of the

defending forces was the Duke of Guise. 55 The imprisoned soldiers and civilians suffered alike from the onslaughts of the enemy, the rigours of a frightful winter, the lack of food, and the presence of disease. 56 The Duke had established two hospitals for the soldiers, which he put in charge of the barber surgeons of the city, and furnished them with money with which to procure supplies, 57 but owing to the wretched incompetence of these same barber surgeons nearly all the wounded perished, and the horrible suspicion arose that the soldiers were being poisoned. 58 The Duke sent word to the King of France that the place could hold out for ten months, but that they needed more medicines. 59 The King then sent for Paré, gave him money, ordered him to take all the medicines and other supplies he deemed necessary, 60 and further aided him by bribing an Italian captain to permit the celebrated surgeon, in some way, to enter the besieged city. 61 Braving all dangers, and being finally successful, Paré entered Metz two months later. He had at this time been with the armies for at least sixteen years, and was known by sight to officers and soldiers alike. 62 On the day after his arrival the Duke of Guise dramatically presented him, on the ramparts, to all his officers, who embraced him, and hailed him with loud acclaim, 63 while by the soldiers he was received with shouts of triumph. "We shall not die," they exclaimed, "even though wounded, for Paré is among us." 64 The effect of this great surgeon's appearance was to give new vigour to the defenders, and to it was due the fact that the city was saved.

65 In his time Paré met with success such as to-day would be pronounced most extraordinary. He inspired the wounded with utmost confidence, and displayed, always and everywhere, remarkable firmness. 66 Not the least notable feature in his personal history is it that he should have so long retained favour at court with such outspoken independence of character.

67 Equally reputable among army surgeons of the past, and one of the most commanding figures in

history, medical or other, was Baron Larrey. 68 For more than fifty years he was an army surgeon, and for a great part of that period he stood really closer to Napoleon than almost any of the people whom the latter attached to his person by one or another of those traits that made him such a remarkable figure. 69 That one of the greatest murderers and one of the greatest life-savers of all time should have been so closely drawn to each other, constitutes one of the most noteworthy incidents of history. 70 Alike in many respects, so unlike in so many others, it is one of the most creditable features of Napoleon's career that he should have accorded to Larrey that recognition which he early gave and never withdrew. 71 Never was such tribute more signally deserved nor worthily bestowed. Though he passed through twenty-six campaigns, "from Syria to Portugal, and from Moscow to Madrid," 72 and though his wonderful courage never failed him under the most trying surroundings of carnage and conflict, 73 it may still be questioned whether it did not take a higher degree or order of courage to face Napoleon in his tent, or tell him plain truths in the Tuilleries.

74 The history of campaigning affords innumerable incidents illustrating heroism under fire, or equally trying circumstances, and it is difficult and perhaps unjust to single out a few for individual mention. 75 Bravery is confined to no epoch and to no race; it is simply a God-given trait, not by any means possessed by all humans. 76 Take, for instance, one incident in the career of Larrey. During the landing of the English on the shores of Aboukir Bay, when General Silly had his knee crushed by a bullet, Larrey appreciated that immediate amputation was imperative, 77 and gaining consent performed it, in three minutes, under the enemy's fire. Just as he was finished the English cavalry charged upon them; 78 in his own words, "I had scarcely time," he said, "to take the wounded officer on my shoulders and carry him rapidly toward our army which was in full retreat. 79 I spied a series of ditches across which I passed,

while the enemy had to go around by a more circuitous route. Thus I had the happiness to reach the rear guard of our army before this corps of dragoons reached us. 80 I arrived at Alexandria with this honourable, wounded officer, where I completed his cure."

81 Perhaps under no circumstance did Larrey's courage and zeal show to better advantage than in the awful retreat from Moscow. 82 For example, after the terrible battle of Borodino, Larrey made two hundred amputations, practically with his own hands, where there were neither couches nor coverings of any kind, 83 when the cold was so intense that the instruments often fell from the benumbed fingers of the surgeons, and when food consisted of horse flesh, cabbage stalks and a few potatoes. 84 And all this while the savage Cossacks were hovering around equally ready to kill both surgeons and patients.

85 Soon after came the passage of the Beresina, with its attendant horrors. General Zayonchek, over sixty years of age, had his knee crushed, and was in need of immediate amputation, which Larrey performed under the enemy's fire, 86 amid the falling snow, with no shelter except a cloak, held by two officers over the patient while the operation was being performed. The General recovered, and died fourteen years later as Viceroy of Poland.

87 It was after this passage of the Beresina by the Imperial Guard that it was discovered that all the requisites for the sick and wounded had been left behind and on the other side. 88 Larrey at once recrossed the river, and found himself amidst a furious, struggling crowd, in danger of being crushed to death, when suddenly the soldiers recognised him. 89 Immediately they took him up in their arms, crossed the river with him, crying, "let us save him who saved us," and forgot their own safety in their regard for him whose merciful kindness they had so often experienced.

90 Another incident in Larrey's career: Ever faithful to Napoleon, his adored master, through victory or reverse, Larrey stood one night with a small group of medical men gazing over the field of Waterloo, and upon the wounded and dying

who lay groaning around him. 91 Suddenly they were charged by a squadron of Prussian Lancers, at whom Larrey fired his pistols and galloped away, but was overtaken by the Prussians, who shot his horse, sabred him, and left him for dead. 92 After a while he recovered his senses, and tried to make his way across lots to France, but was again captured by another detachment of cavalry, who robbed him of everything, and then took him to headquarters, where it was ordered that he be shot. 93 Think of such a fate for one who had saved so many lives! 94 But the order would have been carried out promptly had not one of the Prussian surgeons recognised Larrey, having attended his lectures several years previously. 95 Accordingly he was brought before Bülow, and finally before Marshall Blücher, whose son had been wounded and captured by the French in the Austrian Campaign, and whose life had been saved by Larrey's exertions. 96 You may imagine that it did not take long to reverse that order for execution.

97 Praise from Napoleon was most rare, but of Larrey he made this remark in his will, along with a bequest of 100,000 francs, "He is the most virtuous man I have ever known."

98 Let us mention a few other instances. For example, Surgeon Thomson, who during the Crimean war, after the battle of the Alma, volunteered, with his servant, John McGrath, 99 to remain behind on the open, unsheltered field, with five hundred Russians so wounded as to be disabled or even at the point of death. 100 For three days and nights these two Englishmen remained practically alone upon that field, covered only with dead and dying, among foreign foes, none of them able to help themselves, or even to speak in a language that could be understood.

101 At the battle of Inkerman Assistant Surgeon Wolesley had established his field hospital in that awful place of slaughter, the Sandbag Battery. 102 When its defenders were reduced to 150 men, and were forced to leave it, most of them retreated in one direction to find, only thirty paces away, a Russian battalion blocking

their path. 103 There was not one competent officer left, so this surgeon took command. Seizing a bayonet because he had no sword, 104 he spoke hurriedly to the men, and explained that their next fight was not merely for victory, but for their own lives; 105 then he led them in a charge that tore so fiercely through the Russian detachment that but half of them reached the other side alive.

106 During the South African campaign the papers recorded (but how few read of it?) the fate of Surgeon Landon, who was shot through the spine while ministering to the wounded on Majuba Hill. 107 paralysed below the waist, he had himself propped up, and continued his work as best he could until his strength failed, when he said, "I am dying; do what you can for the wounded."

108 It may be of interest to devote here a few minutes to the consideration of conditions obtaining at the time of our Revolutionary War. 109 In 1776 the barber surgeon still had a place in the armies of the world and was even then regarded as scarcely more than a menial. 110 Never was he accorded the respect or the honours of a gentleman, nor was he allowed to carry a sword. 111 On the other hand, he was subjected to corporal punishment, and could be caned by his colonel, or almost anyone else, whenever such an act was provoked. 112 It may be said that the English troops were somewhat better equipped than were the hired Hessians, while the French, who came to our aid, brought with them some far better men, 113 who were in many respects a revelation during our revolution and an inspiration to our own so-called surgeons. 114 But our colonial and general governments dealt very stingily with our army medical department, and their professional equipments were of the most meagre; 115 in fact, the history of surgery of those days, either in the army or in civil life, is practically the history of a few prominent individuals, 116 most of whom had spent the time and money required for study abroad, and who had come home bringing back with them the best of their day, such as it was. 117 For instance, there were the Warren brothers, in Boston, of whom the

elder, Joseph, started Paul Revere on his famous ride. 118 He was elected President of the Provincial Congress, and just before the battle of Bunker Hill was made Major General of the Continental forces, 119 a position which he preferred to that of Physician General, which he had been offered. 120 During the battle he fought with a musket, as though a private, and was shot down just as the conflict ended. The younger brother, John, lived to achieve fame and reputation, and transmitted them to his posterity.

121 During the war some colonial regiments even came into camp without any surgeon, or the slightest provision for disease or injury. 122 In 1776 Congress ordered that there should be one surgeon and five assistants to each 5,000 enlisted men, the former being paid $1.66 per day, the latter $1 a day. 123 Imagine the attention that could be bestowed upon 5,000 soldiers by six men whose services were thus compensated. Camp hygiene, hospital corps, and ambulance service were undreamed of; 124 nevertheless John Warren, then only twenty-three years of age, accomplished a great deal in building up a medical corps, 125 while as much more was done by Benjamin Church, of Boston, who was styled Director General and Chief Physician, and who was paid $4 a day. 126 Unfortunately Church was detected in traitorous correspondence with the enemy, was court-martialed, imprisoned for a year, then allowed to leave the country, and was probably lost at sea. 127 He was succeeded by John Morgan, of Philadelphia, who had to fight the politicians as well as the foreign enemy and, failing to satisfy them, was dismissed from the service, though acquitted from all blame. 128 Thus you see that even in those days the politicians made it hard to secure adequate and proper care for our sick and wounded soldiers. 129 Everywhere at that time were unrest, excitement, and suspicion, and their demoralising effects showed in every department of military as of civil government. 130 After Morgan came Shippen, who held office from 1777 to 1781, under whose guidance affairs in the medical department improved

very much. 131 Smallpox had been perhaps the greatest scourge of the soldiers, as well as of the people in general, but this was kept in subjection by the practice of inoculation, which had been generally accepted in this country by nearly all people from Washington down.

132 A word or two must also be said about that remarkable man, Benjamin Rush, with his many-sided, versatile, erratic, obstinate and querulous character, 133 who nevertheless constituted in his day the most prominent figure in the profession; who served two years in Congress; who signed the Declaration of Independence; and who, in the same year, got his first army medical experience. 134 It was perhaps not strange that, with his peculiar temperament, he failed to come under the influence of Washington's peculiar personal magnetism, 135 and that their personal relations were not at all to Rush's credit, since he endeavoured in many ways to belittle his Commander-in-Chief, and suffered there for a rather ignominious exposure.

136 The temptation is always to place most stress upon accounts of heroism which happens to be most publicly performed. 137 While this is not unnatural it is often an injustice, since an act of courage may be performed in the lime-light of publicity, with a regard for notoriety, that would be lost were it done in private. 138 It perhaps is not kind to think that anyone would ever be more courageous in public than in private, and yet it is to be feared that human nature is not always free from temptation of this kind.

139 But the real silent heroes of military or civil medical life are those who engage in duties which nevertheless have even more of danger about them than spectacular performances upon the battle field. 140 Take for instance, the work done by Major Reed and Dr. Carroll, who devoted themselves for months to the study of yellow fever. 141 Many a person will stand upon the field of battle permitting yourself to be fired upon, but how many will deliberately submit to being bitten by insects believed to be carriers of the germs of yellow fever.

142 Dr. Carroll had this quiet kind of bravery, and allowed himself to be bitten by a mosquito that twelve days previously had filled himself with the blood of a yellow fever patient, 143 and in consequence suffered from a severe attack, barely escaping with his life. 144 Dr. Lazear permitted the same experiment upon himself, but was not at that time infected; 145 but some days later while in the yellow fever ward he was bitten by a mosquito, made careful note of the fact, acquired the disease in its most hideous form, and died a martyr to science, as true a hero as ever died upon fortress or man-of-war. 146 Others, too, willingly exposed themselves, but there was at that time no other fatality to record. But realising the value of the service rendered, the indisputable proof of the nature of the disease, and the method by which it is carried, 147 the value of the demonstration becomes inestimable, since a true prophylaxis was demonstrated, and a means furnished of ridding the community of this fearful pestilence.

148 Moreover, it was shown how unnecessary it is to destroy valuable property, it being only necessary to kill the mosquitoes, and do away with their breeding places. 149 Major Reed died a few years after he had led in this fight against the dread disease, 150 but no monument, or other testimonial which can be erected to the memory of Reed, Carroll and Lazear can adequately express the value of the service which they have rendered to the world.

151 "Peace hath her victories no less than war." This epigram is as true of the conflicts in which the medical profession engage as of any other. 152 This same sentiment has been put in other words. It is said, "That peace hath higher tests of humanhood than battle ever knew." 153 For instance, in New York there is a simple tablet commemorating, in loving remembrance, the death of eighteen young physicians who, one after another, attended a ship load of emigrants sick of typhus fever on Quarantine Island. 154 They fought their good fight and were buried without martial music, adding eighteen names to the

innumerable list of victims who have fought the silent battle of dealing with disease, 155 public gainers only in this, that someone has been thoughtful enough to record their names in this semi-public fashion.

156 Taken again the case of Dr. Franz Muller, of Vienna, who contracted the bubonic plague while working in the labouratory with its germs. 157 Just so soon as he realised that he himself was infected he locked himself in an isolated room, and pasted upon the window pane a sheet of paper containing this message, "I am suffering from plague. 158 Do not send a doctor to me, as in any event my end will come in four or five days." He refused to admit those who were anxious to do for him, 159 wrote a letter to his parents which he placed against the window, so that it could be copied from the outside, then burned the original, fearing that if sent through the mail it might carry the elusive germ. 160 Was not this equal to any instance of valour under the excitement or the stress of battle and cannonade? 161 Could anyone more worthily win a Victorian Cross, or any other emblem of courage and heroism?

162 Many of you have been in, or will go to Havana. It will be worth your while to make a pilgrimage to the cemetery there, 163 where were buried sixteen young medical students who lost their lives under peculiar circumstances, which afford as well an illustration of Spanish tyranny and injustice.

164 In 1871 one of the professors in the medical school died, and was followed to his grave by the students whom he had taught, and who loved him. 165 Unfortunately they committed an indiscretion by scribbling with a pencil in a public place some criticism on the government; in consequence they were reported, arrested and court-martialed. 166 The written paragraphs were evidence sufficient, and the Governor General ordered the ranks of students to be decimated. 167 There were 160 students all told, and in accordance with this sentence sixteen of them were next day shot without any further ceremony. 168 Of these the youngest was not quite sixteen years old, and his father offered

his entire fortune for his life, but without avail. 169 Later the citizens of Havana erected a monument of white marble, at no small cost, to commemorate this sacrifice.

170 There comes over me, as I prepare these words to read to you, a feeling of their inadequacy, and of lack of personal justice to many of my auditors. 171 Brought up in civil life, with but a smattering of military training, I am rehearsing incidents of which you may read as easily as I, 172 while at the same time I do not forget that from the lives of many of my auditors there might be drawn just as many illustrations of courage, fortitude, endurance and personal valour as any that the Surgeon General's library records. 173 Unfortunately I am not familiar with them. They are, happily in one respect, too numerous to mention, and again are not yet public property, 174 because modesty is ever the accompaniment of these other traits which we all admire so much. 175 Hence, gentlemen, if I seem to you to disregard or forget many an incident in your lives or the careers of your friends, ascribe it to my ignorance rather than to my intent, 176 and to the fact that I have never seen a battle, and that my fights with disease have not been fought in camps, but within the walls of the quiet sick room or hospital ward. 177 Nevertheless I am never happier than when I can try to compel a wider public recognition of what you are constantly doing and of your valourous deeds.

178 Next to those general improvements in the service which have come about through natural causes, and as results of a better appreciation of its needs, and of a generally improved state of the profession, 179 nothing has come from outside during the past fifty years which has been so helpful and advantageous as the support afforded by the Red Cross, and the introduction of skilled nurses; 180 in fact the greatest help which the medical service of the army and navy can enjoy is that which comes from this volunteer and outside source. 181 By the way, I wonder how many of you recall, or are familiar with, the beginnings of the Red Cross movement? So important has it become that its

history should be well known to all. 182 In June, 1859, was fought the bloody battle of Solferino, at the conclusion of which some 36,000 French, Sardinian and Austrian soldiers lay dead or dying on the field. 183 The medical corps was, of course, absolutely inadequate to the work thrown upon them, and as usual thousands of wounded men had to care for themselves as best they could. 184 A Swiss traveler, Henri Dunant, viewing the scenes, and being profoundly impressed by them, not only assisted in the work of relief, but wrote a book entitled, "*A Souvenir of Solferino*," in which he urged more humane, widespread and speedy aid to the wounded. 185 M. Moynier, president of the Society of Public Utility, of Geneva, a man of independent means; Dr. Appia, a wise physician, and M. Ador, an eminent lawyer of Geneva, also became interested in the movement. 186 The attention of the General of the Swiss Army was called to it and his co-operation enlisted. In this way came about, in 1863, the formation of a permanent society for the relief of wounded soldiers. 187 At a meeting held in October in the same year people from many countries joined in discussing the subject, 188 and an international conference was held, which resulted in calling an international convention, to be held at Geneva in the autumn of 1864.

189 Such was the beginning of the Red Cross movement, which has now extended all over the world, 190 and has afforded an opportunity for all races, creeds and nationalities to care for those who are made victims of war or pestilence, or who suffer from any other great disaster with which private charity is unable to cope. 191 It marks a step in the evolution of humankind, and has now achieved such universal recognition that national governments and individual potentates are glad to join hands in the great work.

192 A more concrete application of the same idea has been the comparatively recent formation of ambulance corps and later of nursing bureaus, within our own service, and the employment of trained nurses. 193 This has not

been in all respects an easy matter to bring about, nevertheless it has redounded to the credit and to the welfare of all concerned. 194 Never at any time were the sick and injured, either in private or in military practice, so well cared for as now, 195 and America should lead the world to-day, as ever, in the adequacy of its provisions and the perfection of its methods. 196 In private this is notably the case in ordinary hospital work, as seen by all travellers, 197 upon the continent and in Great Britain, who take pains to make comparisons with the way in which things are done there and in our own country. 198 Although Florence Nightingale immortalised herself by showing what woman could do on the battle field and in military camps, 199 it has remained for Americans to improve upon the lessons which she taught, while at the same time revering her for her wonderful devotion to her self-imposed duty and her enthusiasm. 200 In its performance the lessons of the Crimean and the Civil War, for instance, have left their impressions upon history in such a way as may never be erased, 201 and certainly no one was ever more entitled to the designation of "angel of the sick room" than was Miss Nightingale.

202 Wars of conquest bring about curious results and in unexpected ways. 203 While greed, lust and fanaticism have been the three great impelling and underlying motives for most of the wars which human thrusts upon own fellow-humans, 204 one far nobler motive has been the occasional and the only just cause of strife, namely, the desire for liberty; still this is always secondary and the product of some other human's or people's greed. 205 As only by the cataclysms of the natural world has it been prepared for human's habitation, so by some wars have come benefits unforeseen, 206 with an amelioration of the condition of humankind in general, which could not have been secured by any less drastic measures. 207 It is, however, a sad commentary on human's intelligence that most honour is paid to those who have taken the most lives rather than to those who have saved them. 208 No school boy in the remotest

districts but is brought up with some trifling knowledge of the world's heroes, so-called, though they were in reality the world's wholesale murderers. 209 Yet you may find many persons, credited with higher education, who are still densely ignorant of the benefits conferred by those two greatest discoveries in the world's history 210 (both of Anglo-Saxon origin), 'anaesthesia' and 'antisepsis', who will talk entertainingly and at length of Darius, Caesar, Hannibal and the more modern military lights, yet who never heard of Morton nor of Lister. 211 Yet if to-day you inquire what is doing in the various parliaments of the world you learn that the talk is ever of more numerous and more powerful engines of destruction, 212 and that those in power have no time to devote to improvements in the army or navy medical service, and that it is even now impossible to secure anything like adequate attention to our needs in this direction.

213 Means of taking human life must be constantly at hand; means of saving it are of small importance until the emergency has arisen; 214 and then the blame for inadequate provision of both means and humans falls not where it belongs, on the politicians who would not look ahead, 215 but upon the administration of the medical department, who work to the point of desperation and despair in times of peace, 216 who keep perpetual vigil, with scant recognition of the sacredness of their purpose, and scant aid in its accomplishment.

217 Are the lessons of the South African, the Spanish-American and the Russo-Japanese wars to be forgotten almost before they have been recited? 218 Are we prepared to-day to give adequate care and attention to our soldiers and sailors were war in sight? You well know that we are not; 219 every military or naval surgeon knows we are not; the medical profession generally knows it; and our legislators have been told it until we are tired of repeating it. 220 Yet, what is the result? The same indifference on their part, the same ignorance of what it all means; and on the part of the public the same

blindness and fatuous confidence that "everything is all right."

221 For instance, if an adequate medical service is to be built up for war there should be one officer to every 100 of enlisted people. 222 Estimating that an army of at least 400,000 people would be required were we engaged with a first-class power-- and what other would dare to engage with us?-- this means 4,000 army surgeons. 223 Of these at least one-fourth should be regular and experienced medical officers. 224 In other words, there should be for such an army at least 1,000 medical officers in the regular service, and also at least 3,000 volunteer surgeons, professionally and physically equipped for such work. 225 Should anyone object that this exceeds all the provisions of time past, the reply is ready and all sufficient, namely, that in time past all such provisions have been utterly inadequate; 226 that the conditions of modern warfare have undergone an entire change, that a sick, wounded or disabled person is an encumbrance, 227 and that it behooves us to prevent sickness, and to cure the disabled person as quickly as possible. 228 Furthermore, advances in medicine and surgery have been so great that far more is now expected of the medical corps than ever before, 229 and it is a duty which we owe to those who incur the dangers of fighting for us that we should care for them. 230 We are, therefore, under the very highest moral obligation to give them our best, and enough of it. 231 It must be a small inducement that we offer to people to fight our battles if we permit them to feel that they are not objects of our solicitude when sick or wounded.

232 There is another feature which we cannot disregard. So long as army regulations require that a person educated in advanced science spend much of your valuable time in acting as bookkeeper or clerk, 233 there will be less inducement to enter the service, and it will consequently not attract people of highest proficiency. 234 That which is required of you is complicated and exacting. You must be good bookkeepers, good sanitarians, and equally good surgeons, physicians and even obstetricians. 235 Above

all, you are expected to be able to keep all the people under your supervision ready for the "firing line" at a moment's notice. 236 You have received the highest compliment which the State can pay when you have been adjudged versatile and competent enough to fill all these rôles and do all these things.

237 Moreover, as you gain promotion other things will be expected of you, even, I hope, the filling of the chairs in this modern Military Medical School. 238 It is in a way the West Point of the medical corps, and it would seem as though there should not be the slightest difficulty in replenishing vacancies in its faculty by detail from your ranks. 239 The collections and the literary labours of your corps constitute to-day treasures exceeded in value by but few if any in this, the Nation's Capital. 240 The library, the museum and the archives of the medical department have been models from which all the nations of the earth have copied.

241 In this connection there occurs to me, by way of contrast, the story of a French surgeon's experiences when he undertook to teach anatomy in a conquered and reconstructed country. 242 After the French occupation of Egypt, Mehemet Ali took it into his head to introduce European civilisation into Africa, and imported all sorts of artists, scientists and medical men, 243 among them a practitioner of Marseilles, a true Bohemian in the modern acceptance of the expression, who presented himself in most seedy apparel, 244 saying, "I am a doctor of medicine, with plenty of courage, but no clothes; I want to try my fortune." This man was Dr. Clot, who rapidly became a favourite of the Viceroy. 245 He soon learned Arabic so as to speak it fluently, and in six months not only received an army commission, and became a Bey, but took the chair of anatomy in the newly organised school of medicine. 246 Conditions were all against him. Mussulman fanaticism and the prohibitions of the Koran opposed all anatomical pursuits, and so soon as he proposed a dissection there was a general explosion. 247 By Mohammedan ceremonial one

who even touches a dead body is thereby rendered "unclean" for seven days. 248 The Ulemas, the Muftis, and all of the other fanatics, demanded of the Viceroy the closure of the school, and declared dissection a sacrilegious profanation. 249 Mehemet refused this, and ordered Clot Bey to commence his demonstrations. Then one day happened the following incident: 250 The professor, scalpel in hand, standing alongside the cadaver, began to open the thorax, when one of the students, either from sheer fanaticism, or more bold than the others, jumped upon him and stabbed him with a poignard. 251 The blade slid over the ribs, and Clot Bey, perceiving that he was not seriously hurt, applied a piece of plaster to the wound, observing as he did so, 252 "We were speaking of the disposition of the sternum and the ribs, and I now can illustrate to you why a blow directed from above has so little chance of penetrating the cavity of the thorax." 253 He continued his lectures, and turned out some skillful practitioners. He became an officer of almost every order in the world, and acquired more than sixty decorations, although he never wore but one, the red rosette of his own country. ('Med. Times and Gazette', September 19, 1868.)

254 While just such an experience may never be duplicated again, the Philippines, or some other country yet to fall under our rule, may afford an opportunity for a similar display of 'sang froid'. 255 While no one may see far into the future, the maxim, "In time of peace prepare for war," is as true of the medical department as of any. 256 Were it a state secret no one would breathe it here, but it is lamentably true and publicly known that even now we are not prepared as we should be. 257 The awful lessons of the Spanish War have been forgotten. West Point officers have until comparatively recently received no instruction in camp sanitation. 258 Some of us worked hard a while ago to have at least elementary instruction in it introduced into their curriculum. 259 As an illustration I believe that to-day they are taught more about horse's feet and how to keep them in good condition, than about those of their people. 260 Line

officers, especially volunteer, have never been too ready to locate their camps where water and drainage were the best, and the awful mortality of the Spanish War was mainly due to preventable disease, 261 while this was due to stupid and inexcusable disregard, on the part of officers of the line (mainly volunteer) of the advice of their medical officers.

262 But, after all, the discouragements you will meet with will be far fewer than those with which your predecessors had to contend, while the pleasant side of your lives will be far pleasanter than was theirs. 263 In fact, I think your lives have in many respects fallen in pleasanter places than have ours. Discipline and order protect you to a large extent from quackery and idiocy. 264 The fads of the day disappear before the appearance of the flag and the sound of the drum. 265 So-called Christian Science finds no place in your curriculum, and it will be long, I trust, before the army chaplain tinctures the military hospital with sectarian therapeutics or an Emanuel church cult. 266 If by entering the army one may escape disgusting influences of this character, then it may become such a refuge that it shall thereby be made both inviting and invincible.

267 It is pleasing to those of us who co-operated in the movement, to have the assurances of the Surgeon General 268 that the establishment of the Medical Reserve Corps has been of actual benefit to the regular Army Medical Department. 269 While the military rank to which its members found themselves suddenly elevated was not so lofty as to cause any attacks of vertigo, none having been up to the present day reported, 270 it at least gives us satisfaction to realise that help may thus be afforded from private life, and that a closer rapport has been effected.

271 And now it is well nigh as difficult a task to appropriately conclude these remarks as to begin them. 272 People come and go; a few leave imprints of their footsteps; the vast majority make no impression that lingers.

273 "Some when they die, die all;
their mouldering clay
Is but an emblem of their memories;

The space quite closes up through
which they passed."

274 Fain would I believe that many of you would make enduring records. Yet each can do own best, and I doubt not each will do it. 275 You have so much to encourage you, so comparatively little to hamper or hold back. 276 Glorious is your work, glorious may be your fulfillment of it. 277 We have lived in a goodly time; you will enjoy one still more goodly. 278 With scientific progress, whose like the world has never known, and with an altruism which makes the world constantly better, you will be able to do things never done by your predecessors.

279 "'Tis coming up the steeps of
time,
And this old world is growing
brighter!
We may not see its dawn sublime,
Yet high hopes make the heart throb
lighter!
Our dust may slumber underground
When it awakens the world in
wonder;
But we have felt it gathering 'round!
We have heard its voice of distant
thunder.
'Tis coming! Yes, 'tis coming!

280 "'Tis coming now, that glorious
time
Foretold by seers and sung in story,
For which, when thinking was a
crime,
Souls leaped to heaven from
scaffolds gory!
They passed. But lo! the work they
wrought!
Now the crowned hopes of centuries
blossom,
The lightning of their living thought
Is flashing through us, brain and
bosom;
'Tis coming! Yes, 'tis coming."

THE EVOLUTION OF THE SURGEON FROM THE BARBER

11 If one attempt to scan the field of the history of medicine, to take note of all the fallacies and superstitions which have befogged humans' minds, and brought about what 'now' seem to be the most absurd and revolting views and practices of times gone by, 2 and if one search deliberately for that which is of curious nature, or calculated to serve as a riddle difficult of solution, you will scarcely in the tomes which you may consult find anything stranger

than the close connection, 3 nay, even the identity maintained for centuries, between the trade of the barber and the craft of the surgeon. 4 Even after having studied history and the various laws passed at different times, you will still miss the predominant yet concealed reason for this state of affairs. 5 This will be found to be, in the words of Paget, the "maintenance of vested rights as if they were better than the promotion of knowledge." 6 You will wonder also why women were licensed to practise surgery in the fourteenth century and prevented in the nineteenth, 7 or why specialties were legally recognised in the sixteenth century only to lose their dignity and identity a little later.

8 In thus attempting to consider the relations which have existed in time past between barbers and surgeons I must ask you to remember that there was a time when bleeding was deemed necessary for the cure of almost all ailments, 9 and that after the Church had condemned the shedding of blood by any of her officials it was most natural to turn for assistance to the barbers, who were supposed to be dexterous with sharp instruments, with basins and with towels. 10 Thus it happened that when the barbers found themselves permitted to perform this sole act they naturally ventured further and practised many parts of minor surgery independently of the ecclesiastics. 11 Moreover there persist to-day in Europe many relics of the old customs, and the barber surgeon is still a common figure in Germany, and particularly in Russia, where the really educated surgeons are still too few for a vast and widespread population. 12 It must be remembered also that the Church gradually imbued humans' minds with a horror of a dead body, and of the profanation which followed having anything to do with it, and surrounded the study of anatomy with every possible obstacle and obloquy; 13 even to such an extent that to be known as having dissected a human body was to be exposed to indignity, assault and even death. 14 It was, therefore only intense yearning for knowledge, on the part of earnest people, which then permitted

anatomical instruction to be given or encouraged.

15 During the middle ages the greatest medical school in the world was situated at Salernum (or Salerno), but a short distance from Naples. 16 This is not the place in which to discuss its history, although it became famous above almost every other institution of learning of any kind, 17 and though, by one of the freaks of history, even the site of the buildings is now lost and no one seems to know just where they stood.

18 In his time, namely, in 1240, the Emperor Frederick II was the great patron of this college; his decrees concerning the regulation of the study and practice of medicine deserve attention to-day. 19 A part of one of his enactments reads as follows: "Since it is possible for a person to understand medical science only if you have previously learned something of logic, 20 we ordain that no one shall be permitted to study medicine until you have given your attention to logic for three years. After these three years you may if you wishes proceed to the study of medicine." 21 And again: "No surgeon shall be allowed to practise until you have submitted certificates in writing, of the teachers of the faculty of medicine, that you have spent at least one year in that part of medical science which gives skill in the practice of surgery, 22 that in the college you have diligently and especially studied the anatomy of the human body, and is also thoroughly experienced in the way in which operations are successfully performed and healing afterwards brought about."

23 When first we hear of medical people in Great Britain they were commonly spoken of as 'leeches', as among the Danes and Saxons; 24 later the clergy introduced books from Rome, and almost every Monastery had some brother possessed of more or less knowledge of the medicine of the day. 25 The College of Salernum later gave great impetus to the study of medicine, even before the days of William the Conqueror, which was strengthened by the influence emanating from Naples, and particularly from Montpellier. 26 For centuries the Catholic

clergy were almost the only persons with sufficient education to study and practise physic; 27 which profession became in time so lucrative that many of the monks abandoned their monasteries, neglecting their religious duties, and applied themselves to the study of medicine. 28 To such an extent was this true that in 1163 the Council of Tours forbade monks staying out of the monastery for more than two months at a time, or teaching or practising physic. 29 In taking this action the Council only repeated what had been ordained by decree of Henry III in 1216, and by the second Council of Lateran in 1139. 30 No restraint was at first placed upon the secular clergy, and many of the Bishops and other church dignitaries gained both money and honour by acting as physicians to Kings and Princesses.

31 Next to the clergy the Jews possessed the largest share of learning. Their nomadic life permitted an intercourse with the different nations of the world, which was denied to most others, 32 and there were many who studied medicine and practised, not only among those of their own race but amongst Moors and Christians alike. 33 The priests became extremely jealous of Jewish physicians and of lay surgeons, and endeavoured to secure through Rome a formal excommunication of all who committed themselves to the care of a Jew, while by canon law no Jew might give medicine to a Christian. 34 But so celebrated were the Jewish physicians, and so superior to everything else was humans' desire for life and strength, that even the power of Rome could not exclude them from practice. 35 Still less could the clergy restrain the lay surgeons from the performance of their craft, and though it would appear that at first, in England, the priests were not disposed to separate surgery from medicine, 36 the Pope became jealous of so much interruption to the duties of the clergy and looked upon the manual part of surgery as detracting from clerical dignity. 37 Accordingly were made numerous attempts to debar priests from the performance of surgical operations.

38 In 1215 the ecclesiastics were prohibited by Pope Innocent III from undertaking any operation involving the shedding of blood, 39 while by Boniface VIII at the close of the thirteenth century, and Clement V, about the beginning of the fourteenth century, surgery was formally separated from physic and the priests positively forbidden to practice it. 40 It is to the Church then that we owe this absolute abandonment of surgery to an illiterate and grasping laity. 41 For some time, however, the priests kept their hold upon surgery by instructing their servants, the barbers, who were employed to shave their own priestly beards, in the performance of minor operations. 42 It was these people, who were in some degree qualified by the instruction of the clergy, who first assumed the title of barber surgeons, and who gradually formed a great fraternity.

43 In France it was in the reign of Louis XIV that the hairdressers were formally separated from the barber-surgeons, the latter being incorporated as a distinct medical body. 44 In London it was in 1375 that the Company of Barbers were practically divided into two sections, containing respectively those who practiced shaving, and those who practiced surgery. 45 In 1460 the surgeons were finally incorporated by themselves as the Guild of Surgeons and took their place as one of the liveried companies of the city of London. 46 Similar separation occurred in the original great Guild of Weavers, who divided into the Woollen Drapers and Linen Armourers, the latter afterwards becoming the wealthy and powerful Company of Merchant Tailors.

47 To trace the history of the London Company of Barbers a little more fully, it was first formed in 1308 and incorporated in 1462 by a charter. 48 In one of the statutes of Henry VIII it was enacted that: "No person using any shaving or barbery in London shall occult (i. e. practise) any surgery, letting of blood or other matter except only drawing of teeth." 49 In 1540 Parliament passed an act allowing the United Companies of Barbers and Surgeons each to have yearly the bodies of four criminals

for dissection. 50 In 1518 the barbers and surgeons were united in one company; the former being restricted from all operations except tooth drawing, and the latter having to abandon shaving and hair dressing.

51 It is interesting also to note that in Oxford, for instance, the Barbers, Surgeons, Waferers and Makers of "Singing bread" were all of the same fellowship, from 1348 to 1500; 52 when, at last, the Cappers, or knitters of caps, were united to them, in 1551, the barbers and waferers abrogated their charter and took one in the name of the city, until 1675, when they received a charter from the University.

53 The London Guild of Surgeons appears to have been first a mere fraternity which had incorporated itself, and to have originated from an association of the military barber surgeons who had been trained in the hundred years war with France, 1337 to 1444. 54 Its membership, however, was select, and when the physicians declined an alliance with it, it amalgamated with the barber companies in 1540. 55 The United Company of Barbers and Surgeons was peculiar in that strangers and those who were not free men were admitted, while the journeymen of the craft formed a subordinate body within the company. 56 In 1745 the surgeons separated from the barbers and formed a surgeon's company which rapidly acquired influence. 57 By a foolish blunder it forfeited its charter in 1796 but was subsequently incorporated by George III, in 1800, as the Royal College of Surgeons in London; 58 a body which has since maintained its identity, grown tremendously in wealth and strength, and having become one of the licensing bodies of England, 59 has acquired the finest collection of books and specimens in the world and has numbered the brightest intellects which the English surgical profession has contained.

60 In Dublin the Barber Surgeons were incorporated as a guild by charter granted by Henry VI, in 1446. 61 In 1576 they were amalgamated with the independent surgeons, and by Queen Elizabeth with the barber surgeons and wig-makers. 62 This confraternity was dissolved in 1784 and the College

of Surgeons founded immediately afterwards. 63 In Edinburgh the barbers and surgeons were united in 1505, to be separated at about the same time as elsewhere in Great Britain.

64 During the eighteenth and nineteenth centuries on the continent medicine and surgery were abruptly separated, and the latter was almost entirely in the hands of the barbers. 65 For hundreds of years the dissection of corpses and the embalming of those who could afford it, were in the hands of first the butchers and later of the barbers. 66 The greatest contempt was everywhere shown for one who attempted any surgery. 67 If for instance a nobleman while being bled by a barber received the slightest harm the poor barber was heavily fined, 68 while, should the gentleman die, the culprit was given into the hands of the dead man's relatives to be dealt with as they desired. 69 Throughout the monasteries and whenever the influence of the Church was felt it was forbidden to the monks, who had the monopoly of knowledge, to perform any surgical operation since the Church abhourred the shedding of blood.

70 I leave it to defenders of the Faith to reconcile this abhourrence with the persecutions of heretics and the tortures of the Inquisition permitted by the same Church. 71 For hundreds of years the monks were not allowed to wear a beard; this necessitated the employment of tonsors 72 ("tonsorial-artists" they call themselves to-day) to whom was left also the performance of anything that partook of the nature of an operation, such as bleeding, bandaging, etc. 73 This calling, was however, recognised as a most inferior one, and the barbers, like the bathkeeper, the shepherd and the hangman, were not considered of good repute. 74 Consequently, such an one was not eligible for membership in any other guilds or fraternities.

75 In 1406 the Emperor Wenzel was rescued from prison, in Prague, by the daughter of a bathkeeper; in gratitude he made her his mistress, and declared both barbers and bathkeepers to be respectable; 76 but having lost his position his decree had no weight,

and not until 1548, in Augsburg, were they really made eligible to the guilds. At this time their most dignified labour was the sharpening of instruments.

77 In 1696 Leopold I. decreed their profession to be an art, and gave it a position above that of the apothecary so that in their most dignified occupation they were elevated to the making of ointments and plasters. 78 As surgery has for the profession of barber surgery to thank the existence upon man of a beard, 79 so the European continent may thank the Crusaders of the eleventh century for having necessitated the existence of the bathkeeper, because of the leprosy which they brought home from the East. 80 During the Crusades, as is well known, there were founded numerous Orders having for their original purpose the care and protection of pilgrims and injured soldiers. 81 The three most celebrated Orders were the Knights of St. John, the Knights Templar and the Teutonic Order. 82 Were this the place it would be most interesting to go into a history of these religio-medico-military Orders, 83 and show how from most devout purposes and humble origin they grew into despotic and tyrannical associations of great power, which it finally took all the force of Church and State to suppress. 84 As the then humble and enthusiastic members of these Orders returned from the Holy Land they established hospitals for the care of lepers, who became very numerous in Europe. 85 For instance it is stated that in France, in 1225, there were two thousand hospitals for this purpose, 86 while the King Louis the Great founded, in 1260, a special hospital for those made blind by Egyptian ophthalmia. 87 It is well known also that during the middle ages there was the greatest neglect of the ordinary canons of cleanliness both among the upper and lower classes. 88 The number of hospitals and cloisters dedicated to the lepers being insufficient, bath houses were built and bathkeepers were engaged in order, so far as possible, to prevent the spread of leprosy. 89 At this time the bathkeeper was permitted to bathe and cup, later also to bleed,

although the bleeding was required to be done in the bathkeepers' own house, since he was not usually permitted to enter a patient's house. 90 As bathing became less necessary for purposes already mentioned the bathkeeper took to imitating the barber, though much later, 91 and not until about 1750 in some countries, were they permitted to do this publicly, and only after having passed the examinations to which the barber was also subjected.

92 In Prussia they were only allowed to treat wounds and chronic diseases, 93 and so it came about that by the beginning of the eighteenth century a really conscientious and efficient barber surgeon was supposed to have served an apprenticeship in large hospitals, to have witnessed the work of noted surgeons and to have served in the Army or Navy. 94 He was also supposed to be something of a linguist and to know a little botany; 95 particularly was he expected to be conversant with anatomy, although there was a sad lack of cadavers--which was atoned for by the use of carcasses of animals, for the main part swine.

96 Eckardt, writing at this time of the sixteen different virtues of a barber, enumerated, first of all, fear of God; then that he should be careful, prudent, temperate, and ready to use both hands with equal dexterity; 97 he claimed that "Arrogance seems most prevalent among barbers, as a common saying would imply 'barbers are proud animals.'" 98 He expressed his surprise also at the envy and malice between bathkeepers and barbers, and advised them both to consult physicians and other masters.

99 The customs of the time must be blamed for this lamentable condition of affairs. The boy who was destined to become a barber was apprenticed at a time when he had scarcely learned to write. 100 If he could write legibly and read a little Latin no one dared refuse him. He learned to shave and went from house to house for this purpose, 101 spending the little time remaining in sharpening knives, spreading plasters, picking lint, taking care of children, doing all menial duties, 102 and using the

same light as the housemaid because it would have been disrespectful to his master's wife to use any other. 103 After years of this work he was gradually taken to visit patients and then was taught how to bleed, cup, apply leeches, extract teeth and clysters. 104 His master knowing nothing of anatomy could give him no instruction, though by the laws of apprenticeship he was bound to do so. 105 Before concluding this apprenticeship he was supposed to pass an examination, which his master's laziness usually permitted him to escape. 106 He then presented the master with some silver instruments and was dismissed with an injunction to be thankful that such a miserable specimen of God's creatures had ever been taught to shave a beard or spread a plaster. 107 He now became a journeyman, still living at the house of his master, and was not allowed to marry; after a while he received a paltry sum as wages, got his dinners free and began to dabble on his own account.

108 Study was out of the question; these men could not understand what little they did read and served the community mainly as bearers of tales. 109 After some years of activity as journeyman they could become masters by applying to the authorities, presenting certificates, and passing an examination before the physicians of the district.

110 Prussia was the first country to appreciate the necessity of regulating medical practice, and the barbers and bathkeepers were placed under the control of the Medical College founded, in 1685, by Prince Frederick William. 111 In 1724 this institution attained its greatest activity, having a subordinate school in each province. 112 In 1725 King Frederick William issued a famous edict which did much to regulate medical affairs throughout the kingdom, 113 and directed among other things that barbers and bathkeepers should "lead a religious, temperate, retired and sober life, in order to be at their best whenever their services were required." 114 When their business was not sufficiently good they assumed other cares, as, for instance, one man was surgeon, municipal judge and post-master all at once. 115 They were

extremely envious of each other and often dabbled in medicine without permission. 116 It was not until 1779 that the bathkeepers were permitted to rank in Prussia with the barbers, and were allowed to use more than four basins, the bathkeepers' guild being incorporated with that of the barber.

117 There being no temptation to enter these ranks it is not strange that so late even as 1790 good surgeons were rare in Germany; not one in fifty of the barbers really knowing the first principles of the work they were supposed to perform. 118 It came to such a pass that surgeons were compelled to shave and perform other duties of the hairdresser, for no surgeon, however skilled, was allowed to practice as such, 119 unless he was the proprietor of a head-shaving and bathing establishment, with assistants and apprentices, and belonged to the barbers' guild, or unless he was favoured by Royal exemption. 120 It was the general lament in Germany, all through the 18th century, that German surgeons were educated in barber shops. 121 Even by the middle of that century the practice of surgery was not considered an honourable business, and those who practiced it were not permitted to carry a sword, 122 neither was a surgeon admitted into society nor tolerated among physicians; moreover when unsuccessful he was bitterly and relentlessly pursued. 123 Under existing conditions the Reichstag either could or would do nothing to alleviate the distressing condition. The physician boasted of his education and treated the surgeon and his craft with disdain, 124 holding that surgery sustained the same relation to medicine that geometry does to higher mathematics and physics. 125 All this time, however, while the physicians contented themselves with disdaining surgeons they made no attempt to elevate the craft nor to themselves study and adorn it. 126 Even by the beginning of the nineteenth century there were scarcely any physicians in Europe who could diagnose a surgical case, while dentistry they claimed called for no more skill than that sufficient for tooth extraction. 127 It was even claimed that so long as the people

generally were neglectful of their teeth the physician, or even the surgeon, should be ashamed to concern oneself with dentistry.

128 Von Siebold, in his day, deplored the position of the surgeon; 129 his large military experience had shown him the difficulties with which he had to contend before he could enter society, while his ambitions and high motives were scorned. 130 Even the peasantry were bitterly opposed to all operations. So intense were their feelings that he repeatedly removed his patients to other towns before performing operations. 131 Nevertheless it was true that there were the best of reasons for lack of confidence in any barber who dropped own razor for the purpose of treating a fracture, a hernia or an obstetric case. 132 The State required a barber surgeon to call in a physician in all complicated surgical cases. 133 In such a case the physician demanded the control of the case and reserved to oneself the right to judge of what was required. He would not even consider a surgeon who had obtained the doctorate as his equal. 134 Such consultations resulted in little but quarrels and disagreeable scenes. If a village contained no physician the surgeon treated also internal diseases, though he was not allowed to use strong medicines. 135 Every district had its special surgeon who, alone, had charge of several villages where he had the right to keep journeymen and apprentices and to do shaving and cupping. 136 In the Prussian capital city only twenty German and six French surgeons were allowed to practice in 1725, besides the court and private surgeons.

137 Until 1808 every German surgeon carried on a medico-legal business which was later separated from his surgery. 138 In 1782 there were three classes of surgeons; from the lower one might be promoted to a higher after an examination. 139 In Austria, in 1805, there were doctors of surgery who were required to show a general knowledge of medicine and who had the same rights as the physicians; 140 there were also medical surgeons who could practice under restrictions, and bathkeepers for minor surgery.

141 After the year 1773 barbers and bathkeepers were both spoken of in Austria as surgeons; this was to break up the disputes between them. 142 According to an official feebill holding good in Prussia in 1815, the highest fee that could be charged for an operation was for lithotomy in adults, 143 the maximum limit being about M. 140 ($35), while the majority of operations ranged from M. 20 to M. 50 ($5.00 to $13.00 expressed in U. S. money). Of course this was at a time when the value of money was much greater than now.

144 As already made plain, it was the Church which by its decrees brought about the separation of surgery from medicine, a condition not existing during the palmy days of Greece and Rome. 145 Even the University of Paris at one time refused to admit a student who had not foresworn the study of surgery, while the denouncement of anatomy and surgery alike was promulgated by both papal bulls and clerical decrees. 146 While many of the physicians considered surgery too burdensome a study, and many others had a severe prejudice against it, the principal cause operating to keep them apart was probably the fact that for surgeons there was absolutely no social position.

147 In 1774 Mederer was made Professor of Surgery in Freiburg, in Breisgau; he delivered his opening address on the wisdom and necessity of combining medicine and surgery. 148 As a result he was persecuted by the public, insulted by students, abused by surgeons and constantly threatened with personal assault. 149 He maintained his position, however, and fought against the prejudice. 150 Twenty-two years later, when he left Freiburg, he referred in his last lecture to his early experience. 151 By this time public opinion had been so changed that the students serenaded him and humbly apologised for what their predecessors had done. 152 Mederer could then see the success of his efforts in that the constitution of France contained a clause combining medicine and surgery, and the Royal Sanitary Commissioners of Vienna had unanimously resolved in favour of such union.

EVIL

153 The movement begun by Mederer was continued by men like Richter, Von Siebold, Loder and others. 154 In 1797, or over a hundred years ago, the Electoral Academy of Erfurt offered a prize for the best essay on the subject "Is it necessary and possible to combine medicine and surgery theoretically as well as practically?" 155 Fourteen papers were submitted, of which twelve were in favour of union. Nevertheless the Academy awarded the prize to the only writer who had opposed such union. 156 His reasons for such opposition were most puerile, as were all the arguments subsequently advanced against it. 157 Nevertheless a great step was taken in advance, when the guilds and fraternities of barbers and bathkeepers were abolished, in which good work Vienna, in 1783, took the lead. 158 It was then declared that shaving was the business of the hair-dresser, and that barber surgeons must attend lectures in surgery and anatomy. 159 Bavaria followed in 1804, and four years later, in Prussia, no one was permitted to practice surgery without having studied medicine. 160 The rules of 1786 regulating the respective positions and duties between physicians and surgeons were annulled in 1808, 161 and by 1811 the barber license was no longer essential for the practice of surgery, the privileges of the barber, as such, being abolished, while for their trade only a common license was needed.

THE STORY OF THE DISCOVERY OF THE CIRCULATION

A STUDY OF THE TIMES AND LABOURS OF WILLIAM HARVEY

ADDRESS DELIVERED AT THE ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF CHICAGO, (RUSH MEDICAL COLLEGE), JUNE 13, 1906.

12 History in general is but a record of the succession of great events or epochs which have moulded the world's affairs. 2 That which is of the greatest import in the life of the individual may count for little in the lives of own contemporaries, 3 and yet it must be said that in the events of to-day there has occurred a great epoch in

the life of each of you, presumably the most important as yet in your personal records. 4 This day is then in your personal histories one of the greatest importance. It is desirable, therefore, that your lives be so moulded and influenced by it that you may long hence look back to it and recall its significance.

5 I do not know what advice I can give you which will be more fruitful of results, than that among your studies you include that of the lives of the great people who have moulded destiny and made the world's history. 6 Their lives were modified by little things, as have been and will be yours, and yet out of small matters grew for them and for us some of the most far reaching effects. 7 Select the really great people of whom you best happen to know and analyse their characters that you may appreciate how they have become great; 8 while if they have, as all great people have, traits of smallness, study even wherein they are small, and how such faults may be avoided.

9 History runs as does a fairly steady stream, save that every now and then some event abruptly diverts its course or influences its current. 10 It has been so, for instance, with the history of medicine. For the first sixteen hundred years of the Christian era people engaged in the crude practices of our profession, utterly ignorant of the course of the blood, as well as of its purposes. 11 Then appeared upon the scene a man who did his own thinking, who was willing to free himself from the shackles of the past, to observe Nature and to reason therefrom. 12 In this way came suddenly upon the world, as it were, an appreciation of the Circulation of the Blood, than which perhaps no event in medical history has been of greater importance or reflected more credit upon its demonstrator.

13 It is my purpose, then, to-day to try to tell you, in a semi-popular way, how William Harvey came to make this great discovery, 14 as well as to give you some idea of the difficulties under which he worked, and of the people and influences that surrounded him, 15 believing that rather than spend a half hour in humorous platitudes which may provoke a smile, but which are quickly forgotten, it is

much better to try to implant something which may linger a while in your memories, 16 and sufficiently impress you with the value of observation and inductive reasoning, since if you become thus fully impressed you will be spared in the future many sad errors of speech and even of thought.

17 Before telling the story of Harvey's life and work let us study for a few moments the general condition of affairs in Europe, 18 in order that we may better understand the people whose influence surrounded him, as well as the spirit of the times and people's habits of thought. 19 Among the monarchs reigning in various parts of Europe during Harvey's time there were, for instance, in that part of the Empire of the West which was called Germany, Rudolph II, Matthias and Ferdinand. 20 In Sweden reigned King Sigismund, Charles IX, the great monarch Gustavus Adolphus, and Queen Christine. 21 In Prussia the throne had been occupied by Joachim, George William and Frederick William, as electors, this being before the days of the Prussian kings. 22 In Russia the Czars Boris Godunow, Michael Theodore and Alexis had occupied the throne.

23 France had but recently passed through the inhuman butchery of the massacre of St. Bartholomew and its accompanying persecution of the Huguenots, under Charles IX, 24 who expressed the hope that not a single Huguenot would be left alive to reproach him with the deed, but who died himself soon after the massacre, which is said to have caused him bitter remorse. 25 Charles had been succeeded by his brother Henry III, a weak, fickle and vicious monarch, whose weakness caused him to be embroiled in civil strife, which was only concluded by his own assassination at the hands of a Dominican friar. 26 Then came Henry IV, he of Navarre, afterwards surnamed The Great, who fought the famous battle of Ivry in 1590, and who reigned for twenty-one years, the greatest and most popular sovereign who ever occupied the throne of France. 27 Notwithstanding his noble qualities he did not succeed in preserving his court from many of

the contaminations of the age, 28 and in his reign it is said that no less than 4,000 French gentlemen were killed in duels, chiefly arising out of quarrels about women. 29 He was succeeded by Louis XIII, who was still on the throne when Harvey died.

30 In Harvey's own country James I was occupying the throne when Harvey appeared upon the scene. He was that royal pedant whom the Duke of Sully pronounced "the wisest fool in Europe." 31 After his death, and when Charles I ascended the throne during his twenty-fifth year, in 1625, Harvey was preparing to publish his great work. 32 It was this Charles I who retained as a favourite the worthless scoundrel Buckingham, whose misconduct in Spain prevented the proposed marriage of the king with the Spanish Infanta and brought about the Civil War. 33 It was because of the cost of this war, and of the king's disputes with Parliament regarding the matter, that England was rent between the conflicts of the Cavaliers and the Roundheads, 34 two of the consequences of this intestine strife being the execution of the Earl of Strafford and of Archbishop Laud. 35 The troubles thus engendered finally cost the life of the king himself, who was beheaded in 1649. 36 Harvey even lived to see the first half of the short tenure of office of Cromwell as the Great Protector, and was perhaps fortunate in dying before began the reign of that odious profligate Charles II.

37 It is worthwhile to enquire for a moment what was doing on this side of the ocean at this period which we have now under consideration. 38 In 1607 Virginia was settled by the English, in 1614 New York, by the Dutch, in 1620 Massachusetts and, three years later, New Hampshire, by the English Puritans; 39 in 1624 New Jersey, by the Dutch, in 1627 Delaware by Swedes and Finns, in 1630 Maine, by the English, in 1634 Maryland, by Irish Catholics, in 1635 Connecticut, by English Puritans. 40 Thus it will be seen that the active period of Harvey's life was synchronous with the beginnings of our colonial activities. 41 Very little knowledge of what was going on in the then world of science was brought to

this country at this period of its existence, 42 however, and it was many years before in these colonies there were any exhibitions of scientific interest save in extremely scattered and sporadic cases.

43 Among Harvey's literary associates were a number of celebrated English poets, for example,-- Marlowe (1593), Spenser (1598), Beaumont (1615), Shakespeare (1615), Herbert (1635), Ben Jonson (1637), Massinger (1639). 44 Lord Bacon died a year or two after the appearance of Harvey's book, while Baron Napier, the inventor of logarithms, had passed away. 45 His contemporaries in Italy, where he had studied, included Tasso (1595) and Galileo (1645). 46 Rubens had died in 1640, Michael Angelo in 1564 and Titian in 1576. 47 In France, Calvin, the practical murderer of Servetus, had passed away in 1564, Beza died in 1605, Descartes in 1650, Pascal in 1662 and Gassendi in 1655. 48 Portugal had produced but one great figure in the 16th century, namely Camoens, who died in 1579. 49 In Spain, Loyola, the ascetic and fanatic founder of the Jesuits, had joined the great majority in 1556; but Cervantes did not die until 1616, Lope de Vega in 1635, Velasquez in 1660 and Calderon in 1667.

50 In Germany some great figures had but recently disappeared. Paracelsus died in 1541, Copernicus in 1543, Luther in 1546, Hans Holbein in 1554, and Melancthon in 1560. 51 Mercator, who introduced a new method of cartography, died in 1594, Tycho Brahe in 1601, Keppler in 1631, Van Dyck in 1641, Grotius, the great scholar, in 1645, Rembrandt in 1668 and Spinoza in 1677.

52 In philosophy, scepticism was the prevailing doctrine in the time of Harvey. 53 It had been founded a hundred years previously by Montaigne, and continued by Charron, the chaplain of Queen Margaret of Navarre, who died in 1603, 54 and who declared all religion to be opposed to human reason;-- a remarkable attitude for a chaplain to assume. 55 Opposed to the scepticism of Harvey's day was the mystic, Cabalistic or supernatural philosophy especially represented by Böhme, 56 a

peasant shoemaker, uneducated and yet wonderfully gifted. He had been the philosophical colleague of that great Meistersinger, Hans Sachs. 57 Later philosophers and thinkers, yet belonging to Harvey's time, were Pascal, the great Jansenist, who discovered the variations of atmospheric pressure at different levels, and Malebranche, who figures prominently in the history of philosophy.

58 Descartes, who died in 1650, held the pineal gland to be the seat of the soul. He was the discoverer of the laws of refraction of light and furnished the explanation for the rainbow. 59 He attained greatest eminence in mathematics, physics and philosophy, and was one of the inventors of modern algebra. 60 One of his greatest opponents was that noble Jew, Spinoza, whose colleagues had expelled him from the Sanhedrim to the sound of the trombone.

61 The Italian Dominican Campanella, who died in 1639, considered the foundation of knowledge to be supernatural revelation and its perception by the senses. 62 In spite of these views he came before The Inquisition on a charge of heresy and of cooperation with the Turks, was tortured by the rack, and imprisoned for thirty years.

63 The mystic or Cabalistic notions of Harvey's day have just been mentioned. Under them we may recognise many degenerate products and amalgamations of the real doctrines of Paracelsus. 64 The doctrines of the Rosicrucians, as well as of Zoroaster and the Cabala, were revived and made to do strange work. 65 There was, for instance, that Sir Kenelm Digby, who died in 1605, a King's chamberlain, who posed among the English as a so-called Rosicrucian. 66 It was he who suggested the famous "'sympathetic powder'," which was to be applied to the weapon by which a wound had been inflicted, 67 after which the 'weapon' was anointed and dressed two or three times a day, while the wound itself was carefully bound up with dressings and left alone for a week. 68 This was perhaps much the better course, but it will show what strange notions prevailed in those days.

69 What it meant to run counter to ecclesiastical policy and theological dogma appears not only in such tragedies as terminated the lives of Bruno and many other martyrs to science, but in such facts as these; 70 for instance, when in 1624, just when Harvey was preparing to publish his work, some young chemists in Paris, seeing the benefit of the experimental method, broke away from Aristotle and the canons of theological reasoning, 71 the faculty of theology appealed to the Parliament of Paris, which latter prohibited all such researches, under the severest penalties.

72 This was the time too when such exhibitions as the following were altogether too frequent;-- 73 One Quaresimo, of Lodi, came out with a ponderous work entitled "*A Historical, Theological and Moral Explanation of the Holy Land,*" in which he devoted great space to the question of The Dead Sea and the salt pillar supposed to represent Lot's wife, 74 dividing a long chapter upon the subject into three parts, dealing with the method and the locality of this transformation and the question of the existence at that time of her saline remains. 75 Thus, with his peculiar powers of reasoning, he was able to decide the exact point where the saline change took place, and finally showed that the statue 'was still in existence'.

76 Lord Bacon was also an older contemporary of Harvey, having been born in 1561 and dying in 1626, shortly after the appearance of Harvey's great work. 77 His services to analytic science need no description here, but it is worthwhile to remember that Harvey, like many others, must have come under his influence and have profited by his teachings in logic and analysis. 78 At about the time when Harvey made known his discovery Bacon was publishing his views of the laws of transmission and reflection of sound. 79 Great man as he was, with a keen foresight into the value of the recent inventions of the compass, gun-powder and printing, he nevertheless was himself so narrow, in some respects, that he placed but little value upon the discovery of Copernicus. 80 He, however, paved the way for one in some

respects still greater, namely Isaac Newton, who, however, had scarcely attained man's stature when Harvey died.

81 How much we owe to the two great Bacons of history one cannot indicate in this short résumé. Roger Bacon (1214-1292) seems to have been the first great thinker along truly scientific lines. 82 He was more than a mere chemist while, as White says, more than three centuries before Francis Bacon 'advocated' the experimental method Roger Bacon had 'practised' it, and in many directions. 83 He did more than anyone else in the middle ages to direct thought into fruitful paths, and only now are we finding out how nearly he reached some of the principal doctrines of modern philosophy and chemistry. 84 Most important of all, his methods were even greater than his results, and this at a time when "theological subtilising" was the only passport to reputation for scholarship.

85 It was Avicenna, the Arabian, who perhaps first announced substantially the modern theory of geology, accounting for changes in the earth's surface by suggesting a stone-making force, 86 but the presence of fossils in the rocks had been always a thorn in the sides of the theologians. 87 It was Leonardo da Vinci, that versatile genius in science and art, who, previous to Harvey's generation, suggested true notions as to the origin of fossils, 88 while, in Harvey's time, Bernard Palissy, another artist, vehemently contended for their correctness. 89 Still, even at Harvey's death, neither geology nor paleontology had come anywhere near scientific accuracy.

90 The 'Academia dei Lyncei', so-called from its seal, which bore the image of a fox, was founded in Rome in 1603. 91 In France The Academy of Science was not founded until 1665, in Germany The Society of Naturalists and Physicians in 1652, and the British Royal Society in 1665.

92 In matters of general interest it may be worth while to say that in architecture the general style of The Renaissance was changed for the more substantial Barocco, 93 while the more formal and limited style of church music had given away to musical drama, i. e.,

opera, albeit in very crude form. 94 The first newspaper had appeared at Antwerp in 1605, the first German paper being published in Frankfort in 1615, and The London Weekly News making its first appearance in 1620. 95 Tobacco, which had been brought over by Raleigh in 1560, had come into quite general use, while coffee, tea and chocolate had gained in public esteem. 96 When coffee was first introduced in England it sold for about $28 a pound. The first coffee house appears to have been established in Constantinople, in the middle of the 16th century, while the first coffee house in London was not opened until a century later.

97 The barbers still retained their ascendency, and the bath keepers had scarcely lost their position next to the barbers. 98 It was not until Harvey had reached a ripe age that the barbers were required in Germany to pass an examination, in which they had to prove not only their knowledge but the legitimacy of their birth, 99 and the fact that they had studied for three years and had worked for three years more as apprentices.

100 Anatomy was studied quite generally, sometimes upon human bodies. 101 A dissecting room had been established in Dresden in 1617, in which stuffed bears, at that time a great rarity, were preserved with other curiosities. 102 In 1623 Rolfink, at Jena, arranged for public dissection upon the bodies of all executed malefactors, delegates being present thereat from various other institutions. 103 It is worthwhile to mention that in Frankfort, for instance, during the expiration of 65 years, but seven dissections were made, and that these were always accompanied by a celebration which lasted several days. 104 Vienna did not possess a skeleton in 1668, and Strassburg did not have one until 1671. 105 Yet it is of interest to remember that the anatomical plates, like those often published to-day, which are meant to be lifted off in layers, existed even at this period. 106 On the other hand, botanical gardens and chemical labouratories existed in several of the universities,-- in Strassburg, for instance, in 1619,-- in Oxford in 1622.

107 Fabricius Hildanus, the father of German surgery, or, as he has been sometimes called, the Ambroise Paré, of Germany, was also a contemporary of Harvey's. 108 His real name was Fabry and he was born in Hilden, but he latinised his name into that form usually adopted to-day.

109 Scultetus was another famous surgeon of the same period.

110 William Gilbert, 1540-1603, had been the talented physician of Queen Elizabeth, and was among the first to study the experimental method. 111 With the appearance of his book upon the magnet, in 1600, began the science of electricity and magnetism. 112 He was the first to teach the fact that the earth itself was a great magnet and he distinguished between magnetic and electric reactions. 113 Later the great Dutch anatomist, Ruysch, afforded corroboration of Harvey's views by another method, when he invented and practised those beautiful minute injections of the vascular system which made him so famous, 114 and built up that great collection of specimens which Peter the Great bought for Russia at an expense of about $75,000.

115 Contemporary with Harvey also was Swammerdam, one of the most versatile men of his time, famous as naturalist, savant, physiologist, linguist and poet. 116 It was during the fifteenth century that astronomy began to assume an importance and degree of accuracy never hitherto known. 117 This was due very largely to the independence of thought and the researches of Copernicus, who was born in Cremona in 1477, and who studied medicine in Krakau and astronomy in Vienna. 118 He lived to the age of 70 and was the real father of the heliocentric theory, now known as the Copernician system, 119 which he substituted for the previous Ptolemaic theory, thus reversing the ancient idea that the sun circled about the earth. 120 Copernicus demonstrated the phases of the moon, but his opponents claimed that if this doctrine were true Venus would exhibit the same phenomena; 121 to which he replied that it was true, though he knew not what to say to these objections, but that God was good and would in time

furnish answer to them. 122 It was Galileo's crude telescope which, in Harvey's younger day, in 1611, furnished this answer and revealed the phases of Venus. 123 To illustrate how the views of Copernicus were received we might add here that Martin Luther paid his compliments to him by declaring that Copernicus was a fool who wished to stand astronomy upon its head.

124 Copernicus was succeeded by Galileo, who was born in 1554 in Pisa, and died 1642. 125 He may be called the creator of dynamic astronomy and mechanics, as well as one of the most brilliant exponents of experimental and inductive reasoning. 126 He was of noble birth and was, in fact, the torch bearer of physics at the period of The Renaissance. 127 He gave up speculation and substituted for it the habit of observation, reaping a large harvest of surprising facts, any one of which might have immortalised him. 128 He not only established the movements of the earth on its own axis as well as around the sun, which Copernicus had shown, but he discovered the weight of the atmosphere and first calculated the law of gravity. 129 He and his successors were governed always by that aphorism which is to-day as true as ever: "Experience is deceptive and judgment difficult."

130 In 1615 when he was before The Inquisition, at Rome, and when its theologians had examined statements extracted from his letters, they solemnly rendered their decision in these words: 131 "The first proposition that the sun is the centre and does not revolve about the earth is foolish, absurd, false in theology and heretical, because expressly contrary to The Holy Scripture. 132 The second proposition that the earth is not the centre, but revolves about the sun, is absurd, false in philosophy and, from a theological point of view, at least, opposed to the true faith." 133 This for a pronunciamento from the 'infallible' Church!

134 Galileo and Bruno have by some writers both been made to stand in an unpleasant light because of their recantation or shifting position before The Inquisition.

135 Bruno was the greatest philosopher and sceptic of the

latter part of the 16th century, and had outlined, withal somewhat vaguely, that which is now known as the nebular hypothesis. 136 He was murdered by The Inquisition in 1600, and the views which he enunciated seem to have been buried with him, not to reappear until long after his sad fate had been consummated. 137 He had, for instance, contended for the truths of the Copernican doctrine, but it was not until ten years after his martyrdom that Galileo proved it with his telescope. 138 That both these great men yielded in some respects to the influences of The Inquisition and renounced some of their scientific "heresies" is largely to be excused 139 by the fact that they were both old, broken in health from the sufferings which they had endured, as well as from their disappointments, 140 and that they had been, under these circumstances, handed over to that Inquisition which knew no mercy. 141 Galileo could well remember the 'auto da fê' in the Piazza dei Fiore, in Rome, the scene of Bruno's martyrdom, as well as the tragic end of many another who had dared to have the courage of his convictions. 142 Let us, then, not judge him harshly, but be grateful even that the enormous power of The Inquisition did not and could not suppress the truth.

143 Galileo's discovery of the satellites of Jupiter, the rings of Saturn, his experiments with the pendulum, his construction of the telescope, as well as of the thermometer, 144 and many other deeds, have stamped him as one of the great figures in the history of progress and science. 145 It is most interesting to note that this contemporary of Harvey's, like himself, was given to inductions obtained from experimental studies.

146 Another great astronomical light of Harvey's time was Keppler, who was driven from one place to another by religious fanaticism, until he ended his life in 1630. 147 It was he who formulated the great principle which underlies the motions of the planets, and who gave to the world his so-called "laws," which so materially advanced the science of astronomy. 148 It was he who really discovered that comet which was later given Hailey's name,

whose periodic return he first foretold.

149 Such was the spirit of the times in which Harvey lived, and such the influences which surrounded his teachers before him and himself in turn. 150 It makes a long preface to a consideration of what Harvey himself accomplished, but it is not without its interest 151 because humans and their deeds must be judged largely by their environment.

152 Now, to speak more particularly of Harvey himself, and what was known of the circulation when he undertook his investigations. 153 The liver had been considered, from time immemorial, as the principal factor in the production and movement of the blood. 154 The ancients supposed that here the veins took their origin and that through them the blood flowed to all parts of the body, returning to its source by an undulating movement or series of alternate waves. 155 The arteries had been supposed to contain only vital spirits, whose great reservoir was the heart, 156 although Erasistratus had admitted that in certain cases blood might escape into the arterial channels. 157 Later Galen showed that the arteries always contained blood, and he knew that blood was poured into the right side of the heart by the great veins, 158 but believed that only a little of it passed from the right ventricle into the lungs, the greater part of it passing through hypothetical pores in the septum and thus into the left ventricle. 159 This opinion, like Galen's in other respects, remained unchanged until the middle of the 16th century. 160 It was also known that valves existed within the veins, and that if an artery were tied on a living animal blood would cease to flow and pulsation be checked below the ligature, 161 while if a vein were tied it shrunk above the ligature and became distended below.

162 Three men before Harvey's time came very near to discovering the secret that made him famous; 163 in fact, they made such advances on what was already known that history should accord them a distinguished place. 164 One was 'Columbus', who was born at Cremona in 1490, and died in 1559. He was first a pupil and

prosector and then a friend of Vesalius, the great anatomist. 165 Later he succeeded him at The University of Padua and unfortunately, after gaining his position, ungratefully turned upon his old teacher. 166 He was, however, for his day a good anatomist and especially a good osteologist. It was he who first demonstrated experimentally that blood passes through the lungs into the pulmonary veins and that the latter connect with the left ventricle. 167 He thus practically established the fact of the lesser circulation. He suffered, however, as did Servetus, from the prevailing notion that spirits and blood were mixed together. 168 From Padua, Columbus went to Pisa, and then to Rome. He wrote with elegance and correctness of style and even described the vessels which penetrate the bone cells, 169 the ossicles of the ear, the minute anatomy of the teeth, the ventricles of the larynx, as well as those valves which prevent the return of blood from the lungs to the heart. 170 In fact, he narrowly missed the significance of the actual facts of the case, simply failing in his final analysis and assembling of those facts which he had already demonstrated.

171 'Cesalpinus', who lived a little later, came still nearer the mark, having accepted the teachings of Columbus regarding the course of the blood through the lungs. 172 He added that the ultimate arterial branches connect with those of the veins, 173 and he taught that blood and vital spirits, from which the ancients could never separate themselves, passed from the arteries into the veins during sleep, as was demonstrated by the swelling of the veins and the diminution of the pulse at that time.

174 A little later came 'Michael Servetus', who figures principally in history as a theologian and a victim of theologians, since he perished a martyr to Calvin's jealousy. 175 He was, in effect, a wisely and widely educated man who did a great deal for science, 176 one of the offences attributed to him being an edition of Ptolemy's geography, in which Judea was described as a barren and inhospitable land instead of one "flowing with milk and

honey." 177 This simple statement of a geographical fact was made a tremendous weapon of offence by Calvin, who replied that even if Servetus had only quoted from Ptolemy and, although there were ample geographical proofs, 178 it nevertheless "unnecessarily inculpated Moses and grievously outraged The Holy Ghost." 179 Servetus dared to deny the passage of the blood through the septum of the heart, and contended that that which comes into the right side was distributed to the lung and returned to the left ventricle. 180 He published his views, however, in a religious treatise on *Errors concerning The Trinity*, a most unfortunate place in which to inject such an important fact, since it gave his enemies a still greater opportunity to vent and ventilate their spleen. 181 Had he been able to leave out that notion of vital spirits, which prevailed with all his predecessors, he might actually have made the great discovery left for Harvey to enunciate.

182 I have not been able to refer to original documents in this matter, but it is claimed by some that his description of the circulation was contained in another religious work concerning the *Restitution of Christianity*, which was printed in Nuremberg in 1790. 183 Such was the actual state of knowledge concerning the movements of the blood and the functions of the heart when Harvey published his great work. 184 It behooves us now to proceed with a short account of Harvey's own life and researches.

185 'William Harvey' was born at Folkestone on the first of April, 1578. 186 He was the eldest son of a prosperous merchant who raised a large family and who occupied the highest positions of honour in his own town. 187 The son William was born to his second wife, by whom he had seven sons and two daughters. All of these children were helped to remunerative or honourable positions. 188 They became merchants or politicians or secured prominence in some way, but William was the only one to study medicine. 189 He was sent to the King's school at Canterbury, in 1588, and he was admitted at Caius, in Cambridge, in 1593, where he graduated in arts in 1597. 190 The following year he went to

Padua, which then had one of the greatest medical schools of the time, and he obtained his medical diploma in 1602, when twenty-four years of age. 191 Returning to England he received a doctor's degree at Cambridge, and shortly afterward married a daughter of a London physician and entered upon the practice of medicine in London. 192 In the great city his practice as a physician seems to have been from the outset successful, and his knowledge and ability procured him various valuable appointments. 193 He was made a Fellow of The College of Physicians in 1607. This Royal College of Physicians was given a grant of incorporation by Henry VIII in 1518, 194 at the intercession of Chambers, Linacre and Ferdinand Victoria, the King's Physicians, it being under the patronage of Cardinal Wolsey. 195 The first meetings were held at Linacre's house which he bequeathed to the corporation at his death. 196 Until this College was founded practitioners of medicine were licensed to practise by the Bishop of London or by the Dean of St. Paul's. 197 A few years later Harvey was appointed Physician-Extraordinary to King James I, 198 and later yet, after the publication of his great treatise and its dedication to the King, he was made Physician-in-Ordinary to Charles I, whom he attended during the Civil Wars.

199 It must have been about 1615 when Harvey first began expounding his views on the circulation of the blood, during lectures which were delivered at The College of Physicians, 200 but it was not until thirteen years later, i. e., in 1628, that his great work *DE MOTU CORDIS* was published in Latin, as was customary among scholars, and a Frankfort-on-the-Main, since that was then the great center of the book publishing trade. 201 The treatise was dedicated to King Charles I, in a manner which to us would seem servile, 202 and yet which was according to a custom followed by nearly all of the scholars of the day, who desired to attract not only the attention of royalty, but, in most instances, their benevolent assistance. 203 It is worthwhile to quote at this point the first sentence or two of his dedication:

"To the Most Serene and Invincible CHARLES, of Great Britain, France and Ireland, KING: DEFENDER of the FAITH, Most Serene King,

204 "The heart of animals is the basis of their life, the principle of the whole, the Sun of their Microcosm, that upon which all movement depends, from which all strength proceeds. 205 The King in like manner is the basis of his Kingdom, the Sun of his World, the heart of the Commonwealth, whence all power derives, all grace appears. 206 What I have here written of the movements of the heart I am the more emboldened to present to your Majesty, according to the Custom of the present age, 207 because nearly all things human are done after human examples and many things in the King are after the pattern of the heart."

208 The dedication was followed by a Proemium which one may hardly read to-day without emotion. 209 In it he sets forth the mystery that has surrounded the subject of the motion and function of the heart, as well as the attendant difficulties of the subject, speaking of his own early despair that he would ever be able to clear up the subject. 210 He even said that at one time he found the matter so beset with difficulties that he was inclined to agree with Fracastorius "that the movements of the heart and their purpose could be comprehended by God alone." 211 Only later was this despair dispelled by a suggestion when, as he says: "I began to think whether there might not be a movement in a circle" when thus the truth dawned fully upon him.

212 We shall have to speak later of the opposition provoked by the appearance of this work and its almost general rejection. 213 It is perhaps, however, but just to those who disputed Harvey's discoveries to recall that no complete and actual demonstration of the actual circulation was possible at that time, nor for many years after, 214 and until the introduction of the microscope, the common magnifying glass of that day being the only lens in use. 215 It remained for Malpighi to demonstrate the blood actually in circulation in the lung of a frog some three or four years after Harvey's death, in 1657. 216 But Harvey lived long enough to see his views gain general acceptance,

and though at first, and as the result of the opposition provoked by his publication, his practice fell off mightily, 217 he later regained his professional position and rose to the highest eminence, being elected in 1654 to the Presidency of the College of Physicians. 218 To this institution he proved a great benefactor, making considerable additions to the building after its destruction in The Great Fire of 1666 and its subsequent restoration. 219 He also left a certain sum of money as a foundation for an annual oration, to be delivered in commemoration of those who had been great benefactors of the College. 220 This oration is still regularly delivered on St. Luke's Day, i. e., the 18th of October, and is ordinarily known as the Harveian oration. 221 In these orations more or less reference to Harvey's work and influence is always made. 222 This great man passed away on the 3rd of June, 1657, within ten months of his eightieth birthday, 223 thus affording a brilliant exception to the list of people who have rendered great service to the world and not lived long enough to see it appreciated.

224 As one reads Harvey's own words, the wonder ever grows that it should have remained for him, after the lapse of so many centuries, to not only call attention to what had been said by Galen but apparently forgotten by his successors, 225 namely, that "the arteries contained blood and nothing but blood, and, consequently, neither spirits nor air, as may be readily gathered from experiments and reasonings," which he elsewhere furnishes. 226 He furthermore shows how Galen demonstrated this by applying two ligatures upon an exposed artery at some distance from each other, and then opening the vessel itself in which nothing but blood could be found. 227 He calls attention also to the result of ligation of one of the large vessels of an extremity, the inevitable result being just what we to-day know it must be, and the procedure terminating with gangrene of the limb.

228 Not long before Harvey's own publication, Fabricius, he of Aquapendente, had published a

work on respiration, stating that, as the pulsation of the heart and arteries was insufficient for the ventilation and refrigeration of the blood, therefore were the lungs fashioned to surround the heart. 229 Harvey showed how the arterial pulse and respiration could not serve the same ends, combating the view generally held, that if the arteries were filled with air, a larger quantity of air penetrating when the pulse is large and full, 230 it must come to pass that if one plunge into a bath of water or of oil when the pulse is strong and full it should forthwith become either smaller or much slower, since the surrounding fluid would render it either difficult or impossible for air to penetrate. 231 He also called attention to the inconsistencies between this view and the arrangement of the prenatal circulation; 232 also to the fact that marine animals, living in the depths of the sea, could under no circumstances take in or emit air by the movements of their arteries and beneath the infinite mass of waters, 233 inasmuch as "to say that they absorb the air that is present in the water and emit their fumes into this medium, were to utter something very like a figment;" 234 furthermore "when the windpipe is divided, air enters and returns through the wound by two opposite movements, but when an artery is divided blood escapes in one continuous stream and no air passes."

235 Discussing further the views which he stigmatised as so incongruous and mutually subversive that every one of them is justly brought under suspicion, 236 he reverts again to the statements of Galen, calling attention to the fact that from a single divided artery the whole of the blood of the body may be withdrawn in the course of half an hour or less, and to the inevitable consequences of such an act; 237 also that when an artery is opened the blood is emptied with force and in jets, and that the impulse corresponds with that of the heart; 238 again that in an aneurism the pulsation is the same as in other arteries, appealing for corroboration in this matter to the recent statements of Riolan, who later became his avowed enemy. 239 Harvey also called attention to

the fact that while ordinarily there was a seemingly fixed relation between respiration and pulse-rate, this might vary very much under certain circumstances, 240 showing that respiration and circulation were two totally different processes. 241 Harvey utilised also the results of his researches in comparative anatomy and physiology, for early in his work he called attention to the fact that every animal which is unfurnished with lungs lacks a right ventricle. 242 In his Proemium he then proceeds to ask certain very pertinent questions which can only be briefly summarised in this place. 243 He asks:

First, why, inasmuch as the structure of both ventricles is practically identical, it should be imagined that their uses are different, 244 and why, if tricuspid valves are placed at the entrance into the right ventricle and prove obstacles to the return of blood into vena cava, 245 and if similar valves are situated at the commencement of the pulmonary artery, preventing return of blood into the ventricle, 246 then why, when similar valves are found in connection with the other side of the heart, should we deny that they are there for the same purpose of prevention "here the egress" and "there the regurgitation of the blood?" 247 Secondly, he asks why, in view of the similarity of these structures, it should be said that things are arranged in the left ventricle for the egress and regress of spirits, and in the right ventricle for those of blood? 248 Thirdly, he enquires why, when one notes the resemblance between the passages and vessels connected with the opposite sides of the heart, 249 one should regard one side as destined to a private purpose, namely, that of nourishing the lungs, the other to a more public function?

250 Furthermore, he enquires, since the lungs are so near, and in continual movement, and the vessels supplying them of such dimensions, what can be the use of the pulse of the right ventricle, which he had often observed in the course of his experiments? 251 He sums up his inability to accept the explanations previously offered with a phrase which reads rather strangely, even in original Latin: 252 "Deus bone! Quomodo

tricuspides impediunt aëris egressum, non sanguinis." i. e., "Good God! how should the mitral valves prevent the regurgitation of air and not of blood?" 253 He then takes up the views of those who have believed that the blood oozed through the septum of the heart from the right to the left side by certain secret pores, 254 and to them he replied "By Hercules, no such pores can be demonstrated, nor, in fact, do any such exist." 255 Again, "Besides, if the blood could permeate the substance of the septum, or could be emptied from the ventricles, what use were there for the coronary artery and vein, branches of which proceed to the septum itself, to supply it with nourishment?"

256 Further on in the treatise Harvey sets forth his motives for writing, stating how greatly unsettled had become his mind in that he did not know what he himself should conclude nor what to believe from others. 257 He says: "I was not surprised that Laurentius should have written that the movements of the heart were as perplexing as the flux and reflux of Euripus had appeared to Aristotle." 258 He apologises for the crime, as some of his friends considered it, that he should dare to depart from the precepts and opinions of all anatomists. 259 He acknowledged that he took the step all the more willingly, seeing that Fabricius, who had accurately and learnedly delineated almost every one of the several parts of animals in a special work, had left the heart entirely untouched.

260 Passing more directly to the actual work of the heart, he shows that not only are the ventricles contracted by virtue of the muscular structure of their own walls, 261 but further that those fibers or bands, styled "Nerves" by Aristotle, that are so conspicuous in the ventricles of larger animals when they contract simultaneously, by an admirable adjustment, 262 help to draw together all the internal surfaces as if with cords, thus expelling the charge of contained blood with force. 263 Later on he says that if the pulmonary artery be opened, blood will be seen spurting forth from it, just as when any other artery is punctured, 264 and that the same result follows division of

the vessel which in fishes leads from the heart. 265 He furnishes a very happy simile to prove that the pulses of the arteries are due to the impulses of the left ventricle by showing how, when one blows into a glove all of its fingers will be found to have become distended at one and the same time. 266 He quotes Aristotle, who made no distinction between veins and arteries, but said that the blood of all animals palpitates within their vessels and by the pulse is sent everywhere simultaneously, all of this depending upon the heart.

267 It is in Chapter Five of the treatise that he gives, probably for the first time, an accurate published account of just what transpires with one complete cycle of cardiac activity. 268 The passage need not be quoted here, but deserves to be read by everyone interested in the subject, as who should not be? 269 One sentence, however, is worth quotation or, at least, a summary, as follows: "But if the divine Galen will here allow, as in other places he does, that all the arteries of the body arise from the great artery, and that this takes its origin from the heart; 270 that all the vessels naturally contain and carry blood; that the three semilunar valves situated at the orifice of the aorta prevent the return of the blood into the heart, and that they were here for some important purpose,-- 271 I do not see how he can deny that the great artery is the very vessel to carry the blood, when it has attained its highest triumph of perfection, from the heart for distribution to all parts of the body."

272 His Chapter Six deals with the course by which blood is carried from the right into the left ventricle, and here one must admire the large number of experimental demonstrations which Harvey had undertaken upon all classes of animals, 273 for he speaks even of that which occurs in small insects, whose circulation he had studied so far as he could with the simple lens. 274 Furthermore he described the prenatal circulation, omitting practically nothing of that which is taught to-day, 275 showing that in embryos, while the lungs are yet in a state of inaction, both ventricles of the heart are employed, as if they were but one, for the

transmission of blood. 276 In concluding this chapter he again states briefly the course of the blood, and promises to show, first, that this may be so and, then, to prove that it really is so.

277 His Chapter Seven is devoted to showing how the blood passes through the substance of the lungs from the right ventricle and then on into the pulmonary vein and left ventricle. 278 He alludes to the multitude of doubters as belonging, as the poet had said, to that race of people who, when they will, assent full readily, and when they will not, by no matter of means; 279 who, when their assent is wanted, fear, and when it is not, fear not to give it. 280 A little later on he says: "As there are some who admit nothing unless upon authority, let them learn that the truth I am contending for can be confirmed from Galen's own words, 281 namely, that not only may the blood be transmitted from the pulmonary artery into the pulmonary veins and then into the left ventricle of the heart, 282 but that this is effected by the ceaseless pulsation of the heart and the movements of the lungs in breathing." 283 He then shows how Galen explained the uses of the valves and the necessity for their existence, as well as the universal mutual anastomosis of the arteries with the veins, 284 and that the heart is incessantly receiving and expelling blood by and from its ventricles, for which purpose it is furnished with four sets of valves, two for escape and two for inlet and their regulation.

285 Harvey then noted a well-known clinical fact, that the more frequent or forcible the pulsations, the more speedily might the body be deprived of its blood during hemorrhage, 286 and that it thus happens that in fainting fits and the like, when the heart beats more languidly, hemorrhages are diminished and arrested. 287 The balance of the book is practically devoted to further demonstration and corroboration of statements already made. 288 A study of this work of Harvey's illustrates how much respect even he and his contemporaries still showed for the authority of Galen. 289 It shows still further how nearly Galen came to the actual truth concerning the circulation. 290 Had

the latter not adopted too many of the notions of his predecessors concerning the nature of the soul (Anima) and the spirits (Pneuma) of human, he might himself have anticipated Harvey by a thousand years, 291 and by such announcement of a great truth have set forward physiology by an equal period. 292 Independent and original as Harvey showed himself, he seems to have failed to get away from the notion of the vapours and spiritual nature of the blood which he had inherited from the writings of Galen and many others. 293 Nevertheless he also alludes to this same blood as alimentive and nutritive. We must not forget, however, that this was years before Priestly's discovery of oxygen 294 and that Harvey had, like others, no notion of the actual purpose of the lungs, believing that the purification and revivification of the blood was the office of the heart itself.

295 Along with its other intrinsic merits Harvey's book possesses a clear and logical arrangement, the author first disposing of the errors of antiquity, 296 describing next the behaviour of the heart in the living animal, showing its automatic pumplike structure, its alternate contractions and the other phenomena already alluded to, 297 thus piling up facts one upon another in a manner which proved quite irresistible. 298 The only thing that he missed was the ultimate connection between the veins and the arteries, i. e., the capillaries, 299 which it remained for Malpighi to discover with the then new and novel microscope, which he did about 1657, showing the movement of the blood cells in the small vessels, 300 and confirming the reality of that ultimate communication which had been held to exist. 301 Malpighi discovered the blood corpuscles in 1665, but it remained for Leeuwenhoek, of Delft, in 1690, by using an improved instrument to demonstrate to all observers the actual movements of the circulating blood in the living animal. 302 One historian has said that with Harvey's overthrow of the old teachings regarding the importance of the liver and of the spirits in the heart "fell the four fundamental humours and qualities" 303 while Daremberg

exclaims: "As in one of the days of the creation, chaos disappeared and light was separated from darkness."

304 It remains now only to briefly consider how Harvey's great discovery was received. To quote the words of one writer: 305 "So much care and circumspection in search for truth, so much modesty and firmness in its demonstration, so much clearness and method in the development of his ideas, should have prepossessed everyone in favour of the theory of Harvey; 306 on the contrary, it caused a general stupefaction in the medical world and gave rise to great opposition."

307 During the quarter of a century which elapsed after Harvey's announcement there probably was not an anatomist nor physiologist of any prominence who did not take active part in the controversy engendered by it; 308 even the philosopher Descartes was one of the first adherents of the doctrine of the circulation, which he corroborated by experiments of his own.

309 Two years after the appearance of Harvey's book appeared an attack, composed in fourteen days by one Primerose, a man of Scotch descent, born and educated in France, but practising at Hull, 310 in which he pronounced the impossibilities of surpassing the ancients or improving on the work of Riolan, who already had written in opposition to Harvey, and who was the only one to whom the latter vouchsafed an answer. 311 It was Riolan who procured a decree of the Faculty of Paris prohibiting the teaching of Harvey's doctrine. 312 It was this same Riolan who combated with equal violence and obstinacy the other great discovery of the age, namely,-- the circulation of the lymph.

313 One of the earliest and fiercest adversaries of Harvey's theory was Plempius, of Louvaine, who, however, gave way to the force of argument 314 and who finally publicly and voluntarily passed over to the ranks of its defenders in 1652, becoming one of Harvey's most enthusiastic advocates.

315 Harvey's conduct through the controversy was always of the most dignified character; 316 in fact, he rarely ventured to reply in any way to his adversaries,

believing in the ultimate triumph of the truths which he had enunciated. 317 His only noteworthy reply was one addressed to Riolan, then Professor in the Paris Faculty and one of the greatest anatomists of his age, to whose opinion great value was always attached. 318 Even in debating or arguing against him, Harvey always spoke of him with great deference, calling him repeatedly The Prince of Science. 319 Riolan was, however, never converted, though whether he held to his previous position from obstinacy, from excess of respect for the ancients, or from envy and jealousy of his contemporary, is not known.

320 Another peculiar spectacle was afforded by one Parisunus, who died in 1643, a physician in Venice, who, like Harvey, had been a pupil of Fabricius of Aquapendente, who had been stigmatised by Riolan as an ignoramus in anatomy, 321 but who joined with others in declaring that he had seen the heart beat when perfectly bloodless, and that no beating of the heart and no sounds were to be heard as Harvey had affirmed.

322 With the later and more minute studies into the structure and function of the heart we are not here concerned. The endeavour has been rather to place before you the sentiments, 323 the knowledge and the habits of thought of the people of Harvey's time, with the briefest possible epitome of what they knew, or rather of how little they knew, 324 to account for this later slavish adherence to authority by unwillingness to reason independently, or to observe natural phenomena intelligently, still less to experiment with them. 325 It is, then, rather the brief history of an epochal discovery than an effort to trace out its far-reaching consequences that I have endeavoured to give.

326 Here must close an account which perhaps has been to you tedious, and yet which is really brief, of Harvey's life and labours. 327 He lived to see his views generally accepted and to enjoy his own triumph, a pleasure not attained by many great inventors or discoverers. 328 Lessons of great importance may be gathered

from a more careful study of this great historical epoch, but they must be left to your own powers of reasoning rather than to what I may add here. 329 I commend it to you as a fertile source of inspiration, and a line of research worthy of both admiration and imitation. 330 Few people have rendered greater service to the world by the shedding of blood than did Harvey, in his innocent and wonderful studies of its natural movement. 331 Perhaps it might be said of him that he was the first man to show that "blood will tell." What he made it tell has been thus briefly told to you.

332 I know not how I may better close this account than by quoting the concluding words of his famous book, 333 and especially repeating the lines which he has quoted from some Latin author whom I have not been able to identify. His paragraph and his quotation are as follows: 334 "Finally, if any use or benefit to this department of the republic of letters should accrue from my labours, it will, perhaps, be allowed that I have not lived idly, and, as the old man in the comedy says:

335 'For never yet hath anyone attained
To such perfection, but that time, and place,
And use, have brought addition to own knowledge;
Or made correction, or admonished you,
That you was ignorant of much which you
Had thought you knew; or led you to reject
What you had once esteemed of highest price.'"

HISTORY OF ANAESTHESIA AND THE INTRODUCTION OF ANAESTHETICS IN SURGERY

Commemorative Address delivered at the Medical Department, University of Buffalo, October 16, 1896.

IN COMMEMORATION OF THE SEMI-CENTENNIAL OF THE INTRODUCTION OF ETHER AS AN ANAESTHETIC AGENT

13 Fifty years ago to-day-- that is to say, on the 16th of October, 1846,-- there occurred an event which marks as distinct a step in

human progress as almost any that could be named by the erudite historian. 2 I refer to the first demonstration of the possibility of alleviating pain during surgical operations. 3 Had this been the date of a terrible battle, on land or sea, with mutual destruction of thousands of human beings, the date itself would have been signalised in literature and would have been impressed upon the memory of every schoolboy, 4 while the names of the great military murderers who commanded the opposing armies would have been emblasoned upon monuments and the pages of history. 5 But this event was merely the conquest of pain and the alleviation of human suffering, 6 and no one who has ever served own race by contributing to either of these results has been remembered beyond own generation or outside the circle of own immediate influence. Such is the irony of fate. 7 The world erects imposing monuments or builds tombs, like that of Napoleon, to the memory of those who have been the greatest destroyers of their race; 8 and so Cæsar, Hannibal, Genghis Khan, Richard the Lion-hearted, Gustavus Vasa, Napoleon and hundreds of other great military murderers have received vastly more attention, because of their race-destroying propensities and abilities, than if they had ever fulfilled fate in any other capacity. 9 But the people like Sir Spencer Wells, who has added his 40,000 years of life to the total of human longevity, 10 or like Sir Joseph Lister, who has shown our profession how to conquer that arch enemy of time past, surgical sepsis, 11 or like Morton, who first publicly demonstrated how to bring on a safe and temporary condition of insensibility to pain, 12 are people more worthy in our eyes of lasting fame, and much greater heroes of their times, and of all time,-- 13 yet are practically unknown to the world at large, to whom they have ministered in such an unmistakable and superior way.

14 This much, then, by way of preface and reason for commemorating in this public way the semi-centennial of this really great event. 15 Because the world

does scant honour to these people we should be all the more mindful of their services, and all the more insistent upon their public recognition. 16 Of all the achievements of the Anglo-Saxon race, I hold it true that the two greatest and most beneficent were the discovery of ether and the introduction of antiseptic methods,-- one of which we owe to an American, the other to a Briton.

17 The production of deep sleep and the usual accompanying abolition of pain have been subjects which have ever appeared, in some form, in myth or fable, and to which poets of all times have alluded, usually with poetic license. 18 One of the most popular of these fables connects the famous oracle of Apollo, at Delphi, 19 whence proceeded mysterious utterances and inchoate sounds, with convulsions, delirium and insensibility upon the part of those who approached it. 20 To what extent there is a basis of fact in this tradition can never be explained, but it is not improbable from what we now know of hypnotic influence.

21 From all time it has been known that many different plants and herbs contained principles which were narcotic, stupefying or intoxicating. 22 These properties have especially been ascribed to the juices of the poppy, the deadly nightshade, henbane, the Indian hemp and the mandrágora, which for us now is the true mandrake, whose juice has long been known as possessing soporific influence. 23 Ulysses and his companions succumbed to the influence of 'Nepenthe'; and, nineteen hundred years ago, when crucifixion was a common punishment of malefactors, 24 it was customary to assuage their last hours upon the cross by a draught of vinegar with gall or myrrh, which had real or supposititious narcotic properties. 25 Even the prophet Amos, seven hundred years before the time of Christ, spoke of such a mixture as this as "the wine of the condemned," 26 for he says, in rehearsing the iniquities of Israel by which they had incurred the anger of the Almighty: 27 "And they lay themselves down upon the clothes laid to pledge by every altar, and they drink the wine of

the condemned in the house of their God," (Chapter-2, verse:8), 28 meaning thereby undoubtedly that these people, in their completely demoralised condition, drank the soporific draught kept for criminals.

29 Herodotus mentions a habit of the Scythians, who employed a vapour generated from the seed of the hemp for the purpose of producing an intoxication by inhalation. 30 Narcotic lotions were also used for bathing the people about to be operated upon. 31 Pliny, who perished at the destruction of Herculaneum, A. D. 79, testified to the soporific power of the preparations made from mandrágora upon the faculties of those who drank it. 32 He says: "It is drunk against serpents and before cuttings and puncturings, lest they should be felt." 33 He also describes the indifference to pain produced by drinking a vinous infusion of the seeds of eruca, called by us the rocket, upon criminals about to undergo punishment. 34 Dioscorides relates of mandrágora that "some boil down the roots in wine to a third part, and preserve the juice thus procured, and give one cyathus of this to cause the insensibility of those who are about to be cut or cauterised." 35 One of his later commentators also states that wine in which mandrágora roots have been steeped "does bring on sleep and appease pain, 36 so that it is given to those who are to be cut, sawed or burnt in any parts of their body, that they may not perceive pain." 37 Apuleius, about a century later than Pliny, advised the use of the same preparation. 38 The Chinese, in the earlier part of the century, gave patients preparations of hemp, by which they became completely insensible and were operated upon in many ways. 39 This hemp is the cannabis Indica which furnishes the 'Hasheesh' of the Orient and the intoxicating and deliriating 'Bhang', about which travellers in the East used to write so much. 40 In Barbara, for instance, it was always taken, if possible, by criminals condemned to suffer mutilation or death.

41 According to the testimony of medieval writers, knowledge of these narcotic drugs was practically applied during the last of the Crusades, 42 the probability

being that the agent principally employed was this same hasheesh. Hugo di Lucca gave a complete formula for the preparation of the mixture, 43 with which a sponge was to be saturated, dried, and then, when wanted, was to be soaked in warm water, and afterward applied to the nostrils, until he who was to be operated upon had fallen asleep; after which he was aroused with the vapour of vinegar.

44 Strangely enough, the numerous means of attaining insensibility, then more or less known to the common people, and especially to criminals and executioners, do not appear to have found favour for use during operations. 45 Whether this was due to unpleasant after-effects, or from what reason, we are not informed. 46 Only one or two surgical writers beside Guy de Chauliac (1498) refer in their works to agents for relief of pain, 47 and then almost always to their unpleasant effects, the danger of producing asphyxiation, and the like. 48 Ambrose Paré wrote that preparations of mandrágora were formerly used to avert pain. 49 In 1579, an English surgeon, Bulleyn, affirmed that it was possible to put the patient into an anaesthetic state during the operation of lithotomy, but spoke of it as a "terrible dream." 50 One Meisner spoke of a secret remedy used by Weiss, about the end of the 17th Century, upon Augustus II., king of Poland, 51 who produced therewith such perfect insensibility to pain that an amputation of the royal foot was made without suffering, even without royal consent. 52 The advice which the Friar gave Juliet regarding the distilled liquor which she was to drink, and which should presently throw her into a cold and drowsy humour, although a poetic generality, is Shakespeare's recognition of a popular belief. 53 Middleton, a tragic writer of Shakespeare's day, in his tragedy known as "*Women beware Women,*" refers in the following terms to anesthesia in surgery:

54 "I'll imitate the pities of old surgeons
To this lost limb, who, ere they show their art,
Cast one asleep; then cut the diseased part."

55 Of course, of all the narcotics in use by educated people, opium has been, since its discovery and introduction, the most popular and generally used. 56 Surgeons of the last century were accustomed to administer large doses of it shortly before an operation, which, if serious, was rarely performed until the opiate effect was manifested. 57 Still, in view of its many unpleasant after-effects, its use was restricted, so far as possible, to extreme cases.

58 Baron Larrey, noticing the benumbing effect of cold upon wounded soldiers, suggested its introduction for anesthetic purposes, 59 and Arnott, of London, systematised the practice, by recommending a freezing mixture of ice and salt to be laid directly upon the part to be cut. 60 Other surgeons were accustomed to put their patients into a condition of either alcoholic intoxication or alcoholic stupour. 61 Long-continued compression of a part was also practised by some, by which a limb could, as we say, be made to "go to sleep." 62 A few others recommended to produce faintness by excessive bleeding.

63 It was in 1776 that the arch-fraud Mesmer entered Paris and began to initiate people into the mysteries of what he called 'animal magnetism', which was soon named mesmerism, after him. 64 Thoroughly degenerate and disreputable as he was, he nevertheless taught people some new truths, which many of them learned to their sorrow, 65 while in the hospitals of France and England severe operations were performed upon patients thrown into a mesmeric trance, and without suffering upon their part. 66 That a scientific study of the mesmeric phenomena has occupied the attention of eminent people in recent years, and that hypnotism is now recognised as an agent often capable of producing insensibility to pain is simply true, 67 as these facts have been turned to the real benefit of human by scientific students rather than by quacks and charlatans.

68 In 1799, Sir Humphrey Davey, being at that time an assistant in the private hospital of Dr. Beddoes, which was established for treatment of disease by inhalation of gases, 69 and which

he called ‘The Pneumatic Institute’, began experimenting with nitrous oxide gas, and noticed its exhilarating and intoxicating effects; also the relief from pain which it afforded in headache and toothache. 70 As the results of his reports, a knowledge of its properties was diffused all over the world, and it was utilised both for amusement and exhibition purposes. 71 Davey even wrote as follows of this gas: As nitrous oxide, in its extensive operation, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place.

72 It is not at all unlikely that Colton and Wells, to be soon referred to, derived encouragement, if not incentive, from these statements of Davey. 73 Nevertheless, Velpeau, perhaps the greatest French surgeon of his day, wrote in 1839, that "to escape pain in surgical operations is a chimera which we are not permitted to look for in our day."

74 Sulphuric ether, as a chemical compound, was known from the 13th Century, for reference was made to it by Raymond Lully. 75 It was first spoken of by the name of ether by Godfrey, in the Transactions of the London Royal Society, in 1730, while Isaac Newton spoke of it as the ethereal spirits of wine. 76 During all of the previous century it was known as a drug, and allusion to its inhalation was made in 1795 in a pamphlet, probably by Pearson. 77 Beddoes, in 1796, stated that "it gives almost immediate relief, both to the oppression and pain in the chest, in cases of pectoral catarrh." 78 In 1815, Nysten spoke of inhalation of ether as being common treatment for mitigating pain in colic, and in 1816 he described an inhaler for its use. 79 As early as 1812 it was often inhaled for experiment or amusement, and so-called "ether frolics" were common in various parts of the country.

80 This was true, particularly for our purpose, of the students of Cambridge, and of the common people in Georgia in the vicinity of Long's home. 81 It probably is for this reason that a host of claimants for the honour of the discovery appeared so soon as the true

anesthetic properties of the drug were demonstrated. 82 There probably is every reason to think that, either by accident or design, a condition of greater or less insensibility to pain had been produced between 1820 and 1846, by a number of different people, educated and ignorant, 83 but that no one had the originality or the hardihood to push these investigations to the point of determining the real usefulness of ether. 84 This was partly from ignorance, partly from fear, and partly because of the generally accepted impossibility of producing safe insensibility to pain. 85 So, while independent claims sprang up from various sources, made by aspirants for honours in this direction, 86 it is undoubtedly as properly due to Morton to credit him with the introduction of this agent as an anesthetic as to credit Columbus with the discovery of the New World, 87 in spite of certain evidences that some portions of the American continent had been touched upon by adventurous voyagers before Columbus ever saw it.

88 The noun "anesthesia" and the adjective "anesthetic" were suggestions of Dr. Oliver Wendell Holmes, who early proposed their use to Dr. Morton in a letter which is still preserved. 89 He suggests them with becoming modesty, advises Dr. Morton to consult others before adopting them, but, nevertheless, states that he thinks them apt for that purpose. 90 The word anesthesia, therefore, is just about of the same age as the condition itself, and it, too, deserves commemoration upon this occasion.

91 As one reads the history of anesthesia, which has been written up by a number of different authors, each, for the main part, having some particular object in view, or some particular friend whose claims he wishes especially to advocate, 92 he may find mentioned at least a dozen different names of people who are supposed to have had more or less to do with this eventful discovery. 93 But, for all practical purposes, one may reduce the list of claimants for the honour to four men, each of whose claims I propose to briefly discuss.

94 These men were Long, Wells, Jackson and Morton. Of these four, two were dentists and two practising physicians, 95 to whom fate seems to have been unkind, as it often is, since three of them at least died a violent or distressing death, 96 while the fourth lived to a ripe old age, harassed at almost every turn by those who sought to decry his reputation or injure his fortunes.

97 Crawford W. Long was born in Danielsville, Ga., in 1816. In 1839 he graduated from the Medical Department of the University of Pennsylvania. 98 In the part of the country where Long settled it was a quite common occurrence to have what were known as "ether frolics" at social gatherings, 99 ether being administered to various persons to the point of exhilaration, which in some instances was practically uncontrollable. 100 Long's friends claim that he had often noticed that when the ether effect was pushed to this extent the subjects of the frolic became oblivious to minor injuries, and that these facts, often noticed, suggested to his mind the use of ether in surgical operations. 101 There is good evidence to show that Long first administered ether for this purpose on the 30th of March, 1842, and that on June 6th he repeated this performance upon the same patient; 102 that in July he amputated a toe for a negro boy, but that the fourth operation was not performed until September of 1843.

103 In 1844 a young man, named Wilhite, who had helped to put a coloured boy to sleep at an ether frolic in 1839, became a student of Dr. Long's, to whom Long related his previous experiences. 104 Long had never heard of Wilhite's episode, but had only one opportunity, in 1845, to try it, again upon a negro boy. 105 Long lived at such a distance from railroad communication (130 miles) as to have few advantages, either of practice, observation or access to literature. 106 Long made no public mention of his use of ether until 1849, when he published An Account of the First Use of Sulphuric Ether by Inhalation as an Anesthetic in Surgical Operations, 107 stating that he first read of Morton's

experiments in an editorial in the 'Medical Examiner' of December, 1846, 108 and again later; on reading which articles he determined to wait before publishing any account of his own discovery, to see whether anyone else would present a prior claim. 109 No special attention was paid to Long's article, as it seemed that he merely desired to place himself on record. 110 There is little, probably no reasonable doubt as to Long's priority in the use of ether as an anesthetic, although it is very doubtful if he carried it, at least at first, to its full extent. 111 Nevertheless Long was an isolated observer, working entirely by himself, having certainly no opportunity and apparently little ambition to announce his discovery, and having no share in the events by which the value of ether was made known to the world.

112 Long's strongest advocate was the late Dr. Marion Sims, who made a strong plea for his friend, and yet was not able to successfully establish anything more than has just been stated. 113 As Dr. Morton's son, Dr. W. J. Morton, of New York, says, when writing of his father's claim: "People used steam to propel boats before Fuller; electricity to convey messages before Morse; vaccine virus to avert smallpox before Jenner; and ether to annul pain before Morton." 114 But these people are not generally credited with their introduction by the world at large and, he argues, neither should Long or the other contestants be given the credit due Morton himself. 115 In fact, Long writes of his own work that the result of his second experiment was such as to make him conclude that ether would only be applicable in cases where its effects could be kept up by constant use; 116 in other words, that the anesthetic state was of such short duration that it was to him most unsatisfactory.

117 Sir James Paget has summed up the relative claims of our four contestants in an article entitled *Escape from Pain*, published in the 'Nineteenth Century' for December, 1879. 118 He says: "While Long waited, and Wells turned back, and Jackson was thinking, and those to whom they

had talked were neither acting nor thinking, Morton, the practical man, went to work and worked resolutely. 119 He gave ether successfully in severe surgical operations; he loudly proclaimed his deeds and he compelled humankind to hear him."

120 Horace Wells was born in Hartford, Vt., in 1815. In 1834 he began to study dentistry in Boston, and after completing his studies began to practise in Hartford, Ct. 121 He was a man of no small ingenuity, and devised many novelties for his work. In December, 1844, he listened to a lecture delivered by Dr. Colton, who took for his subject nitrous oxide gas, 122 the amusing effects of which he demonstrated to his audience upon a number of persons who visited the platform for that purpose. Wells was one of these. 123 Wells, moreover, noticed that another young man, who bruised himself while under its influence, said afterward that he had not hurt himself at all. 124 Wells then stated to a bystander that he thought that if one took enough of that kind of gas he could have a tooth extracted and not feel it. 125 He at once called upon a neigbouring dentist friend and made arrangements to test the anesthetic effects of the gas upon himself the next morning. 126 Accordingly Colton gave him the gas, and Riggs, the friend, extracted the tooth; and Wells, returning to consciousness, assured them both that he had not suffered a particle of pain. 127 He began at once to construct an apparatus for its manufacture. Dr. Marcey, of Hartford, then informed Wells that while a student at Amherst he and others had often inhaled nitrous oxide as well as the vapour of ether, for amusement, and suggested to Wells to try ether. 128 After a few trials, however, it was found more difficult to administer, and Wells accordingly resolved to adhere to gas alone. 129 This was in 1844, two years after Long's obscure experiments, of which, of course, they were ignorant. 130 In 1845, Wells visited Boston for the purpose of introducing his discovery, and among others called upon his former partner, Morton, trying to establish the use of the gas. 131 He soon became

discouraged, however, and returned to Hartford, resuming his practice. 132 There he continued to use gas for about two years, but failed to secure its introduction into general surgery, owing to prejudice and ignorance on the part of dentists and physicians alike. 133 Wells's claims have been advocated by many of his fellow-citizens, and in Bushnell Park, in Hartford, stands a monument erected by the city and the state, dedicated to Horace Wells, "who discovered anesthesia, November, 1844."

134 C. T. Jackson was born in Plymouth, Massachussets, in 1805. He graduated in the Harvard Medical School in 1829, after which he went abroad, where he remained for several years, 135 made the acquaintance of the most distinguished men, experimented in general science, electricity and magnetism and even devised a telegraphic apparatus, similar to that which Morse patented a year later. 136 Returning, in 1835, he opened in Boston a labouratory for instruction in analytical chemistry, the first of its kind in the country. 137 He also made quite a reputation as a geologist and mineralogist and received official appointments from Maine, Rhode Island, New Hampshire and other states. 138 In 1845 he discovered and opened up copper and iron mines in the Lake Superior district. 139 In 1846 and 1847 he was much aroused by Morton's experiments with sulphuric ether, and claimed even that he had suggested the use of ether to Morton, 140 claiming also that he had himself been relieved of an acute distress by inhalation of ether vapour, 141 and that it was from reflection on the phenomena presented in his own case that the possibility of its use for relief of pain during surgical operations suggested itself to him. 142 This led to a triangular conflict for the priority of discovery between Wells, Jackson and Morton, each claiming the honour for himself. 143 Wells health soon gave way. He went abroad and got recognition from the French Institute and the Paris Academy of Sciences, which did not, however, endorse his claim as discoverer nor accept nitrous oxide as an anesthetic. 144 Wells returned to

find that Morton was on the tide of popular favour, the public having endorsed ether as the only reliable anesthetic. 145 His mind became unbalanced, and in a fit of temporary aberration he ended his own life in a prison cell, in New York city in 1848.

146 Wells being out of the way, Jackson became Morton's most violent opponent, and the two indulged in a most bitter fight and unseemly discussion. 147 A few years later, Jackson, who, as remarked, had an extensive acquaintance abroad, visited Europe and presented his claim to the credit of the discovery of ether before various individuals and learned bodies, 148 and so well did he work upon the French Institute as to be recognised as the discoverer of modern anesthesia. 149 A select committee of the House of Representatives, to whom in 1854 Congress referred the matter, announced the following conclusions: 150 "First, that Dr. Horace Wells did not make any discovery of the anesthetic properties of the vapour of ether which he himself considered reliable and which he thought proper to give to the world. 151 That his experiments were confined to nitrous oxide, but did not show it to be an efficient and reliable anesthetic agent....

152 "Second, that Dr. Charles T. Jackson does not appear at any time to have made any discovery in regard to ether which was not in print in Great Britain some years before. * * * * *

153 "Fifth, that the whole agency of Dr. Jackson in the matter appears to consist entirely in his having made certain suggestions to aid Dr. Morton to make the discovery."

154 In 1873, Jackson's mind gave way, and after seven years of confinement in an asylum he died in 1880, at the age of 75, having been the recipient of many honours from foreign potentates and learned societies.

155 William T. G. Morton was born in Charleston, Massachussets, in 1819. After a disastrous experience in business he was sent to Baltimore in 1840 and began the study of dentistry. 156 In 1841 he entered the dental office of Horace Wells as student and assistant, becoming a partner in 1842. In 1843 partnership was dissolved, Wells removing to Hartford, as

before stated. 157 Morton, ambitious for a medical degree, entered his name as a student in the office of Charles T. Jackson, in 1844, and the same year matriculated in the Harvard Medical School, though he never graduated. 158 Having learned through Wells of the latter's successful use of nitrous oxide gas, but not knowing how to make it, 159 he sought the advice of Dr. Jackson, who informed him that its preparation entailed considerable difficulty, and inquired for what purpose he wanted it. 160 On Morton's replying that he wished to use it to make patients insensible to pain, Jackson suggested the use of sulphuric ether, 161 as Marcey had suggested it to Wells two years previously, saying that it would produce the same effect and did not require any apparatus. 162 Jackson also told Morton of the ether frolics common at Cambridge among the students. 163 That same evening, September 30, 1846, Morton administered ether to a patient and extracted a tooth for him without pain. 164 The next day he visited the office of a patent lawyer, for the purpose of securing a patent upon the new discovery. 165 This lawyer ascertained that Jackson had been intimately connected with its suggestion, and came to the conclusion that a patent could not safely issue to either one independently of the other. 166 But Jackson being a member of the State Medical Society, against whose ethical code it is to patent discoveries that pertain to the welfare of patients, 167 and fearing the censure of his colleagues, agreed at once to assign his right over to Morton, receiving in return a 10 per cent. commission upon all that the latter made out of it. 168 Morton, as a dentist, having no more compunction then than dentists have now upon the securement of a patent,-- in other words, being actuated by no fine ethical scruples,-- 169 secured the patent, and then called upon Dr. J. Mason Warren, one of the surgeons in the Massachusetts General Hospital. Warren promised his coöperation and appointed the 16th of October, 1846, for the first public trial.

170 Upon this occasion the clinic room was filled with visitors and

students, when Morton placed the young man under the influence of his "letheon," as he called it then; after which Warren removed a tumor from his neck. 171 The trial was most successful. Another took place on the following day, and on November 7th an amputation and an excision of the jaw were made, both patients being under the influence of letheon and oblivious to pain. 172 At this time the nature of the anesthetic agent was kept a secret, the vapour of ether being disguised by aromatics, so as not to be recognised by anyone present. 173 True to the highest traditions of their craft, the staff of the Massachusetts General Hospital now met and declined to make further use of a drug whose composition was thus kept secret. 174 It was then that Morton revealed the exact nature of it as sulphuric ether, disguised with aromatic oils.

175 In a report made by the commissioner of patents, it was set forth that: "For many years it had been known that the vapour of sulphuric ether, when freely inhaled, would intoxicate as does alcohol when taken into the stomach, but that the former was much more temporary in its effects. 176 But notwithstanding the records of its effects to this extent, which were familiar to so many, no surgeon had ever attempted to substitute it for the palliatives in common use previous to surgical operations. 177 That, in view of these and other considerations, a patent had been granted for the discovery."

178 In 1846 an English patent was obtained. Morton soon began the attempt to sell office rights, as do the dentists of to-day, 179 while the medical profession was then, as ever, antagonistic to patents, holding them to be subversive of general good. 180 His patent was soon opposed and then generally infringed upon. Litigation followed without end, and the government stultified itself by refusing to recognise the validity of the patent issued by itself. 181 And so, without any compensation to the discoverer, ether soon came into general use in this country as abroad. While receiving many congratulations from friends and humanitarians, 182 Morton's success aroused the jealousy of some of his professional brethren,

among them one Dr. Flagg, who commenced a terrible onslaught upon the new application of ether and its promoter. 183 By his machinations a meeting of Boston dentists was called and a committee of twelve appointed to make a formal protest against anesthesia. 184 This committee published a manifesto in the Boston Daily Advertiser', in which all sorts of untoward effects and unpleasant results were attributed to the new anesthetic. 185 This proclamation was spread broadcast, and did Morton, for the time, very much harm. 186 Equally obstreperous was Dr. Westcott, connected with the Dental College in Baltimore. He made fun of Morton's "sucking bottles," as his inhalers were dubbed; 187 and in various of the medical and secular journals of the day, bitter, often foolish and absurd, attacks were made. 188 The editors of the New Orleans Medical and Surgical Journal said: "That the leading surgeons of Boston could be captivated by such an invention as this, heralded to the world under such auspices and upon such evidences of utility and safety as are presented by Dr. Bigelow, excites our amazement. 189 Why, mesmerism, which is repudiated by the savants of Boston, has done a thousand times greater wonders, and without any of the dangers here threatened. What shall we see next?"

190 These and similar statements created a very strong prejudice against Morton, who, in December, 1846, sent to Washington, to a nephew of Dr. Warren, 191 to endeavour to urge upon the government the advantages of employing ether in the army during the Mexican war, then in progress. 192 The chief of the Bureau of Medicine and Surgery reported that the article might be of some service for use in large hospitals, but did not think it expedient for the department to incur any expense by introducing it into the general service; 193 while the acting surgeon-general believed that the highly volatile character of the substance itself made it ill-adapted to the rough usage it would necessarily encounter upon the field of battle, and accordingly declined to recommend its use.

194 In January of 1853, Morton demonstrated at the infirmary in Washington, before a congressional committee and others, the anesthetic effect of ether, which he continued through a dangerous and protracted surgical operation. 195 This was the result of a challenge to compare the effects of nitrous oxide and those of ether, the advocates of the former not putting in an appearance. 196 The balance of Morton's life seems to have been spent in continued jangles. 197 The government, having repudiated its own patent, was repeatedly besought by memorials and through the influence of members of Congress to bestow some testimonial upon or make some money return to Morton for his discovery. 198 Several times he came near a realisation of his hopes in this respect, when the action of some of his enemies or the termination of a congressional session, or some other accident, would doom him again to disappointment. 199 The pages of evidence that were printed, the various reports issued through or by government officers, the memorials addressed from various individuals and societies, if all printed together, would make a large volume; but all of these were of no avail. 200 Morton spent all his means, as he spent his energies and time, in futile endeavour to get pecuniary recognition of his discovery, but was doomed to disappointment. 201 He seemed alike a victim of unfortunate circumstances and of treachery and animosity upon the part of his opponents. Especially did the fight wage warm between him and his friends and Jackson. 202 Plots to ruin his business were repeatedly hatched and his life was made miserable in many ways. 203 Mere temporary sops to wounded vanity and impaired fortune were the honourary degrees and the testimonials that came to him from various institutions of learning and foreign societies. 204 In 1850 both Morton and Jackson received from the French Academy prizes valued at 2,500 francs each.

205 Finally, Morton fell into a state of nervous prostration, suffered from anxiety and insomnia, and in a fit of temporary aberration exposed himself in Central Park,

New York, became unconscious, 206 and was taken to St. Luke's hospital, dying just as he reached the institution, on the 15th of July, 1868. 207 In Mount Auburn cemetery, in Boston, there stands a beautiful monument to William T. G. Morton, bearing this inscription: 208 "Inventor and revealer of anesthetic inhalation, before whom in all time surgery was agony; by whom pain in surgery was averted and annulled; since whom science has control of pain."

209 Again, in the Public garden in Boston there was erected, in 1867, a beautiful monument to the honour of the discoverer of ether, upon whom at that time they could not decide. 210 Upon the front are these words: "To commemorate that the inhaling of ether causes insensibility to pain, first proven to the world at the Massachusetts General hospital, in Boston, October, A. D. 1846." 211 Upon the right side are the words: "'Neither shall there be any more pain.'-- Revelations." 212 Upon the left: "'This also cometh forth from the Lord of Hosts, which is wonderful in counsel and excellent in working.'-- Isaiah." 213 And upon the other: "In gratitude for the relief of human suffering by the inhaling of ether, a citizen of Boston has erected this monument, A. D. 1867. The gift of Thomas Lee."

214 Summing up, then, the claims of our four contestants in the light of a collected history of the merits of each, 215 it would appear that Wells first made public use of nitrous oxide gas for limited purposes, but failed to introduce it into general professional use. 216 That Long, in an isolated rural practice, a few times used ether, with which he produced probably only partial insensibility to pain, and that he had apparently discontinued its use before learning of Morton's researches. 217 That Jackson made no claim to the use of the agent on his own part, but simply of having suggested it to Morton. 218 And, finally, that Morton quickly accepted the suggestion, made careful and scientific use thereof, but especially, and above all other things, first 'demonstrated' to the world at large the capability and the safety of this agent as an absolute, reliable and efficient anesthetic. 219 So, though Morton permitted his cupidity to run away

with finer ethical considerations, and attached a higher pecuniary than humanitarian value to sulphuric ether, 220 he, nevertheless, must be generally credited with having, to use the modern expression, "promoted" its introduction, and having shown to the world at large what an inestimably valuable therapeutic agent had been added to our resources for the control of pain.

221 The synthetic compound known as chloroform was discovered independently by three different observers between 1830 and 1832. These were respectively Guthrie, of Sackett's habour, N. Y.; Soubeiran, of France, and Liebig, of Germany. 222 The honour of introducing it to the profession as an anesthetic for surgical purposes is universally accorded to James Y. Simpson, then of Edinburgh. 223 Yet claim was at one time advanced in favour of Surgeon-Major Furnell, of the Madras Army Medical Corps, 224 who in the summer preceding the announcement of Simpson's brilliant discovery experimented with what is known as chloric ether, which is not an ether at all, but a solution of chloroform in alcohol. 225 It is said that he found that it would produce the same results as sulphuric ether, with less unpleasant sensations, and suggested its use to Coote, a well-known London surgeon. 226 However, such claims as those made in favour of Furnell are no more entitled to recognition than are those of Wells or Long in the matter of the introduction of ether to the public; 227 for although individual observations were favourable to the compound, it never came to public notice on this surmise.

228 Sir James Y. Simpson was born in 1811, took the degree of doctor of medicine in 1832 and advanced rapidly in his professional career until, in January, 1847, he was appointed one of her majesty's physicians in Scotland. 229 Having already obtained a large reputation, particularly in midwifery and gynecology, he directed his special attention toward the use of anesthetics in childbirth, 230 and he had quickly recognised the value of sulphuric ether when

introduced the previous year. He sought, however, for a substitute of equal power, having less disagreeable odour and unpleasant after effect. 231 Upon inquiry of his friend Waldie, Master of Apothecaries Hall of Liverpool, if he knew of a substance likely to be of service in this direction, Waldie, familiar with the composition of chloric ether, suggested its active principle chloroform; 232 with which Simpson experimented, and, upon the 4th of November, 1847, established its anesthetic properties. These he first made known to the Medico-Chirurgical Society of Edinburgh in a paper read November 10th. 233 Three days later a public test was to have been made at the Royal Infirmary, but Simpson, who was to administer the chloroform, being unavoidably detained, the operation was done as heretofore without an anesthetic, and this patient died during the operation.

234 You can readily see that had this occurred under chloroform it would have been ascribed to the new drug, which would then and there have received its death blow. 235 As it was, the first public trial took place two days later and the test was most successful. 236 One would think that such a boon as Simpson had here offered to the world would have been gratefully-- not to say greedily-- accepted by all. 237 Simpson's position was such as to give the new anesthetic every advantage that his already great reputation could attach to it, and it became at once the agent in common use in midwifery practice. 238 But the Scotch clergy of his day still possessed altogether too much of the old fanatic spirit of the church of the middle ages. 239 One is never allowed to forget, in scanning the history of medicine, how bitterly the church has opposed, until recently, every advance in our science and our art. 240 It was in A. D. 995, for instance, that the son of one of the Venetian Doges was married, in Venice, to a sister of the emperor of the Eastern Roman Empire. 241 At the marriage feast the princess produced a silver fork and gold spoon, table novelties which excited both amusing and angry comment. 242 But the Venetian aristocracy took up with this new

table fad, and forks and spoons as substitutes for fingers soon became the fashion. 243 But the puissant church disapproved most strongly even of this arrangement, for priests went so far as to say, "to use forks was to deliberately insult the kind Providence which had given to human fingers on each hand." 244 It was this same spirit that led the Scotch clergy to attack Simpson most vehemently and denounce him from their pulpits as one who violated the moral law, 245 for they said: "Is it not ordained in Scripture, 'in sorrow shalt thou bring forth children?' and yet this man would introduce a substance calculated to mitigate this sorrow."

246 We of to-day can scarcely imagine the rancour with which these attacks were made for many months. 247 Finally, however, these fanatic defenders of the faith were routed by a quotation from the same Scriptures in which they claimed to find their authority; 248 for Simpson, most adroitly turning upon them with their own weapons, called their attention to the first chapter of Genesis, in which an account of Eve's creation appears, 249 and reminded them that when Eve was formed from the rib of Adam, the Lord "caused a deep sleep to fall upon" him. 250 So weak was their cause that with this single quotation their opposition subsided and within a week or two the entire Scotch clergy was silenced. 251 Sir James Simpson received from his own government that which was never accorded to Morton: that is, due recognition of the great service he had rendered humanity. 252 He died in 1870, and upon his bust, which stands in Westminster Abbey, are the following words: "To whose genius and beneficence the world owes the blessings derived from the use of chloroform for the relief of suffering."

253 It is scarcely necessary that I delay you now with an account of all of the other ethereal anesthetic agents which have from time to time been advocated since the memorable days to which I have devoted most of my time to-night. 254 Two only are at present ever thought of-- namely, bichloride of methylene and bromide of ethyl!-- and these are used by only a few, though each has its advantages.

255 It is well known that nearly all of the ethers have more or less of anesthetic property, coupled with many dangers and disadvantages. 256 Sulphuric ether and chloroform hold the boards to-day as against any and all of their competitors. 257 Nitrous oxide gas, as already mentioned, was known to and used by Wells, in Hartford. With the advent of ether this gas fell at once into disuse, to be revived some fifteen years after the death of Wells, mainly through the use of Dr. G. Q. Colton. 258 Since this time its use has been quite universal, although confined for the main part to the offices of dentists. 259 Its great advantages are ease of administration and rapidity of recovery, making it especially useful for their purposes, 260 while the difficulties attendant upon prolonged anesthesia by it makes it less useful for the surgeon.

261 I will spend no further time upon it nor upon the subject save to do justice to modern anesthesia by a very different method and by means of a very different drug, which is to-day in so common use that we almost forget to mention the man to whom we owe it. 262 I allude to 'Cocaine' and its discoverer, Koller.

263 Cocaine is now such a universally recognised local anesthetic that there is the best of reason for referring to it here-- 264 the more so because it affords another opportunity to do honour to a discoverer, who has rendered a most important service to not only our profession, but to the world in general. 265 This principal active constituent of cocoa leaves was discovered about 1860 by Niemann, and called by him cocaine. 266 It is an alkaloid which combines with various acids in the formation of salts. It has the quality of benumbing raw and mucous surfaces, 267 for which purpose it was applied first in 1862 by Schroff, and in 1868 by Moreno. In 1880, Van Aurap hinted that this property might some day be utilised. 268 Karl Koller logically concluded from what was known about it that this anesthetic property could be taken advantage of for work about the eye, 269 and made a series of experiments upon the lower animals, by which he established

its efficiency and made a brilliant discovery.
270 He reported his experiments to the Congress of German Oculists, at Heidelberg, in 1884. 271 News of this was transmitted with great rapidity, and within a few weeks the substance was used all over the world. 272 Its use spread rapidly to other branches of surgery, and cocaine local anesthesia became quickly an accomplished fact. 273 More time was required to point out its disagreeable possibilities, its toxic properties and the like, but it now has an assured and most important place among anesthetic agents, and has been of the greatest use to probably 10-per cent. of the civilised world. 274 To Koller is entirely due the credit of establishing its remarkable properties.

The Book of Divine Panagogue called

VISION

TOWARDS A NEW THEORY OF VISION

George Berkeley

1 My design is to show the manner wherein we perceive by sight the distance, magnitude, and situation of OBJECTS. 2 Also to consider the difference there is betwixt the IDEAS of sight and touch, and whether there be any IDEA common to both senses.

THE DISTANCE FROM US OF THE OBJECTS OF SIGHT

3 It is, I think, agreed by all that DISTANCE, of itself and immediately, cannot be seen. 4 For DISTANCE being a Line directed end-wise to the eye, it projects only one point in the fund of the eye, which point remains invariably the same, whether the distance be longer or shorter.

5 I find it also acknowledged that the estimate we make of the distance of OBJECTS considerably remote is rather an act of judgment grounded on EXPERIENCE than of SENSE. 6 For example, when I perceive a great number of intermediate OBJECTS, such as houses, fields, rivers, and the like, which I have experienced to take up a considerable space, 7 I thence form a judgment or conclusion that the OBJECT I see beyond them is at a great distance. 8 Again, when an OBJECT appears faint and small, which at a near distance I have experienced to make a vigorous and large appearance, I instantly conclude it to be far off: 9 And this, it is evident, is the result of EXPERIENCE; without which, from the faintness and littleness I should not have inferred anything concerning the distance of OBJECTS.

10 But when an OBJECT is placed at so near a distance as that the interval between the eyes bears any sensible proportion to it, 11 the opinion of speculative people is that the two OPTIC AXES (the fancy that we see only with one eye at once being exploded) concurring at the OBJECT do there make an ANGLE, 12 by means of which, according as it is greater or lesser, the OBJECT is perceived to be nearer or farther off.

13 Betwixt which and the foregoing manner of estimating distance there is this remarkable difference: 14 that whereas there was no apparent, necessary connection between small distance and a large and strong appearance, or between great distance and a little and faint appearance, 15 there appears a very necessary connection between an obtuse angle and near distance, and an acute angle and farther distance. 16 It does not in the least depend upon experience, but may be evidently known by anyone before you had experienced it, 17 that the nearer the concurrence of the OPTIC AXES, the greater the ANGLE, and the remoter their concurrence is, the lesser will be the ANGLE comprehended by them.

18 There is another way mentioned by optic writers, whereby they will have us judge of those distances, in respect of which the breadth of the PUPIL hath any sensible bigness: 19 And that is the greater or lesser divergency of the rays, which issuing from the visible point do fall on the PUPIL, 20 that point being judged nearest which is seen by most diverging rays, and that remoter which is seen by less diverging rays: 21 and so on, the apparent distance still increasing, as the divergency of the rays decreases, till at length it becomes infinite, when the rays that fall on the PUPIL are to sense parallel. 22 And after this manner it is said we perceive distance when we look only with one eye.

23 In this case also it is plain we are not beholding to experience: it being a certain, necessary truth that the nearer the direct rays falling on the eye approach to a PARALLELISM, the farther off is the point of their intersection, or the visible point from whence they flow.

24 I have here set down the common, current accounts that are given of our perceiving near distances by sight, which, though they are unquestionably received for true by MATHEMATICIANS, 25 and accordingly made use of by them in determining the apparent places of OBJECTS, do, nevertheless seem to me very unsatisfactory: and that for these following reasons:--

VISION

26 FIRST, It is evident that when the mind perceives any IDEA, not immediately and of itself, it must be by the means of some other IDEA. 27 Thus, for instance, the passions which are in the mind of another are of themselves to me invisible. 28 I may nevertheless perceive them by sight, though not immediately, yet by means of the colours they produce in the countenance. 29 We often see shame or fear in the looks of a person, by perceiving the changes of own countenance to red or pale.

30 Moreover it is evident that no IDEA which is not itself perceived can be the means of perceiving any other IDEA. 31 If I do not perceive the redness or paleness of a person's face themselves, it is impossible I should perceive by them the passions which are in your mind.

32 Now from verses:3 and 4 it is plain that distance is in its own nature imperceptible, and yet it is perceived by sight. 33 It remains, therefore, that it be brought into view by means of some other IDEA that is itself immediately perceived in the act of VISION.

34 But those LINES and ANGLES, by means whereof some MATHEMATICIANS pretend to explain the perception of distance, are themselves not at all perceived, nor are they in truth ever thought of by those unskillful in optics. 35 I appeal to anyone's experience whether upon sight of an OBJECT you computes its distance by the bigness of the ANGLE made by the meeting of the two OPTIC AXES? 36 Or whether you ever thinks of the greater or lesser divergency of the rays, which arrive from any point to your PUPIL? 37 Everyone is ownself the best judge of what you perceives, and what not. 38 In vain shall all the MATHEMATICIANS in the world tell me, that I perceive certain LINES and ANGLES which introduce into my mind the various IDEAS of DISTANCE, so long as I myself am conscious of no such thing.

39 Since, therefore, those ANGLES and LINES are not themselves perceived by sight, it follows from verses:30 and 31 that the mind doth not by them judge of the distance of OBJECTS.

40 Secondly, the truth of this assertion will be yet farther

evident to anyone that considers those LINES and ANGLES have no real existence in Nature, being only an HYPOTHESIS framed by the MATHEMATICIANS, 41 and by them introduced into OPTICS, that they might treat of that science in a GEOMETRICAL way.

42 The third and last reason I shall give for rejecting that doctrine is, that though we should grant the real existence of those OPTIC ANGLES, etc., and that it was possible for the mind to perceive them, 43 yet these principles would not be found sufficient to explain the PHENOMENA of DISTANCE, as shall be shown hereafter.

44 Now, it being already shown that distance is suggested to the mind by the mediation of some other IDEA which is itself perceived in the act of seeing, 45 it remains that we inquire what IDEAS or SENSATIONS there be that attend VISION, unto which we may suppose the IDEAS of distance are connected, and by which they are introduced into the mind. 46 And FIRST, it is certain by experience that when we look at a near OBJECT with both eyes, according as it approaches or recedes from us, we alter the disposition of our eyes, by lessening or widening the interval between the PUPILS. 47 This disposition or turn of the eyes is attended with a sensation, which seems to me to be that which in this case brings the IDEA of greater or lesser distance into the mind.

48 Not that there is any natural or necessary connection between the sensation we perceive by the turn of the eyes and greater or lesser distance, 49 but because the mind has by constant EXPERIENCE found the different sensations corresponding to the different dispositions of the eyes to be attended each with a different degree of distance in the OBJECT: 50 there has grown an habitual or customary connection between those two sorts of IDEAS, so that the mind no sooner perceives the sensation arising from the different turn it gives the eyes, 51 In order to bring the PUPILS nearer or farther asunder, but it withal perceives the different IDEA of distance which was wont to be connected with that sensation; 52 just as upon hearing a certain sound, the IDEA is immediately suggested to the

understanding which custom had united with it.

53 Nor do I see how I can easily be mistaken in this matter. I know evidently that distance is not perceived of itself. 54 That by consequence it must be perceived by means of some other IDEA which is immediately perceived, and varies with the different degrees of distance. 55 I know also that the sensation arising from the turn of the eyes is of itself immediately perceived, and various degrees thereof are connected with different distances, 56 which never fail to accompany them into my mind, when I view an OBJECT distinctly with both eyes, whose distance is so small that in respect of it the interval between the eyes has any considerable magnitude.

57 I know it is a received opinion that by altering the disposition of the eyes the mind perceives whether the angle of the OPTIC AXES is made greater or lesser. 58 And that accordingly by a kind of NATURAL GEOMETRY it judges the point of their intersection to be nearer or farther off. 59 But that this is not true I am convinced by my own experience, since I am not conscious that I make any such use of the perception I have by the turn of my eyes. 60 And for me to make those judgments, and draw those conclusions from it, without knowing that I do so, seems altogether incomprehensible.

61 From all which it follows that the judgment we make of the distance of an OBJECT, viewed with both eyes, is entirely the RESULT OF EXPERIENCE. 62 If we had not constantly found certain sensations arising from the various disposition of the eyes, attended with certain degrees of distance, we should never make those sudden judgments from them concerning the distance of OBJECTS; 63 no more than we would pretend to judge other people's thoughts by them pronouncing words we had never heard before.

64 Secondly, an OBJECT placed at a certain distance from the eye, to which the breadth of the PUPIL bears a considerable proportion, being made to approach, is seen more confusedly: and the nearer it is brought the more confused appearance it makes. 65 And this

being found constantly to be so, there ariseth in the mind an habitual CONNECTION between the several degrees of confusion and distance; 66 the greater confusion still implying the lesser distance, and the lesser confusion the greater distance of the OBJECT.

67 This confused appearance of the OBJECT doth therefore seem to be the MEDIUM whereby the mind judgeth of distance in those cases 68 wherein the most approved writers of optics will have it judge by the different divergency with which the rays flowing from the radiating point fall on the PUPIL. 69 No person, I believe, will pretend to see or feel those imaginary angles that the rays are supposed to form according to their various inclinations on own eye. 70 But you cannot choose seeing whether the OBJECT appear more or less confused. It is therefore a manifest consequence from what hath been demonstrated, 71 that instead of the greater or lesser divergency of the rays, the mind makes use of the greater or lesser confusedness of the appearance, thereby to determine the apparent place of an OBJECT.

72 Nor doth it avail to say there is not any necessary connection between confused VISION and distance, great or small. 73 For I ask any person what necessary connection you sees between the redness of a blush and shame? 74 And yet no sooner shall you behold that colour to arise in the face of another, but it brings into you and the IDEA of that passion which hath been observed to accompany it.

75 What seems to have misled the writers of optics in this matter is that they imagine humans judge of distance as they do of a conclusion in mathematics, 76 betwixt which and the premises it is indeed absolutely requisite there be an apparent, necessary connection: but it is far otherwise in the sudden judgments humans make of distance. 77 We are not to think that brutes and children, or even grown reasonable people, whenever they perceive an OBJECT to approach, or depart from them, do it by virtue of GEOMETRY and DEMONSTRATION.

78 That one IDEA may suggest another to the mind it will suffice that they have been observed to go

together, 79 without any demonstration of the necessity of their coexistence, or without so much as knowing what it is that makes them so to coexist. 80 Of this there are innumerable instances of which no one can be ignorant.

81 Thus, greater confusion having been constantly attended with nearer distance, no sooner is the former IDEA perceived, but it suggests the latter to our thoughts. 82 And if it had been the ordinary course of Nature that the farther off an OBJECT were placed, the more confused it should appear, 83 it is certain the very same perception that now makes us think an OBJECT approaches would then have made us to imagine it went farther off. 84 That perception, abstracting from CUSTOM and EXPERIENCE, being equally fitted to produce the IDEA of great distance, or small distance, or no distance at all.

85 Thirdly, an OBJECT being placed at the distance above specified, and brought nearer to the eye, we may nevertheless prevent, at least for some time, the appearances growing more confused, by straining the eye. 86 In which case that sensation supplies the place of confused VISION in aiding the mind to judge of the distance of the OBJECT; 87 it being esteemed so much the nearer by how much the effort or straining of the eye in order to distinct VISION is greater.

88 I have here set down those sensations or IDEAS that seem to be the constant and general occasions of introducing into the mind the different IDEAS of near distance. 89 It is true in most cases that diverse other circumstances contribute to frame our IDEA of distance, to wit, the particular number, size, kind, etc., of the things seen. 90 Concerning which, as well as all other the forementioned occasions which suggest distance, I shall only observe they have none of them, in their own nature, any relation or connection with it: 91 nor is it possible they should ever signify the various degrees thereof, otherwise than as by EXPERIENCE they have been found to be connected with them.

92 I shall proceed upon these principles to account for a

phenomenon which has hitherto strangely puzzled the writers of optics, 93 and is so far from being accounted for by any of their THEORIES OF VISION that it is, by their own confession, plainly repugnant to them; and of consequence, if nothing else could be objected, were alone sufficient to bring their credit in question. 94 The whole difficulty I shall lay before you in the words of the learned Dr. Barrow, with which he concludes his optic lectures:--

95 'I have here delivered what my thoughts have suggested to me concerning that part of optics which is more properly mathematical. 96 As for the other parts of that science (which being rather physical, do consequently abound with plausible conjectures instead of certain principles), 97 there has in them scarce anything occurred to my observation different from what has been already said by Kepler, Scheinerus, Descartes, and others. 98 And methinks, I had better say nothing at all, than repeat that which has been so often said by others. I think it therefore high time to take my leave of this subject: 99 but before I quit it for good and all, the fair and ingenuous dealing that I owe both to you and to truth obligeth me to acquaint you with a certain untoward difficulty, 100 which seems directly opposite to the doctrine I have been hitherto inculcating, at least, admits of no solution from it. 101 In short it is this. Before the double convex glass or concave speculum EBF, let the point A be placed at such a distance that the rays proceeding from A, after refraction or reflection, be brought to unite somewhere in the AxAB. 102 And suppose the point of union (i.e. the image of the point A, as hath been already set forth) to be Z; between which and B, the vertex of the glass or speculum, conceive the eye to be anywhere placed. 103 The question now is, where the point A ought to appear? Experience shows that it does not appear behind at the point Z, and it were contrary to Nature that it should, since all the impression which affects the sense comes from towards A. 104 But from our tenets it should seem to follow that it would appear before the eye at a

vast distance off, so great as should in some sort surpass all sensible distance. 105 For since if we exclude all anticipations and prejudices, every OBJECT appears by so much the farther off, by how much the rays it sends to the eye are less diverging. 106 And that OBJECT is thought to be most remote from which parallel rays proceed unto the eye. 107 Reason would make one think that OBJECT should appear at yet a greater distance which is seen by converging rays. 108 Moreover it may in general be asked concerning this case what it is that determines the apparent place of the point A, and maketh it to appear after a constant manner sometimes nearer, at other times farther off? 109 To which doubt I see nothing that can be answered agreeable to the principles we have laid down except only that the point A ought always to appear extremely remote. 110 But on the contrary we are assured by experience that the point A appears variously distant, according to the different situations of the eye between the points B and Z. 111 And that it doth never (if at all) seem farther off, than it would if it were beheld by the naked eye, but on the contrary it doth sometimes appear much nearer. 112 Nay, it is even certain that by how much the rays falling on the eye do more converge by so much the nearer doth the OBJECT seem to approach. 113 For the eye being placed close to the point B, the OBJECT A appears nearly in its own natural place, if the point B is taken in the glass, or at the same distance, if in the speculum. 114 The eye being brought back to O, the OBJECT seems to draw near: and being come to P it beholds it still nearer. 115 And so on little and little, till at length the eye being placed somewhere, suppose at Q, the OBJECT appearing extremely near, begins to vanish into mere confusion. 116 All which doth seem repugnant to our principles, at least not rightly to agree with them. 117 Nor is our tenet alone struck at by this experiment, but likewise all others that ever came to my knowledge are, every whit as much, endangered by it. 118 The ancient one especially (which is most commonly received, and

comes nearest to mine) seems to be so effectually overthrown 119 thereby that the most learned Tacquet has been forced to reject that principle, as false and uncertain, on which alone he had built almost his whole CATOPTRICS; 120 and consequently by taking away the foundation, hath himself pulled down the superstructure he had raised on it. 121 Which, nevertheless, I do not believe he would have done had he but considered the whole matter more thoroughly, and examined the difficulty to the bottom. 122 But as for me, neither this nor any other difficulty shall have so great an influence on me as to make me renounce that which I know to be manifestly agreeable to reason: 123 especially when, as it here falls out, the difficulty is founded in the peculiar nature of a certain odd and particular case. 124 For in the present case something peculiar lies hid, which being involved in the subtilty of Nature will, perhaps, hardly be discovered till such time as the manner of vision is more perfectly made known. 125 Concerning which, I must own, I have hitherto been able to find out nothing that has the least show of PROBABILITY, not to mention CERTAINTY. 126 I shall, therefore, leave this knot to be untied by you, wishing you may have better success in it than I have had.'

127 The ancient and received principle, which Dr. Barrow here mentions as the main foundation of Tacquet's CATOPTRICS, is that: 'every visible point seen by reflection from a speculum shall appear placed at the intersection of the reflected ray, and the perpendicular of incidence:' 128 which intersection in the present case, happening to be behind the eye, it greatly shakes the authority of that principle, 129 whereon the aforementioned author proceeds throughout his whole CATOPTRICS in determining the apparent place of OBJECTS seen by reflection from any kind of speculum.

130 Let us now see how this phenomenon agrees with our tenets. The eye the nearer it is placed to the point B in the foregoing figures, the more distinct is the appearance of the OBJECT; 131 but as it recedes to O the appearance grows more confused; and at P it sees the

OBJECT yet more confused; and so on till the eye being brought back to Z sees the OBJECT in the greatest confusion of all. 132 Wherefore by verses:64-66 the OBJECT should seem to approach the eye gradually as it recedes from the point B, 133 that is, at O it should (in consequence of the principle I have laid down in the aforesaid section) seem nearer than it did at B, and at P nearer than at O, and at Q nearer than at P; and so on, till it quite vanishes at Z. 134 Which is the very matter of fact, as anyone that pleases may easily satisfy yourself by experiment.

135 This case is much the same as if we should suppose an Englishman to meet a foreigner who used the same words with the English, but in a direct contrary signification. 136 The Englishman would not fail to make a wrong judgment of the IDEAS annexed to those sounds in the mind of one that used them. 137 Just so, in the present case the OBJECT speaks (if I may so say) with words that the eye is well acquainted with, that is, confusions of appearance; 138 but whereas heretofore the greater confusions were always wont to signify nearer distances, they have in this case a direct, contrary signification, being connected with the greater distances. 139 Whence it follows that the eye must unavoidably be mistaken, since it will take the confusions in the sense it has been used to, which is directly opposed to the true.

140 This phenomenon as it entirely subverts the opinion of those who will have us judge of distance by lines and angles, on which supposition it is altogether inexplicable, so it seems to me no small confirmation of the truth of that principle whereby it is explained. 141 But in order to develop a more full explication of this point, and to show how far the hypothesis of the mind's judging by the various divergency of rays may be of use in determining the apparent place of an OBJECT, 142 it will be necessary to premise some few things, which are already well known to those who have any skill in dioptrics.

143 FIRST, any radiating point is then distinctly seen when the rays proceeding from it are, by the refractive power of the crystalline,

accurately reunited in the retina or fund of the eye: 144 but if they are reunited, either before they arrive at the retina, or after they have passed it, then there is confused vision.

145 SECONDLY, suppose in the adjacent figures NP represent an eye duly framed and retaining its natural figure. In Fig. 1 the rays falling nearly parallel on the eye, are by the crystalline AB refracted, 146 so as their focus or point of union F falls exactly on the retina: but if the rays fall sensibly diverging on the eye, as in Fig. 2, then their focus falls beyond the retina: 147 or if the rays are made to converge by the lens QS before they come at the eye, as in Fig. 3, their focus F will fall before the retina.

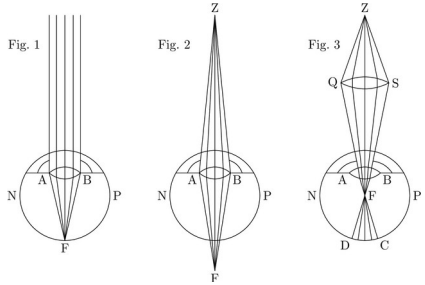

Fig-1,2,3

148 In which two last cases it is evident from the foregoing section that the appearance of the point Z is confused. 149 And by how much the greater is the convergency, or divergency, of the rays falling on the pupil, by so much the farther will the point of their reunion be from the retina, either before or behind it, 150 and consequently the point Z will appear by so much the more confused. And this, by the eye, may show us the difference between confused and faint vision. 151 Confused vision is when the rays proceedings from each distinct point of the OBJECT are not accurately recollected in one corresponding point on the retina, 152 but take up some space thereon, so that rays from different points become mixed and confused together. This is opposed to a distinct vision, and attends near objects. 153 Faint vision is when by reason of the distance of the object or grossness of the interjacent medium few rays arrive from the object to the eye. 154 This is opposed to vigorous or clear vision, and attends remote objects. But to return.

155 The eye, or (to speak truly) the mind, perceiving only the confusion itself, without ever considering the cause from which it proceeds, doth constantly annex

the same degree of distance to the same degree of confusion. 156 Whether that confusion be occasioned by converging or by diverging rays, it matters not. 157 Whence it follows that the eye viewing the object Z through the glass QS (which by refraction causeth the rays ZQ, ZS, etc., to converge) 158 should judge it to be at such a nearness at which if it were placed it would radiate on the eye with rays diverging to that degree as would produce the same confusion which is now produced by converging rays, i.e. 159 would cover a portion of the retina equal to DC (in Fig. 3 supra). But then this must be understood (to use Dr. Barrow's phrase) SECLUSIS PRAENOTIONIBUS ET PRAEJUDICIIS, 160 in case we abstract from all other circumstances of vision, such as the figure, size, faintness, etc. of the visible objects; 161 all which do ordinarily concur to form our idea of distance, the mind having by frequent experience observed their several sorts or degrees to be connected with various distances.

162 It plainly follows from what hath been said that a person perfectly purblind (i.e. that could not see an object distinctly but when placed close to your eye) would not make the same wrong judgment that others do in the forementioned case. 163 For to you greater confusions constantly suggesting greater distances, 164 you must, as you recedes from the glass and the object grows more confused, judge it to be at a farther distance, contrary to what they do who have had the perception of the objects growing more confused connected with the idea of approach.

165 Hence also it doth appear there may be good use of computation by lines and angles in optics; 166 not that the mind judgeth of distance immediately by them, but because it judgeth by somewhat which is connected with them, and to the determination whereof they may be subservient. 167 Thus the mind judging of the distance of an object by the confusedness of its appearance, and this confusedness being greater or lesser to the naked eye, 168 according as the object is seen by rays more or less diverging, it follows that a person may make use of the divergency of

the rays in computing the apparent distance, though not for its own sake, yet on account of the confusion with which it is connected. 169 But, so it is, the confusion itself is entirely neglected by mathematicians as having no necessary relation with distance, such as the greater or lesser angles of divergency are conceived to have. 170 And these (especially for that they fall under mathematical computation) are alone regarded in determining the apparent places of objects, as though they were the sole and immediate cause of the judgments the mind makes of distance. 171 Whereas, in truth, they should not at all be regarded in themselves, or any otherwise, than as they are supposed to be the cause of confused vision.

172 The not considering of this has been a fundamental and perplexing oversight. For proof whereof we need go no farther than the case before us. 173 It having been observed that the most diverging rays brought into the mind the idea of nearest distance, and that still, as the divergency decreased, the distance increased: 174 and it being thought the connexion between the various degrees of divergency and distance was immediate; this naturally leads one to conclude, from an ill-grounded analogy, that converging rays shall make an object appear at an immense distance: 175 and that, as the convergency increases, the distance (if it were possible) should do so likewise. 176 That this was the cause of Dr. Barrow's mistake is evident from his own words which we have quoted. 177 Whereas had the learned doctor observed that diverging and converging rays, how opposite soever they may seem, do nevertheless agree in producing the same effect, 178 to wit, confusedness of vision, greater degrees whereof are produced indifferently, either as the divergency or convergency and the rays increaseth. 179 And that it is by this effect, which is the same in both, that either the divergency or convergency is perceived by the eye; 180 I say, had he but considered this, it is certain he would have made a quite contrary judgment, and rightly concluded that those rays which fall on the

eye with greater degrees of convergency should make the object from whence they proceed appear by so much the nearer. 181 But it is plain it was impossible for any person to attain to a right notion of this matter so long as you had regard only to lines and angles, and did not apprehend the true nature of vision, and how far it was of mathematical consideration.

182 Before we dismiss this subject, it is fit we take notice of a query relating thereto, proposed by the ingenious Mr. Molyneux, in his *TREATISE OF DIOPTRICS*, [Par. I. Prop. 31, Sect. 9.] 183 where speaking of this difficulty, he has these words: 'And so he (i.e. Dr. Barrow) leaves this difficulty to the solution of others, which I (after so great an example) shall do likewise; 184 but with the resolution of the same admirable author of not quitting the evident doarine which we have before laid down, for determining the LOCUS OBJECTI, 185 on account of being pressed by one difficulty which seems inexplicable till a more intimate knowledge of the visive faculty be obtained by mortals. 186 In the meantime, I propose it to the consideration of the ingenious, whether the LOCUS APPARENS of an object be not as much before the eye as the distinct base is behind the eye!' 187 To which query we may venture to answer in the negative. For in the present case the rule for determining the distance of the distinct base, or respective focus from the glass, is this: 188 as the difference between the distance of the object and focus is to the focus or focal length, so the distance of the object from the glass is to the distance of the respective focus or distinct base from the glass. [Molyneux Dioptr., Par. I. Prop. 5.] 189 Let us now suppose the object to be placed at the distance of the focal length, and one half of the focal length from the glass, and the eye close to the glass, 190 hence it will follow by the rule that the distance of the distinct base behind the eye is double the true distance of the object before the eye. 191 If therefore Mr. Molyneux's conjecture held good, it would follow that the eye should see the object twice as far off as it really is; and in other cases at three or four times its due distance, or

more. 192 But this manifestly contradicts experience, the object never appearing, at farthest, beyond its due distance. 193 Whatever, therefore, is built on this supposition comes to the ground along with it. (in VID. COROL. I. PROP. 57, IBID.)

190 From what hath been premised it is a manifest consequence that a person born blind, being made to see, would, at first, have no idea of distance by sight; 191 the sun and stars, the remotest objects as well as the nearer, would all seem to be in own eye, or rather in own mind. 192 The objects intromitted by sight would seem to you (as in truth they are) no other than a new set of thoughts or sensations, each whereof is as near to you as the perceptions of pain or pleasure, or the most inward passions of your soul. 193 For our judging objects provided by sight to be at any distance, or without the mind, is entirely the effect of experience, which one in those circumstances could not yet have attained to.

194 It is indeed otherwise upon the common supposition that humans judge of distance by the angle of the optic axes, 195 just as one in the dark, or a blind-person by the angle comprehended by two sticks, one whereof you held in each hand. 196 For if this were true, it would follow that one blind from own birth being made to see, should stand in need of no new experience in order to perceive distance by sight. But that this is false has, I think, been sufficiently demonstrated.

197 And perhaps upon a strict inquiry we shall not find that even those who from their birth have grown up in a continued habit of seeing are irrecoverably prejudiced on the other side, to wit, in thinking what they see to be at a distance from them. 198 For at this time it seems agreed on all hands, by those who have had any thoughts of that matter, that colours, which are the proper and immediate object of sight, are not without the mind. 199 But then it will be said, by sight we have also the ideas of extension, and figure, and motion; all which may well be thought without, and at some distance from the mind, though colour should not. 200 In answer to this I appeal to any human's experience, whether the visible

extension of any object doth not appear as near to you as the colour of that object; nay, whether they do not both seem to be in the very same place. 201 Is not the extension we see coloured, and is it possible for us, so much as in thought, to separate and abstract colour from extension? 202 Now, where the extension is there surely is the figure, and there the motion too. I speak of those which are perceived by sight.

203 But for a fuller explication of this point, and to show that the immediate objects of sight are not so much as the ideas or resemblances of things placed at a distance, 204 it is requisite that we look nearer into the matter and carefully observe what is meant in common discourse, when one says that which he sees is at a distance from the self. 205 Suppose, for example, that looking at the moon I should say it were fifty or sixty semi-diameters of the earth distant from me. Let us see what moon this is spoken of: 206 it is plain it cannot be the visible moon, or anything like the visible moon, or that which I see, which is only a round, luminous plane of about thirty visible points in diameter. 207 For in case I am carried from the place where I stand directly towards the moon, it is manifest the object varies, still as I go on; 208 and by the time that I am advanced fifty or sixty semi-diameters of the earth, I shall be so far from being near a small, round, luminous flat that I shall perceive nothing like it; 209 this object having long since disappeared, and if I would recover it, it must be by going back to the earth from whence I set out. 210 Again, suppose I perceive by sight the faint and obscure idea of something which I doubt whether it be a human, or a tree, or a tower, but judge it to be at the distance of about a mile. 211 It is plain I cannot mean that what I see is a mile off, or that it is the image or likeness of anything which is a mile off, since that every step I take towards it the appearance alters, and from being obscure, small, and faint, grows clear, large, and vigorous. 212 And when I come to the mile's end, that which I saw first is quite lost, neither do I find anything in the likeness of it.

213 In these and the like instances the truth of the matter stands thus: having of a long time experienced certain ideas, perceivable by touch, as distance, tangible figure, and solidity, to have been connected with certain ideas of sight, 214 I do upon perceiving these ideas of sight forthwith conclude what tangible ideas are, by the wonted ordinary course of Nature like to follow. 215 Looking at an object I perceive a certain visible figure and colour, with some degree of faintness and other circumstances, which from what I have formerly observed, determine me to think that if I advance forward so many paces or miles, I shall be affected with such and such ideas of touch: 216 so that in truth and strictness of speech I neither see distance itself, nor anything that I take to be at a distance. 217 I say, neither distance nor things placed at a distance are themselves, or their ideas, truly perceived by sight. 218 This I am persuaded of, as to what concerns myself: and I believe whoever will look narrowly into own thoughts and examine what you means by saying you sees this or that thing at a distance, 219 will agree with me that what you sees only suggests to your understanding that after having passed a certain distance, to be measured by the motion of your body, which is perceivable by touch, 220 you shall come to perceive such and such tangible ideas which have been usually connected with such and such visible ideas. 221 But that one might be deceived by these suggestions of sense, and that there is no necessary connexion between visible and tangible ideas suggested by them, we need go no farther than the next looking-glass or pictures to be convinced. 222 Note that when I speak of tangible ideas, I take the word idea for any the immediate object of sense or understanding, in which large signification it is commonly used by the moderns.

223 From what we have shown it is a manifest consequence that the ideas of space, outness, and things placed at a distance are not, strictly speaking, the object of sight; they are not otherwise perceived by the eye than by the ear. 224 Sitting in my study I hear a coach drive along the street; I look through the

casement and see it; I walk out and enter into it; thus, common speech would incline one to think I heard, saw, and touched the same thing, to wit, the coach. 225 It is nevertheless certain, the ideas intromitted by each sense are widely different and distinct from each other; but having been observed constantly to go together, they are spoken of as one and the same thing. 226 By the variation of the noise I perceive the different distances of the coach, and know that it approaches before I look out. 227 Thus by the ear I perceive distance, just after the same manner as I do by the eye.

228 I do not nevertheless say I hear distance in like manner as I say that I see it, the ideas perceived by hearing not being so apt to be confounded with the ideas of touch as those of sight are. 229 So likewise a person is easily convinced that bodies and external things are not properly the object of hearing; 230 but only sounds, by the mediation whereof the idea of this or that body or distance is suggested to your thoughts. 231 But then one is with more difficulty brought to discern the difference there is betwixt the ideas of sight and touch: 232 though it be certain a person no more sees and feels the same thing than you hears and feels the same thing.

233 One reason of which seems to be this. It is thought a great absurdity to imagine that one and the same thing should have any more than one extension, and one figure. 234 But the extension and figure of a body, being let into the mind two ways, and that indifferently either by sight or touch, it seems to follow that we see the same extension and the same figure which we feel.

235 But if we take a close and accurate view of things, it must be acknowledged that we never see and feel one and the same object. 236 That which is seen is one thing, and that which is felt is another. 237 If the visible figure and extension be not the same with the tangible figure and extension, we are not to infer that one and the same thing has diverse extensions. 238 The true consequence is that the objects of sight and touch are two distinct things. It may perhaps require some thought rightly to

conceive this distinction. 239 And the difficulty seems not a little increased, because the combination of visible ideas hath constantly the same name as the combination of tangible ideas wherewith it is connected: which doth of necessity arise from the use and end of language.

240 In order therefore to treat accurately and unconfusedly of vision, we must bear in mind that there are two sorts of objects apprehended by the eye, the one primarily and immediately, the other secondarily and by intervention of the former. 241 Those of the first sort neither are, nor appear to be, without the mind, or at any distance off; 242 they may indeed grow greater or smaller, more confused, or more clear, or more faint, but they do not, cannot approach or recede from us. 243 Whenever we say an object is at a distance, whenever we say it draws near, or goes farther off, we must always mean it of the latter sort, 244 which properly belong to the touch, and are not so truly perceived as suggested by the eye in like manner as thoughts by the ear.

245 No sooner do we hear the words of a familiar language pronounced in our ears, but the ideas corresponding thereto present themselves to our minds: 246 in the very same instant the sound and the meaning enter the understanding: so closely are they united that it is not in our power to keep out the one, except we exclude the other also. 247 We even act in all respects as if we heard the very thoughts themselves. 248 So likewise the secondary objects, or those which are only suggested by sight, do often more strongly affect us, and are more regarded than the proper objects of that sense; 249 along with which they enter into the mind, and with which they have a far more strict connexion, than ideas have with words. 250 Hence it is, we find it so difficult to discriminate between the immediate and mediate objects of sight, and are so prone to attribute to the former what belongs only to the latter. 251 They are, as it were, most closely twisted, blended, and incorporated together. 252 And the prejudice is confirmed and riveted in our thoughts by a long tract of

time, by the use of language, and want of reflexion. 253 However, I believe anyone that shall attentively consider what we have already said, and shall say, upon this subject before we have done (especially if you pursue it in your own thoughts) may be able to deliver yourself from that prejudice. 254 Sure I am, it is worth some attention, to whoever would understand the true nature of vision.

THE SIZE OF OBJECTS OF SIGHT

George Berkeley

2 I have now done with distance, and proceed to show how it is that we perceive by sight the magnitude of objects. 2 It is the opinion of some that we do it by angles, or by angles in conjunction with distance: but neither angles nor distance being perceivable by sight, and the things we see being in truth at no distance from us, 3 it follows that as we have shown lines and angles not to be the medium the mind makes use of in apprehending the apparent place, so neither are they the medium whereby it apprehends the apparent magnitude of objects.

4 It is well known that the same extension at a near distance shall subtend a greater angle, and at a farther distance a lesser angle. 5 And by this principle (we are told) the mind estimates the magnitude of an object, comparing the angle under which it is seen with its distance, and thence inferring the magnitude thereof. 6 What inclines people to this mistake (beside the humour of making one see by geometry) is that the same perceptions or ideas which suggest distance do also suggest magnitude. 7 But if we examine it we shall find they suggest the latter as immediately as the former. 8 I say, they do not first suggest distance, and then leave it to the judgment to us that as a medium whereby to collect the magnitude; 9 but they have as close and immediate a connexion with the magnitude as with the distance; and suggest magnitude as independently of distance as they do distance independently of magnitude. 10 All which will be evident to whoever considers what

hath been already said, and what follows.

11 It hath been shown there are two sorts of objects apprehended by sight; each whereof hath its distinct magnitude, or extension. 12 The one, properly tangible, i.e. to be perceived and measured by touch, and not immediately falling under the sense of seeing: the other, properly and immediately visible, by mediation of which the former is brought in view. 13 Each of these magnitudes are greater or lesser, according as they contain in them more or fewer points, they being made up of points or minimums. 14 For, whatever may be said of extension in abstract, it is certain sensible extension is not infinitely divisible. 15 There is a MINIMUM TANGIBILE and a MINIMUM VISIBILE, beyond which sense cannot perceive. This everyone's experience will inform you.

16 The magnitude of the object which exists without the mind, and is at a distance, continues always invariably the same: 17 but the visible object still changing as you approach to, or recede from, the tangible object, it hath no fixed and determinate greatness. 18 Whenever, therefore, we speak of the magnitude of anything, for instance a tree or a house, we must mean the tangible magnitude, otherwise there can be nothing steady and free from ambiguity spoken of it. 19 But though the tangible and visible magnitude in truth belong to two distinct objects: 20 I shall nevertheless (especially since those objects are called by the same name, and are observed to coexist), to avoid tediousness and singularity of speech, sometimes speak of them as belonging to one and the same thing.

21 Now in order to discover by what means the magnitude of tangible objects is perceived by sight. I need only reflect on what passes in my own mind, 22 and observe what those things be which introduce the ideas of greater or lesser into my thoughts, when I look on any object. 23 And these I find to be, FIRST, the magnitude or extension of the visible object, which being immediately perceived by sight, is connected with that other which is tangible and placed at a distance.

24 SECONDLY, the confusion or distinctness. And thirdly, the vigorousness or faintness of the aforesaid visible appearance. 25 CETERIS PARIBUS, by how much the greater or lesser the visible object is, by so much the greater or lesser do I conclude the tangible object to be. 26 But, be the idea immediately perceived by sight never so large, yet if it be withal confused, I judge the magnitude of the thing to be but small. If it be distinct and clear, I judge it greater. 27 And if it be faint, I apprehend it to be yet greater. What is here meant by confusion and faintness hath been explained in verses:145-154.

28 Moreover the judgments we make of greatness do, in like manner as those of distance, depend on the disposition of the eye, also on the figure, number, and situation of objects and other circumstances that have been observed to attend great or small tangible magnitudes. 29 Thus, for instance, the very same quantity of visible extension, which in the figure of a tower doth suggest the idea of great magnitude, shall in the figure of a human suggest the idea of much smaller magnitude. 30 That this is owing to the experience we have had of the usual bigness of a tower and a human no one, I suppose, need be told.

31 It is also evident that confusion or faintness have no more a necessary connexion with little or great magnitude than they have with little or great distance. As they suggest the latter, so they suggest the former to our minds. 32 And by consequence, if it were not for experience, we should no more judge a faint or confused appearance to be connected with great or little magnitude, than we should that it was connected with great or little distance.

33 Nor will it be found that great or small visible magnitude hath any necessary relation to great or small tangible magnitude: so that the one may certainly be inferred from the other. 34 But before we come to the proof of this, it is fit we consider the difference there is betwixt the extension and figure which is the proper object of touch, and that other which is termed visible; 35 and how the former is principally, though not

immediately taken notice of, when we look at any object. 36 This has been before mentioned, but we shall here inquire into the cause thereof. 37 We regard the objects that environ us in proportion as they are adapted to benefit or injure our own bodies, and thereby produce in our minds the sensation of pleasure or pain. 38 Now bodies operating on our organs, by an immediate application, and the hurt or advantage arising therefrom, depending altogether on the tangible, and not at all on the visible, qualities of any object: 39 this is a plain reason why those should be regarded by us much more than these: and for this end the visive sense seems to have been bestowed on animals, 40 to wit, that by the perception of visible ideas (which in themselves are not capable of affecting or any wise altering the frame of their bodies) they may be able to foresee (from the experience they have had what tangible ideas are connected with such and such visible ideas) 41 and damage or benefit which is like to ensue, upon the application of their own bodies to this or that body which is at a distance. 42 Which foresight, how necessary it is to the preservation of an animal, everyone's experience can inform you. 43 Hence it is that when we look at an object, the tangible figure and extension thereof are principally attended to; 44 whilst there is small heed taken of the visible figure and magnitude, which, though more immediately perceived, do less concern us, and are not fitted to produce any alteration in our bodies.

45 That the matter of fact is true will be evident to anyone who considers that a human placed at ten foot distance is thought as great as if you were placed at a distance only of five foot: 46 which is true not with relation to the visible, but tangible greatness of the object: the visible magnitude being far greater at one station: than it is at the other.

47 Inches, feet, etc., are settled stated lengths whereby we measure objects and estimate their magnitude: we say, for example, an object appears to be six inches or six foot long. 48 Now, that this cannot be meant of visible inches, etc., is evident, because a visible

inch is itself no constant, determinate magnitude, and cannot therefore serve to mark out and determine the magnitude of any other thing. 49 Take an inch marked upon a ruler: view it, successively, at the distance of half a foot, a foot, a foot and a half, etc., from the eye: 50 at each of which, and at all the intermediate distances, the inch shall have a different visible extension, i.e. there shall be more or fewer points discerned in it. 51 Now I ask which of all these various extensions is that stated, determinate one that is agreed on for a common measure of other magnitudes? No reason can be assigned why we should pitch on one more than another: 52 and except there be some invariable, determinate extension fixed on to be marked to the word inch, it is plain it can be used to little purpose; 53 and to say a thing contains this or that number of inches shall imply no more than that it is extended, without bringing any particular idea of that extension into the mind. 54 Farther, an inch and a foot, from different distances, shall both exhibit the same visible magnitude, and yet at the same time you shall say that one seems several times greater than the other. 55 From all which it is manifest that the judgments we make of the magnitude of objects by sight are altogether in reference to their tangible extension. 56 Whenever we say an object is great, or small, of this or that determinate measure, I say it must be meant of the tangible, and not the visible extension, which, though immediately perceived, is nevertheless little taken notice of.

57 Now, that there is no necessary connexion between these two distinct extensions is evident from hence: because our eyes might have been framed in such a manner as to be able to see nothing but what were less than the MINIMUM TANGIBILE. 58 In which case it is not impossible we might have perceived all the immediate objects of sight, the very same that we do now: but unto those visible appearances there would not be connected those different tangible magnitudes that are now. 59 Which shows the judgments we make of the magnitude of things placed at a

distance from the various greatness of the immediate objects of sight do not arise from any essential or necessary but only a customary tie, which has been observed between them.

60 Moreover, it is not only certain that any idea of sight might not have been connected with this or that idea of touch, which we now observe to accompany it: 61 but also that the greater visible magnitudes might have been connected with, and introduced into our minds lesser tangible magnitudes and the lesser visible magnitudes greater tangible magnitudes. 62 Nay, that it actually is so we have daily experience; that object which makes a strong and large appearance, not seeming near so great as another, the visible magnitude whereof is much less, but more faint, 63 and the appearance upper, or which is the same thing painted lower on the RETINA, which faintness and situation suggest both greater magnitude and greater distance.

64 From which, and from verses:28-32, it is manifest that as we do not perceive the magnitudes of objects immediately by sight, so neither do we perceive them by the mediation of anything which has a necessary connexion with them. 65 Those ideas that now suggest unto us the various magnitudes of external objects before we touch them, might possibly have suggested no such thing: 66 or they might have signified them in a direct contrary manner: so that the very same ideas, on the perception whereof we judge an object to be small, might as well have served to make us conclude it great. 67 Those ideas being in their own nature equally fitted to bring into our minds the idea of small or great, or no size at all of outward objects; 68 just as the words of any language are in their own nature indifferent to signify this or that thing or nothing at all.

69 As we see distance, so we see magnitude. And we see both in the same way that we see shame or anger in the looks of a person. 70 Those passions are themselves invisible, they are nevertheless let in by the eye along with colours and alterations of countenance, which are the immediate object of vision: 71 and which signify them for no other reason than barely

because they have been observed to accompany them. 72 Without which experience we should no more have taken blushing for a sign of shame than of gladness.

73 We are nevertheless exceeding prone to imagine those things which are perceived only by the mediation of others to be themselves the immediate objects of sight; 74 or, at least, to have in their own nature a fitness to be suggested by them, before ever they had been experienced to coexist with them. 75 From which prejudice everyone, perhaps, will not find it easy to emancipate yourself, by any [but] the clearest convictions of reason. 76 And there are some grounds to think that if there was one only invariable and universal languages in the world, and that humans were born with the faculty of speaking it, 77 it would be the opinion of many that the ideas of other humans' minds were properly perceived by the ear, or had at least a necessary and inseparable tie with the sounds that were affixed to them. 78 All which seems to arise from want of a due application of our discerning faculty, thereby to discriminate between the ideas that are in our understandings, and consider them apart from each other; 79 which would preserve us from confounding those that are different, and make us see what ideas do, and what do not include or imply this or that other idea.

80 There is a celebrated phenomenon, the solution whereof I shall attempt to give by the principles that have been laid down, in reference to the manner wherein we apprehend by sight the magnitude of objects. 81 The apparent magnitude of the moon when placed in the horizon is much greater than when it is in the meridian, though the angle under which the diameter of the moon is seen be not observed greater in the former case than in the latter: 82 and the horizontal moon doth not constantly appear of the same bigness, but at some times seemeth far greater than at others.

83 Now in order to explain the reason of the moon's appearing greater than ordinary in the horizon, it must be observed that the particles which compose our atmosphere intercept the rays of

light proceeding from any object to the eye; 84 and by how much the greater is the portion of atmosphere interjacent between the object and the eye, by so much the more are the rays intercepted; 85 and by consequence the appearance of the object rendered more faint, every object appearing more vigorous or more faint in proportion as it sendeth more or fewer rays into the eye. 86 Now between the eye and the moon, when situated in the horizon, there lies a far greater quantity of atmosphere than there does when the moon is in the meridian. 87 Whence it comes to pass that the appearance of the horizontal moon is fainter, and therefore by verses:21-27 it should be thought bigger in that situation than in the meridian, or in any other elevation above the horizon.

88 Farther, the air being variously impregnated, sometimes more and sometimes less, with vapours and exhalations fitted to retund and intercept the rays of light, 89 it follows that the appearance of the horizontal moon hath not always an equal faintness, and by consequence that luminary, though in the very same situation, is at one time judged greater than at another.

90 That we have here given the true account of the phenomena of the horizontal moon will, I suppose, be farther evident to anyone from the following considerations. 91 FIRST, it is plain that which in this case suggests the idea of greater magnitude must be something which is itself perceived; for that which is unperceived cannot suggest to our perception any other thing. 92 SECONDLY, it must be something that does not constantly remain the same, but is subject to some change or variation, since the appearance of the horizontal moon varies, being at one time greater than at another. 93 And yet, THIRDLY, it cannot be the visible figure or magnitude, since that remains the same, or is rather lesser, by how much the moon is nearer to the horizon. 94 It remains therefore that the true cause is that affection or alteration of the visible appearance which proceeds from the greater paucity of rays arriving at the eye, and which I term FAINTNESS: 95 since this

answers all the forementioned conditions, and I am not conscious of any other perception that doth.

96 Add to this that in misty weather it is a common observation that the appearance of the horizontal moon is far larger than usual, which greatly conspires with and strengthens our opinion. 97 Neither would it prove in the least irreconcilable with what we have said, if the horizontal moon should chance sometimes to seem enlarged beyond its usual extent, even in more serene weather. 98 For we must not only have regard to the mist which happens to be in the place where we stand; we ought also to take into our thoughts the whole sum of vapours and exhalations which lie betwixt the eye and the moon: 99 all which cooperating to render the appearance of the moon more faint, and thereby increase its magnitude, it may chance to appear greater than it usually does, even in the horizontal position, 100 at a time when, though there be no extraordinary fog or haziness, just in the place where we stand, yet the air between the eye and the moon, taken all together, may be loaded with a greater quantity of interspersed vapours and exhalations than at other times.

101 It may be objected that in consequence of our principles the interposition of a body in some degree opaque, which may intercept a great part of the rays of light, should render the appearance of the moon in the meridian as large as when it is viewed in the horizon. 102 To which I answer, it is not faintness anyhow applied that suggests greater magnitude, there being no necessary but only an experimental connexion between those two things. 103 It follows that the faintness which enlarges the appearance must be applied in such sort, and with such circumstances, as have been observed to attend the vision of great magnitudes. 104 When from a distance we behold great objects, the particles of the intermediate air and vapours, which are themselves unperceivable, do interrupt the rays of light, and thereby render the appearance less strong and vivid: 105 now, faintness of appearance caused in this sort hath been experienced to coexist with great magnitude. But when it is

caused by the interposition of an opaque sensible body, this circumstance alters the case, 106 so that a faint appearance this way caused doth not suggest greater magnitude, because it hath not been experienced to coexist with it.

107 Faintness, as well as all other ideas or perceptions which suggest magnitude or distance, doth it in the same way that words suggest the notions to which they are annexed. 108 Now, it is known a word pronounced with certain circumstances, or in a certain context with other words, hath not always the same import and signification that it hath when pronounced in some other circumstances or different context of words. 109 The very same visible appearance as to faintness and all other respects, if placed on high, shall not suggest the same magnitude that it would if it were seen at an equal distance on a level with the eye. 110 The reason whereof is that we are rarely accustomed to view objects at a great height; our concerns lie among things situated rather before than above us, 111 and accordingly our eyes are not placed on the top of our heads, but in such a position as is most convenient for us to see distant objects standing in our way. 112 And this situation of them being a circumstance which usually attends the vision of distant objects, we may from hence account for (what is commonly observed) an object's appearing of different magnitude, even with respect to its horizontal extension, on the top of a steeple, 113 for example, an hundred feet high to one standing below, from what it would if placed at an hundred feet distance on a level with your eye. 114 For it hath been shown that the judgment we make on the magnitude of a thing depends not on the visible appearance alone, but also on diverse other circumstances, 115 any one of which being omitted or varied may suffice to make some alteration in our judgment. 116 Hence, the circumstances of viewing a distant object in such a situation as is usual, and suits with the ordinary posture of the head and eyes being omitted, 117 and instead thereof a different situation

of the object, which requires a different posture of the head taking place, it is not to be wondered at if the magnitude be judged different: 118 but it will be demanded why an high object should constantly appear less than an equidistant low object of the same dimensions, for so it is observed to be: 119 it may indeed be granted that the variation of some circumstances may vary the judgment made on the magnitude of high objects, which we are less used to look at: but it does not hence appear why they should be judged less rather than greater? 120 I answer that in case the magnitude of distant objects was suggested by the extent of their visible appearance alone, and thought proportional thereto, it is certain they would then be judged much less than now they seem to be (See verses:174-182). 121 But several circumstances concurring to form the judgment we make on the magnitude of distant objects, by means of which they appear far larger than others, whose visible appearance hath an equal or even greater extension; 122 it follows that upon the change or omission of any of those circumstances which are wont to attend the vision of distant objects, and so come to influence the judgments made on their magnitude, they shall proportionably appear less than otherwise they would. 123 For any of those things that caused an object to be thought greater than in proportion to its visible extension being either omitted or applied without the usual circumstances, 124 the judgment depends more entirely on the visible extension, and consequently the object must be judged less. 125 Thus in the present case the situation of the thing seen being different from what it usually is in those objects we have occasion to view, and whose magnitude we observe, 126 it follows that the very same object, being an hundred feet high, should seem less than if it was an hundred feet off on (or nearly on) a level with the eye. 127 What has been here set forth seems to me to have no small share in contributing to magnify the appearance of the horizontal moon, and deserves not to be passed over in the explication of it.

VISION

128 If we attentively consider the phenomenon before us, we shall find the not discerning between the mediate and immediate objects of sight to be the chief cause of the difficulty that occurs in the explication of it. 129 The magnitude of the visible moon, or that which is the proper and immediate object of vision, is not greater when the moon is in the horizon than when it is in the meridian. 130 How comes it, therefore, to seem greater in one situation than the other? What is it can put this cheat on the understanding? 131 It has no other perception of the moon than what it gets by sight: and that which is seen is of the same extent, 132 I say, the visible appearance hath the same, or rather a less, magnitude when the moon is viewed in the horizontal than when in the meridional position: and yet it is esteemed greater in the former than in the latter. 133 Herein consists the difficulty, which doth vanish and admit of a most easy solution, if we consider that as the visible moon is not greater in the horizon than in the meridian, so neither is it thought to be so. 134 It hath been already shown that in any act of vision the visible object absolutely, or in itself, is little taken notice of, the mind still carrying its view from that to some tangible ideas which have been observed to be connected with it, and by that means come to be suggested by it. 135 So that when a thing is said to appear great or small, or whatever estimate be made of the magnitude of any thing, this is meant not of the visible but of the tangible object. 136 This duly considered, it will be no hard matter to reconcile the seeming contradiction there is, that the moon should appear of a different bigness, the visible magnitude thereof remaining still the same. 137 For by verses:21-27 the very same visible extension, with a different faintness, shall suggest a different tangible extension. 138 When therefore the horizontal moon is said to appear greater than the meridional moon, this must be understood not of a greater visible extension, but a of greater tangible or real extension, 139 which by reason of the more than ordinary faintness of the

visible appearance, is suggested to the mind along with it.

140 Many attempts have been made by learned people to account for this appearance. Gassendus, Descartes, Hobbes, and several others have employed their thoughts on that subject; 141 but how fruitless and unsatisfactory their endeavours have been is sufficiently shown in THE TRANSACTIONS, [Phil. Trans. Num. 187. p. 314] where you may see their several opinions at large set forth and confuted, 142 not without some surprise at the gross blunders that ingenious people have been forced into by endeavouring to reconcile this appearance with the ordinary Principles of optics. 143 Since the writing of which there hath been published in the TRANSACTIONS [Numb. 187. P. 323] another paper relating to the same affair by the celebrated Dr. Wallis, 144 wherein he attempts to account for that phenomenon which, though it seems not to contain anything new or different from what had been said before by others, I shall nevertheless consider in this place.

145 His opinion, in short, is this; we judge not of the magnitude of an object by the visual angle alone, but by the visual angle in conjunction with the distance. 146 Hence, though the angle remain the same, or even become less, yet if withal the distance seem to have been increased, the object shall appear greater. 147 Now, one way whereby we estimate the distance of anything is by the number and extent of the intermediate objects: 148 when therefore the moon is seen in the horizon, the variety of fields, houses, etc., together with the large prospect of the wide extended land or sea that lies between the eye and the utmost limb of the horizon, suggest unto the mind the idea of greater distance, and consequently magnify the appearance. 149 And this, according to Dr. Wallis, is the true account of the extraordinary largeness attributed by the mind to the horizontal moon at a time when the angle subtended by its diameter is not one jot greater than it used to be.

150 With reference to this opinion, not to repeat what hath been already said concerning distance, I

shall only observe, FIRST, that if the prospect of interjacent objects be that which suggests the idea of farther distance, 151 and this idea of farther distance be the cause that brings into the mind the idea of greater magnitude, 152 it should hence follow that if one looked at the horizontal moon from behind a wall, it would appear no bigger than ordinary. 153 For in that case the wall interposing cuts off all that prospect of sea and land, etc. which might otherwise increase the apparent distance, and thereby the apparent magnitude of the moon. 154 Nor will it suffice to say the memory doth even then suggest all that extent of land, etc., which lies within the horizon; which suggestion occasions a sudden judgment of sense that the moon is farther off and larger than usual. 155 For ask any person who, from such a station beholding the horizontal moon, shall think her greater than usual, whether you hath at that time in your mind any idea of the intermediate objects, or long tract of land that lies between your eye and the extreme edge of the horizon? 156 And whether it be that idea which is the cause of your making the aforementioned judgment? You will, I suppose, reply in the negative, 157 and declare the horizontal moon shall appear greater than the meridional, though you never thinks of all or any of those things that lie between you and it. 158 SECONDLY, it seems impossible by this hypothesis to account for the moon's appearing in the very same situation at one time greater than at another; 159 which nevertheless has been shown to be very agreeable to the principles we have laid down, and receives a most easy and natural explication from them. 160 For the further clearing' up of this point it is to be observed that what we immediately and properly see are only lights and colours in sundry situations and shades and degrees of faintness and clearness, confusion and distinctness. 161 All which visible objects are only in the mind, nor do they suggest ought external, whether distance or magnitude, otherwise than by habitual connexion as words do things. 162 We are also to remark that, beside the straining of the eyes, and beside the vivid and faint, the

distinct and confused appearances (which, bearing some proportion to lines and angles, have been substituted instead of them in the foregoing part of this treatise), 163 there are other means which suggest both distance and magnitude; particularly the situation of visible points of objects, as upper or lower; 164 the one suggesting a farther distance and greater magnitude, the other a nearer distance and lesser magnitude: all which is an effect only of custom and experience; 165 there being really nothing intermediate in the line of distance between the uppermost and lowermost, which are both equidistant, or rather at no distance from the eye, 166 as there is also nothing in upper or lower, which by necessary connexion should suggest greater or lesser magnitude. 167 Now, as these customary, experimental means of suggesting distance do likewise suggest magnitude, so they suggest the one as immediately as the other. 168 I say they do not (See-verses:4-10) first suggest distance, and then leave the mind from thence to infer or compute magnitude, jut suggest magnitude as immediately and directly as they suggest distance.

169 This phenomenon of the horizontal moon is a clear instance of the insufficiency of lines and angles for explaining the way wherein the mind perceives and estimates the magnitude of outward objects. 170 There is nevertheless a use of computation by them in order to determine the apparent magnitude of things, 171 so far as they have a connexion with, and are proportional to, those other ideas or perceptions which are the true and immediate occasions that suggest to the mind the apparent magnitude of things. 172 But this in general may, I think, be observed concerning mathematical computation in optics: 173 that it can never be very precise and exact since the judgments we make of the magnitude of external things do often depend on several circumstances, which are not proportionable to, or capable of being defined by, lines and angles.

174 From what has been said we may safely deduce this consequence; to wit, that a human

born blind and made to see would, at first opening of your eyes, make a very different judgment of the magnitude of objects intromitted by them from what others do. 175 You would not consider the ideas of sight with reference to, or as having any connexion with, the ideas of touch: 176 your view of them being entirely terminated within themselves, you can no otherwise judge them great or small than as they contain a greater or lesser number of visible points. 177 Now, it being certain that any visible point can cover or exclude from view only one other visible point, it follows that whatever object intercepts the view of another hath an equal number of visible points with it; 178 and consequently they shall both be thought by you to have the same magnitude. 179 Hence it is evident one in those circumstances would judge your thumb, with which you might hide a tower or hinder its being seen, equal to that tower, 180 or your hand, the interposition whereof might conceal experimental means the firmament from your view, equal to the firmament: 181 how great an inequality soever there may in our apprehensions seem to be betwixt those two things, because of the customary and close connexion that has grown up in our minds between the objects of sight and touch; 182 whereby the very different and distinct ideas of those two senses are so blended and confounded together as to be mistaken for one and the same thing; out of which prejudice we cannot easily extricate ourselves.

183 For the better explaining the nature of vision, and setting the manner wherein we perceive magnitudes in a due light, I shall proceed to make some observations concerning matters relating thereto, 184 whereof the want of reflexion, and duly separating between tangible and visible ideas, is apt to create in us mistaken and confused notions. 185 And FIRST, I shall observe that the MINIMUM VISIBILE is exactly equal in all beings whatsoever that are endowed with the visive faculty. 186 No exquisite formation of the eye, no peculiar sharpness of sight, can make it less in one creature than in another; for it not being distinguishable into parts,

nor in any wise a consisting of them, it must necessarily be the same to all. 187 For suppose it otherwise, and that the MINIMUM VISIBILE of a mite, for instance, be less than the MINIMUM VISIBILE of a human: the latter therefore may by detraction of some part be made equal to the former: 188 it doth therefore consist of parts, which is inconsistent with the notion of a MINIMUM VISIBILE or point.

189 It will perhaps be objected that the MINIMUM VISIBILE of a human doth really and in itself contain parts whereby it surpasses that of a mite, though they are not perceivable by the person. 190 To which I answer, the MINIMUM VISIBILE having (in like manner as all other the proper and immediate objects of sight) been shown not to have any existence without the mind of you who sees it, 191 it follows there cannot be any part of it that is not actually perceived, and therefore visible. 192 Now for any object to contain distinct visible parts, and at the same time to be a MINIMUM VISIBILE, is a manifest contradiction.

193 Of these visible points we see at all times an equal number. It is every whit as great when our view is contracted and bounded by near objects as when it is extended to larger and remoter. 194 For it being impossible that one MINIMUM VISIBILE should obscure or keep out of sight mote than one other, it is a plain consequence that when my view is on all sides bounded by the walls of my study see just as many visible points as I could, 195 in case that by the removal of the study-walls and all other obstructions, I had a full prospect of the circumjacent fields, mountains, sea, and open firmament: 196 for so long as I am shut up within the walls, by their interposition every point of the external objects is covered from my view: 197 but each point that is seen being able to cover or exclude from sight one only other corresponding point, 198 it follows that whilst my sight is confined to those narrow walls I see as many points, or MINIMA VISIBILIA, as I should were those walls away, by looking on all the external objects whose prospect is intercepted by them. 199 Whenever therefore we

are said to have a greater prospect at one time than another, this must be understood with relation, not to the proper and immediate, but the secondary and mediate objects of vision, which, as hath been shown, properly belong to the touch.

200 The visive faculty considered with reference to its immediate objects may be found to labour of two defects. 201 FIRST, in respect of the extent or number of visible points that are at once perceivable by it, which is narrow and limited to a certain degree. 202 It can take in at one view but a certain determinate number of MINIMA VISIBILIA, beyond which it cannot extend its prospect. 203 Secondly, our sight is defective in that its view is not only narrow, but also for the most part confused: of those things that we take in at one prospect we can see but a few at once clearly and unconfusedly: 204 and the more we fix our sight on any one object, by so much the darker and more indistinct shall the rest appear.

205 Corresponding to these two defects of sight, we may imagine as many perfections, to wit, Firstly, that of comprehending in one view a greater number of visible points. Secondly, of being able to view them all equally and at once with the utmost clearness and distinction. 206 That those perfections are not actually in some intelligences of a different order and capacity from ours it is impossible for us to know.

207 In neither of those two ways do microscopes contribute to the improvement of sight; 208 for when we look through a microscope we neither see more visible points, nor are the collateral points more distinct than when we look with the naked eye at objects placed in a due distance. 209 A microscope brings us, as it were, into a new world: it presents us with a new scene of visible objects quite different from what we behold with the naked eye. 210 But herein consists the most remarkable difference, to wit, that whereas the objects perceived by the eye alone have a certain connexion with tangible objects, 211 whereby we are taught to foresee what will ensue upon the approach or application of distant objects to the parts of our own body, which much conduceth to its

preservation, 212 there is not the like connexion between things tangible and those visible objects that are perceived by help of a fine microscope.

213 Hence it is evident that were our eyes turned into the nature of microscopes, we should not be much benefited by the change; 214 we should be deprived of the forementioned advantage we at present receive by the visive faculty, and have left us only the empty amusement of seeing, without any other benefit arising from it. 215 But in that case, it will perhaps be said, our sight would be endued with a far greater sharpness and penetration than it now hath. 216 But it is certain from what we have already shown that the MINIMUM VISIBILE is never greater or lesser, but in all cases constantly the same: 217 and in the case of microscopical eyes I see only this difference, to wit, that upon the ceasing of a certain observable connexion betwixt the diverse perceptions of sight and touch, which before enabled us to regulate our actions by the eye, it would now be rendered utterly unserviceable to that purpose.

218 Upon the whole it seems that if we consider the use and end of sight, together with the present state and circumstances of our being, we shall not find any great cause to complain of any defect or imperfection in it, or easily conceive how it could be mended. 219 With such admirable wisdom is that faculty contrived, both for the pleasure and convenience of life.

THE ORIENTATION OF THE OBJECTS OF SIGHT

George Berkeley

3 Having finished what I intended to say concerning the distance and magnitude of objects, I come now to treat of the manner wherein the mind perceives by sight their situation. 2 Among the discoveries of the last age, it is reputed none of the least that the manner of vision hath been more clearly explained than ever it had been before. 3 There is at this day no one ignorant that the pictures of external objects are painted on the RETINA, or fund of the eye: that we can see nothing which is not so painted: 4 and that, according as

the picture is more distinct or confused, so also is the perception we have of the object: but then in this explication of vision there occurs one mighty difficulty. 5 The objects are painted in an inverted order on the bottom of the eye: the upper part of any object being painted on the lower part of the eye, and the lower part of the object on the upper part of the eye: and so also as to right and left. 6 Since therefore the pictures are thus inverted, it is demanded how it comes to pass that we see the objects erect and in their natural posture?

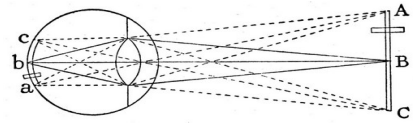

Fig-4

7 In answer to this difficulty we are told that the mind, perceiving an impulse of a ray of light on the upper part of the eye, considers this ray as coming in a direct line from the lower part of the object; 8 and in like manner tracing the ray that strikes on the lower part of the eye, it is directed to the upper part of the object. 9 Thus in the adjacent figure, C, the lower point of the object ABC, is projected on C the upper part of the eye. 10 So likewise the highest point A is projected on A the lowest part of the eye, which makes the representation CBA inverted: 11 but the mind considering the stroke that is made on C as coming in the straight line CC from the lower end of the object; 12 and the stroke or impulse on a as coming in the line AA from the upper end of the object, is directed to make a right judgment of the situation of the object ABC, notwithstanding the picture of it is inverted. 13 This is illustrated by conceiving a blind person who, holding in own hands two sticks that cross each other, doth with them touch the extremities of an object, placed in a perpendicular situation. 14 It is certain this person will judge that to be the upper part of the object which one touches with the stick held in the undermost hand, and that to be the lower part of the object which one touches with the stick in own uppermost hand. 15 This is the common explication of the erect appearance of objects, which is generally received and acquiesced in, being 'allowed by all humans as satisfactory' (as Mr.

Molyneux tells us [Diopt. par. 2. c. 7. P. 289.]).

16 But this account to me does not seem in any degree true. Did I perceive those impulses, decussations, and directions of the rays of light in like manner as hath been set forth, then indeed it would not be altogether void of probability. 17 And there might be some pretence for the comparison of the blind person and own cross sticks. 18 But the case is far otherwise. I know very well that I perceive no such thing. And of consequence I cannot thereby make an estimate of the situation of objects. 19 I appeal to anyone's experience, whether you be conscious to yourself that you thinks on the intersection made by the radious [SIC] pencils, or pursues the impulses they give in right lines, whenever you perceives by sight the position of any object? 20 To me it seems evident that crossing and tracing of the rays is never thought on by children, idiots, or in truth by any other, save only those who have applied themselves to the study of optics. 21 And for the mind to judge of the situation of objects by those things without perceiving them, or to perceive them without knowing it, is equally beyond my comprehension. 22 Add to this that the explaining the manner of vision by the example of cross sticks and hunting for the object along the axes of the radious pencils, 23 doth suppose the proper objects of sight to be perceived at a distance from us, contrary to what hath been demonstrated.

24 It remains, therefore, that we look for some other explication of this difficulty: and I believe it not impossible to find one, provided we examine it to the bottom, and carefully distinguish between the ideas of sight and touch; 25 which cannot be too oft inculcated in treating of vision: but more especially throughout the consideration of this affair we ought to carry that distinction in our thoughts: 26 for that from want of a right understanding thereof the difficulty of explaining erect vision seems chiefly to arise.

27 In order to disentangle our minds from whatever prejudices we may entertain with relation to the subject in hand, nothing seems more apposite than the taking into

our thoughts the case of one born blind, and afterwards, when grown up, made to see. 28 And though, perhaps, it may not be an easy task to divest ourselves entirely of the experience received from sight, so as to be able to put our thoughts exactly in the posture of such a one's, 29 we must, nevertheless, as far as possible, endeavour to frame true conceptions of what might reasonably be supposed to pass in one's own mind.

30 It is certain that a person actually blind, and who had continued so from birth, would by the sense of feeling attain to have ideas of upper and lower. 31 By the motion of own hand one might discern the situation of any tangible object placed within own FI reach. 32 That part on which you felt yourself supported, or towards which you perceived your body to gravitate, you would term lower, and the contrary to this upper; and accordingly denominate whatsoever objects you touched.

33 But then, whatever judgments you makes concerning the situation of objects are confined to those only that are perceivable by touch. 34 All those things that are intangible and of a spiritual nature, your thoughts and desires, your passions, and in general all the modifications of the soul, to these you would never apply the terms UPPER and LOWER, except only in a metaphorical sense. 35 You may, perhaps, by way of allusion, speak of high or low thoughts: but those terms in their proper signification would never be applied to anything that was not conceived to exist without the mind. 36 For a person born blind, and remaining in the same state, could mean nothing else by the words HIGHER and LOWER than a greater or lesser distance from the earth; 37 which distance you would measure by the motion or application of your hand or some other part of your body. 38 It is therefore evident that all those things which, in respect of each other, would by you be thought higher or lower, must be such as were conceived to exist without your mind, in the ambient space.

39 Whence it plainly follows that such a one, if we suppose you made to see, would not at first sight think anything you saw was high or low, erect or inverted;

40 for it hath been already demonstrated in chapter-1, verses: 190-193 that you would not think the things you perceived by sight to be at any distance from you, or without your mind. 41 The objects to which you had hitherto been used to apply the terms UP and DOWN, HIGH and LOW, were such only as affected or were some way perceived by your couch: 42 but the proper objects of vision make a new set of ideas, perfectly distinct and different from the former, and which can in no sort make themselves perceived by touch. 43 There is, therefore, nothing at all that could induce you to think those terms applicable to them: nor would you ever think it till such time as you had observed their connexion with tangible objects, 44 and the same prejudice began to insinuate itself into your understanding, which from their infancy had grown up in the understandings of other humans.

45 To set this matter in a clearer light I shall make use of an example. Suppose the above-mentioned blind person by own touch perceives a human to stand erect. Let us inquire into the manner of this. 46 By the application of own hand to the several parts of a human body one had perceived different tangible ideas, which being collected into sundry complex ones, have distinct names annexed to them. 47 Thus one combination of a certain tangible figure, bulk, and consistency of parts is called the head, another the hand, a third the foot, and so of the rest: 48 all which complex ideas could, in your understanding, be made up only of ideas perceivable by touch. 49 You had also by your touch obtained an idea of earth or ground, towards which you perceives the parts of your body to have a natural tendency. 50 Now, by ERECT nothing more being meant than that perpendicular position of a human wherein your feet are nearest to the earth, 51 if the blind person by moving own hand over the parts of the human who stands before own self perceives the tangible ideas that compose the head to be farthest from, and those that compose the feet to be nearest to, 52 that other combination of tangible ideas which you calls earth, you will

denominate that human erect. 53 But if we suppose you on a sudden to receive your sight, and that you behold a human standing before you, it is evident in that case you would neither judge the person you sees to be erect nor inverted; 54 for you never having known those terms applied to any other save tangible things, or which existed in the space without you, 55 and what you sees neither being tangible nor perceived as existing without, you could not know that in propriety of language they were applicable to it.

56 Afterwards, when upon turning your head or eyes up and down to the right and left you shall observe the visible objects to change, and shall also attain to know that they are called by the same names, and connected with the objects perceived by touch; 57 then indeed you will come to speak of them and their situation, in the same terms that you have been used to apply to tangible things; 58 and those that you perceives by turning up your eyes you will call upper, and those that by turning down your eyes you will call lower.

59 And this seems to me the true reason why you should think those objects uppermost that are painted on the lower part of your eye: for by turning the eye up they shall be distinctly seen; 60 as likewise those that are painted on the highest part of the eye shall be distinctly seen by turning the eye down, and are for that reason esteemed lowest; 61 for we have shown that to the immediate objects of sight considered in themselves, you would not attribute the terms HIGH and LOW. 62 It must therefore be on account of some circumstances which are observed to attend them: and these, it is plain, are the actions of turning the eye up and down, which suggest a very obvious reason why the mind should denominate the objects of sight accordingly high or low. 63 And without this motion of the eye, this turning it up and down in order to discern different objects, doubtless ERECT, INVERSE, and other the like terms relating to the position of tangible objects, would never have been transferred, 64 or in any degree apprehended to belong to the ideas of sight: the mere act of

seeing including nothing in it to that purpose; 65 whereas the different situations of the eye naturally direct the mind to make a suitable judgment of the situation of objects intromitted by it.

66 Farther, when you have by experience learned the connexion there is between the several ideas of sight and touch, 67 you will be able, by the perception you have of the situation of visible things in respect of one another, to make a sudden and true estimate of the situation of outward, tangible things corresponding to them. 68 And thus it is you shall perceive by sight the situation of external objects which do not properly fall under that sense.

69 I know we are very prone to think that, if just made to see, we should judge of the situation of visible things as we do now: 70 but we are also as prone to think that, at first sight, we should in the same way apprehend the distance and magnitude of objects as we do now: 71 which hath been shown to be a false and groundless persuasion. 72 And for the like reasons the same censure may be passed on the positive assurance that most people, before they have thought sufficiently of the matter, might have of their being able to determine by the eye at first view, whether objects were erect or inverse.

73 It will, perhaps, be objected to our opinion that a human, for instance, being thought erect when your feet are next the earth, and inverted when your head is next the earth, 74 it doth hence follow that by the mere act of vision, without any experience or altering the situation of the eye, we should have determined whether you were erect or inverted: 75 for both the earth itself, and the limbs of the person who stands thereon, being equally perceived by sight, one cannot choose seeing what part of the person is nearest the earth, and what part farthest from it, i.e. whether you be erect or inverted.

76 To which I answer, the ideas which constitute the tangible earth and human are entirely different from those which constitute the visible earth and human. 77 Nor was it possible, by virtue of the visive faculty alone, without superadding any experience of touch, or altering the position of

the eye, ever to have known, or so much as suspected, there had been any relation or connexion between them. 78 Hence a human at first view would not denominate anything you saw earth, or head, or foot; and consequently you could not tell by the mere act of vision whether the head or feet were nearest the earth: 79 nor, indeed, would we have thereby any thought of earth or human, erect or inverse, at all: which will be made yet more evident if we nicely observe, and make a particular comparison between, the ideas of both senses.

80 That which I see is only variety of light and colours. That which I feel is hard or soft, hot or cold, rough or smooth. 81 What similitude, what connexion have those ideas with these? 82 Or how is it possible that anyone should see reason to give one and the same name to combinations of ideas so very different before you had experienced their coexistence? 83 We do not find there is any necessary connexion betwixt this or that tangible quality and any colour whatsoever. And we may sometimes perceive colours where there is nothing to be felt. 84 All which doth make it manifest that no human, at first receiving of your sight, would know there was any agreement between this or that particular object of your sight and any object of touch you had been already acquainted with: 85 the colours, therefore, of the head would to you no more suggest the idea of head than they would the idea of foot.

86 Farther, we have at large shown (In Chapter-2, verses:60-68) there is no discoverable necessary connexion between any given visible magnitude and any one particular tangible magnitude; 87 but that it is entirely the result of custom and experience, and depends on foreign and accidental circumstances that we can by the perception of visible extension inform ourselves what may be the extension of any tangible object connected with it. 88 Hence it is certain that neither the visible magnitude of head or foot would bring along with them into the mind, at first opening of the eyes, the respective tangible magnitudes of those parts.

89 By the foregoing section it is plain the visible figure of any part of the body hath no necessary connexion with the tangible figure thereof, so as at first sight to suggest it to the mind. 90 For figure is the termination of magnitude; whence it follows that no visible magnitude having in its own nature an aptness to suggest any one particular tangible magnitude, 91 so neither can any visible figure be inseparably connected with its corresponding tangible figure: so as of itself and in a way prior to experience, it might suggest it to the understanding. 92 This will be farther evident if we consider that what seems smooth and round to the touch may to sight, if viewed through a microscope, seem quite otherwise.

93 From all which laid together and duly considered, we may clearly deduce this inference. 94 In the first act of vision no idea entering by the eye would have a perceivable connexion with the ideas to which the names EARTH, HUMAN, HEAD, FOOT, etc., were annexed in the understanding of a person blind from own birth; 95 so as in any sort to introduce them into own mind, or make themselves be called by the same names, and reputed the same things with them, as afterwards they come to be.

96 There doth, nevertheless, remain one difficulty, which perhaps may seem to press hard on our opinion, and deserve not to be passed over: 97 for though it be granted that neither the colour, size, nor figure of the visible feet have any necessary connexion with the ideas that compose the tangible feet, 98 so as to bring them at first sight into my mind, or make me in danger of confounding them before I had been used to, and for some time experienced their connexion: 99 yet thus much seems undeniable, namely, that the number of the visible feet being the same with that of the tangible feet, I may from hence without any experience of sight reasonably conclude that they represent or are connected with the feet rather than the head. 100 I say, it seems the idea of two visible feet will sooner suggest to the mind the idea of two tangible feet than of one head; 101 so that the blind person upon first

reception of the visive faculty might know which were the feet or two, and which the head or one.

102 In order to get clear of this seeming difficulty we need only observe that diversity of visible objects doth not necessarily infer diversity of tangible objects corresponding to them. 103 A picture painted with great variety of colours affects the touch in one uniform manner; 104 it is therefore evident that I do not by any necessary consecution, independent of experience, judge of the number of things tangible from the number of things visible. 105 I should not, therefore, at first opening my eyes conclude that because I see two I shall feel two. 106 How, therefore, can I, before experience teaches me, know that the visible legs, because two, are connected with the tangible legs, or the visible head, because one, is connected with the tangible head? 107 The truth is, the things I see are so very different and heterogeneous from the things I feel, 108 that the perception of the one would never have suggested the other to my thoughts, or enabled me to pass the least judgment thereon, until I had experienced their connexion.

109 But for a fuller illustration of this matter it ought to be considered that number (however some may reckon it amongst the primary qualities) is nothing fixed and settled, really existing in things themselves. 110 It is entirely the creature of the mind, considering either an idea by itself, or any combination of ideas to which it gives one name, and so makes it pass for an unit. 111 According as the mind variously combines its ideas the unit varies: and as the unit, so the number, which is only a collection of units, doth also vary. 112 We call a window one, a chimney one, and yet a house in which there are many windows and many chimneys hath an equal right to be called one, and many houses go to the making of the city. 113 In these and the like, instances it is evident the unit constantly relates to the particular draughts the mind makes of its ideas, to which it affixes names, and wherein it includes more or less as best suits its own ends and purposes. 114 Whatever, therefore, the mind

considers as one, that is an unit. Every combination of ideas is considered as one thing by the mind, and in token thereof is marked by one name. 115 Now, this naming and combining together of ideas is perfectly arbitrary, and done by the mind in such sort as experience shows it to be most convenient: without which our ideas had never been collected into such sundry distinct combinations as they now are.

116 Hence it follows that a person born blind and afterwards, when grown up, made to see, would not in the first act of vision parcel out the ideas of sight into the same distinct collections that others do, 117 who have experienced which do regularly coexist and are proper to be bundled up together under one name. 118 You would not, for example, make into one complex idea, and thereby esteem an unit, all those particular ideas which constitute the visible head or foot. 119 For there can be no reason assigned why you should do so, barely upon your seeing a human stand upright before you. 120 There crowd into your mind the ideas which compose the visible human, in company with all the other ideas of sight perceived at the same time: 121 but all these ideas offered at once to your view, you would not distribute into sundry distinct combinations till such time as by observing the motion of the parts of the human and other experiences you comes to know which are to be separated and which to be collected together.

122 From what hath been premised it is plain the objects of sight and touch make, if I may so say, two sets of ideas which are widely different from each other. 123 To objects of either kind we indifferently attribute the terms high and low, right and left, and suchlike, denoting the position or situation of things: 124 but then we must well observe that the position of any object is determined with respect only to objects of the same sense. 125 We say any object of touch is high or low, according as it is more or less distant from the tangible earth: 126 and in like manner we denominate any object of sight high or low in proportion as it is more or less distant from the visible earth: 127 but to define the situation of visible things with

relation to the distance they bear from any tangible thing, or VICE VERSA, this were absurd and perfectly unintelligible. 128 For all visible things are equally in the mind, and take up no part of the external space: and consequently are equidistant from any tangible thing which exists without the mind.

129 Or rather, to speak truly, the proper objects of sight are at no distance, neither near nor far, from any tangible thing. 130 For if we inquire narrowly into the matter we shall find that those things only are compared together in respect of distance which exist after the same manner, or appertain unto the same sense. 131 For by the distance between any two points nothing more is meant than the number of intermediate points: 132 if the given points are visible the distance between them is marked out by the number of the interjacent visible points: 133 if they are tangible, the distance between them is a line consisting of tangible points; 134 but if they are one tangible and the other visible, the distance between them doth neither consist of points perceivable by sight nor by touch, i.e. it is utterly inconceivable. 135 This, perhaps, will not find an easy admission into all humans' understanding: however, I should gladly be informed whether it be not true by anyone who will be at the pains to reflect a little and apply it home to your thoughts.

136 The not observing what has been delivered in the two last sections seems to have occasioned no small part of the difficulty that occurs in the business of erect appearances. 137 The head, which is painted nearest the earth, seems to be farthest from it: and on the other hand the feet, which are painted farthest from the earth, are thought nearest to it. 138 Herein lies the difficulty, which vanishes if we express the thing more clearly and free from ambiguity, thus: 139 how comes it that to the eye the visible head which is nearest the tangible earth seems farthest from the earth, and the visible feet, which are farthest from the tangible earth seem nearest the earth? 140 The question being thus proposed, who sees not the difficulty is founded on a supposition that the eye, or visive

faculty, or rather the soul by means thereof, should judge of the situation of visible objects with reference to their distance from the tangible earth? 141 Whereas it is evident the tangible earth is not perceived by sight: and it hath been shown in the two last preceding sections that the location of visible objects is determined only by the distance they bear from one another; 142 and that it is nonsense to talk of distance, far or near, between a visible and tangible thing.

143 If we confine our thoughts to the proper objects of sight, the whole is plain and easy. The head is painted farthest from, and the feet nearest to, the visible earth; and so they appear to be. 144 What is there strange or unaccountable in this? Let us suppose the pictures in the fund of the eye to be the immediate objects of the sight. The consequence is that things should appear in the same posture they are painted in; and is it not so? 145 The head which is seen seems farthest from the earth which is seen; and the feet which are seen seem nearest to the earth, which is seen; and just so they are painted.

146 But, say you, the picture of the human is inverted, and yet the appearance is erect: I ask, what mean you by the picture of the human, or, which is the same thing, the visible human's being inverted? 147 You tell me it is inverted, because the heels are uppermost and the head undermost? Explain me this. 148 You say that by the head's being undermost you mean that it is nearest to the earth; and by the heels being uppermost that they are farthest from the earth. I ask again what earth you mean? 149 You cannot mean the earth that is painted on the eye, or the visible earth: for the picture of the head is farthest from the picture of the earth, and the picture of the feet nearest to the picture of the earth; and accordingly the visible head is farthest from the visible earth, and the visible feet nearest to it. 150 It remains, therefore, that you mean the tangible earth, and so determine the situation of visible things with respect to tangible things; contrary to what hath been demonstrated in verses:122-135.

151 The two distinct provinces of sight and touch should be considered apart, and as if their objects had no intercourse, no manner of relation one to another, in point of distance or position.

152 Farther, what greatly contributes to make us mistake in this matter is that when we think of the pictures in the fund of the eye, we imagine ourselves looking on the fund of another's eye, 153 or another looking on the fund of our own eye, and beholding the pictures painted thereon. 154 Suppose two eyes A and B: A from some distance looking on the pictures in B sees them inverted, and for that reason concludes they are inverted in B: but this is wrong. 155 There are projected in little on the bottom of A the images of the pictures of, suppose, human, earth, etc., which are painted on B. 156 And besides these the eye B itself, and the objects which environ it, together with another earth, are projected in a larger size on A.

157 Now, by the eye A these larger images are deemed the true objects, and the lesser only pictures in miniature. And it is with respect to those greater images that it determines the situation of the smaller images: 158 so that comparing the little human with the great earth, A judges you inverted, or that the feet are farthest from and the head nearest to the great earth. 159 Whereas, if A compare the little human with the little earth, then you will appear erect, i.e. your head shall seem farthest from, and your feet nearest to, the little earth. 160 But we must consider that B does not see two earths as A does: it sees only what is represented by the little pictures in A, and consequently shall judge the human erect. 161 For, in truth, the human in B is not inverted, for there the feet are next the earth; 162 but it is the representation of it in A which is inverted, for there the head of the representation of the picture of the human in B is next the earth, and the feet farthest from the earth, meaning the earth which is without the representation of the pictures in B. 163 For if you take the little images of the pictures in B, and consider them by themselves, and with respect

only to one another, they are all erect and in their natural posture.

164 Farther, there lies a mistake in our imagining that the pictures of external objects are painted on the bottom of the eye. 165 It hath been shown there is no resemblance BETWEEN the ideas of sight and things tangible. 166 It hath likewise been demonstrated that the proper objects of sight do not exist without the mind. 167 Whence it clearly follows that the pictures painted on the bottom of the eye are not the pictures of external objects. 168 Let anyone consult own thoughts, and then say what affinity, what likeness there is between that certain variety and disposition of colours which constitute the visible human, or picture of a human, 169 and that other combination of far different ideas, sensible by touch, which compose the tangible human. 170 But if this be the case, how come they to be accounted pictures or images, since that supposes them to copy or represent some originals or other?

171 To which I answer: in the forementioned instance the eye A takes the little images, included within the representation of the other eye B, to be pictures or copies, 172 whereof the archetypes are not things existing without, but the larger pictures projected on its own fund: and which by A are not thought pictures, but the originals, or true things themselves. 173 Though if we suppose a third eye C from a due distance to behold the fund of A, then indeed the things projected thereon shall, to C, seem pictures or images in the same sense that those projected on B do to A.

174 Rightly to conceive this point we must carefully distinguish between the ideas of sight and touch, between the visible and tangible eye; for certainly on the tangible eye nothing either is or seems to be painted. 175 Again, the visible eye, as well as all other visible objects, hath been shown to exist only in the mind, which perceiving its own ideas, and comparing them together, calls some PICTURES in respect of others. 176 What hath been said, being rightly comprehended and laid together, doth, I think, afford a full and genuine explication of the erect appearance of objects;

177 which phenomenon, I must confess, I do not see how it can be explained by any theories of vision hitherto made public.

178 In treating of these things the use of language is apt to occasion some obscurity and confusion, and create in us wrong ideas; 179 for language being accommodated to the common notions and prejudices of humans, it is scarce possible to deliver the naked and precise truth without great circumlocution, impropriety, and (to an unwary reader) seeming contradictions; 180 I do therefore once for all desire whoever shall think it worth your while to understand what I have written concerning vision, 181 that you would not stick in this or that phrase, or manner of expression, but candidly collect my meaning from the whole sum and tenour of my discourse, 182 and laying aside the words as much as possible, consider the bare notions themselves, and then judge whether they are agreeable to truth and your own experience, or no.

IDEAS OF SIGHT AND OF TOUCH

George Berkeley

4 We have shown the way wherein the mind by mediation of visible ideas doth perceive or apprehend the distance, magnitude and situation of tangible objects. 2 We come now to inquire more particularly concerning the difference between the ideas of sight and touch, which are called by the same names, and see whether there be any idea common to both senses. 3 From what we have at large set forth and demonstrated in the foregoing parts of this treatise, it is plain there is no one selfsame numerical extension perceived both by sight and touch; 4 but that the particular figures and extensions perceived by sight, however they may be called by the same names and reputed the same things with those perceived by touch, are nevertheless different, and have an existence distinct and separate from them: 5 so that the question is not now concerning the same numerical ideas, but whether there be any one and the same sort of species of ideas equally

perceivable to both senses; 6 or, in other words, whether extension, figure, and motion perceived by sight are not specifically distinct from extension, figure, and motion perceived by touch.

7 But before I come more particularly to discuss this matter, I find it proper to consider extension in abstract: for of this there is much talk, 8 and I am apt to think that when people speak of extension as being an idea common to two senses, it is with a secret supposition that we can single out extension from all other tangible and visible qualities, and form thereof an abstract idea, which idea they will have common both to sight and touch. 9 We are therefore to understand by extension in abstract an idea of extension, 10 for instance, a line or surface entirely stripped of all other sensible qualities and circumstances that might determine it to any particular existence; 11 it is neither black nor white, nor red, nor hath it any colour at all, or any tangible quality whatsoever and consequently it is of no finite determinate magnitude: 12 for that which bounds or distinguishes one extension from another is some quality or circumstance wherein they disagree.

13 Now I do not find that I can perceive, imagine, or any wise frame in my mind such an abstract idea as is here spoken of. 14 A line or surface which is neither black, nor white, nor blue, nor yellow, etc., nor long, nor short, nor rough, nor smooth, nor square, nor round, etc., is perfectly incomprehensible. 15 This I am sure of as to myself: how far the faculties of other people may reach they best can tell.

16 It is commonly said that the object of geometry is abstract extension: but geometry contemplates figures: now, figure is the termination of magnitude: but we have shown that extension in abstract hath no finite determinate magnitude. 17 Whence it clearly follows that it can have no figure, and consequently is not the object of geometry. 18 It is indeed a tenet as well of the modern as of the ancient philosophers that all general truths are concerning universal abstract ideas; 19 without which, we are

told, there could be no science, no demonstration of any general proposition in geometry. 20 But it were no hard matter, did I think it necessary to my present purpose, to show that propositions and demonstrations in geometry might be universal, though they who make them never think of abstract general ideas of triangles or circles.

21 After reiterated endeavours to apprehend the general idea a triangle, I have found it altogether incomprehensible. 22 And surely if anyone were able to introduce that idea into my mind, it must be the author of the *ESSAY CONCERNING HUMAN UNDERSTANDING*; 23 he who has so far distinguished himself from the generality of writers by the clearness and significancy of what he says. 24 Let us therefore see how this celebrated author describes the general or abstract idea of a triangle. 'It must be (says he) neither oblique nor rectangular, neither equilateral, equicrural, nor scalenum; but all and none of these at once. 25 In effect, it is somewhat imperfect that cannot exist; an idea, wherein some parts of several different and inconsistent ideas are put together' ESSAY ON HUMAN UNDERSTAND. 26 This is the idea which he thinks needful for the enlargement of knowledge, which is the subject of mathematical demonstration, and without which we could never come to know any general proposition concerning triangles. 27 That author acknowledges it doth 'require some pains and skill to form this general idea of a triangle'. 28 But had he called to mind what he says in another place, to wit, 'That ideas of mixed modes wherein any inconsistent ideas are put together cannot so much as exist in the mind, i.e. be conceived'. 29 I say, had this occurred to his thoughts, it is not improbable he would have owned it above all the pains and skill he was master of to form the above-mentioned idea of a triangle, which is made up of manifest, staring contradictions. 30 That a person who laid so great a stress on clear and determinate ideas should nevertheless talk at this rate seems very surprising. 31 But the wonder will lessen if it be considered that the source whence

this opinion flows is the prolific womb which has brought forth innumerable errors and difficulties in all parts of philosophy and in all the sciences: 32 but this matter, taken in its full extent, were a subject too comprehensive to be insisted on in this place. And so much for extension in abstract.

33 Some, perhaps, may think pure space, VACUUM, or trine dimension to be equally the object of sight and touch: 34 but though we have a very great propension to think the ideas of outness and space to be the immediate object of sight, yet, if I mistake not, in the foregoing parts of this essay that hath been clearly demonstrated to be a mere delusion, 35 arising from the quick and sudden suggestion of fancy, which so closely connects the idea of distance with those of sight, that we are apt to think it is itself a proper and immediate object of that sense till reason corrects the mistake.

36 It having been shown that there are no abstract ideas of figure, and that it is impossible for us by any precision of thought to frame an idea of extension separate from all other visible and tangible qualities which shall be common both to sight and touch: 37 the question now remaining is, whether the particular extensions, figures, and motions perceived by sight be of the same kind with the particular extensions, figures, and motions perceived by touch? 38 In answer to which I shall venture to lay down the following proposition: THE EXTENSION, FIGURES, AND MOTIONS PERCEIVED BY SIGHT ARE SPECIFICALLY DISTINCT FROM THE IDEAS OF TOUCH CALLED BY THE SAME NAMES, NOR IS THERE ANY SUCH THING AS ONE IDEA OR KIND OF IDEA COMMON TO BOTH SENSES.

39 This proposition may without much difficulty be collected from what hath been said in several places of this essay. 40 But because it seems so remote from, and contrary to, the received notions and settled opinion of humankind, I shall attempt to demonstrate it more particularly and at large by the following arguments.

41 When upon perception of an idea I range it under this or that sort, it is because it is perceived after the same manner, or because it has a likeness or conformity with, or affects me in the same way as, the ideas of the sort I rank

it under. 42 In short, it must not be entirely new, but have something in it old and already perceived by me. 43 It must, I say, have so much at least in common with the ideas I have before known and named as to make me give it the same name with them. 44 But it has been, if I mistake not, clearly made out that a human born blind would not at first reception of own sight think the things one saw were of the same nature with the objects of touch, or had anything in common with them; 45 but that they were a new set of ideas, perceived in a new manner, and entirely different from all one had ever perceived before: 46 so that one would not call them by the same name, nor repute them to be of the same sort with anything one had hitherto known.

47 SECONDLY, light and colours are allowed by all to constitute a son or species entirely different from the ideas of touch: 48 nor will any person, I presume, say they can make themselves perceived by that sense: but there is no other immediate object of sight besides light and colours. 49 It is therefore a direct consequence that there is no idea common to both senses.

50 It is a prevailing opinion, even amongst those who have thought and writ most accurately concerning our ideas and the ways whereby they enter into the understanding, that something more is perceived by sight than barely light and colours with their variations. 51 Mr. Locke termeth sight, 'The most comprehensive of all our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure, and motion. *ESSAY ON HUMAN UNDERSTAND.* 52 Space or distance, we have shown, is not otherwise the object of sight than of hearing. See. Verses:223-227. 53 And as for figure and extension, I leave it to anyone that shall calmly attend to own clear and distinct ideas to decide whether you had any idea intromitted immediately and properly by sight save only light and colours: 54 or whether it is possible for you to frame in your mind a distinct abstract idea of visible extension or figure exclusive of all colour: and on the

other hand, whether you can conceive colour without visible extension? 55 For my own part, I must confess I am not able to attain so great a nicety of abstraction: in a strict sense, I see nothing but light and colours, with their several shades and variations. 56 You who beside these doth also perceive by sight ideas far different and distinct from them hath that faculty in a degree more perfect and comprehensive than I can pretend to. 57 It must be owned that by the mediation of light and colours other far different ideas are suggested to my mind: but so they are by hearing, which beside sounds which are peculiar to that sense, 58 doth by their mediation suggest not only space, figure, and motion, but also all other ideas whatsoever that can be signified by words.

59 THIRDLY, it is, I think, an axiom universally received that quantities of the same kind may be added together and make one entire sum. 60 Mathematicians add lines together: but they do not add a line to a solid, or conceive it as making one sum with a surface: 61 these three kinds of quantity being thought incapable of any such mutual addition, and consequently of being compared together in the several ways of proportion, are by then esteemed entirely disparate and heterogeneous. 62 Now let anyone try in own thoughts to add a visible line or surface to a tangible line or surface, so as to conceive them making one continued sum or whole. 63 You that can do this may think them homogeneous: but you that cannot, must by the foregoing axiom think them heterogeneous. 64 A blue and a red line I can conceive added together into one sum and making one continued line: 65 but to make in my thoughts one continued line of a visible and tangible line added together is, I find, a task far more difficult, and even insurmountable: and I leave it to the reflexion and experience of every particular person to determine for yourself.

66 A farther confirmation of our tenet may be drawn from the solution of Mr. Molyneux's problem, published by Mr. Locke in his ESSAY: which I shall set down as it there lies, together with Mr. Locke's opinion of it, 67 '"Suppose a man born blind, and

now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly [SIC] of the same bigness, so as to tell, when he felt one and t'other, which is the cube and which the sphere. 68 Suppose then the cube and sphere placed on a table, and the blind man to be made to see: QUAERE, whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube?" 69 To which the acute and judicious proposer answers: "Not. For though he has obtained the experience of how a globe, how a cube, affects his touch, yet he has not yet attained the experience that what affects his touch so or so must affect his sight so or so: 70 or that a protuberant angle in the cube that pressed his hand unequally shall appear to his eye as it doth in the cube." 71 I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this his problem; 72 and I am of opinion that the blind man at first sight would not be able with certainty to say which was the globe, which the cube, whilst he only saw them.' (ESSAY ON HUMAN UNDERSTANDING).

73 Now, if a square surface perceived by touch be of the same sort with a square surface perceived by sight, it is certain the blind man here mentioned might know a square surface as soon as he saw it: 74 it is no more but introducing into his mind by a new inlet an idea he has been already well acquainted with. 75 Since, therefore, he is supposed to have known by his touch that a cube is a body terminated by square surfaces, and that a sphere is not terminated by square surfaces: 76 upon the supposition that a visible and tangible square differ only IN NUMERO it follows that he might know, by the unerring mark of the square surfaces, which was the cube, and which not, while he only saw them. 77 We must therefore allow either that visible extension and figures are specifically distinct from tangible extension and figures, or else that the solution of this problem given by those two thoughtful and ingenious people is wrong.

78 Much more might be laid together in proof of the proposition I have advanced: but what has been said is, if I mistake not,

sufficient to convince anyone that shall yield a reasonable attention: 79 and as for those that will not be at the pains of a little thought, no multiplication of words will ever suffice to make them understand the truth, or rightly conceive my meaning.

80 I cannot let go the above-mentioned problem without some reflexion on it. It hath been evident that a person blind from own birth would not, at first sight, denominate anything one saw by the names one had been used to appropriate to ideas of touch, See. Chapter-3, verses:93-95. 81 Cube, sphere, table are words you have known applied to things perceivable by touch, but to things perfectly intangible you never knew them applied. 82 Those words in their wonted application always marked out to your mind bodies or solid things which were perceived by the resistance they gave: but there is no solidity, no resistance or protrusion, perceived by sight. 83 In short, the ideas of sight are all new perceptions, to which there be no names annexed in your mind: you cannot therefore understand what is said to you concerning them: 84 and to ask of the two bodies you saw placed on the table, which was the sphere, which the cube? Were to you a question downright bantering and unintelligible; 85 nothing you sees being able to suggest to your thoughts the idea of body, distance, or in general of anything you had already known.

86 It is a mistake to think the same thing affects both sight and touch. If the same angle or square which is the object of touch be also the object of vision, what should hinder the blind person at first sight from knowing it? 87 For though the manner wherein it affects the sight be different from that wherein it affected your touch, yet, there being beside your manner or circumstance, which is new and unknown, the angle or figure, which is old and known, you cannot choose but discern it.

88 Visible figure and extension having been demonstrated to be of a nature entirely different and heterogeneous from tangible figure and extension, it remains that we inquire concerning. 89 Now that visible motion is not of the same sort with tangible motion seems to

need no farther proof, it being an evident corollary from what we have shown concerning the difference there is between visible and tangible extension: 90 but for a more full and express proof hereof we need only observe that one who had not yet experienced vision would not at first sight know motion. 91 Whence it clearly follows that motion perceivable by sight is of a sort distinct from motion perceivable by touch. 92 The antecedent I prove thus: by touch you could not perceive any motion but what was up or down, to the right or left, nearer or farther from you; 93 besides these and their several varieties or complications, it is impossible you should have any idea of motion. 94 You would not therefore think anything to be motion, or give the name motion to any idea which you could not range under some or other of those particular kinds thereof. 95 But from chapter-3, verses:39-44 it is plain that by the mere act of vision you could not know motion upwards or downwards, to the right or left, or in any other possible direction. From which I conclude you would not know motion at all at first sight. 96 As for the idea of motion in abstract, I shall not waste paper about it, but leave it to my reader to make the best you can of it. To me it is perfectly unintelligible.

97 The consideration of motion may furnish a new field for inquiry: 98 but since the manner wherein the mind apprehends by sight the motion of tangible objects, with the various degrees thereof, 99 may be easily collected from what hath been said concerning the manner wherein that sense doth suggest their various distances, magnitudes, and situations, 100 I shall not enlarge any farther on this subject, but proceed to consider what may be alleged, with greatest appearance of reason, against the proposition we have shown to be true. 101 For where there is so much prejudice to be encountered, a bare and naked demonstration of the truth will scarce suffice. 102 We must also satisfy the scruples that humans may raise in favour of their preconceived notions, show whence the mistake arises, how it came to spread, and carefully disclose and root out those false

persuasions that an early prejudice might have implanted in the mind.

103 FIRST, therefore, it will be demanded how visible extension and figures come to be called by the same name with tangible extension and figures, if they are not of the same kind with them? 104 It must be something more than humour or accident that could occasion a custom so constant and universal as this, which has obtained in all ages and nations of the world, and amongst all ranks of people, the learned as well as the illiterate.

105 To which I answer, we can no more argue a visible and tangible square to be of the same species from their being called by the same name, 106 than we can that a tangible square and the monosyllable consisting of six letters whereby it is marked are of the same species because they are both called by the same name. 107 It is customary to call written words and the things they signify by the same name: 108 for words not being regarded in their own nature, or otherwise than as they are marks of things, it had been superfluous, and beside the design of language, to have given them names distinct from those of the things marked by them. 109 The same reason holds here also. Visible figures are the marks of tangible figures, 110 and from chapter-2, verses:33-44 it is plain that in themselves they are little regarded, or upon any other score than for their connexion with tangible figures, which by Nature they are ordained to signify. 111 And because this language of Nature doth not vary in different ages or nations, hence it is that in all times and places visible figures are called by the same names as the respective tangible figures suggested by them, and not because they are alike or of the same sort with them.

112 But, say you, surely a tangible square is liker to a visible square than to a visible circle: it has four angles and as many sides: so also has the visible square: 113 but the visible circle has no such thing, being bounded by one uniform curve without right lines or angles, which makes it unfit to represent the tangible square but very fit to represent the tangible circle. 114 Whence it clearly follows that

visible figures are patterns of, or of the same species with, the respective tangible figures represented by them: 115 that they are like unto them, and of their own nature fitted to represent them, as being of the same sort: and that they are in no respect arbitrary signs, as words.

116 I answer, it must be acknowledged the visible square is fitter than the visible circle to represent the tangible square, 117 but then it is not because it is liker, or more of a species with it, but because the visible square contains in it several distinct parts, whereby to mark the several distinct corresponding parts of a tangible square, whereas the visible circle doth not. 118 The square perceived by touch hath four distinct, equal sides, so also hath it four distinct equal angles. 119 It is therefore necessary that the visible figure which shall be most proper to mark it contain four distinct equal parts corresponding to the four sides of the tangible square, 120 as likewise four other distinct and equal parts whereby to denote the four equal angles of the tangible square. 121 And accordingly we see the visible figures contain in them distinct visible parts, answering to the distinct tangible parts of the figures signified or suggested by them.

122 But it will not hence follow that any visible figure is like unto, or of the same species with, its corresponding tangible figure, unless it be also shown that not only the number but also the kind of the parts be the same in both. 123 To illustrate this, I observe that visible figures represent tangible figures much after the same manner that written words do sounds. 124 Now, in this respect words are not arbitrary, it not being indifferent what written word stands for any sound: 125 but it is requisite that each word contain in it so many distinct characters as there are variations in the sound it stands for. 126 Thus the single letter A is proper to mark one simple uniform sound; and the word ADULTERY is accommodated to represent the sound annexed to it, 127 in the formation whereof there being eight different collisions or modifications of the air by the organs of speech, each of which

produces a difference of sound, 128 it was fit the word representing it should consist of as many distinct characters, thereby to mark each particular difference or part of the whole sound. 129 And yet nobody, I presume, will say the single letter a, or the word ADULTERY, are like unto, or of the same species with, the respective sounds by them represented. 130 It is indeed arbitrary that, in general, letters of any language represent sounds at all: but when that is once agreed, it is not arbitrary what combination of letters shall represent this or that particular sound. 131 I leave this with the reader to pursue, and apply it in your own thoughts.

132 It must be confessed that we are not so apt to confound other signs with the things signified, or to think them of the same species, as we are visible and tangible ideas. 133 But a little consideration will show us how this may be without our supposing them of a like nature. 134 These signs are constant and universal, their connexion with tangible ideas has been learn't at our first entrance into the world; 135 and ever since, almost every moment of our lives, it has been occurring to our thoughts, and fastening and striking deeper on our minds. 136 When we observe that signs are variable, and of human institution; when we remember there was a time they were not connected in our minds with those things they now so readily suggest; but that their signification was learned by the slow steps of experience: this preserves us from confounding them. 137 But when we find the same signs suggest the same things all over the world; when we know they are not of human institution, and cannot remember that we ever learned their signification, but think that at first sight they would have suggested to us the same things they do now: 138 all this persuades us they are of the same species as the things respectively represented by them, and that it is by a natural resemblance they suggest them to our minds.

139 Add to this that whenever we make a nice survey of any object, successively directing the optic axis to each point thereof, there are certain lines and figures described by the motion of the head or eye, 140 which being in truth perceived

by feeling, do nevertheless so mix themselves, as it were, with the ideas of sight, that we can scarce think but they appertain to that sense. 141 Again, the ideas of sight enter into the mind several at once, more distinct and unmingled than is usual in the other senses beside the touch. 142 Sounds, for example, perceived at the same instant, are apt to coalesce, if I may so say, into one sound: but we can perceive at the same time great variety of visible objects, very separate and distinct from each other. 143 Now tangible extension being made up of several distinct coexistent parts, we may hence gather another reason that may dispose us to imagine a likeness or an analogy between the immediate objects of sight and touch. 144 But nothing, certainly, doth more contribute to blend and confound them together than the strict and close connexion they have with each other. 145 We cannot open our eyes but the ideas of distance, bodies, and tangible figures are suggested by them. 146 So swift and sudden and unperceived is the transition from visible to tangible ideas that we can scarce forbear thinking them equally the immediate object of vision.

147 The prejudice which is grounded on these, and whatever other causes may be assigned thereof, sticks so fast that it is impossible without obstinate striving and labour of the mind to get entirely clear of it. 148 But then the reluctancy we find in rejecting any opinion can be no argument of its truth to whoever considers what has been already shown with regard to the prejudices we entertain concerning the distance, magnitude, and situation of objects; 149 prejudices so familiar to our minds, so confirmed and inveterate, as they will hardly give way to the clearest demonstration.

150 Upon the whole, I think we may fairly conclude that the proper objects of vision constitute an universal language of the Author of Nature, 151 whereby we are instructed how to regulate our actions in order to attain those things that are necessary to the preservation and well-being of our bodies, as also to avoid whatever may be hurtful and destructive of them. 152 It is by their information that we are principally guided in

all the transactions and concerns of life. 153 And the manner wherein they signify and mark unto us the objects which are at a distance is the same with that of languages and signs of human appointment, 154 which do not suggest the things signified by any likeness or identity of Nature, but only by an habitual connexion that experience has made us to observe between them.

155 Suppose one who had always continued blind be told by own guide that after you have advanced so many steps you shall come to the brink of a precipice, or be stopped by a wall; must not this to you seem very admirable and surprising? 156 You cannot conceive how it is possible for mortals to frame such predictions as these, which to you would seem as strange and unaccountable as prophesy doth to others. 157 Even they who are blessed with the visive faculty may (though familiarity make it less observed) find therein sufficient cause of admiration. 158 The wonderful art and contrivance wherewith it is adjusted to those ends and purposes for which it was apparently designed, 159 the vast extent, number, and variety of objects that are at once with so much ease and quickness and pleasure suggested by it: all these afford subject for much and pleasing speculation, 160 and may, if anything, give us some glimmering analogous pre-notion of things which are placed beyond the certain discovery and comprehension of our present state.

161 I do not design to trouble myself with drawing corollaries from the doctrine I have hitherto laid down. 162 If it bears the test others may, so far as they shall think convenient, employ their thoughts in extending it farther, and applying it to whatever purposes it may be subservient to: 163 only, I cannot forbear making some inquiry concerning the object of geometry, which the subject we have been upon doth naturally lead one to. 164 We have shown there is no such idea as that of extension in abstract, and that there are two kinds of sensible extension and figures which are entirely distinct and heterogeneous from each other. 165 Now, it is

natural to inquire which of these is the object of geometry.

166 Some things there are which at first sight incline one to think geometry conversant about visible extension. 167 The constant use of the eyes, both in the practical and speculative parts of that science, doth very much induce us thereto. 168 It would, without doubt, seem odd to a mathematician to go about to convince you the diagrams you saw upon paper were not the figures, or even the likeness of the figures, which make the subject of the demonstration. 169 The contrary being held an unquestionable truth, not only by mathematicians, but also by those who apply themselves more particularly to the study of logic; 170 I mean, who consider the nature of science, certainty, and demonstration: it being by them assigned as one reason of the extraordinary clearness and evidence of geometry 171 that in this science the reasonings are free from those inconveniences which attend the use of arbitrary signs, the very ideas themselves being copied out and exposed to view upon paper. 172 But, by the bye, how well this agrees with what they likewise assert of abstract ideas being the object of geometrical demonstration I leave to be considered.

173 To come to a resolution in this point we need only observe what hath been said in chapter-2, verses:33-56, where it is shown that visible extensions in themselves are little regarded, and have no settled determinable greatness, 174 and that humans measure altogether, by the application of tangible extension to tangible extension. All which makes it evident that visible extension and figures are not the object of geometry.

175 It is therefore plain that visible figure are of the same use in geometry that words are: and the one may as well be accounted the object of that science as the other, 176 neither of them being otherwise concerned therein than as they represent or suggest to the mind the particular tangible figures connected with them. 177 There is indeed this difference between the signification of tangible figures by visible figures,

and of ideas by words: 178 that whereas the latter is variable and uncertain, depending altogether on the arbitrary appointment of humans, the former is fixed and immutably the same in all times and places. 179 A visible square, for instance, suggests to the mind the same tangible figure in Europe that it doth in America. 180 Hence it is that the voice of the Author of Nature which speaks to our eyes, is not liable to that misinterpretation and ambiguity that languages of human contrivance are unavoidably subject to.

181 Though what has been said may suffice to show what ought to be determined with relation to the object of geometry, 182 I shall nevertheless, for the fuller illustration thereof, consider the case of an intelligence, or unbodied spirit, which is supposed to see perfectly well, i.e. to have a clear perception of the proper and immediate objects of sight, but to have no sense of touch. 183 Whether there be any such being in Nature or no is beside my purpose to inquire. It sufficeth that the supposition contains no contradiction in it. 184 Let us now examine what proficiency such a one may be able to make in geometry. Which speculation will lead us more clearly to see whether the ideas of sight can possibly be the object of that science.

185 FIRST, then, it is certain the aforesaid intelligence could have no idea of a solid, or quantity of three dimensions, which followeth from its not having any idea of distance. 186 We indeed are prone to think that we have by sight the ideas of space and solids, which ariseth from our imagining that we do, strictly speaking, see distance and some parts of an object at a greater distance than others; 187 which hath been demonstrated to be the effect of the experience we have had, what ideas of touch are connected with such and such ideas attending vision: 188 but the intelligence here spoken of is supposed to have no experience of touch. You would not, therefore, judge as we do, nor have any idea of distance, outness, or profundity, nor consequently of space or body, either immediately or by suggestion. 189 Whence it is plain

you can have no notion of those parts of geometry which relate to the mensuration of solids and their convex or concave surfaces, and contemplate the properties of lines generated by the section of a solid. 190 The conceiving of any part whereof is beyond the reach of your faculties.

191 Farther, you cannot comprehend the manner wherein geometers describe a right line or circle; the rule and compass with their use being things of which it is impossible you should have any notion: 192 nor is it an easier matter for you to conceive the placing of one plane or angle on another, in order to prove their equality: since that supposeth some idea of distance or external space. 193 All which makes it evident our pure intelligence could never attain to know so much as the first elements of plane geometry. 194 And perhaps upon a nice inquiry it will be found you cannot even have an idea of plane figures any more than you can of solids; 195 since some idea of distance is necessary to form the idea of a geometrical plane, as will appear to whoever shall reflect a little on it.

196 All that is properly perceived by the visive faculty amounts to no more than colours, with their variations and different proportions of light and shade. 197 But the perpetual mutability and fleetingness of those immediate objects of sight render them incapable of being managed after the manner of geometrical figures; nor is it in any degree useful that they should. 198 It is true there are diverse of them perceived at once, and more of some and less of others: but accurately to compute their magnitude and assign precise determinate proportions between things so variable and inconstant, 199 if we suppose it possible to be done, must yet be a very trifling and insignificant labour.

200 I must confess humans are tempted to think that flat or plane figures are immediate objects of sight, though they acknowledge solids are not. 201 And this opinion is grounded on what is observed in painting, wherein (it seems) the ideas immediately imprinted on the mind are only of planes variously coloured, which by a

sudden act of the judgment are changed into solids. 202 But with a little attention we shall find the planes here mentioned as the immediate objects of sight are not visible but tangible planes. 203 For when we say that pictures are planes, we mean thereby that they appear to the touch smooth and uniform. 204 But then this smoothness and uniformity, or, in other words, this planeness of the picture, is not perceived immediately by vision: for it appeareth to the eye various and multiform.

205 From all which we may conclude that planes are no more the immediate object of sight than solids. What we strictly see are not solids, nor yet planes variously coloured: they are only diversity of colours. 206 And some of these suggest to the mind solids, and other plane figures, just as they have been experienced to be connected with the one or the other: 207 so that we see planes in the same way that we see solids, both being equally suggested by the immediate objects of sight, which accordingly are themselves denominated planes and solids. 208 But though they are called by the same names with the things marked by them, they are nevertheless of a nature entirely different, as hath been demonstrated.

209 What hath been said is, if I mistake not, sufficient to decide the question we proposed to examine, concerning the ability of a pure spirit, such as we have described, to know GEOMETRY. 210 It is, indeed, no easy matter for us to enter precisely into the thoughts of such an intelligence, because we cannot without great pains cleverly separate and disentangle in our thoughts the proper objects of sight from those of touch which are connected with them. 211 This, indeed, in a complete degree seems scarce possible to be performed: which will not seem strange to us if we consider how hard it is for anyone to hear the words of own native language pronounced in own ears without understanding them. 212 Though you endeavour to disunite the meaning from the sound, it will nevertheless intrude into your thoughts, 213 and you shall find it extreme difficult, if not

impossible, to put yourself exactly in the posture of a foreigner that never learned the language, so as to be affected barely with the sounds themselves, and not perceive the signification annexed to them.

214 By this time, I suppose, it is clear that neither abstract nor visible extension makes the object of geometry; 215 the not discerning of which may perhaps have created some difficulty and useless labour in mathematics. 216 Sure I am, that somewhat relating thereto has occurred to my thoughts, which, though after the most anxious and repeated examination I am forced to think it true, 217 doth, nevertheless, seem so far out of the common road of geometry, that I know not whether it may not be thought presumption, if I should make it public in an age, wherein that science hath received such mighty improvements by new methods; 218 great part whereof, as well as of the ancient discoveries, may perhaps lose their reputation, and much of that ardour with which people study the abstruse and fine geometry be abated, 219 if what to me, and those few to whom I have imparted it, seems evidently true, should really prove to be so.

The Book of Divine Panagogue called

FAITH

DEFINITIONS OF FAITH, THE FAITH, AND THE FOUNDATIONS OF FAITH, WHICH IS ONCE FOR ALL SEPARATED FROM PHILOSOPHY

Benedict of Spinoza

1 For a true knowledge of faith it is above all things necessary to understand that the Bible was adapted to the intelligence, not only of the prophets, but also of the diverse and fickle Jewish multitude. 2 This will be recognised by all who give any thought to the subject, for they will see that a person who accepted promiscuously everything in Scripture as being the universal and absolute teaching of God, without accurately defining what was adapted to the popular intelligence, 3 would find it impossible to escape confounding the opinions of the masses with the Divine doctrines, praising the judgments and comments of human as the teaching of God, and making a wrong use of Scriptural authority.

4 Who, I say, does not perceive that this is the chief reason why so many sectaries teach contradictory opinions as Divine documents, 5 and support their contentions with numerous Scriptural texts, till it has passed in Belgium into a proverb, *geen ketter sonder* letter - no heretic without a text?

6 The sacred books were not written by one person, nor for the people of a single period, but by many authors of different temperaments, at times extending from first to last over nearly two thousand years, and perhaps much longer. 7 We will not, however, accuse the sectaries of impiety because they have adapted the words of Scripture to their own opinions; 8 it is thus that these words were adapted to the understanding of the masses originally, and everyone is at liberty so to treat them if you sees that you can thus obey God in matters relating to justice and charity with a more full consent: 9 but we do accuse those who will not grant this freedom to their fellows, but who persecute all who differ from them, as God's enemies, however honourable and virtuous be their lives; 10 while, on the other hand, they cherish those

who agree with them, however foolish they may be, as God's elect. 11 Such conduct is as wicked and dangerous to the state as any that can be conceived.

12 In order, therefore, to establish the limits to which individual freedom should extend, and to decide what persons, in spite of the diversity of their opinions, are to be looked upon as the faithful, we must define faith and its essentials. 13 This task I hope to accomplish in the present chapter, and also to separate faith from philosophy, which is the chief aim of the whole treatise.

14 In order to proceed duly to the demonstration let us recapitulate the chief aim and object of Scripture; this will indicate a standard by which we may define faith. 15 We have said in a former chapter that the aim and object of Scripture is only to teach obedience. 16 Thus much, I think, no one can question.

17 Who does not see that both Testaments are nothing else but schools for this object, and have neither of them any aim beyond inspiring humankind with a voluntary obedience?

18 For (not to repeat what I said in the last chapter) I will remark that Moses did not seek to convince the Jews by reason, but bound them by a covenant, by oaths, and by conferring benefits; 19 further, he threatened the people with punishment if they should infringe the law, and promised rewards if they should obey it. 20 All these are not means for teaching knowledge, but for inspiring obedience.

21 The doctrine of the Gospels enjoins nothing but simple faith, namely, to believe in God and to honour Him, which is the same thing as to obey Him. 22 There is no occasion for me to throw further light on a question so plain by citing Scriptural texts commending obedience, such as may be found in great numbers in both Testaments. 23 Moreover, the Bible teaches very clearly in a great many passages what everyone ought to do in order to obey God; the whole duty is summed up in love to one's neighbour. 24 It cannot, therefore, be denied that you who by God's command loves your neighbour as yourself is truly obedient and

blessed according to the law, whereas you who hates your neighbour or neglects them is rebellious and obstinate. 24 Lastly, it is plain to everyone that the Bible was not written and disseminated only for the learned, but for people of every age and race; 25 wherefore we may rest assured that we are not bound by Scriptural command to believe anything beyond what is absolutely necessary for fulfilling its main precept.

26 This precept, then, is the only standard of the whole Catholic faith, and by it alone all the dogmas needful to be believed should be determined.

27 So much being abundantly manifest, as is also the fact that all other doctrines of the faith can be legitimately deduced therefrom by reason alone, I leave it to every person to decide for yourself how it comes to pass that so many divisions have arisen in the Church: 28 can it be from any other cause than those suggested at the beginning of Chapter-2 of the Book of INTERPRETATION?

29 It is these same causes which compel me to explain the method of determining the dogmas of the faith from the foundation we have discovered, 30 for if I neglected to do so, and put the question on a regular basis, I might justly be said to have promised too lavishly, 31 for that anyone might, by my showing, introduce any doctrine you liked into religion, under the pretext that it was a necessary means to obedience: especially would this be the case in questions respecting the Divine attributes.

32 In order, therefore, to set forth the whole matter methodically, I will begin with a definition of faith, which on the principle above given, should be as follows:-

33 Faith consists in a knowledge of God, without which obedience to Him would be impossible, and which the mere fact of obedience to Him implies.

34 This definition is so clear, and follows so plainly from what we have already proved, that it needs no explanation. The consequences involved therein I will now briefly show.

35 (I.) Faith is not salutary in itself, but only in respect to the obedience it implies, or as James puts it in his Epistle, chapter-2,

verse:17, "Faith without works is dead".

36 (II.) You who is truly obedient necessarily possesses true and saving faith; 37 for if obedience be granted, faith must be granted also, as the same Apostle expressly says in these words (Chapter-2, verse:18), "Show me thy faith without thy works, and I will show thee my faith by my works." 38 So also John, I Epistle, chapter-4, verse:7: "Everyone that loveth is born of God, and knoweth God: you that loveth not, knoweth not God; for God is love."

39 From these texts, I repeat, it follows that we can only judge a person faithful or unfaithful by own works. 40 If your works be good, you are faithful, however much your doctrines may differ from those of the rest of the faithful: if your works be evil, though you may verbally conform, you are unfaithful. 41 For obedience implies faith, and faith without works is dead.

42 John, in the 13th verse of the chapter above quoted, expressly teaches the same doctrine: "Hereby," he says, "know we that we dwell in Him and He in us, because He hath given us of His Spirit," i.e. love. 43 He had said before that God is love, and therefore he concludes (on his own received principles), that whoso possesses love possesses truly the Spirit of God. 44 As no one has beheld God he infers that no one has knowledge or consciousness of God, except from love towards your neighbour, and also that no one can have knowledge of any of God's attributes, except this of love, in so far as we participate therein.

45 If these arguments are not conclusive, they, at any rate, show the Apostle's meaning, but the words in chapter-2, verses:3 and 4, of the same Epistle are much clearer, 46 for they state in so many words our precise contention: "And hereby we do know that we know Him, if we keep His commandments. 47 You that saith, I know Him, and keepeth not His commandments, is a liar, and the truth is not in you."

48 From all this, I repeat, it follows that they are the true enemies of Christ who persecute honourable and justice-loving people because they differ from them, and do not

uphold the same religious dogmas as themselves: 49 for whosoever loves justice and charity we know, by that very fact, to be faithful: whosoever persecutes the faithful, is an enemy to Christ. 50 Lastly, it follows that faith does not demand that dogmas should be true as that they should be pious-- that is, such as will stir up the heart to obey; 51 though there be many such which contain not a shadow of truth, so long as they be held in good faith, otherwise their adherents are disobedient, 52 for how can anyone, desirous of loving justice and obeying God, adore as Divine what you knows to be alien from the Divine Nature? 53 However, humans may err from simplicity of mind, and Scripture, as we have seen, does not condemn ignorance, but obstinacy.

54 This is the necessary result of our definition of faith, and all its branches should spring from the universal rule above given, and from the evident aim and object of the Bible, unless we choose to mix our own inventions therewith. 55 Thus it is not true doctrines which are expressly required by the Bible, so much as doctrines necessary for obedience, and to confirm in our hearts the love of our neighbour, wherein (to adopt the words of John) we are in God, and God in us.

56 As, then, each person's faith must be judged pious or impious only in respect of its producing obedience or obstinacy, and not in respect of its truth; 57 and as no one will dispute that humans' dispositions are exceedingly varied, that all do not acquiesce in the same things, but are ruled some by one opinion some by another, so that what moves one to devotion moves another to laughter and contempt, 58 it follows that there can be no doctrines in the Catholic, or universal, religion, which can give rise to controversy among good people. 59 Such doctrines might be pious to some and impious to others, whereas they should be judged solely by their fruits.

60 To the universal religion, then, belong only such dogmas as are absolutely required in order to attain obedience to God, and without which such obedience would be impossible; 61 as for the rest, each human-- seeing that you

are the best judge of your own character-- should adopt whatever you thinks best adapted to strengthen your love of justice. 62 If this were so, I think there would be no further occasion for controversies in the Church.

63 I have now no further fear in enumerating the dogmas of universal faith or the fundamental dogmas of the whole of Scripture, inasmuch as they all tend (as may be seen from what has been said) to this one doctrine, 64 namely, that there exists a God, that is, a Supreme Being, Who loves justice and charity, and Who must be obeyed by whosoever would be saved; 65 that the worship of this Being consists in the practice of justice and love towards one's neighbour, and that they contain nothing beyond the following doctrines:-

66 (I.) That God or a Supreme Being exists, sovereignly just and merciful, the Exemplar of the true life; that whosoever is ignorant of or disbelieves in His existence cannot obey Him or know Him as a Judge.

67 (II.) That He is One. 68 Nobody will dispute that this doctrine is absolutely necessary for entire devotion, admiration, and love towards God. 69 For devotion, admiration, and love spring from the superiority of one over all else.

70 (III.) That He is omnipresent, or that all things are open to Him, for if anything could be supposed to be concealed from Him, or to be unnoticed by, Him, we might doubt or be ignorant of the equity of His judgment as directing all things.

71 (IV.) That He has supreme right and dominion over all things, and that He does nothing under compulsion, but by His absolute fiat and grace. 72 All things are bound to obey Him, He is not bound to obey any.

73 (V.) That the worship of God consists only in justice and charity, or love towards one's neighbour.

74 (VI.) That all those, and those only, who obey God by their manner of life are saved; the rest of humankind, who live under the sway of their pleasures, are lost. 75 If we did not believe this, there would be no reason for obeying God rather than pleasure.

76 (VII.) Lastly, that God forgives the sins of those who repent. 77 No

one is free from sin, so that without this belief all would despair of salvation, and there would be no reason for believing in the mercy of God. 78 You who firmly believes that God, out of the mercy and grace with which He directs all things, forgives the sins of humans, and who feels your love of God kindled thereby, you, I say, does really know Christ according to the Spirit, and Christ is in you.

79 No one can deny that all these doctrines are before all things necessary to be believed, in order that every human, without exception, may be able to obey God according to the bidding of the Law above explained, 80 for if one of these precepts be disregarded obedience is destroyed. 81 But as to what God, or the Exemplar of the true life, may be, whether fire, or spirit, or light, or thought, or whatnot, this, I say, has nothing to do with faith any more than has the question how He comes to be the Exemplar of the true life, 82 whether it be because He has a just and merciful mind, or because all things exist and act through Him, and consequently that we understand through Him, and through Him see what is truly just and good. 83 Everyone may think on such questions as you likes.

84 Furthermore, faith is not affected, whether we hold that God is omnipresent essentially or potentially; 85 that God directs all things by absolute fiat, or by the necessity of His nature; 86 that God dictates laws like a prince, or that He sets them forth as eternal truths; 87 that human obeys God by virtue of free-will, or by virtue of the necessity of the Divine decree; 88 lastly, that the reward of the good and the punishment of the wicked is natural or supernatural: 89 these and such like questions have no bearing on faith, except in so far as they are used as means to give us license to sin more, or to obey God less.

90 I will go further, and maintain that every person is bound to adapt these dogmas to your own way of thinking, 91 and to interpret them according as you feels that you can give them your fullest and most unhesitating assent, so that you may the more easily obey God with your whole heart. 92 Such

was the manner, as we have already pointed out, in which the faith was in old time revealed and written, in accordance with the understanding and opinions of the prophets and people of the period; 93 so, in like fashion, every person is bound to adapt it to your own opinions, so that you may accept it without any hesitation or mental repugnance.

94 We have shown that faith does not so much require truth as piety, and that it is only quickening and pious through obedience, consequently no one is faithful save by obedience alone. 95 The best faith is not necessarily possessed by you who displays the best reasons, but by you who displays the best fruits of justice and charity. 96 How salutary and necessary this doctrine is for a state, in order that people may dwell together in peace and concord; and how many and how great causes of disturbance and crime are thereby cut off, I leave everyone to judge for yourself!

97 Before we go further, I may remark that we can, by means of what we have just proved, easily answer the objections raised in Chapter-1 of the Book of PROPHECY, when we were discussing God's speaking with the Israelites on Mount Sinai. 98 For, though the voice heard by the Israelites could not give those people any philosophical or mathematical certitude of God's existence, 99 it was yet sufficient to thrill them with admiration for God, as they already knew Him, and to stir them up to obedience: and such was the object of the display. 100 God did not wish to teach the Israelites the absolute attributes of His essence (none of which He then revealed), but to break down their hardness of heart, and to draw them to obedience: 101 therefore He did not appeal to them with reasons, but with the sound of trumpets, thunder, and lightnings.

102 It remains for me to show that between faith or theology, and philosophy, there is no connection, nor affinity. 103 I think no one will dispute the fact who has knowledge of the aim and foundations of the two subjects, for they are as wide apart as the poles. 104 Philosophy has no end in view save truth: faith, as we

have abundantly proved, looks for nothing but obedience and piety. 105 Again, philosophy is based on axioms which must be sought from Nature alone: faith is based on history and language, and must be sought for only in Scripture and revelation, as we showed in Chapter-1 of the Book of INTERPRETATION.

106 Faith, therefore, allows the greatest latitude in philosophic speculation, allowing us without blame to think what we like about anything, and only condemning, as heretics and schismatics, those who teach opinions which tend to produce obstinacy, hatred, strife, and anger; 107 while, on the other hand, only considering as faithful those who persuade us, as far as their reason and faculties will permit, to follow justice and charity.

108 Lastly, as what we are now setting forth are the most important subjects of my treatise, I would most urgently beg the reader, before I proceed, to read those two chapters with especial attention, and to take the trouble to weigh them well in your mind: 109 let you take for granted that I have not written with a view to introducing novelties, but in order to do away with abuses, such as I hope I may, at some future time, at last see reformed.

The Book of Divine Panagogue called

IDEAS

ABSOLUTE IDEALISM

Ralph Barton Perry

GENERAL CONSTRUCTIVE CHARACTER OF ABSOLUTE IDEALISM

1 Absolute idealism is the most elaborately constructive of all the historical types of philosophy. 2 Though it may have overlooked elementary truths, and have sought to combine irreconcilable principles, it cannot be charged with lack of sophistication or subtlety. 3 Its great virtue is its recognition of problems-- its exceeding circumspection; while its great promise is due to its comprehensiveness-- its generous provision for all interests and points of view. 4 But its very breadth and complexity render this philosophy peculiarly liable to the equivocal use of conceptions. This may be readily understood from the nature of the central doctrine of absolute idealism. 5 According to this doctrine it is proposed to define the universe as an 'absolute spirit'; or a being infinite, ultimate, eternal, and self-sufficient, like the being of Plato and Spinoza, but possessing at the same time the distinguishing properties of spirit. 6 Such conceptions as self-consciousness, will, knowledge, and moral goodness are carried over from the realm of human endeavour and social relations to the unitary and all-inclusive reality. 7 Now it has been objected that this procedure is either meaningless, in that it so applies the term spirit as to contradict its meaning; 8 or prejudicial to spiritual interests, in that it neutralises the properties of spirit through so extending their use. 9 Thus one may contend that to affirm that the universe as a whole is spirit is meaningless, since moral goodness requires special conditions and relations that cannot be attributed to the universe as a whole; 10 or one may contend that such doctrine is prejudicial to moral interests because by attributing spiritual perfection to the totality of being it discredits all moral loyalties and antagonisms. 11 The difficulties that lie in the way of absolute idealism are due,

then, to the complexity of its synthesis, to its complementary recognition of differences and resolution of them into unity. 12 But this synthesis is due to the urgency of certain great problems which the first or realistic expression of the absolutist motive left undiscovered and unsolved.

THE GREAT OUTSTANDING PROBLEMS OF ABSOLUTISM
Ralph Barton Perry

2 It is natural to approach so deliberate and calculating a philosophy from the stand-point of the problems which it proposes to solve. 2 One of these is the epistemological problem of the relation between the state of knowledge and its object. 3 Naturalism and absolute realism side with common-sense in its assumption that although the real object is essential to the valid state of knowledge, its being known is not essential to the real object. 4 Subjectivism, on the other hand, maintains that being is essentially the content of a knowing state, or an activity of the knower. 5 Absolute idealism proposes to accept the general epistemological principle of subjectivism; 6 but to satisfy the realistic demand for a standard, compelling object, by setting up an 'absolute knower', with whom all valid knowledge must be in agreement.

7 This epistemological statement of absolute idealism is its most mature phase; and the culminating phase, in which it shows unmistakable signs of passing over into another doctrine. 8 We must look for its pristine inspiration in its solution of another fundamental problem: that of the relation between the absolute and the empirical. 9 Like absolute realism, this philosophy regards the universe as a unitary and internally necessary being, and undertakes to hold that being accountable for every item of experience. 10 But we have found that absolute realism is beset with the difficulty of thus accounting for the fragmentariness and isolation of the individual. 11 The contention that the universe must really be a rational or perfect unity is disputed by the evident multiplicity, irrelevance, and imperfection in

the foreground of experience. 12 The inference to perfection and the confession of imperfection seem equally unavoidable. Rational necessities and empirical facts are out of joint.

THE GREEK PHILOSOPHERS AND THE PROBLEM OF EVIL. THE TASK OF THE NEW ABSOLUTISM

Ralph Barton Perry

3 Even Plato had been conscious of a certain responsibility for matters of fact. 2 Inasmuch as he attached the predicate of reality to the absolute perfection, he made that being the only source to which they could be referred. 3 Perhaps, then, he suggests, they are due to the very bounteousness of God.

4 "God is good, and no goodness can ever have any jealousy of anything. 5 And being free from jealousy, God desired that all things should be as like Himself as possible."

6 Plotinus, in whom Platonism is leavened by the spirit of an age which is convinced of sin, and which is therefore more keenly aware of the positive existence of the imperfect, follows out this suggestion. 7 Creation is "emanation"-- the overflow of God's excess of goodness. 8 But one does not readily understand how goodness, desiring all things to be like itself, should thereupon create evil-- even to make it good. 9 The Aristotelian philosophy, with its conception of the gradation of substances, would seem to be better equipped to meet the difficulty. 10 A development requires stages; and every finite thing may thus be perfect in its way and perfect in its place, while in the absolute truth or God there is realised the meaning of the whole order. 11 But if so, there is evidently something that escapes God, to wit, the meaningless and unfitness, the error and evil, of the stages in their successive isolation. 12 Nor is it of any avail to insist (as did Plato, Aristotle, and Spinoza alike) that these are only privation, and therefore not to be counted in the sum of reality. 13 For privation is itself an experience, with a great variety of implications, moral and psychological; and these cannot be attributed to God or deduced from

Him, in consideration of His absolute perfection.

14 The task of the new absolutism is now in clear view. The perfect must be amended to admit the imperfect. 15 The absolute significance must be so construed as to provide for the evident facts; for the unmeaning things and changes of the natural order; for ignorance, sin, despair, and every human deficiency. 16 The new philosophy is to solve this problem by defining a 'spiritual absolute', and by so construing the life or dynamics of spirit, as to demonstrate the necessity of the very imperfection and opposition which is so baffling to the realist.

THE BEGINNING OF ABSOLUTE IDEALISM IN KANT'S ANALYSIS OF EXPERIENCE

Ralph Barton Perry

4 Absolute idealism, which is essentially a modern doctrine, does not begin with rhapsodies, but with a very sober analysis of familiar truths, conducted by the most sober of all philosophers, Immanuel Kant. 2 This philosopher lived in Königsberg, Germany, at the close of the eighteenth century. He is related to absolute idealism much as Socrates is related to Platonism: 3 he was not himself speculative, but employed a critical method which was transformed by his followers into a metaphysical construction. 4 It is essential to the understanding both of Kant and of his more speculative successors, to observe that he begins with the recognition of certain non-philosophical truths-- those of 'natural science' and 'the moral consciousness'. 5 He accepts the order of Nature formulated in the Newtonian dynamics, and the moral order acknowledged in the common human conviction of duty. 6 And he is interested in discovering the ground upon which these common affirmations rest, the structure which virtually supports them as types of knowledge. 7 But a general importance attaches to the analysis because these two types of knowledge (together with the æsthetic judgment, which is similarly analysed) are regarded by Kant as coextensive with experience itself. 8 The 'very least

experience' that can be reported upon at all is an experience of Nature or duty, and as such will be informed with their characteristic principles. Let us consider the former type.

9 The simplest instance of Nature is the experience of the single perceived object. 10 In the first place, such an object will be perceived as in space and time. 11 These, Kant calls the 'forms of intuition'. An object cannot even be presented or given without them. 12 But, furthermore, it will be regarded as substance, that is, as having a substratum that persists through changes of position or quality. 13 It will also be regarded as causally dependent upon other objects like itself.

14 Causality, substance, and like principles to the number of twelve, Kant calls the 'categories of the understanding'. 15 Both intuition and understanding are indispensable to the experience of any object whatsoever. They may be said to condition the object in general. 16 Their principles condition the process of making something out of the manifold of sensation. 17 But similarly, every moral experience recognises what Kant calls 'the categorical imperative'. 18 The categorical imperative is the law of reasonableness or impartiality in conduct, requiring the individual to act on a maxim which you can "will to be law universal." 19 No state of desire or situation calling for action means anything morally except in the light of this obligation. 20 Thus certain principles of thought and action are said to be implicit in all experience. 21 They are universal and necessary in the sense that they are discovered as the conditions not of any particular experience, but of experience in general. 22 This implicit or virtual presence in experience in general, Kant calls their transcendental character, and the process of explicating them is his famous 'Transcendental Deduction'.

IDEAS

KANT'S PRINCIPLES RESTRICTED TO THE EXPERIENCES WHICH THEY SET IN ORDER
Ralph Barton Perry

5 The restriction which Kant puts upon his method is quite essential to its meaning. I deduce the categories, for example, just in so far as I find them to be necessary to perception. 2 Without them my perception is blind, I make nothing of it; with them my experience becomes systematic and rational. 3 But categories which I so deduce must be forever limited to the rôle for which they are defined. 4 Categories without perceptions are "empty"; they have validity solely with reference to the experience which they set in order. 5 Indeed, I cannot even complete that order. The orderly arrangement of parts of experience suggests, and suggests irresistibly, a perfect system. 6 I can even define the ideas and ideals through which such a perfect system might be realised. But I cannot in the Kantian sense attach reality to it because it is not indispensable to experience. 7 It must remain an ideal which regulates my thinking of such parts of it as fall within the range of my perception; or it may through my moral nature become the realm of my living and an object of faith. 8 In short, Kant's is essentially a "critical philosophy," a logical and analytical study of the special terms and relations of human knowledge. 9 He denies the validity of these terms and relations beyond this realm. His critiques are an inventory of the conditions, principles, and prospects of that cognition which, although not alone ideally conceivable, is alone possible.

THE POST-KANTIAN METAPHYSICS IS A GENERALISATION OF THE COGNITIVE AND MORAL CONSCIOUSNESS AS ANALYSED BY KANT. THE ABSOLUTE SPIRIT
Ralph Barton Perry

6 With the successors of Kant, as with the successors of Socrates, a criticism becomes a system of metaphysics. 2 This transformation is effected in the post-Kantians by 'a generalisation of the human cognitive consciousness'. 3 According to Kant's analysis it contains a manifold of sense which

must be organised by categories in obedience to the ideal of a rational universe. 4 The whole enterprise, with its problems given in perception, its instruments available in the activities of the understanding, and its ideals revealed in the reason, is an organic spiritual unity, manifesting itself in the self-consciousness of the thinker. 5 Now in absolute idealism this very enterprise of knowledge, made universal and called the 'absolute spirit' or 'mind', is taken to be the ultimate reality. 6 And here at length would seem to be afforded the conception of a being to which the problematic and the rational, the data and the principles, the natural and the ideal, are alike indispensable. 7 We are now to seek the real not in the ideal itself, but in that spiritual unity in which appearance is the incentive to truth, and natural imperfection the spring to goodness. 8 This may be translated into the language which Plato uses in the "Symposium," when Diotima is revealing to Socrates the meaning of love. 9 The new reality will be not the loved one, but love itself. "What then is Love? Is it mortal?" "No." "What then?" 10 "As in the former instance, it is neither mortal nor immortal, but is a mean between them." "What is it then, Diotima?" 11 "It is a great spirit, and like all that is spiritual it is intermediate between the divine and the mortal."

12 Reality is no longer the god who mingles not with humans, 13 but that power which, as Diotima further says, "interprets and conveys to the gods the prayers and sacrifices of humans, and to humans the commands and rewards of the gods."

14 In speaking for such an idealism, Emerson says: "Everything good is on the highway. The middle region of our being is the temperate zone. 15 We may climb into the thin and cold realm of pure geometry and lifeless science, or sink into that of sensation. 16 Between these extremes is the equator of life, of thought, of spirit, of poetry. . . .The mid-world is best." 17 The new reality is this highway of the spirit, the very course and raceway of self-consciousness. 18 It is traversed in the movement

and self-correction of thought, in the interest in ideals, or in the submission of the will to the control of the moral law.

FICHTEANISM, OR THE ABSOLUTE SPIRIT AS MORAL ACTIVITY
Ralph Barton Perry

7 It is the last of these phases of self-consciousness that Fichte, who was Kant's immediate successor, regards as of paramount importance. 2 As Platonism began with the ideal of the good or the object of life, so the new idealism begins with the conviction of duty, or 'the story of life'. 3 Being is the living moral nature compelled to build itself a natural order wherein it may obey the moral law, and to divide itself into a community of moral selves through which the moral virtues may be realised. 4 Nature and society flow from the conception of an absolute moral activity, or ego. Such an ego could not be pure and isolated and yet be moral. 5 The evidence of this is the common moral consciousness. 6 My duty compels me to act upon the not-self or environment, and to respect and coöperate with other selves. 7 Fichte's absolute is this moral consciousness universalised and made eternal. 8 Moral value being its fundamental principle the universe must on that very account embrace both Nature, or moral indifference, and humanity, or moral limitation.

ROMANTICISM, OR THE ABSOLUTE SPIRIT AS SENTIMENT
Ralph Barton Perry

8 But the Romanticists, who followed close upon Fichte, were dissatisfied with so hard and exclusive a conception of spiritual being. Life, they said, is not all duty. 2 Indeed, the true spiritual life is quite other, not harsh and constrained, but free and spontaneous-- a wealth of feeling playing about a constantly shifting centre. 3 Spirit is not consecutive and law-abiding, but capricious and wanton, seeking the beautiful in no orderly progression, but in a refined and versatile sensibility. 4 If this be the nature of spirit, and if spirit be the nature of reality, then you are most wise who is most rich in sentiment. 5 The Romanticists were the exponents

of an absolute sentimentalism. And they did not prove it, but like good sentimentalists they felt it.

HEGELIANISM, OR THE ABSOLUTE SPIRIT AS DIALECTIC

Ralph Barton Perry

9 Hegel, the master of the new idealism, set himself the task of construing spirit in terms as consecutive as those of Fichte, and as comprehensive as those of the Romanticists. 2 Like Plato, he found in dialectic the supreme manifestation of the spiritual life. 3 There is a certain flow of ideas which determines the meaning of experience, and is the truth of truths. 4 But the mark of the new prophet is this: the flow of ideas itself is 'a process of self-correction due to a sense of error'. 5 Thus bare sensation is abstract and bare thought is abstract.

6 The real, however, is not merely the concrete in which they are united, but the very process in the course of which through knowledge of abstraction thought arrives at the concrete. 7 The principle of negation is the very life of thought, and it is 'the life of thought', rather than the outcome of thought, which is reality. 8 The most general form of the dialectical process contains three moments: 9 the moment of 'thesis', in which affirmation is made; the moment of 'antithesis', in which the opposite asserts itself; and the moment of 'synthesis', in which a reconciliation is effected in a new thesis. 10 Thus thought is the progressive overcoming of contradiction; not the state of freedom from contradiction, but the act of escaping it. Such processes are more familiar in the moral life. 11 Morality consists, so even common-sense asserts, in the overcoming of evil. 12 Character is the resistance of temptation; goodness, a growth in grace through discipline. 13 Of such, for Hegel, is the very kingdom of heaven. It is the task of the philosopher, a task to which Hegel applies himself most assiduously, to analyse the battle and the victory upon which spiritual being nourishes itself. 14 And since the deeper processes are those of thought, the Hegelian philosophy centres in an ordering of notions, a demonstration of that necessary

progression of thought which, in its whole dynamical logical history, constitutes the 'absolute idea'.

THE HEGELIAN PHILOSOPHY OF NATURE AND HISTORY

Ralph Barton Perry

10 The Hegelian philosophy, with its emphasis upon difference, antagonism, and development, is peculiarly qualified to be a philosophy of Nature and history. 2 Those principles of spiritual development which logic defines are conceived as incarnate in the evolution of the world. 3 Nature, as the very antithesis to spirit, is now understood to be the foil of spirit. In Nature, spirit alienates itself in order to return enriched. 4 The stages of Nature are the preparation for the reviving of a spirituality that has been deliberately forfeited. 5 The Romanticists, whether philosophers like Schelling or poets like Goethe and Wordsworth, were led by their feeling for the beauty of Nature to attribute to it a much deeper and more direct spiritual significance. 6 But Hegel and the Romanticists alike are truly expressed in Emerson's belief that the spiritual interpretation of Nature is the "true science."

7 "The poet alone knows astronomy, chemistry, vegetation, and animation, for they does not stop at these facts, but employs them as signs. 8 They knows why the plain or meadow of space was strown with these flowers we call suns and moons and stars; why the great deep is adorned with animals, with humans, and gods; 9 for in every word they speaks they rides on them as the horses of thought."

10 The new awakening of spirit which is for Hegel the consummation of the natural evolution, begins with the individual or 'subjective' spirit, and develops into the social or 'objective' spirit, which is morality and history. 11 History is a veritable dialectic of nations, in the course of which the consciousness of individual liberty is developed, and coördinated with the unity of the state. 12 The highest stage of spirit incarnate is that of 'absolute' spirit, embracing

art, religion, and philosophy. 13 In art the absolute idea obtains expression in sensuous existence, more perfectly in classical than in the symbolic art of the Orient, but most perfectly in the romantic art of the modern period. 14 In religion the absolute idea is expressed in the imagination through worship. 15 In Oriental pantheism, the individual is overwhelmed by own sense of the universal; in Greek religion, God is but a higher human; while in Christianity God and human are perfectly united in Christ. 16 Finally, in philosophy the absolute idea reaches its highest possible expression in articulate thought.

RÉSUMÉ. FAILURE OF ABSOLUTE IDEALISM TO SOLVE THE PROBLEM OF EVIL

Ralph Barton Perry

11 Such is absolute idealism approached from the stand-point of antecedent metaphysics. 2 It is the most elaborate and subtle provision for antagonistic differences within unity that the speculative mind of human has as yet been able to make. 3 It is the last and most thorough attempt to resolve individual and universal, temporal and eternal, natural and ideal, good and evil, into an absolute unity 4 in which the universal, eternal, ideal, and good shall dominate, and in which all terms shall be related with such necessity as obtains in the definitions and theorems of geometry. 5 There is to be some absolute meaning which is rational to the uttermost and the necessary ground of all the incidents of existence. 6 Thought could undertake no more ambitious and exacting task. Nor is it evident after all that absolute idealism enjoys any better success in this task than absolute realism. 7 The difference between them becomes much less marked when we reflect that the former, like the latter, must reserve the predicate of being for the unity of the whole. 8 Even though evil and contradiction belong to the essence of things, move in the secret heart of a spiritual universe, the reality is not these in their severalty, but that life within which they fall, the story within which they "earn a

place." 9 And if absolute idealism has defined a new perfection, it has at the same time defined a new imperfection. 10 The perfection is rich in contrast, and thus inclusive of both the lights and shades of experience; but the perfection belongs only to the composition of these elements within a single view. 11 It is not necessary to such perfection that the evil should ever be viewed in isolation. 12 The idealist employs the analogy of the drama or the picture whose very significance requires the balance of opposing forces; 13 or the analogy of the symphony in which a higher musical quality is realised through the resolution of discord into harmony. 14 But none of these unities requires any element whatsoever that does not partake of its beauty. 15 It is quite irrelevant to the drama that the hero should yourself have your own view of events with no understanding of their dramatic value, 16 as it is irrelevant to the picture that an unbalanced fragment of it should dwell apart, or to the symphony that the discord should be heard without the harmony. 17 One may multiply without end the internal differences and antagonisms that contribute to the internal meaning, and be as far as ever from understanding the external detachment of experiences that are not rational or good in themselves. 18 And it is precisely this kind of fact that precipitates the whole problem. 19 We do not judge of sin and error from experiences in which they conduct to goodness and truth, but from experiences in which they are stark and unresolved. 20 In view of such considerations many idealists have been willing to confess their inability to solve this problem. To quote a recent expositor of Hegel, 21 "We need not, after all, be surprised at the apparently insoluble problem which confronts us. 22 For the question has developed into the old difficulty of the origin of evil, which has always baffled both theologians and philosophers. 23 An idealism which declares that the universe is in reality perfect, can find, as most forms of popular idealism do, an escape from the difficulties of the existence of evil, by declaring that the universe is as yet only growing

towards its ideal perfection. 24 But this refuge disappears with the reality of time, and we are left with an awkward difference between what philosophy tells us must be, and what our life tells us actually is."

25 If the philosophy of eternal perfection persists in its fundamental doctrine in spite of this irreconcilable conflict with life, it is because it is believed that that doctrine 'must' be true. 26 Let us turn, then, to its more constructive and compelling argument.

THE CONSTRUCTIVE ARGUMENT FOR ABSOLUTE IDEALISM IS BASED UPON THE SUBJECTIVISTIC THEORY OF KNOWLEDGE

Ralph Barton Perry

12 The proof of absolute idealism is supposed by the majority of its exponents to follow from the problem of epistemology, and more particularly from the manifest dependence of truth upon the knowing mind. 2 In its initial phase absolute idealism is indistinguishable from subjectivism. Like that philosophy it finds that the object of knowledge is inseparable from the state of knowledge throughout the whole range of experience. 3 Since the knower can never escape the self, it may be set down as an elementary fact that reality (at any rate whatever reality can be known or even talked about) owes its being to mind.

4 Thus Green, the English neo-Hegelian, maintains that "an object which no consciousness presented to itself would not be an object at all," 5 and wonders that this principle is not generally taken for granted and made the starting-point for philosophy. 6 However, unless the very term "object" is intended to imply presence to a subject, this principle is by no means self-evident, and must be traced to its sources.

7 We have already followed the fortunes of that empirical subjectivism which issues from the relativity of perception. 8 At the very dawn of philosophy it was observed that what is seen, heard, or otherwise experienced through the senses, depends not only upon the use of sense-organs, but upon the special point of view occupied

by each individual sentient being. 9 It was therefore concluded that the perceptual world belonged to the human knower with your limitations and perspective, rather than to being itself. 10 It was this epistemological principle upon which Berkeley founded his empirical idealism. 11 Believing knowledge to consist essentially in perception, and believing perception to be subjective, 12 he had to choose between the relegation of being to a region inaccessible to knowledge, and the definition of being in terms of subjectivity. To avoid scepticism he accepted the latter alternative. 13 But among the Greeks with whom this theory of perception originated, it drew its meaning in large part from the distinction between perception and reason. 14 Thus we read in Plato's "Sophist": "And you would allow that we participate in generation with the body, and by perception; but we participate with the soul by thought in true essence, 15 and essence you would affirm to be always the same and immutable, whereas generation varies." 16 It is conceived that although in perception human is condemned to a knowledge conditioned by the affections and station of own body, you may nevertheless escape yourself and lay hold on the "true essence" of things, by virtue of thought. 17 In other words, knowledge, in contradistinction to "opinion," is not made by the subject, but is the soul's participation in the eternal natures of things. 18 In the moment of insight the varying course of the individual thinker coincides with the unvarying truth; 19 but in that moment the individual thinker is ennobled through being assimilated to the truth, while the truth is no more, no less, the truth than before.

THE PRINCIPLE OF SUBJECTIVISM EXTENDED TO REASON
Ralph Barton Perry

13 In absolute idealism, the principle of subjectivism is extended to reason itself. This extension seems to have been originally due to moral and religious interests. 2 From the moral stand-point the contemplation of the truth is a 'state', and the highest state of the

individual life. 3 The religious interest unifies the individual life and directs attention to its spiritual development. 4 Among the Greeks of the middle period life was as yet viewed objectively as the fulfillment of capacities, 5 and knowledge was regarded as perfection of function, the exercise of the highest of human prerogatives. 6 But as moral and religious interests became more absorbing, the individual lived more and more in own self-consciousness. 7 Even before the Christian era the Greek philosophers themselves were preoccupied with the task of winning a state of inner serenity. 8 Thus the Stoics and Epicureans came to look upon knowledge as a means to the attainment of an inner freedom from distress and bondage to the world. 9 In other words, the very reason was regarded as an activity of the self, and its fruits were valued for their enhancement of the welfare of the self. 10 And if this be true of the Stoics and the Epicureans, it is still more clearly true of the neo-Platonists of the Christian era, who mediate between the ancient and mediæval worlds.

EMPHASIS ON SELF-CONSCIOUSNESS IN EARLY CHRISTIAN PHILOSOPHY

Ralph Barton Perry

14 It is well known that the early period of Christianity was a period of the most vivid self-consciousness. 2 The individual believed that your natural and social environment was alien to your deeper spiritual interests. You therefore withdrew into yourself. 3 You believed yourself to have but one duty, the salvation of your soul; 4 and that duty required you to search your innermost springs of action in order to uproot any that might compromise you with the world and turn you from God. 5 The drama of life was enacted within the circle of your own self-consciousness. Citizenship, bodily health, all forms of appreciation and knowledge, were identified in the parts they played here. 6 In short the Christian consciousness, although renunciation was its deepest motive, was reflexive and

centripetal to a degree hitherto unknown among the European peoples. 7 And when with St. Augustine theoretical interests once more vigorously asserted themselves, this new emphasis was in the very foreground.

8 St. Augustine wished to begin his system of thought with a first indubitable certainty, and selected neither being nor ideas, but 'self'. 9 St. Augustine's genius was primarily religious, and the "Confessions," in which he records the story of his hard winning of peace and right relations with God, is his most intimate book. 10 How faithfully does he represent himself, and the blend of paganism and Christianity which was distinctive of his age, when in his systematic writings he draws upon religion for his knowledge of truth! 11 In all my living, he argues, whether I sin or turn to God, whether I doubt or believe, whether I know or am ignorant, in all 'I know that I am I'. 12 Each and every state of my consciousness is a state of my self, and as such, sure evidence of my self's existence.

13 If one were to follow St. Augustine's reflections further, one would find him reasoning from his own finite and evil self to an infinite and perfect Self, which centres like his in the conviction that I am I, but is endowed with all power and all worth. 14 One would find him reflecting upon the possible union with God through the exaltation of the human self-consciousness. 15 But this conception of God as the perfect self is so much a prophecy of things to come, that more than a dozen centuries elapsed before it was explicitly formulated by the post-Kantians. 16 We must follow its more gradual development in the philosophies of Descartes and Kant.

DESCARTES'S ARGUMENT FOR THE INDEPENDENCE OF THE THINKING SELF

Ralph Barton Perry

15 When at the close of the sixteenth century the Frenchman, René Descartes, sought to construct philosophy anew and upon secure foundations, he too

selected as the initial certainty of thought the thinker's knowledge of the self. 2 This principle now received its classic formulation in the proposition, '*Cogito ergo sum*'--"I think, hence I am." 3 The argument does not differ essentially from that of St. Augustine, but it now finds a place in a systematic and critical metaphysics. 4 In that my thinking is certain of itself, says Descartes, in that I know myself before I know aught else, my self can never be dependent for its being upon anything else that I may come to know. 5 A thinking self, with its knowledge and its volition, is quite capable of subsisting of itself. 6 Such is, indeed, not the case with a finite self, for all finitude is significant of limitation, and in recognising my limitations I postulate the infinite being or God. 7 But the relation of my self to a physical world is quite without necessity. 8 Human nature, with soul and body conjoined, is a combination of two substances, neither of which is a necessary consequence of the other. 9 As a result of this combination the soul is to some extent affected by the body, and the body is to some extent directed by the soul; 10 but the body could conceivably be an automaton, as the soul could conceivably be, and will in another life become, a free spirit. 11 The consequences of this dualism for epistemology are very grave. If knowledge be the activity of a self-subsistent thinking spirit, how can it reveal the nature of an external world? 12 The natural order is now literally "external." It is true that the whole body of exact science, that mechanical system to which Descartes attached so much importance, falls within the range of the soul's own thinking. 13 But what assurance is there that it refers to a province of its own-- a physical world in space? 14 Descartes can only suppose that "clear and distinct" ideas must be trusted as faithful representations. 15 It is true the external world makes its presence known directly, when it breaks in upon the soul in sense-perception. But Descartes's rationalism and love of mathematics forbade his attaching importance to this criterion. 16 Real Nature, that exactly definable and predictable order of moving

bodies defined in physics, is not known through sense-perception, but through thought. Its necessities are the necessities of reason. 17 Descartes finds himself, then, in the perplexing position of seeking an internal criterion for an external world. 18 The problem of knowledge so stated sets going the whole epistemological movement of the eighteenth century, from Locke through Berkeley and Hume to Kant. 19 And the issue of this development is the absolute idealism of Kant's successors.

EMPIRICAL REACTION OF THE ENGLISH PHILOSOPHERS

Ralph Barton Perry

16 Of the English philosophers who prepare the way for the epistemology of Kant, Hume is the most radical and momentous. 2 It was he who roused Kant from his "dogmatic slumbers" to the task of the "Critical Philosophy." Hume is one of the two possible consequences of Descartes. 3 One who attaches greater importance to the rational necessities of science than to its external reference, is not unwilling that Nature should be swallowed up in mind. 4 With Malebranche, Descartes's immediate successor in France, Nature is thus provided for within the archetypal mind of God. 5 With the English philosophers, on the other hand, externality is made the very mark of Nature, and as a consequence sense-perception becomes the criterion of scientific truth.

6 This empirical theory of knowledge, inaugurated and developed by Locke and Berkeley, culminates in Hume's designation of the 'impression' as the distinguishing element of Nature, at once making up its content and certifying to its externality. 7 The processes of Nature are successions of impressions; 8 and the laws of Nature are their uniformities, or the expectations of uniformity which their repetitions engender. 9 Hume does not hesitate to draw the logical conclusion. If the final mark of truth is the presence to sense of the individual element, then science can consist only of items of information and probable generalisations concerning their

sequences. 10 The effect is observed to follow upon the cause in fact, but there is no understanding of its necessity; therefore no absolute certainty attaches to the future effects of any cause.

TO SAVE EXACT SCIENCE KANT MAKES IT DEPENDENT ON MIND

Ralph Barton Perry

17 But what has become of the dream of the mathematical physicist? Is the whole system of Newton, that brilliant triumph of the mechanical method, unfounded and dogmatic? 2 It is the logical instability of this body of knowledge, made manifest in the well-founded scepticism of Hume, that rouses Kant to a reëxamination of the whole foundation of natural science. 3 The general outline of his analysis has been developed above. It is of importance here to understand its relations to the problem of Descartes. 4 Contrary to the view of the English philosophers, natural science is, says Kant, the work of the mind. The certainty of the causal relation is due to the human inability to think otherwise. 5 Hume is mistaken in supposing that mere sensation gives us any knowledge of Nature. The very least experience of objects involves the employment of principles which are furnished by the mind. 6 Without the employment of such principles, or in bare sensation, there is no intelligible meaning whatsoever. 7 But once admit the employment of such principles and formulate them systematically, and the whole Newtonian order of nature is seen to follow from them. 8 Furthermore, since these principles or categories are the conditions of human experience, are the very instruments of knowledge, they are valid wherever there is any experience or knowledge. 9 There is but one way to make anything at all out of Nature, and that is to conceive it as an order of necessary events in space and time. 10 Newtonian science is part of such a general conception, and is therefore necessary if knowledge is to be possible at all, even the least. 11 Thus Kant turns upon Hume, and shuts him up to

the choice between the utter abnegation of all knowledge, including the knowledge of his own scepticism, and the acceptance of the whole body of exact science.

12 But with Nature thus conditioned by the necessities of thought, what has become of its externality? 13 That, Kant admits, has indeed vanished. Kant does not attempt, as did Descartes, to hold that the Nature which mind constructs and controls, exists also outside of mind. 14 The Nature that is known is on that very account phenomenal, anthropocentric-- created by its cognitive conditions. 15 Descartes was right in maintaining that sense-perception certifies to the existence of a world outside the mind, but mistaken in calling it Nature and identifying it with the realm of science. 16 In short, Kant acknowledges the external world, and names it the 'thing-in-itself'; but insists that because it is outside of mind it is outside of knowledge. 17 Thus is the certainty of science saved at the cost of its metaphysical validity. It is necessarily true, but only of a conditioned or dependent world. 18 And in saving science, Kant has at the same time prejudiced metaphysics in general. For the human or naturalistic way of knowing is left in sole possession of the field, with the higher interest of reasons in the ultimate nature of being, degraded to the rank of practical faith.

THE POST-KANTIANS TRANSFORM KANT'S MIND-IN-GENERAL INTO AN ABSOLUTE MIND

Ralph Barton Perry

18 The transformation of this critical and agnostic doctrine into absolute idealism is inevitable. 2 The metaphysical interest was bound to avail itself of the speculative suggestiveness with which the Kantian philosophy abounds. 3 The transformation turns upon Kant's assumption that whatever is constructed by the mind is on that account phenomenon or appearance. 4 Kant has carried along the presumption that whatever is act or content of mind is on that account not 'real' object or 'thing-in-itself'.

5 We have seen that this is generally accepted as true of the relativities of sense-perception. But is it true of thought? The post-Kantian idealist maintains that 'that depends upon the thought'.

6 The content of private individual thinking is in so far not real object; but it does not follow that this is true of such thinking as is universally valid. 7 Now Kant has deduced his categories for thought in general. There are no empirical cases of thinking except the human thinkers; 8 but the categories are not the property of any one human individual or any group of such individuals. They are the conditions of 'experience in general', and of every possibility of experience. 9 The transition to absolute idealism is now readily made. 'Thought in general' becomes the 'absolute mind', and experience in general its content. 10 The thing-in-itself drops out as having no meaning. The objectivity to which it testified is provided for in the completeness and self-sufficiency which is attributed to the absolute experience.

11 Indeed, an altogether new definition of subjective and objective replaces the old. 12 The subjective is that which is only insufficiently thought, as in the case of relativity and error; the objective is that which is completely thought. 13 Thus the natural order is indeed phenomenal; but only because the principles of science are not the highest principles of thought, and not because Nature is the fruit of thought. 14 Thus Hegel expresses his relation to Kant as follows:

"According to Kant, the things that we know about are 'to us' appearances only, and we can never know their essential nature, which belongs to another world, which we cannot approach. . . . 15 The true statement of the case is as follows. The things of which we have direct consciousness are mere phenomena, not for us only, but in their own nature; 16 and the true and proper case of these things, finite as they are, is to have their existence founded not in themselves, but in the universal divine idea. 17 This view of things, it is true, is as idealist as Kant's, but in contradistinction to the

subjective idealism of the Critical Philosophy should be termed Absolute Idealism."

THE DIRECT ARGUMENT. THE INFERENCE FROM THE FINITE MIND TO THE INFINITE MIND

Ralph Barton Perry

19 Absolute idealism is thus reached after a long and devious course of development. 2 But the argument may be stated much more briefly. Plato, it will be remembered, found that experience tends ever to transcend itself. 3 The thinker finds the self compelled to pursue the ideal of immutable and universal truth, and must identify the ultimate being with that ideal.

4 Similarly Hegel says: "That upward spring of the mind signifies that the being which the world has is only a semblance, no real being, no absolute truth; 5 it signifies that beyond and above that appearance, truth abides in God, so that true being is another name for God."

6 The further argument of absolute idealism differs from that of Plato in that the dependence of truth upon the mind is accepted as a first principle. 7 The ideal with which experience is informed is now 'the state of perfect knowledge', rather than the system of absolute truth. 8 The content of the state of perfect knowledge will indeed be the system of absolute truth, but none the less 'content', precisely as finite knowledge is the content of a finite mind. 9 In pursuing the truth, I who pursue, aim to realise in myself a certain highest state of knowledge. 10 Were I to know all truth I should indeed have ceased to be the finite individual who began the quest, but the evolution would be continuous and the character of self-consciousness would never have been lost. 11 I may say, in short, that God or being, is my perfect cognitive self.

12 The argument for absolute idealism is a constructive interpretation of the subjectivistic contention that knowledge can never escape the circle of its own activity and states. 13 To meet the demand for a final and standard truth, a demand which realism meets with its doctrine of a being independent of any mind, this

philosophy defines a 'standard mind'. 14 The impossibility of defining objects in terms of relativity to a finite self, conducts dialectically to the conception of the 'absolute self'. 15 The sequel to my error or exclusiveness, is truth or inclusiveness. 16 The outcome of the dialectic is determined by the symmetry of the antithesis. 17 Thus, corrected experience implies a last correcting experience; partial cognition, complete cognition; empirical subject, transcendental subject; finite mind, an absolute mind.

18 The following statement is taken from a contemporary exponent of the philosophy: 19 "What you and I lack, when we lament our human ignorance, is simply a certain desirable and logically possible state of mind, or type of experience; 20 to wit, a state of mind in which we should wisely be able to say that we had fulfilled in experience what we now have merely in idea, namely, the knowledge, the immediate and felt presence, of what we now call the Absolute Reality. . . . 21 There is an Absolute Experience for which the conception of an absolute reality, 'i. e.', the conception of a system of ideal truth, is fulfilled by the very contents that get presented to this experience. 22 This Absolute Experience is related to our experience as an organic whole to its own fragments. 23 It is an experience which finds fulfilled all that the completest thought can conceive as genuinely possible. 24 Herein lies its definition as an Absolute. For the Absolute Experience, as for ours, there are data, contents, facts. 25 But these data, these contents, express, for the Absolute Experience, its own meaning, its thought, its ideas. 26 Contents beyond these that it possesses, the Absolute Experience knows to be, in genuine truth, impossible. Hence its contents are indeed particular,-- 27 a selection from the world of bare or merely conceptual possibilities,-- but they form a self-determined whole, than which nothing completer, more organic, more fulfilled, more transparent, or more complete in meaning, is concretely or genuinely possible. 28 On the other hand, these contents are not foreign to those of

our finite experience, but are inclusive of them in the unity of one life."

THE REALISTIC TENDENCY IN ABSOLUTE IDEALISM
Ralph Barton Perry

20 As has been already intimated, at the opening, the inclusion of the whole of reality within a single self is clearly a questionable proceeding. 2 The need of avoiding the relativism of empirical idealism is evident. 3 But if the very meaning of the self-consciousness be due to a certain selection and exclusion within the general field of experience, it is equally evident that the relativity of self-consciousness can never be overcome through appealing to a higher self. 4 One must appeal 'from' the self to the realm of things as they are. 5 Indeed, although the exponents of this philosophy use the language of spiritualism, and accept the idealistic epistemology, their absolute being tends ever to escape the special characters of the self. 6 And inasmuch as the absolute self is commonly set over against the finite or empirical self, as the standard and test of truth, it is the less distinguishable from the realist's order of independent beings.

THE CONCEPTION OF SELF-CONSCIOUSNESS CENTRAL IN THE ETHICS OF ABSOLUTE IDEALISM. KANT
Ralph Barton Perry

21 But however much absolute idealism may tend to abandon its idealism for the sake of its absolutism within the field of metaphysics, such is not the case within the field of ethics and religion. 2 The conception of the self here receives a new emphasis. The same self-consciousness which admits to the highest truth is the evidence of human's practical dignity. 3 In virtue of your immediate apprehension of the principles of selfhood, and your direct participation in the life of spirit, human may be said to possess the innermost secret of the universe.

4 In order to achieve goodness you must therefore recognise and

express 'yourself'. 5 The Kantian philosophy is here again the starting-point. It was Kant who first gave adequate expression to the Christian idea of the moral self-consciousness.

6 "'Duty!' Thou sublime and mighty name that dost embrace nothing charming or insinuating, but requirest submission, 7 and yet seekest not to move the will by threatening aught that would arouse natural aversion or terror, but merely holdest forth a law which of itself finds entrance into the mind, . . . 8 a law before which all inclinations are dumb, even though they secretly counterwork it; 9 what origin is there worthy of thee, and where is to be found the root of thy noble descent which proudly rejects all kindred with the inclinations . . . ? 10 It can be nothing less than a power which elevates human above the self, . . . a power which connects you with an order of things that only the understanding can conceive, 11 with a world which at the same time commands the whole sensible world, and with it the empirically determinable existence of human in time, as well as the sum total of all ends."

12 With Kant there can be no morality except conduct be attended by the consciousness of this duty imposed by the higher nature upon the lower. 13 It is this very recognition of a deeper self, of a personality that belongs to the sources and not to the consequences of Nature, that constitutes human as a moral being, and only such action as is inspired with a reverence for it can be morally good. 14 Kant does little more than to establish the uncompromising dignity of the moral will. 15 In moral action human submits to a law that issues from yourself in virtue of your rational nature. 16 Here you yields nothing, as you owes nothing, to that appetency which binds you to the natural world. 17 As a rational being you yourself affirms the very principles which determine the organisation of Nature. 18 This is your 'freedom', at once the ground and the implication of your duty. Human is free from Nature to serve the higher law of your personality.

IDEAS

KANTIAN ETHICS SUPPLEMENTED THROUGH THE CONCEPTIONS OF UNIVERSAL AND OBJECTIVE SPIRIT

Ralph Barton Perry

22 There are two respects in which Kant's ethics has been regarded as inadequate by those who draw from it their fundamental principles. 2 It is said that Kant is too rigouristic, that he makes too stern a business of morality, in speaking so much of law and so little of love and spontaneity. There are good reasons for this. 3 Kant seeks to isolate the moral consciousness, and dwell upon it in its purity, in order that he may demonstrate its incommensurability with the values of inclination and sensibility. 4 Furthermore, Kant may speak of the principle of the absolute, and recognise the deeper eternal order as a law, but he may not, if he is to be consistent with his own critical principles, affirm the metaphysical being of such an order. 5 With his idealistic followers it is possible to define the spiritual setting of the moral life, but with Kant it is only possible to define the antagonism of principles. Hence the greater optimism of the post-Kantians. 6 They know that the higher law is the reality, and that you who obeys it thus unites yourself with the absolute self. 7 That which for Kant is only a resolute obedience to more valid principles, to rationally superior rules for action, is for idealism human's appropriation of own spiritual birthright. 8 Since the law is the deeper nature, human may respect and obey it as valid, and at the same time act upon it gladly in the sure knowledge that it will enhance own eternal welfare. 9 Indeed, the knowledge that the very universe is founded upon this law will make you less suspicious of Nature and less exclusive in your adherence to any single law. 10 You will be more confident of the essential goodness of all manifestations of a universe which you knows to be fundamentally spiritual.

11 But it has been urged, secondly, that the Kantian ethics is too formal, too little pertinent to the issues of life. 12 Kant's moral law imposes only obedience to the law, or conduct conceived as suitable to

a universal moral community. But what is the nature of such conduct in particular? 13 It may be answered that to maintain the moral self-consciousness, to act dutifully and dutifully only, to be self-reliant and unswerving in the doing of what one ought to do, is to obtain a very specific character. 14 But does this not leave the individual's conduct to your own interpretation of your duty? 15 It was just this element of individualism which Hegel sought to eliminate through the application of his larger philosophical conception. 16 If that which expresses itself within the individual consciousness as the moral law be indeed the law of that self in which the universe is grounded, it will appear as 'objective spirit' in the evolution of society. 17 For Hegel, then, the most valid standard of goodness is to be found in that customary morality which bespeaks the moral leadings of the general humanity, 18 and in those institutions, such as the family and the state, which are the moral acts of the absolute idea itself. 19 Finally, in the realm of 'absolute spirit', in art, in revealed religion, and in philosophy, the individual may approach to the self-consciousness which is the perfect truth and goodness in and for itself.

THE PECULIAR PANTHEISM AND MYSTICISM OF ABSOLUTE IDEALISM

Ralph Barton Perry

23 Where the law of life is the implication in the finite self-consciousness of the eternal and divine self-consciousness, there can be no division between morality and religion, as there can be none between thought and will. 2 Whatever human seeks is in the end God. 3 As the perfect fulfillment of the thinking self, God is the truth; as the perfect fulfillment of the willing self, God is the good. 4 The finite self-consciousness finds facts that are not understood, and so seeks to resolve itself into the perfect self wherein all that is given has meaning. 5 On the other hand, the finite self-consciousness finds ideals that are not realised, and so seeks to resolve itself into that

perfect self wherein all that is significant is given. 6 All interests thus converge toward "some state of conscious spirit in which the opposition of cognition and volition is overcome-- 7 in which we neither judge our ideas by the world, nor the world by our ideas, but are aware that inner and outer are in such close and necessary harmony that even the thought of possible discord has become impossible. 8 In its unity not only cognition and volition, but feeling also, must be blended and united. 9 In some way or another it must have overcome the rift in discursive knowledge, and the immediate must for it be no longer the alien. It must be as direct as art, as certain and universal as philosophy."

10 The religious consciousness proper to absolute idealism is both pantheistic and mystical, but with distinction. 11 Platonism is pantheistic in that Nature is resolved into God. 12 All that is not perfect is esteemed only for its promise of perfection. 13 And Platonism is mystical in that the purification and universalisation of the affections brings one in the end to a perfection that exceeds all modes of thought and speech.

14 With Spinoza, on the other hand, God may be said to be resolved into Nature. 15 Nature is made divine, but is none the less Nature, for its divinity consists in its absolute necessity. 16 Spinoza's pantheism passes over into mysticism because the absolute necessity exceeds in both unity and richness the laws known to the human understanding. 17 In absolute idealism, finally, both God and Nature are resolved into the self. 18 For that which is divine in experience is self-consciousness, and this is at the same time the ground of Nature. 19 Thus in the highest knowledge the self is expanded and enriched without being left behind. 20 The mystical experience proper to this philosophy is the consciousness of identity, together with the sense of universal immanence. 21 The individual self may be directly sensible of the absolute self, for these are one spiritual life.

22 Thus Emerson says: "It is a secret which every intellectual person quickly learns, that beyond the energy of your possessed and

conscious intellect you are capable of a new energy (as of an intellect doubled on itself), by abandonment to the nature of things; 23 that beside your privacy of power as an individual human, there is a great public power upon which you can draw, by unlocking, at all risks, your human doors, and suffering the ethereal tides to roll and circulate through you; 24 then you are caught up into the life of the Universe, your speech is thunder, your thought is law, and your words are universally intelligible as the plants and animals. 25 The poet knows that you speaks adequately then only when you speaks somewhat wildly, or 'with the flower of the mind'; 26 not with the intellect used as an organ, but with the intellect released from all service and suffered to take its direction from its celestial life."

THE RELIGION OF EXUBERANT SPIRITUALITY

Ralph Barton Perry

24 But the distinguishing flavour and quality of this religion arises from its spiritual hospitality. 2 It is not, like Platonism, a contemplation of the best; nor, like pluralistic idealisms, a moral knight-errantry. 3 It is neither a religion of exclusion, nor a religion of reconstruction, but a profound willingness that things should be as they really are. 4 For this reason its devotees have recognised in Spinoza their true forerunner. But idealism is not Spinozism, though it may contain this as one of its strains. For it is not the worship of necessity, 5 Emerson's "beautiful necessity, which makes human brave in believing that you cannot shun a danger that is appointed, nor incur one that is not"; but the worship of 'that which is' necessary.

6 Not only must one understand that every effort, however despairing, is an element of sense in the universal significance; 7 "that the whole would not be what it is were not precisely this finite

purpose left in its own uniqueness to speak precisely its own word-- a word which no other purpose can speak in the language of the divine-will"; 8 but one must have a zest for such participation, and a heart for the divine-will which it profits. 9 Indeed, so much is this religion a love of life, that it may, as in the case of the Romanticists, be a love of caprice. 10 Battle and death, pain and joy, error and truth-- all that belongs to the story of this mortal world, are to be felt as the thrill of health, and relished as the essences of God. 11 Religion is an exuberant spirituality, a fearless sensibility, a knowledge of both good and evil, and a will to serve the good, while exulting that the evil will not yield without a battle.

The Book of Divine Panagogue Called
INTELLIGENCE

CREATIVE INTELLIGENCE
John Dewey

THE NEED FOR A RECOVERY OF PHILOSOPHY

1 Intellectual advance occurs in two ways. 2 At times increase of knowledge is organised about old conceptions, while these are expanded, elaborated and refined, but not seriously revised, much less abandoned. 3 At other times, the increase of knowledge demands qualitative rather than quantitative change; alteration, not addition. 4 Humans' minds grow cold to their former intellectual concerns; ideas that were burning fade; interests that were urgent seem remote. 5 Humans face in another direction; their older perplexities are unreal; considerations passed over as negligible loom up. Former problems may not have been solved, but they no longer press for solutions.

6 Philosophy is no exception to the rule. But it is unusually conservative-- not, necessarily, in proffering solutions, but in clinging to problems. 7 It has been so allied with theology and theological morals as representatives of humans' chief interests, that radical alteration has been shocking. 8 Humans' activities took a decidedly new turn, for example, in the seventeenth century, and it seems as if philosophy, under the lead of thinkers like Bacon and Descartes, was to execute an about-face. 9 But, in spite of the ferment, it turned out that many of the older problems were but translated from Latin into the vernacular or into the new terminology furnished by science.

10 The association of philosophy with academic teaching has reinforced this intrinsic conservatism. 11 Scholastic philosophy persisted in universities after people's thoughts outside of the walls of colleges had moved in other directions. 12 In the last hundred years intellectual advances of science and politics have in like fashion been crystallised into material of instruction and now resist further

change. 13 I would not say that the spirit of teaching is hostile to that of liberal inquiry, but a philosophy which exists largely as something to be taught rather than wholly as something to be reflected upon is conducive to discussion of views held by others rather than to immediate response. 14 Philosophy when taught inevitably magnifies the history of past thought, and leads professional philosophers to approach their subject-matter through its formulation in received systems. 15 It tends, also, to emphasise points upon which people have divided into schools, for these lend themselves to retrospective definition and elabouration. 16 Consequently, philosophical discussion is likely to be a dressing out of antithetical traditions, where criticism of one view is thought to afford proof of the truth of its opposite (as if formulation of views guaranteed logical exclusives). 17 Direct preoccupation with contemporary difficulties is left to literature and politics.

18 If changing conduct and expanding knowledge ever required a willingness to surrender not merely old solutions but old problems it is now. 19 I do not mean that we can turn abruptly away from all traditional issues. This is impossible; it would be the undoing of the one who attempted it. 20 Irrespective of the professionalising of philosophy, the ideas philosophers discuss are still those in which Western civilisation has been bred. They are in the backs of the heads of educated people. 21 But what serious-minded people not engaged in the professional business of philosophy most want to know is what modifications and abandonments of intellectual inheritance are required by the newer industrial, political, and scientific movements. 22 They want to know what these newer movements mean when translated into general ideas. 23 Unless professional philosophy can mobilise itself sufficiently to assist in this clarification and redirection of humans' thoughts, it is likely to get more and more sidetracked from the main currents of contemporary life.

24 This essay may, then, be looked upon as an attempt to forward the

emancipation of philosophy from too intimate and exclusive attachment to traditional problems. 25 It is not in intent a criticism of various solutions that have been offered, but raises a question 'as to the genuineness, under the present conditions of science and social life, of the problems'. 26 The limited object of my discussion will, doubtless, give an exaggerated impression of my conviction as to the artificiality of much recent philosophising. 27 Not that I have willfully exaggerated in what I have said, but that the limitations of my purpose have led me not to say many things pertinent to a broader purpose. 28 A discussion less restricted would strive to enforce the genuineness, in their own context, of questions now discussed mainly because they have been discussed rather than because contemporary conditions of life suggest them. 29 It would also be a grateful task to dwell upon the precious contributions made by philosophic systems which as a whole are impossible. 30 In the course of the development of unreal premises and the discussion of artificial problems, points of view have emerged which are indispensable possessions of culture. 31 The horizon has been widened; ideas of great fecundity struck out; imagination quickened; a sense of the meaning of things created. 32 It may even be asked whether these accompaniments of classic systems have not often been treated as a kind of guarantee of the systems themselves. 33 But while it is a sign of an illiberal mind to throw away the fertile and ample ideas of a Spinoza, a Kant, or a Hegel, because their setting is not logically adequate, 34 is surely a sign of an undisciplined one to treat their contributions to culture as confirmations of premises with which they have no necessary connection.

I

35 A criticism of current philosophising from the standpoint of the traditional quality of its problems must begin somewhere, and the choice of a beginning is arbitrary. 36 It has appeared to me that the notion of experience implied in the questions most

actively discussed gives a natural point of departure. 37 For, if I mistake not, it is just the inherited view of experience common to the empirical school and its opponents which keeps alive many discussions even of matters that on their face are quite remote from it, 38 while it is also this view which is most untenable in the light of existing science and social practice. 39 Accordingly I set out with a brief statement of some of the chief contrasts between the orthodox description of experience and that congenial to present conditions.

40 (i) In the orthodox view, experience is regarded primarily as a knowledge-affair. 41 But to eyes not looking through ancient spectacles, it assuredly appears as an affair of the intercourse of a living being with its physical and social environment.

42 (ii) According to tradition, experience is (at least primarily) a psychical thing, infected throughout by "subjectivity." 43 What experience suggests about itself is a genuinely objective world which enters into the actions and sufferings of humans and undergoes modifications through their responses.

44 (iii) So far as anything beyond a bare present is recognised by the established doctrine, the past exclusively counts. 45 Registration of what has taken place, reference to precedent, is believed to be the essence of experience. 46 Empiricism is conceived of as tied up to what has been, or is, "given." 47 But experience in its vital form is experimental, an effort to change the given; it is characterised by projection, by reaching forward into the unknown; connexion with a future is its salient trait.

48 (iv) The empirical tradition is committed to particularism. Connexions and continuities are supposed to be foreign to experience, to be by-products of dubious validity. 49 An experience that is an undergoing of an environment and a striving for its control in new directions is pregnant with connexions.

50 (v) In the traditional notion, experience and thought are antithetical terms. 51 Inference, so far as it is other than a revival of what has been given in the past,

goes beyond experience; hence it is either invalid, 52 or else a measure of desperation by which, using experience as a springboard, we jump out to a world of stable things and other selves. 53 But experience, taken free of the restrictions imposed by the older concept, is full of inference. There is, apparently, no conscious experience without inference; reflection is native and constant. 54 These contrasts, with a consideration of the effect of substituting the account of experience relevant to modern life for the inherited account, afford the subject-matter of the following discussion.

55 Suppose we take seriously the contribution made to our idea of experience by biology,-- 56 not that recent biological science discovered the facts, but that it has so emphasised them that there is no longer an excuse for ignoring them or treating them as negligible. 57 Any account of experience must now fit into the consideration that experiencing means living; and that living goes on in and because of an environing medium, not in a vacuum. 58 Where there is experience, there is a living being. Where there is life, there is a double connexion maintained with the environment. 59 In part, environmental energies constitute organic functions; they enter into them. Life is not possible without such direct support by the environment. 60 But while all organic changes depend upon the natural energies of the environment for their origination and occurrence, 61 the natural energies sometimes carry the organic functions prosperously forward, and sometimes act counter to their continuance. 62 Growth and decay, health and disease, are alike continuous with activities of the natural surroundings. 63 The difference lies in the bearing of what happens upon future life-activity. From the standpoint of this future reference environmental incidents fall into groups: those favourable to life-activities, and those hostile.

64 The successful activities of the organism, those within which environmental assistance is incorporated, react upon the environment to bring about modifications favourable to their

own future. 65 The human being has upon your hands the problem of responding to what is going on around you so that these changes will take one turn rather than another, namely, that required by its own further functioning. 66 While backed in part by the environment, its life is anything but a peaceful exhalation of environment. 67 It is obliged to struggle-- that is to say, to employ the direct support given by the environment in order indirectly to effect changes that would not otherwise occur. 68 In this sense, life goes on by means of controlling the environment. Its activities must change the changes going on around it; 69 they must neutralise hostile occurrences; they must transform neutral events into coöperative factors or into an efflorescence of new features.

70 Dialectic developments of the notion of self-preservation, of the '*conatus essendi*', often ignore all the important facts of the actual process. 71 They argue as if self-control, self-development, went on directly as a sort of unrolling push from within. 72 But life endures only in virtue of the support of the environment. 73 And since the environment is only incompletely enlisted in our behalf, self-preservation-- or self-realisation or whatever-- is always indirect-- 74 always an affair of the way in which our present activities affect the direction taken by independent changes in the surroundings. 75 Hindrances must be turned into means.

76 We are also given to playing loose with the conception of adjustment, as if that meant something fixed-- a kind of accommodation once for all (ideally at least) of the organism 'to' an environment. 77 But as life requires the fitness of the environment to the organic functions, adjustment to the environment means not passive acceptance of the latter, but acting so that the environing changes take a certain turn. 78 The "higher" the type of life, the more adjustment takes the form of an adjusting of the factors of the environment to one another in the interest of life; 79 the less the significance of living, the more it becomes an adjustment to a given environment till at the lower end of the scale the

differences between living and the non-living disappear.

80 These statements are of an external kind. They are about the conditions of experience, rather than about experiencing itself. 81 But assuredly experience as it concretely takes place bears out the statements. 82 Experience is primarily a process of undergoing: a process of standing something; of suffering and passion, of affection, in the literal sense of these words. 83 The organism has to endure, to undergo, the consequences of its own actions. 84 Experience is no slipping along in a path fixed by inner consciousness. 85 Private consciousness is an incidental outcome of experience of a vital objective sort; it is not its source. 86 Undergoing, however, is never mere passivity. The most patient patient is more than a receptor. You are also an agent-- 87 a reactor, one trying experiments, one concerned with undergoing in a way which may influence what is still to happen. 88 Sheer endurance, side-stepping evasions, are, after all, ways of treating the environment with a view to what such treatment will accomplish. 89 Even if we shut ourselves up in the most clam-like fashion, we are doing something; our passivity is an active attitude, not an extinction of response. 90 Just as there is no assertive action, no aggressive attack upon things as they are, which is all action, so there is no undergoing which is not on our part also a going on and a going through.

91 Experience, in other words, is a matter of 'simultaneous' doings and sufferings. 92 Our undergoings are experiments in varying the course of events; our active tryings are trials and tests of ourselves. This duplicity of experience shows itself in our happiness and misery, our successes and failures. 93 Triumphs are dangerous when dwelt upon or lived off from; successes use themselves up. 94 Any achieved equilibrium of adjustment with the environment is precarious because we cannot evenly keep pace with changes in the environment. 95 These are so opposed in direction that we must choose. We must take the risk of casting in our lot with one movement or the other. 96 Nothing

can eliminate all risk, all adventure; the one thing doomed to failure is to try to keep even with the whole environment at once--that is to say, to maintain the happy moment when all things go our way.

97 The obstacles which confront us are stimuli to variation, to novel response, and hence are occasions of progress. 98 If a favour done us by the environment conceals a threat, so its disfavour is a potential means of hitherto unexperienced modes of success. 99 To treat misery as anything but misery, as for example a blessing in disguise or a necessary factor in good, is disingenuous apologetics. 100 But to say that the progress of the race has been stimulated by ills undergone, and that humans have been moved by what they suffer to search out new and better courses of action is to speak veraciously.

101 The preoccupation of experience with things which are coming (are now coming, not just to come) is obvious to any one whose interest in experience is empirical. 102 Since we live forward; since we live in a world where changes are going on whose issue means our weal or woe; since every act of ours modifies these changes and hence is fraught with promise, or charged with hostile energies-- what should experience be but a future implicated in a present! 103 Adjustment is no timeless state; it is a continuing process. To say that a change takes time may be to say something about the event which is external and uninstructive. 104 But adjustment of organism to environment takes time in the pregnant sense; every step in the process is conditioned by reference to further changes which it effects. 105 What is going on in the environment is the concern of the organism; not what is already "there" in accomplished and finished form. 106 In so far as the issue of what is going on may be affected by intervention of the organism, the moving event is a challenge which stretches the agent-patient to meet what is coming. 107 Experiencing exhibits things in their unterminated aspect moving toward determinate conclusions. The finished and done with is of import as affecting the future, not on its own account:

in short, because it is not, really, done with.

108 Anticipation is therefore more primary than recollection; projection than summoning of the past; the prospective than the retrospective. 109 Given a world like that in which we live, a world in which environing changes are partly favourable and partly callously indifferent, and experience is bound to be prospective in import; 110 for any control attainable by the living creature depends upon what is done to alter the state of things. 111 Success and failure are the primary "categories" of life; achieving of good and averting of ill are its supreme interests; 112 hope and anxiety (which are not self-enclosed states of feeling, but active attitudes of welcome and wariness) are dominant qualities of experience. 113 Imaginative forecast of the future is this forerunning quality of behaviour rendered available for guidance in the present. 114 Day-dreaming and castle-building and esthetic realisation of what is not practically achieved are offshoots of this practical trait, or else practical intelligence is a chastened fantasy. 115 It makes little difference. Imaginative recovery of the bygone is indispensable to successful invasion of the future, but its status is that of an instrument. 116 To ignore its import is the sign of an undisciplined agent; but to isolate the past, dwelling upon it for its own sake and giving it the eulogistic name of knowledge, is to substitute the reminiscence of old-age for effective intelligence. 117 The movement of the agent-patient to meet the future is partial and passionate; yet detached and impartial study of the past is the only alternative to luck in assuring success to passion.

II

118 This description of experience would be but a rhapsodic celebration of the commonplace were it not in marked contrast to orthodox philosophical accounts. 119 The contrast indicates that traditional accounts have not been empirical, but have been deductions, from unnamed premises, of what experience 'must' be. 120 Historic empiricism

has been empirical in a technical and controversial sense. It has said, Lord, Lord, Experience, Experience; but in practice it has served ideas 'forced into' experience, not 'gathered from' it. 121 The confusion and artificiality thereby introduced into philosophical thought is nowhere more evident than in the empirical treatment of relations or dynamic continuities. 122 The experience of a living being struggling to hold its own and make its way in an environment, physical and social, partly facilitating and partly obstructing its actions, is of necessity a matter of ties and connexions, of bearings and uses. 123 The very point of experience, so to say, is that it doesn't occur in a vacuum; 124 its agent-patient instead of being insulated and disconnected is bound up with the movement of things by most intimate and pervasive bonds. 125 Only because the organism is in and of the world, and its activities correlated with those of other things in multiple ways, is it susceptible to undergoing things and capable of trying to reduce objects to means of securing its good fortune. 126 That these connexions are of diverse kinds is irresistibly proved by the fluctuations which occur in its career. 127 Help and hindrance, stimulation and inhibition, success and failure mean specifically different modes of correlation. 128 Although the actions of things in the world are taking place in one continuous stretch of existence, there are all kinds of specific affinities, repulsions, and relative indifferencies.

129 Dynamic connexions are qualitatively diverse, just as are the centers of action. 'In this sense', pluralism, not monism, is an established empirical fact. 130 The attempt to establish monism from consideration of the very nature of a relation is a mere piece of dialectics. 131 Equally dialectical is the effort to establish by a consideration of the nature of relations an ontological Pluralism of Ultimates: 'simple and independent beings.' 132 To attempt to get results from a consideration of the "external" nature of relations is of a piece with the attempt to deduce results from their "internal" character.

133 Some things are relatively insulated from the influence of other things; some things are easily invaded by others; some things are fiercely attracted to conjoin their activities with those of others. 134 Experience exhibits every kind of connexion from the most intimate to mere external juxtaposition.

135 Empirically, then, active bonds or continuities of all kinds, together with static discontinuities, characterise existence. 136 To deny this qualitative heterogeneity is to reduce the struggles and difficulties of life, its comedies and tragedies to illusion: to the non-being of the Greeks or to its modern counterpart, the "subjective." 137 Experience is an affair of facilitations and checks, of being sustained and disrupted, being let alone, being helped and troubled, of good fortune and defeat in all the countless qualitative modes which these words pallidly suggest. 138 The existence of genuine connexions of all manner of heterogeneity cannot be doubted. Such words as conjoining, disjoining, resisting, modifying, saltatory, and ambulatory (to use James' picturesque term) only hint at their actual heterogeneity.

139 Among the revisions and surrenders of historic problems demanded by this feature of empirical situations, those centering in the rationalistic-empirical controversy may be selected for attention. 140 The implications of this controversy are twofold: First, that connexions are as homogeneous in fact as in name; and, secondly, if genuine, are all due to thought, or, if empirical, are arbitrary by-products of past particulars. 141 The stubborn particularism of orthodox empiricism is its outstanding trait; consequently the opposed rationalism found no justification of bearings, continuities, and ties save to refer them in gross to the work of a hyper-empirical Reason.

142 Of course, not all empiricism prior to Hume and Kant was sensationalistic, pulverising "experience" into isolated sensory qualities or simple ideas. 143 It did not all follow Locke's lead in regarding the entire content of generalisation as the

"workmanship of the understanding." 144 On the Continent, prior to Kant, philosophers were content to draw a line between empirical generalisations regarding matters of fact and necessary universals applying to truths of reason. 145 But logical atomism was implicit even in this theory. Statements referring to empirical fact were mere quantitative summaries of particular instances. 146 In the sensationalism which sprang from Hume (and which was left unquestioned by Kant as far as any strictly empirical element was concerned) the implicit particularism was made explicit. 147 But the doctrine that sensations and ideas are so many separate existences was not derived from observation nor from experiment. It was a logical deduction from a prior unexamined concept of the nature of experience. 148 From the same concept it followed that the appearance of stable objects and of general principles of connexion was but an appearance.

149 Kantianism, then, naturally invoked universal bonds to restore objectivity. But, in so doing, it accepted the particularism of experience and proceeded to supplement it from non-empirical sources. 150 A sensory manifold being all which is really empirical in experience, a reason which transcends experience must provide synthesis. The net outcome might have suggested a correct account of experience. 151 For we have only to forget the apparatus by which the net outcome is arrived at, to have before us the experience of the plain person-- a diversity of ceaseless changes connected in all kinds of ways, static and dynamic. 152 This conclusion would deal a deathblow to both empiricism and rationalism. For, making clear the non-empirical character of the alleged manifold of unconnected particulars, it would render unnecessary the appeal to functions of the understanding in order to connect them. 153 With the downfall of the traditional notion of experience, the appeal to reason to supplement its defects becomes superfluous.

154 The tradition was, however, too strongly entrenched; especially as it furnished the subject-matter

of an alleged science of states of mind which were directly known in their very presence. 155 The historic outcome was a new crop of artificial puzzles about relations; it fastened upon philosophy for a long time the quarrel about the 'a priori' and the 'a posteriori' as its chief issue. 156 The controversy is to-day quiescent. Yet it is not at all uncommon to find thinkers modern in tone and intent who regard any philosophy of experience as necessarily committed to denial of the existence of genuinely general propositions, 157 and who take empiricism to be inherently averse to the recognition of the importance of an organising and constructive intelligence.

158 The quiescence alluded to is in part due, I think, to sheer weariness. But it is also due to a change of standpoint introduced by biological conceptions; and particularly the discovery of biological continuity from the lower organisms to human. 159 For a short period, Spencerians might connect the doctrine of evolution with the old problem, and use the long temporal accumulation of "experiences" to generate something which, for human experience, is 'a priori'. 160 But the tendency of the biological way of thinking is neither to confirm or negate the Spencerian doctrine, but to shift the issue. 161 In the orthodox position 'a posteriori' and 'a priori' were affairs of knowledge. But it soon becomes obvious that while there is assuredly something 'a priori'--that is to say, native, unlearned, original-- 162 in human experience, that something is 'not' knowledge, but is activities made possible by means of established connexions of neurones. 163 This empirical fact does not solve the orthodox problem; it dissolves it. It shows that the problem was misconceived, and solution sought by both parties in the wrong direction.

164 Organic instincts and organic retention, or habit-forming, are undeniable factors in actual experience. They are factors which effect organisation and secure continuity. 165 They are among the specific facts which a description of experience cognisant of the

correlation of organic action with the action of other natural objects will include. 166 But while fortunately the contribution of biological science to a truly empirical description of experiencing has outlawed the discussion of the 'a priori' and 'a posteriori', 167 the transforming effect of the same contributions upon other issues has gone unnoticed, save as pragmatism has made an effort to bring them to recognition.

III

168 The point seriously at issue in the notion of experience common to both sides in the older controversy thus turns out to be the place of thought or intelligence in experience. 169 Does reason have a distinctive office? Is there a characteristic order of relations contributed by it?

170 Experience, to return to our positive conception, is primarily what is undergone in connexion with activities whose import lies in their objective consequences--their bearing upon future experiences. 171 Organic functions deal with things as things in course, in operation, in a state of affairs not yet given or completed. 172 What is done with, what is just "there," is of concern only in the potentialities which it may indicate. As ended, as wholly given, it is of no account. 173 But as a sign of what may come, it becomes an indispensable factor in behaviour dealing with changes, the outcome of which is not yet determined.

174 The only power the organism possesses to control its own future depends upon the way its present responses modify changes which are taking place in its medium. 175 A living being may be comparatively impotent, or comparatively free. It is all a matter of the way in which its present reactions to things influence the future reactions of things upon it. 176 Without regard to its wish or intent every act it performs makes some difference in the environment. The change may be trivial as respects its own career and fortune. 177 But it may also be of incalculable importance; it may import harm, destruction, or it may procure well-being.

INTELLIGENCE

178 Is it possible for a living being to increase its control of welfare and success? Can it manage, in any degree, to assure its future? 179 Or does the amount of security depend wholly upon the accidents of the situation? Can it learn? Can it gain ability to assure its future in the present? 180 These questions center attention upon the significance of reflective intelligence in the process of experience. 181 The extent of an agent's capacity for inference, its power to use a given fact as a sign of something not yet given, measures the extent of its ability systematically to enlarge its control of the future.

182 A being which can use given and finished facts as signs of things to come; which can take given things as evidences of absent things, can, in that degree, forecast the future; it can form reasonable expectations. 183 It is capable of achieving ideas; it is possessed of intelligence. For use of the given or finished to anticipate the consequence of processes going on is precisely what is meant by "ideas," by "intelligence."

184 As we have already noted, the environment is rarely all of a kind in its bearing upon organic welfare; its most whole-hearted support of life-activities is precarious and temporary. 185 Some environmental changes are auspicious; others are menacing. 186 The secret of success-- that is, of the greatest attainable success-- is for the organic response to cast in its lot with present auspicious changes to strengthen them and thus to avert the consequences flowing from occurrences of ill-omen. 187 Any reaction is a venture; it involves risk. We always build better or worse than we can foretell. 188 But the organism's fateful intervention in the course of events is blind, its choice is random, except as it can employ what happens to it as a basis of inferring what is likely to happen later. 189 In the degree in which it can read future results in present on-goings, its responsive choice, its partiality to this condition or that, become intelligent. 190 Its bias grows reasonable. It can deliberately, intentionally, participate in the direction of the course of affairs.

191 Its foresight of different futures which result according as this or that present factor predominates in the shaping of affairs permits it to partake intelligently instead of blindly and fatally in the consequences its reactions give rise to. 192 Participate it must, and to its own weal or woe. 193 Inference, the use of what happens, to anticipate what will-- or at least may-- happen, makes the difference between directed and undirected participation. 194 And this capacity for inferring is precisely the same as that use of natural occurrences for the discovery and determination of consequences-- the formation of new dynamic connexions-- which constitutes knowledge.

195 The fact that thought is an intrinsic feature of experience is fatal to the traditional empiricism which makes it an artificial by-product. 196 But for that same reason it is fatal to the historic rationalisms whose justification was the secondary and retrospective position assigned to thought by empirical philosophy. 197 According to the particularism of the latter, thought was inevitably only a bunching together of hard-and-fast separate items; 198 thinking was but the gathering together and tying of items already completely given, or else an equally artificial untying-- a mechanical adding and subtracting of the given. 199 It was but a cumulative registration, a consolidated merger; generality was a matter of bulk, not of quality. 200 Thinking was therefore treated as lacking constructive power; even its organising capacity was but simulated, being in truth but arbitrary pigeon-holing. 201 Genuine projection of the novel, deliberate variation and invention, are idle fictions in such a version of experience. 202 If there ever was creation, it all took place at a remote period. Since then the world has only recited lessons.

203 The value of inventive construction is too precious to be disposed of in this cavalier way. 204 Its unceremonious denial afforded an opportunity to assert that in addition to experience the subject has a ready-made faculty of thought or reason which

transcends experience. 205 Rationalism thus accepted the account of experience given by traditional empiricism, and introduced reason as extra-empirical. 206 There are still thinkers who regard any empiricism as necessarily committed to a belief in a cut-and-dried reliance upon disconnected precedents, 207 and who hold that all systematic organisation of past experiences for new and constructive purposes is alien to strict empiricism.

208 Rationalism never explained, however, how a reason extraneous to experience could enter into helpful relation with concrete experiences. 209 By definition, reason and experience were antithetical, so that the concern of reason was not the fruitful expansion and guidance of the course of experience, but a realm of considerations too sublime to touch, or be touched by, experience. 210 Discreet rationalists confined themselves to theology and allied branches of abtruse science, and to mathematics. 211 Rationalism would have been a doctrine reserved for academic specialists and abstract formalists had it not assumed the task of providing an apologetics for traditional morals and theology, thereby getting into touch with actual human beliefs and concerns. 212 It is notorious that historic empiricism was strong in criticism and in demolition of outworn beliefs, but weak for purposes of constructive social direction. 213 But we frequently overlook the fact that whenever rationalism cut free from conservative apologetics, it was also simply an instrumentality for pointing out inconsistencies and absurdities in existing beliefs-- a sphere in which it was immensely useful, as the Enlightenment shows. 214 Leibniz and Voltaire were contemporary rationalists in more senses than one.

215 The recognition that reflection is a genuine factor within experience and an indispensable factor in that control of the world which secures a prosperous and significant expansion of experience 216 undermines historic rationalism as assuredly as it abolishes the foundations of historic empiricism. 217 The

bearing of a correct idea of the place and office of reflection upon modern idealisms is less obvious, but no less certain.

218 One of the curiosities of orthodox empiricism is that its outstanding speculative problem is the existence of an "external world." 219 For in accordance with the notion that experience is attached to a private subject as its exclusive possession, a world like the one in which we appear to live must be "external" to experience instead of being its subject-matter. 220 I call it a curiosity, for if anything seems adequately grounded empirically it is the existence of a world which resists the characteristic functions of the subject of experience; 221 which goes its way, in some respects, independently of these functions, and which frustrates our hopes and intentions. 222 Ignorance which is fatal; disappointment; the need of adjusting means and ends to the course of Nature, would seem to be facts sufficiently characterising empirical situations as to render the existence of an external world indubitable.

223 That the description of experience was arrived at by forcing actual empirical facts into conformity with dialectic developments from a concept of a knower outside of the real world of Nature is testified to by the historic alliance of empiricism and idealism. 224 According to the most logically consistent editions of orthodox empiricism, all that can be experienced is the fleeting, the momentary, mental state. 225 That alone is absolutely and indubitably present; therefore, it alone is cognitively certain. It alone is 'knowledge'. 226 The existence of the past (and of the future), of a decently stable world and of other selves-- indeed, of one's own self-- falls outside this datum of experience. 227 These can be arrived at only by inference which is "ejective"-- a name given to an alleged type of inference that jumps from experience, as from a springboard, to something beyond experience.

228 I should not anticipate difficulty in showing that this doctrine is, dialectically, a mass of inconsistencies. 229 Avowedly it is a doctrine of desperation, and as

such it is cited here to show the desperate straits to which ignoring empirical facts has reduced a doctrine of experience. 230 More positively instructive are the objective idealisms which have been the offspring of the marriage between the "reason" of historic rationalism and the alleged immediate psychical stuff of historic empiricism. 231 These idealisms have recognised the genuineness of connexions and the impotency of "feeling." 232 They have then identified connexions with logical or rational connexions, and thus treated "the real World" as a synthesis of sentient consciousness by means of a rational self-consciousness introducing objectivity: stability and universality of reference.

233 Here again, for present purposes, criticism is unnecessary. It suffices to point out that the value of this theory is bound up with the genuineness of the problem of which it purports to be a solution. 234 If the basic concept is a fiction, there is no call for the solution. 235 The more important point is to perceive how far the "thought" which figures in objective idealism comes from meeting the empirical demands made upon actual thought. 236 Idealism is much less formal than historic rationalism. It treats thought, or reason, as constitutive of experience by means of uniting and constructive functions, not as just concerned with a realm of eternal truths apart from experience. 237 On such a view thought certainly loses its abstractness and remoteness. But, unfortunately, in thus gaining the whole world it loses its own self. 238 A world already, in its intrinsic structure, dominated by thought is not a world in which, save by contradiction of premises, thinking has anything to do.

239 That the doctrine logically results in making change unreal and error unaccountable are consequences of importance in the technique of professional philosophy; 240 in the denial of empirical fact which they imply they seem to many a '*reductio ad absurdum*' of the premises from which they proceed. But, after all, such consequences are of only professional import. 241 What is serious, even sinister, is the

implied sophistication regarding the place and office of reflection in the scheme of things. 242 A doctrine which exalts thought in name while ignoring its efficacy in fact (that is, its use in bettering life) is a doctrine which cannot be entertained and taught without serious peril.

243 Those who are not concerned with professional philosophy but who are solicitous for intelligence as a factor in the amelioration of actual conditions 244 can but look askance at any doctrine which holds that the entire scheme of things is already, if we but acquire the knack of looking at it aright, fixedly and completely rational. 245 It is a striking manifestation of the extent in which philosophies have been compensatory in quality. 246 But the matter cannot be passed over as if it were simply a question of not grudging a certain amount of consolation to one amid the irretrievable evils of life. 247 For as to these evils no one knows how many are retrievable; 248 and a philosophy which proclaims the ability of a dialectic theory of knowledge to reveal the world as already and eternally a self-luminous rational whole, contaminates the scope and use of thought at its very spring. 249 To substitute the otiose insight gained by manipulation of a formula for the slow coöperative work of a humanity guided by reflective intelligence is more than a technical blunder of speculative philosophers.

250 A practical crisis may throw the relationship of ideas to life into an exaggerated Brocken-like spectral relief, where exaggeration renders perceptible features not ordinarily noted. 251 The use of force to secure narrow because exclusive aims is no novelty in human affairs. 252 The deploying of all the intelligence at command in order to increase the effectiveness of the force used is not so common, yet presents nothing intrinsically remarkable. 253 The identification of force--military, economic, and administrative-- with moral necessity and moral culture is, however, a phenomenon not likely to exhibit itself on a wide scale 254 except where intelligence has already been suborned by an idealism which identifies "the

actual with the rational," and thus finds the measure of reason in the brute event determined by superior force. 255 If we are to have a philosophy which will intervene between attachment to rule of thumb muddling and devotion to a systematised subordination of intelligence to preëxistent ends, 256 it can be found only in a philosophy which finds the ultimate measure of intelligence in consideration of a desirable future and in search for the means of bringing it progressively into existence. 257 When professed idealism turns out to be a narrow pragmatism-- narrow because taking for granted the finality of ends determined by historic conditions-- 258 the time has arrived for a pragmatism which shall be empirically idealistic, proclaiming the essential connexion of intelligence with the unachieved future-- with possibilities involving a transfiguration.

IV

259 Why has the description of experience been so remote from the facts of empirical situations? 260 To answer this question throws light upon the submergence of recent philosophising in epistemology-- 261 that is, in discussions of the nature, possibility, and limits of knowledge in general, and in the attempt to reach conclusions regarding the ultimate nature of reality from the answers given to such questions.

262 The reply to the query regarding the currency of a non-empirical doctrine of experience (even among professed empiricists) is that the traditional account is derived from a conception once universally entertained regarding the subject or bearer or center of experience. 263 The description of experience has been forced into conformity with this prior conception; it has been primarily a deduction from it, actual empirical facts being poured into the moulds of the deductions. 264 The characteristic feature of this prior notion is the assumption that experience centers in, or gathers about, or proceeds from a center or subject which is outside the course of natural existence, and set over against it:-- 265 it

being of no importance, for present purposes, whether this antithetical subject is termed soul, or spirit, or mind, or ego, or consciousness, or just knower or knowing subject.

266 There are plausible grounds for thinking that the currency of the idea in question lies in the form which humans' religious preoccupations took for many centuries. 267 These were deliberately and systematically other-worldly. They centered about a Fall which was not an event in Nature, but an aboriginal catastrophe that corrupted Nature; 268 about a redemption made possible by supernatural means; about a life in another world--essentially, not merely spatially, Other. 269 The supreme drama of destiny took place in a soul or spirit which, under the circumstances, could not be conceived other than as non-natural-- extra-natural, if not, strictly speaking, supernatural. 270 When Descartes and others broke away from medieval interests, they retained as commonplaces its intellectual apparatus: 271 Such as, knowledge is exercised by a power that is extra-natural and set over against the world to be known. 272 Even if they had wished to make a complete break, they had nothing to put as knower in the place of the soul. 273 It may be doubted whether there was any available empirical substitute until science worked out the fact that physical changes are functional correlations of energies, and that human is continuous with other forms of life, 274 and until social life had developed an intellectually free and responsible individual as its agent.

275 But my main point is not dependent upon any particular theory as to the historic origin of the notion about the bearer of experience. 276 The point is there on its own account. The essential thing is that the bearer was conceived as outside of the world; 277 so that experience consisted in the bearer's being affected through a type of operations not found anywhere in the world, 278 while knowledge consists in surveying the world, looking at it, getting the view of a spectator.

279 The theological problem of attaining knowledge of God as

ultimate reality was transformed in effect into the philosophical problem of the possibility of attaining knowledge of reality. 280 For how is one to get beyond the limits of the subject and subjective occurrences? Familiarity breeds credulity oftener than contempt. 281 How can a problem be artificial when humans have been busy discussing it almost for three hundred years?

282 But if the assumption that experience is something set over against the world is contrary to fact, then the problem of how self or mind or subjective experience or consciousness can reach knowledge of an external world is assuredly a meaningless problem. 283 Whatever questions there may be about knowledge, they will not be the kind of problems which have formed epistemology.

284 The problem of knowledge as conceived in the industry of epistemology is the problem of knowledge 'in general'-- of the possibility, extent, and validity of knowledge in general. 285 What does this "in general" mean? In ordinary life there are problems a-plenty of knowledge in particular; every conclusion we try to reach, theoretical or practical, affords such a problem. 286 But there is no problem of knowledge in general. I do not mean, of course, that general statements cannot be made about knowledge, or that the problem of attaining these general statements is not a genuine one. 287 On the contrary, specific instances of success and failure in inquiry exist, and are of such a character that one can discover the conditions conducing to success and failure. 288 Statement of these conditions constitutes logic, and is capable of being an important aid in proper guidance of further attempts at knowing. 289 But this logical problem of knowledge is at the opposite pole from the epistemological. 290 Specific problems are about right conclusions to be reached-- which means, in effect, right ways of going about the business of inquiry. 291 They imply a difference between knowledge and error consequent upon right and wrong methods of inquiry and testing; not a difference between experience and the world. 292 The problem of knowledge 'überhaupt'

exists because it is assumed that there is a knower in general, who is outside of the world to be known, and who is defined in terms antithetical to the traits of the world. 293 With analogous assumptions, we could invent and discuss a problem of digestion in general. All that would be required would be to conceive the stomach and food-material as inhabiting different worlds. 294 Such an assumption would leave on our hands the question of the possibility, extent, nature, and genuineness of any transaction between stomach and food.

295 But because the stomach and food inhabit a continuous stretch of existence, because digestion is but a correlation of diverse activities in one world, the problems of digestion are specific and plural: 296 What are the particular correlations which constitute it? How does it proceed in different situations? What is favourable and what unfavourable to its best performance?-- and so on. 297 Can one deny that if we were to take our clue from the present empirical situation, including the scientific notion of evolution (biological continuity) and the existing arts of control of Nature, 298 subject and object would be treated as occupying the same natural world as unhesitatingly as we assume the natural conjunction of an animal and its food? 299 Would it not follow that knowledge is one way in which natural energies coöperate? 300 Would there be any problem save discovery of the peculiar structure of this coöperation, the conditions under which it occurs to best effect, and the consequences which issue from its occurrence?

301 It is a common-place that the chief divisions of modern philosophy, idealism in its different kinds, realisms of various brands, so-called common-sense dualism, agnosticism, relativism, phenomenalism, have grown up around the epistemological problem of the general relation of subject and object. 302 Problems not openly epistemological, such as whether the relation of changes in consciousness to physical changes is one of interaction, parallelism, or automatism have the same origin. 303 What becomes

of philosophy, consisting largely as it does of different answers to these questions, in case the assumptions which generate the questions have no empirical standing? 304 Is it not time that philosophers turned from the attempt to determine the comparative merits of various replies to the questions to a consideration of the claims of the questions?

305 When dominating religious ideas were built up about the idea that the self is a stranger and pilgrim in this world; 306 when morals, falling in line, found true good only in inner states of a self inaccessible to anything but its own private introspection; 307 when political theory assumed the finality of disconnected and mutually exclusive personalities, the notion that the bearer of experience is antithetical to the world instead of being in and of it was congenial. 308 It at least had the warrant of other beliefs and aspirations. But the doctrine of biological continuity or organic evolution has destroyed the scientific basis of the conception. 309 Morally, humans are now concerned with the amelioration of the conditions of the common lot in this world. 310 Social sciences recognise that associated life is not a matter of physical juxtaposition, but of genuine intercourse-- of community of experience in a non-metaphorical sense of community. 311 Why should we longer try to patch up and refine and stretch the old solutions till they seem to cover the change of thought and practice? Why not recognise that the trouble is with the problem?

312 A belief in organic evolution which does not extend unreservedly to the way in which the subject of experience is thought of, 313 and which does not strive to bring the entire theory of experience and knowing into line with biological and social facts, is hardly more than Pickwickian. 314 There are many, for example, who hold that dreams, hallucinations, and errors cannot be accounted for at all except on the theory that a self (or "consciousness") exercises a modifying influence upon the "real object." 315 The logical assumption is that consciousness is outside of the real object; 316 that it is something

different in kind, and therefore has the power of changing "reality" into appearance, of introducing "relativities" into things as they are in themselves-- in short, of infecting real things with subjectivity. 317 Such writers seem unaware of the fact that this assumption makes consciousness supernatural in the literal sense of the word; 318 and that, to say the least, the conception can be accepted by one who accepts the doctrine of biological continuity only after every other way of dealing with the facts has been exhausted.

319 Realists, of course (at least some of the Neo-realists), deny any such miraculous intervention of consciousness. But they admit the reality of the problem; 320 denying only this particular solution, they try to find some other way out, which will still preserve intact the notion of knowledge as a relationship of a general sort between subject and object. 321 Now dreams and hallucinations, errors, pleasures, and pains, possibly "secondary" qualities, do not occur save where there are organic centers of experience. They cluster about a subject. 322 But to treat them as things which inhere exclusively in the subject; or as posing the problem of a distortion of 'the' real object by a knower set over against the world, 323 or as presenting facts to be explained primarily as cases of contemplative knowledge, is to testify that one has still to learn the lesson of evolution in its application to the affairs in hand.

324 If biological development be accepted, the subject of experience is at least an animal, continuous with other organic forms in a process of more complex organisation. 325 An animal in turn is at least continuous with chemico-physical processes which, in living things, are so organised as really to constitute the activities of life with all their defining traits. 326 And experience is not identical with brain action; it is the entire organic agent-patient in all its interaction with the environment, natural and social. 327 The brain is primarily an organ of a certain kind of behaviour, not of knowing the world. 328 And to repeat what has already been said,

experiencing is just certain modes of interaction, of correlation, of natural objects among which the organism happens, so to say, to be one. 329 It follows with equal force that experience means primarily not knowledge, but ways of doing and suffering. 330 Knowing must be described by discovering what particular mode-- qualitatively unique-- of doing and suffering it is. 331 As it is, we find experience assimilated to a non-empirical concept of knowledge, derived from an antecedent notion of a spectator outside of the world.

332 In short, the epistemological fashion of conceiving dreams, errors, "relativities," etc., depends upon the isolation of mind from intimate participation with other changes in the same continuous nexus. 333 Thus it is like contending that when a bottle bursts, the bottle is, in some self-contained miraculous way, exclusively responsible. 334 Since it is the nature of a bottle to be whole so as to retain fluids, bursting is an abnormal event-- comparable to an hallucination. Hence it cannot belong to the "real" bottle; the "subjectivity" of glass is the cause. 335 It is obvious that since the breaking of glass is a case of specific correlation of natural energies, its accidental and abnormal character has to do with 'consequences', not with causation. 336 Accident is interference with the consequences for which the bottle is intended. The bursting considered apart from its bearing on these consequences is on a plane with any other occurrence in the wide world. 337 But from the standpoint of a desired future, bursting is an anomaly, an interruption of the course of events.

338 The analogy with the occurrence of dreams, hallucinations, etc., seems to me exact. 339 Dreams are not something outside of the regular course of events; they are in and of it. They are not cognitive distortions of real things; they are 'more' real things. 340 There is nothing abnormal in their existence, any more than there is in the bursting of a bottle. 341 But they may be abnormal, from the standpoint of their influence, of their operation as stimuli in calling out responses to modify the future.

342 Dreams have often been taken as prognostics of what is to happen; they have modified conduct. 343 A hallucination may lead a person to consult a doctor; such a consequence is right and proper. But the consultation indicates that the subject regarded it as an indication of consequences which one feared: as a symptom of a disturbed life. 344 Or the hallucination may lead one to anticipate consequences which in fact flow only from the possession of great wealth. 345 Then the hallucination is a disturbance of the normal course of events; the occurrence is wrongly 'used' with reference to eventualities.

346 To regard reference to use and to desired and intended consequences as involving a "subjective" factor is to miss the point, for this has regard to the future. 347 The uses to which a bottle are put are not mental; they do not consist of physical states; they are further correlations of natural existences. 348 Consequences in use are genuine natural events; but they do not occur without the intervention of behaviour involving anticipation of a future. 349 The case is not otherwise with an hallucination. The differences it makes are in any case differences in the course of the one continuous world. The important point is whether they are good or bad differences. 350 To use the hallucination as a sign of organic lesions that menace health means the beneficial result of seeing a physician; 351 to respond to it as a sign of consequences such as actually follow only from being persecuted is to fall into error-- to be abnormal. 352 The persecutors are "unreal"; that is, there are no things which act as persecutors act; but the hallucination exists. 353 Given its conditions it is as natural as any other event, and poses only the same kind of problem as is put by the occurrence of, say, a thunderstorm. 354 The "unreality" of persecution is not, however, a subjective matter; it means that conditions do not exist for producing the 'future' consequences which are now anticipated and reacted to. 355 Ability to anticipate future consequences and to respond to them as stimuli to present

behaviour may well 'define' what is meant by a mind or by "consciousness." 356 But this is only a way of saying just what kind of a real or natural existence the subject is; it is not to fall back on a preconception about an unnatural subject in order to characterise the occurrence of error.

357 Although the discussion may be already laboured, let us take another example-- the occurrence of disease. By definition it is pathological, abnormal. 358 At one time in human history this abnormality was taken to be something dwelling in the intrinsic nature of the event-- in its existence irrespective of future consequences. 359 Disease was literally extra-natural and to be referred to demons, or to magic. No one to-day questions its naturalness-- its place in the order of natural events. 360 Yet it is abnormal-- for it operates to effect results different from those which follow from health. The difference is a genuine empirical difference, not a mere mental distinction. 361 From the standpoint of bearing on a subsequent course of events disease is unnatural, in spite of the naturalness of its occurrence and origin.

362 The habit of ignoring reference to the future is responsible for the assumption that to admit human participation in any form is to admit the "subjective" in a sense which alters the objective into the phenomenal. 363 There have been those who, like Spinoza, regarded health and disease, good and ill, as equally real and equally unreal. 364 However, only a few consistent materialists have included truth along with error as merely phenomenal and subjective. 365 But if one does not regard movement toward possible consequences as genuine, wholesale denial of existential validity to all these distinctions is the only logical course. 366 To select truth as objective and error as "subjective" is, on this basis, an unjustifiably partial procedure. 367 Take everything as fixedly given, and both truth and error are arbitrary insertions into fact. 368 Admit the genuineness of changes going on, and capacity for its direction through organic action based on foresight, and both truth

and falsity are alike existential. 369 It is human to regard the course of events which is in line with our own efforts as the 'regular' course of events, and interruptions as abnormal, but this partiality of human desire is itself a part of what actually takes place.

370 It is now proposed to take a particular case of the alleged epistemological predicament for discussion, since the entire ground cannot be covered. 371 I think, however, the instance chosen is typical, so that the conclusion reached may be generalised. The instance is that of so-called relativity in perception. 372 There are almost endless instances; the stick bent in water; the whistle changing pitch with change of distance from the ear; objects doubled when the eye is pushed; the destroyed star still visible, etc., etc. 373 For our consideration we may take the case of a spherical object that presents itself to one observer as a flat circle, to another as a somewhat distorted elliptical surface. 374 This situation gives empirical proof, so it is argued, of the difference between a real object and mere appearance. Since there is but one object, the existence of two 'subjects' is the sole differentiating factor. 375 Hence the two appearances of the one real object is proof of the intervening distorting action of the subject. 376 And many of the Neo-realists who deny the difference in question, admit the case to be one of knowledge and accordingly to constitute an epistemological problem. 377 They have in consequence developed wonderfully elabourate schemes of sundry kinds to maintain "epistemological monism" intact.

378 Let us try to keep close to empirical facts. In the first place the two unlike appearances of the one sphere are physically necessary because of the laws of reaction of light. 379 If the one sphere did 'not' assume these two appearances under given conditions, we should be confronted with a hopelessly irreconcilable discrepancy in the behaviour of natural energy. 380 That the result is natural is evidenced by the fact that two cameras-- or other arrangements of apparatus for reflecting light-- yield precisely the same results.

381 Photographs are as genuinely physical existences as the original sphere; and they exhibit the two geometrical forms.

382 The statement of these facts makes no impression upon the confirmed epistemologist; he merely retorts that as long as it is admitted that the organism is the cause of a sphere being seen, 383 from different points, as a circular and as an elliptical surface, the essence of his contention-- the modification of the real object by the subject-- is admitted. 384 To the question why the same logic does not apply to photographic records he makes, as far as I know, no reply at all.

385 The source of the difficulty is not hard to see. The objection assumes that the alleged modifications of 'the' real object are cases of 'knowing' and hence attributable to the influence of a 'knower'. 386 Statements which set forth the doctrine will always be found to refer to the organic factor, to the eye, as an observer or a percipient. 387 Even when reference is made to a lens or a mirror, language is sometimes used which suggests that the writer's naïveté is sufficiently gross to treat these physical factors as if they were engaged in perceiving the sphere. 388 But as it is evident that the lens operates as a physical factor in correlation with other physical factors-- notably light-- so it ought to be evident that the intervention of the optical apparatus of the eye is a purely non-cognitive matter. 389 The relation in question is not one between a sphere and a would-be knower of it, unfortunately condemned by the nature of the knowing apparatus to alter the thing one would know; 390 it is an affair of the dynamic interaction of two physical agents in producing a third thing, an effect;-- 391 an affair of precisely the same kind as in any physical conjoint action, say the operation of hydrogen and oxygen in producing water. 392 To regard the eye as primarily a knower, an observer, of things, is as crass as to assign that function to a camera. 393 But unless the eye (or optical apparatus, or brain, or organism) be so regarded, there is absolutely no problem of observation or of knowledge in the case of the occurrence of elliptical

and circular surfaces. 394 Knowledge does not enter into the affair at all till 'after' these forms of refracted light have been produced. About them there is nothing unreal. 395 Light is really, physically, existentially, refracted into these forms. 396 If the same spherical form upon refracting light to physical objects in two quite different positions produced the same geometric forms, there would, indeed, be something to marvel at-- 397 as there would be if wax produced the same results in contact simultaneously with a cold body and with a warm one. 398 Why talk about 'the real' object in relation to 'a knower' when what is given is one real thing in dynamic connection with another real thing?

399 The way of dealing with the case will probably meet with a retort; at least, it has done so before. 400 It has been said that the account given above and the account of traditional subjectivism differ only verbally. 401 The essential thing in both, so it is said, is the admission that an activity of a self or subject or organism makes a difference in the real object. 402 Whether the subject makes this difference in the very process of knowing or makes it prior to the act of knowing is a minor matter; what is important is that the known thing has, by the time it is known, been "subjectified."

403 The objection gives a convenient occasion for summarising the main points of the argument. On the one hand, the retort of the objector depends upon talking about 'the' real object. 404 Employ the term "'a' real object," and the change produced by the activity characteristic of the optical apparatus is of just the same kind as that of the camera lens or that of any other physical agency. 405 Every event in the world marks a difference made to one existence in active conjunction with some other existence. 406 And, as for the alleged subjectivity, if subjective is used merely as an adjective to designate the specific activity of a particular existence, comparable, say, to the term feral, applied to tiger, or metallic, applied to iron, then of course reference to subjective is legitimate. 407 But it is also

tautological. It is like saying that flesh eaters are carnivorous. 408 But the term "subjective" is so consecrated to other uses, usually implying invidious contrast with objectivity (while subjective in the sense just suggested means specific mode 'of' objectivity), that it is difficult to maintain this innocent sense. 409 Its use in any disparaging way in the situation before us-- any sense implicating contrast with a real object-- assumes that the organism 'ought' not to make any difference when it operates in conjunction with other things. 410 Thus we run to earth that assumption that the subject is heterogeneous from every other natural existence; it is to be the one otiose, inoperative thing in a moving world-- our old assumption of the self as outside of things.

411 What and where is knowledge in the case we have been considering? Not, as we have already seen, in the production of forms of light having a circular and elliptical surface. 412 These forms are natural happenings. They may enter into knowledge or they may not, according to circumstances. 413 Countless such refractive changes take place without being noted. When they become subject-matter for knowledge, the inquiry they set on foot may take on an indefinite variety of forms. 414 One may be interested in ascertaining more about the structural peculiarities of the forms themselves; one may be interested in the mechanism of their production; one may find problems in projective geometry, or in drawing and painting-- all depending upon the specific matter-of-fact context. 415 The forms may be 'objectives' of knowledge-- of reflective examination-- or they may be means of knowing something else. 416 It may happen-- under some circumstances it does happen-- that the objective of inquiry is the nature of the geometric form which, when refracting light, gives rise to these other forms. 417 In this case the sphere is the thing known, and in this case, the forms of light are signs or evidence of the conclusion to be drawn. 418 There is no more reason for supposing that they 'are' (mis)knowledges of the sphere--

that the sphere is necessarily and from the start what one is trying to know-- 419 than for supposing that the position of the mercury in the thermometer tube is a cognitive distortion of atmospheric pressure. 420 In each case (that of the mercury and that of, say, a circular surface) the primary datum is a physical happening. 421 In each case it may be used, upon occasion, as a sign or evidence of the nature of the causes which brought it about. 422 Given the position in question, the circular form would be an intrinsically 'unreliable' evidence of the nature and position of the spherical body only in case it, as the direct datum of perception, were 'not' what it is-- a circular form.

423 I confess that all this seems so obvious that the reader is entitled to inquire into the motive for reciting such plain facts. 424 Were it not for the persistence of the epistemological problem it would be an affront to the reader's intelligence to dwell upon them. 425 But as long as such facts as we have been discussing furnish the subject-matter with which philosophising is peculiarly concerned, these commonplaces must be urged and reiterated. 426 They bear out two contentions which are important at the juncture, although they will lose special significance as soon as these are habitually recognised: 427 Negatively, a prior and non-empirical notion of the self is the source of the prevailing belief that experience as such is primarily cognitional-- a knowledge affair; 428 positively, 'knowledge is always a matter of the use that is made of experienced natural events', a use in which given things are treated as indications of what will be experienced under different conditions.

429 Let us make one effort more to clear up these points. Suppose it is a question of knowledge of water. The thing to be known does not present itself primarily as a matter of knowledge-and-ignorance at all. 430 It occurs as a stimulus to action and as the source of certain undergoings. It is something to react to:-- 431 to drink, to wash with, to put out fire with, and also something that reacts unexpectedly to our reactions, that makes us undergo disease, suffocation,

drowning. 432 In this twofold way, water or anything else enters into experience. Such presence in experience has of itself nothing to do with knowledge or consciousness; 433 nothing that is in the sense of depending upon them, though it has everything to do with knowledge and consciousness in the sense that the latter depends upon prior experience of this non-cognitive sort. 434 Human's experience is what it is because your response to things (even successful response) and the reactions of things to your life, are so radically different from knowledge. 435 The difficulties and tragedies of life, the stimuli to acquiring knowledge, lie in the radical disparity of presence-in-experience and presence-in-knowing. 436 Yet the immense importance of knowledge experience, the fact that turning presence-in-experience over into presence-in-a-knowledge-

experience is the sole mode of control of Nature, 437 has systematically hypnotised European philosophy since the time of Socrates into thinking that all experiencing is a mode of knowing, if not good knowledge, then a low-grade or confused or implicit knowledge.

438 When water is an adequate stimulus to action or when its reactions oppress and overwhelm us, it remains outside the scope of knowledge. 439 When, however, the bare presence of the thing (say, as optical stimulus) ceases to operate directly as stimulus to response 440 and begins to operate in connection with a forecast of the consequences it will effect when responded to, 441 it begins to acquire meaning-- to be known, to be an object. 442 It is noted as something which is wet, fluid, satisfies thirst, allays uneasiness, etc. 443 The conception that we begin with a known visual quality which is thereafter enlarged by adding on qualities apprehended by the other senses does not rest upon experience; 444 it rests upon making experience conform to the notion that every experience 'must' be a cognitive noting. 445 As long as the visual stimulus operates as a stimulus on its own account, there is no apprehension, no noting, of colour or light at all. 446 To much the greater portion of sensory

stimuli we react in precisely this wholly non-cognitive way. 447 In the attitude of suspended response in which consequences are anticipated, the direct stimulus becomes a sign or index of something else-- 448 and thus matter of noting or apprehension or acquaintance, or whatever term may be employed. 449 This difference (together, of course, with the consequences which go with it) is the difference which the natural event of knowing makes to the natural event of direct organic stimulation. 450 It is no change of a reality into an unreality, of an object into something subjective; it is no secret, illicit, or epistemological transformation; 451 it is a genuine acquisition of new and distinctive features through entering into relations with things with which it was not formerly connected-- namely, possible and future things.

452 But, replies some one so obsessed with the epistemological point of view that you assumes that the prior account is a rival epistemology in disguise, all this involves no change in Reality, no difference made to Reality. 453 Water was all the time all the things it is ever found out to be. Its real nature has not been altered by knowing it; any such alteration means a mis-knowing. 454 In reply let it be said,-- once more and finally,-- there is no assertion or implication about 'the' real object or 'the' real world or 'the' reality. 455 Such an assumption goes with that epistemological universe of discourse which has to be abandoned in an empirical universe of discourse. 456 The change is of 'a' real object. An incident of the world operating as a physiologically direct stimulus is assuredly a reality. 457 Responded to, it produces specific consequences in virtue of the response. 458 Water is not drunk unless somebody drinks it; it does not quench thirst unless a thirsty person drinks it-- and so on. 459 Consequences occur whether one is aware of them or not; they are integral facts in experience. 460 But let one of these consequences be anticipated and let it, as anticipated, become an indispensable element in the stimulus, and then there is a known object. 461 It is not that

knowing 'produces' a change, but that it 'is' a change of the specific kind described. 462 A serial process, the successive portions of which are as such incapable of simultaneous occurrence, is telescoped and condensed into an object, 463 a unified inter-reference of contemporaneous properties, most of which express potentialities rather than completed data.

464 Because of this change, an 'object' possesses truth or error (which the physical occurrence as such never has); 465 it is classifiable as fact or fantasy; it is of a sort or kind, expresses an essence or nature, possesses implications, etc., etc. 466 That is to say, it is marked by specifiable 'logical' traits not found in physical occurrences as such. 467 Because objective idealisms have seized upon these traits as constituting the very essence of Reality is no reason for proclaiming that they are ready-made features of physical happenings, 468 and hence for maintaining that knowing is nothing but an appearance of things on a stage for which "consciousness" supplies the footlights. 469 For only the epistemological predicament leads to "presentations" being regarded as cognitions of things which were previously unpresented. 470 In any empirical situation of everyday life or of science, knowledge signifies something stated or inferred of another thing. 471 Visible water is not a more less erroneous presentation of H_2O, but H_2O is a knowledge about the thing we see, drink, wash with, sail on, and use for power.

472 A further point and the present phase of discussion terminates. 473 Treating knowledge as a presentative relation between the knower and object makes it necessary to regard the mechanism of 'presentation' as constituting the act of knowing. 474 Since things may be presented in sense-perception, in recollection, in imagination and in conception, and since the mechanism in every one of these four styles of presentation is sensory-cerebral, the problem of knowing becomes a mind-body problem. 475 The psychological, or physiological, mechanism of presentation involved in seeing a chair, remembering what I ate

yesterday for luncheon, imagining the moon the size of a cart wheel, 476 conceiving a mathematical continuum is identified with the operation of knowing. 477 The evil consequences are twofold. The problem of the relation of mind and body has become a part of the problem of the possibility of knowledge in general, to the further complication of a matter already hopelessly constrained. 478 Meantime the actual process of knowing, namely, operations of controlled observation, inference, reasoning, and testing, the only process with 'intellectual' import, is dismissed as irrelevant to the theory of knowing. 479 The methods of knowing practised in daily life and science are excluded from consideration in the philosophical theory of knowing. 480 Hence the constructions of the latter become more and more elabourately artificial because there is no definite check upon them. 481 It would be easy to quote from epistemological writers statements to the effect that these processes (which supply the only empirically verifiable facts of knowing) are 'merely' inductive in character, or even that they are of purely psychological significance. 482 It would be difficult to find a more complete inversion of the facts than in the latter statement, since presentation constitutes in fact the psychological affair. 483 A confusion of logic with physiological physiology has bred hybrid epistemology, 484 with the amazing result that the technique of effective inquiry is rendered irrelevant to the theory of knowing, 485 and those physical events involved in the occurrence of data for knowing are treated as if they constituted the act of knowing.

V

486 What are the bearings of our discussion upon the conception of the present scope and office of philosophy? What do our conclusions indicate and demand with reference to philosophy itself? 487 For the philosophy which reaches such conclusions regarding knowledge and mind must apply them, sincerely and whole-heartedly, to its idea of its own nature. For philosophy claims to be one form or mode of

knowing. 488 If, then, the conclusion is reached that knowing is a way of employing empirical occurrences with respect to increasing power to direct the consequences which flow from things, the application of the conclusion must be made to philosophy itself. 489 It, too, becomes not a contemplative survey of existence nor an analysis of what is past and done with, but an outlook upon future possibilities with reference to attaining the better and averting the worse. 490 Philosophy must take, with good grace, its own medicine.

491 It is easier to state the negative results of the changed idea of philosophy than the positive ones. 492 The point that occurs to mind most readily is that philosophy will have to surrender all pretension to be peculiarly concerned with ultimate reality, or with reality as a complete (i.e., completed) whole: with 'the' real object. The surrender is not easy of achievement. 493 The philosophic tradition that comes to us from classic Greek thought and that was reinforced by Christian philosophy in the Middle Ages discriminates philosophical knowing from other modes of knowing by means of an alleged peculiarly intimate concern with supreme, ultimate, true reality. 494 To deny this trait to philosophy seems to many to be the suicide of philosophy; to be a systematic adoption of scepticism or agnostic positivism.

495 The pervasiveness of the tradition is shown in the fact that so vitally a contemporary thinker as Bergson, who finds a philosophic revolution involved in abandonment of the traditional identification of the truly real with the fixed (an identification inherited from Greek thought), 496 does not find it in his heart to abandon the counterpart identification of philosophy with search for the truly Real; 497 and hence finds it necessary to substitute an ultimate and absolute flux for an ultimate and absolute permanence. 498 Thus his great empirical services in calling attention to the fundamental importance of considerations of time for problems of life and mind get compromised with a mystic, non-empirical "Intuition"; 499 and

we find him preoccupied with solving, by means of his new idea of ultimate reality, the traditional problems of realities-in-themselves and phenomena, matter and mind, free-will and determinism, God and the world. 500 Is not that another evidence of the influence of the classic idea about philosophy?

501 Even the new realists are not content to take their realism as a plea for approaching subject-matter directly instead of through the intervention of epistemological apparatus; 502 they find it necessary first to determine the status of 'the' real object. Thus they too become entangled in the problem of the possibility of error, dreams, hallucinations, etc., in short, the problem of evil. 503 For I take it that an uncorrupted realism would accept such things as real events, and find in them no other problems than those attending the consideration of any real occurrence-- namely, problems of structure, origin, and operation.

504 It is often said that pragmatism, unless it is content to be a contribution to mere methodology, must develop a theory of Reality. 505 But the chief characteristic trait of the pragmatic notion of reality is precisely that no theory of Reality in general, 'überhaupt', is possible or needed. 506 It occupies the position of an emancipated empiricism or a thoroughgoing naïve realism. 507 It finds that "reality" is a 'denotative' term, a word used to designate indifferently everything that happens. 508 Lies, dreams, insanities, deceptions, myths, theories are all of them just the events which they specifically are. 509 Pragmatism is content to take its stand with science; for science finds all such events to be subject-matter of description and inquiry-- just like stars and fossils, mosquitoes and malaria, circulation and vision. 510 It also takes its stand with daily life, which finds that such things really have to be reckoned with as they occur interwoven in the texture of events.

511 The only way in which the term reality can ever become more than a blanket denotative term is through recourse to specific events in all their diversity and thatness.

512 Speaking summarily, I find that the retention by philosophy of the notion of a Reality feudally superior to the events of everyday occurrence is the chief source of the increasing isolation of philosophy from common sense and science. For the latter do not operate in any such region. 513 As with them of old, philosophy in dealing with real difficulties finds itself still hampered by reference to realities more real, more ultimate, than those which directly happen.

514 I have said that identifying the cause of philosophy with the notion of superior reality is the cause of an 'increasing' isolation from science and practical life. 515 The phrase reminds us that there was a time when the enterprise of science and the moral interests of humans both moved in a universe invidiously distinguished from that of ordinary occurrence. 516 While all that happens is equally real--since it really happens--happenings are not of equal worth. Their respective consequences, their import, varies tremendously. 517 Counterfeit money, although real (or rather 'because' real), is really different from valid circulatory medium, just as disease is really different from health; different in specific structure and so different in consequences. 518 In occidental thought, the Greeks were the first to draw the distinction between the genuine and the spurious in a generalised fashion and to formulate and enforce its tremendous significance for the conduct of life. 519 But since they had at command no technique of experimental analysis and no adequate technique of mathematical analysis, 520 they were compelled to treat the difference of the true and the false, the dependable and the deceptive, as signifying two kinds of existence, the truly real and the apparently real.

521 Two points can hardly be asserted with too much emphasis. 522 The Greeks were wholly right in the feeling that questions of good and ill, as far as they fall within human control, are bound up with discrimination of the genuine from the spurious, of "being" from what only pretends to be. 523 But because they lacked adequate instrumentalities for

coping with this difference in specific situations, they were forced to treat the difference as a wholesale and rigid one. 524 Science was concerned with vision of ultimate and true reality; opinion was concerned with getting along with apparent realities. 525 Each had its appropriate region permanently marked off. Matters of opinion could never become matters of science; their intrinsic nature forbade. 526 When the practice of science went on under such conditions, science and philosophy were one and the same thing. Both had to do with ultimate reality in its rigid and insuperable difference from ordinary occurrences.

527 We have only to refer to the way in which medieval life wrought the philosophy of an ultimate and supreme reality into the context of practical life 528 to realise that for centuries political and moral interests were bound up with the distinction between the absolutely real and the relatively real. 529 The difference was no matter of a remote technical philosophy, but one which controlled life from the cradle to the grave, from the grave to the endless life after death. 530 By means of a vast institution, which in effect was state as well as church, the claims of ultimate reality were enforced; means of access to it were provided. 531 Acknowledgment of The Reality brought security in this world and salvation in the next. 532 It is not necessary to report the story of the change which has since taken place. It is enough for our purposes to note that none of the modern philosophies of a superior reality, or 'the' real object, idealistic or realistic, 533 holds that its insight makes a difference like that between sin and holiness, eternal condemnation and eternal bliss. While in its own context the philosophy of ultimate reality entered into the vital concerns of humans, 534 it now tends to be an ingenious dialectic exercised in professorial corners by a few who have retained ancient premises while rejecting their application to the conduct of life.

535 The increased isolation from science of any philosophy identified with the problem of 'the' real is equally marked. 536 For the

growth of science has consisted precisely in the invention of an equipment, a technique of appliances and procedures, 537 which, accepting all occurrences as homogeneously real, proceeds to distinguish the authenticated from the spurious, the true from the false, by specific modes of treatment in specific situations. 538 The procedures of the trained engineer, of the competent physician, of the labouratory expert, have turned out to be the only ways of discriminating the counterfeit from the valid. 539 And they have revealed that the difference is not one of antecedent fixity of existence, but one of mode of treatment and of the consequences thereon attendant. 540 After humankind has learned to put its trust in specific procedures in order to make its discriminations between the false and the true, philosophy arrogates to itself the enforcement of the distinction at its own cost.

541 More than once, this essay has intimated that the counterpart of the idea of invidiously real reality is the spectator notion of knowledge. 542 If the knower, however defined, is set over against the world to be known, knowing consists in possessing a transcript, more or less accurate but otiose, of real things. 543 Whether this transcript is presentative in character (as realists say) or whether it is by means of states of consciousness which represent things (as subjectivists say), is a matter of great importance in its own context. 544 But, in another regard, this difference is negligible in comparison with the point in which both agree. Knowing is viewing from outside. 545 But if it be true that the self or subject of experience is part and parcel of the course of events, it follows that the self 'becomes' a knower. It becomes a mind in virtue of a distinctive way of partaking in the course of events. 546 The significant distinction is no longer between the knower 'and' the world; it is between different ways of being in and of the movement of things; between a brute physical way and a purposive, intelligent way.

547 There is no call to repeat in detail the statements which have

been advanced. Their net purport is that the directive presence of future possibilities in dealing with existent conditions is what is meant by knowing; 548 that the self becomes a knower or mind when anticipation of future consequences operates as its stimulus. 549 What we are now concerned with is the effect of this conception upon the nature of philosophic knowing.

550 As far as I can judge, popular response to pragmatic philosophy was moved by two quite different considerations. 551 By some it was thought to provide a new species of sanctions, a new mode of apologetics, for certain religious ideas whose standing had been threatened. 552 By others, it was welcomed because it was taken as a sign that philosophy was about to surrender its otiose and speculative remoteness; 553 that philosophers were beginning to recognise that philosophy is of account only if, like everyday knowing and like science, it affords guidance to action and thereby makes a difference in the event. 554 It was welcomed as a sign that philosophers were willing to have the worth of their philosophising measured by responsible tests.

555 I have not seen this point of view emphasised, or hardly recognised, by professional critics. The difference of attitude can probably be easily explained. 556 The epistemological universe of discourse is so highly technical that only those who have been trained in the history of thought think in terms of it. 557 It did not occur, accordingly, to non-technical readers to interpret the doctrine that the meaning and validity of thought are fixed by differences made in consequences and in satisfactoriness, to mean consequences in personal feelings. 558 Those who were professionally trained, however, took the statement to mean that consciousness or mind in the mere act of looking at things modifies them. 559 It understood the doctrine of test of validity by consequences to mean that apprehensions and conceptions are true if the modifications affected by them were of an emotionally desirable tone.

560 Prior discussion should have made it reasonably clear that the source of this misunderstanding lies in the neglect of temporal considerations. 561 The change made in things by the self in knowing is not immediate and, so to say, cross-sectional. It is longitudinal-- in the redirection given to changes already going on. 562 Its analogue is found in the changes which take place in the development of, say, iron ore into a watch-spring, not in those of the miracle of transubstantiation. 563 For the static, cross-sectional, non-temporal relation of subject and object, the pragmatic hypothesis substitutes apprehension of a thing in terms of the results in other things which it is tending to effect. 564 For the unique epistemological relation, it substitutes a practical relation of a familiar type:-- responsive behaviour which changes in time the subject-matter to which it applies. 565 The unique thing about the responsive behaviour which constitutes knowing is the specific difference which marks it off from other modes of response, namely, the part played in it by anticipation and prediction. 566 Knowing is the act, stimulated by this foresight, of securing and averting consequences. 567 The success of the achievement measures the standing of the foresight by which response is directed. 568 The popular impression that pragmatic philosophy means that philosophy shall develop ideas relevant to the actual crises of life, ideas influential in dealing with them and tested by the assistance they afford, is correct.

569 Reference to practical response suggests, however, another misapprehension. Many critics have jumped at the obvious association of the word pragmatic with practical. 570 They have assumed that the intent is to limit all knowledge, philosophic included, to promoting "action," 571 understanding by action either just any bodily movement, or those bodily movements which conduce to the preservation and grosser well-being of the body. 572 James' statement, that general conceptions must "cash in" has been taken (especially by European critics) to mean that the end and measure of intelligence

lies in the narrow and coarse utilities which it produces. 573 Even an acute American thinker, after first criticising pragmatism as a kind of idealistic epistemology, goes on to treat it as a doctrine which regards intelligence as a lubricating oil facilitating the workings of the body.

574 One source of the misunderstanding is suggested by the fact that "cashing in" to James meant that a general idea must always be capable of verification in specific existential cases. 575 The notion of "cashing in" says nothing about the breadth or depth of the specific consequences. 576 As an empirical doctrine, it could not say anything about them in general; the specific cases must speak for themselves. 577 If one conception is verified in terms of eating beefsteak, and another in terms of a favourable credit balance in the bank, that is not because of anything in the theory, but because of the specific nature of the conceptions in question, and because there exist particular events like hunger and trade. 578 If there are also existences in which the most liberal esthetic ideas and the most generous moral conceptions can be verified by specific embodiment, assuredly so much the better. 579 The fact that a strictly empirical philosophy was taken by so many critics to imply an 'a priori' dogma about the kind of consequences capable of existence is evidence, 580 I think, of the inability of many philosophers to think in concretely empirical terms. 581 Since the critics were themselves accustomed to get results by manipulating the concepts of "consequences" and of "practice," they assumed that even a would-be empiricist must be doing the same sort of thing. 582 It will, I suppose, remain for a long time incredible to some that a philosopher should really intend to go to specific experiences to determine of what scope and depth practice admits, and what sort of consequences the world permits to come into being. 583 Concepts are so clear; it takes so little time to develop their implications; experiences are so confused, and it requires so much time and energy to lay hold of them. 584 And yet these same critics charge pragmatism with

adopting subjective and emotional standards!

585 As a matter of fact, the pragmatic theory of intelligence means that the function of mind is to project new and more complex ends-- to free experience from routine and from caprice. 586 Not the use of thought to accomplish purposes already given either in the mechanism of the body or in that of the existent state of society, but the use of intelligence to liberate and liberalise action, is the pragmatic lesson. 587 Action restricted to given and fixed ends may attain great technical efficiency; but efficiency is the only quality to which it can lay claim. 588 Such action is mechanical (or becomes so), no matter what the scope of the preformed end, be it the Will of God or 'Kultur'. 589 But the doctrine that intelligence develops within the sphere of action for the sake of possibilities not yet given is the opposite of a doctrine of mechanical efficiency. 590 Intelligence 'as' intelligence is inherently forward-looking; only by ignoring its primary function does it become a mere means for an end already given. 591 The latter 'is' servile, even when the end is labeled moral, religious, or esthetic. 592 But action directed to ends to which the agent has not previously been attached inevitably carries with it a quickened and enlarged spirit. 593 A pragmatic intelligence is a creative intelligence, not a routine mechanic.

594 All this may read like a defense of pragmatism by one concerned to make out for it the best case possible. Such is not, however, the intention. 595 The purpose is to indicate the extent to which intelligence frees action from a mechanically instrumental character. 596 Intelligence is, indeed, instrumental 'through' action to the determination of the qualities of future experience. 597 But the very fact that the concern of intelligence is with the future, with the as-yet-unrealised (and with the given and the established only as conditions of the realisation of possibilities), makes the action in which it takes effect generous and liberal; free of spirit. 598 Just that action which extends and approves intelligence has an

intrinsic value of its own in being instrumental:-- the intrinsic value of being informed with intelligence in behalf of the enrichment of life. 599 By the same stroke, intelligence becomes truly liberal: 600 knowing is a human undertaking, not an esthetic appreciation carried on by a refined class or a capitalistic possession of a few learned specialists, whether people of science or of philosophy.

601 More emphasis has been put upon what philosophy is not than upon what it may become. But it is not necessary, it is not even desirable, to set forth philosophy as a scheduled program. 602 There are human difficulties of an urgent, deep-seated kind which may be clarified by trained reflection, and whose solution may be forwarded by the careful development of hypotheses. 603 When it is understood that philosophic thinking is caught up in the actual course of events, having the office of guiding them towards a prosperous issue, problems will abundantly present themselves. 604 Philosophy will not solve these problems; philosophy is vision, imagination, reflection-- and these functions, apart from action, modify nothing and hence resolve nothing. 605 But in a complicated and perverse world, action which is not informed with vision, imagination, and reflection, is more likely to increase confusion and conflict than to straighten things out. 606 It is not easy for generous and sustained reflection to become a guiding and illuminating method in action. 607 Until it frees itself from identification with problems which are supposed to depend upon Reality as such, or its distinction from a world of Appearance, or its relation to a Knower as such, the hands of philosophy are tied. 608 Having no chance to link its fortunes with a responsible career by suggesting things to be tried, it cannot identify itself with questions which actually arise in the vicissitudes of life. 609 Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of humans.

INTELLIGENCE

610 Emphasis must vary with the stress and special impact of the troubles which perplex humans. Each age knows its own ills, and seeks its own remedies. 611 One does not have to forecast a particular program to note that the central need of any program at the present day is an adequate conception of the nature of intelligence and its place in action. 612 Philosophy cannot disavow responsibility for many misconceptions of the nature of intelligence which now hamper its efficacious operation. It has at least a negative task imposed upon it. 613 It must take away the burdens which it has laid upon the intelligence of the common person in struggling with own individual difficulties. 614 It must deny and eject that intelligence which is naught but a distant eye, registering in a remote and alien medium the spectacle of Nature and life. 615 To enforce the fact that the emergence of imagination and thought is relative to the connexion of the sufferings of humans with their doings is of itself to illuminate those sufferings and to instruct those doings. 616 To catch mind in its connexion with the entrance of the novel into the course of the world is to be on the road to see that intelligence is itself the most promising of all novelties, 617 the revelation of the meaning of that transformation of past into future which is the reality of every present. 618 To reveal intelligence as the organ for the guidance of this transformation, the sole director of its quality, is to make a declaration of present untold significance for action. 619 To elabourate these convictions of the connexion of intelligence with what humans undergo because of their doings and with the emergence and direction of the creative, the novel, in the world is of itself a program which will keep philosophers busy until something more worth while is forced upon them. 620 For the elabouration has to be made through application to all the disciplines which have an intimate connexion with human conduct:-- to logic, ethics, esthetics, economics, and the procedure of the sciences formal and natural.

621 I also believe that there is a genuine sense in which the

enforcement of the pivotal position of intelligence in the world and thereby in control of human fortunes (so far as they are manageable) is the peculiar problem in the problems of life which come home most closely to ourselves. 622 It is easy to be foolish about the connexion of thought with national life. But I do not see how any one can question the distinctively national colour of English, or French, or German philosophies. 623 And if of late the history of thought has come under the domination of the German dogma of an inner evolution of ideas, 624 it requires but a little inquiry to convince oneself that that dogma itself testifies to a particularly nationalistic need and origin. 625 I believe that philosophy in America will be lost between chewing a historic cud long since reduced to woody fiber, 626 or an apologetics for lost causes (lost to natural science), or a scholastic, schematic formalism, 627 unless it can somehow bring to consciousness America's own needs and its own implicit principle of successful action.

628 This need and principle, I am convinced, is the necessity of a deliberate control of policies by the method of intelligence, 629 an intelligence which is not the faculty of intellect honoured in text-books and neglected elsewhere, 630 but which is the sum-total of impulses, habits, emotions, records, and discoveries which forecast what is desirable and undesirable in future possibilities, and which contrive ingeniously in behalf of imagined good. 631 Our life has no background of sanctified categories upon which we may fall back; we rely upon precedent as authority only to our own undoing-- 632 for with us there is such a continuously novel situation that final reliance upon precedent entails some class interest guiding us by the nose whither it will. 633 British empiricism, with its appeal to what has been in the past, is, after all, only a kind of 'a priorism'. 634 For it lays down a fixed rule for future intelligence to follow; and only the immersion of philosophy in technical learning prevents our

seeing that this is the essence of 'a priorism'.

635 We pride ourselves upon being realistic, desiring a hardheaded cognisance of facts, and devoted to mastering the means of life. 636 We pride ourselves upon a practical idealism, a lively and easily moved faith in possibilities as yet unrealised, in willingness to make sacrifice for their realisation. 637 Idealism easily becomes a sanction of waste and carefulness, and realism a sanction of legal formalism in behalf of things as they are-- the rights of the possessor. 638 We thus tend to combine a loose and ineffective optimism with assent to the doctrine of take who take can: a deification of power. 639 All peoples at all times have been narrowly realistic in practice and have then employed idealisation to cover up in sentiment and theory their brutalities. 640 But never, perhaps, has the tendency been so dangerous and so tempting as with ourselves. 641 Faith in the power of intelligence to imagine a future which is the projection of the desirable in the present, and to invent the instrumentalities of its realisation, is our salvation. 642 And it is a faith which must be nurtured and made articulate: surely a sufficiently large task for our philosophy.

REFORMATION OF LOGIC

Addison W. Moore

I

2 In a general survey of the development of logical theory one is struck by the similarity, not to say identity, of the indictments which reformers, since the days of Aristotle, have brought against it. 2 The most fundamental of these charges are: first, that the theory of logic has left it formal and with little significance for the advancement of science and the conduct of society; 3 second, that it has great difficulty in avoiding the predicament of logical operations that are merely laboured reproductions of non-logical activities and therefore tautologous and trifling, 4 or of logical operations that are so far removed from immediate, non-logical experience that they are irrelevant; 5 third, that logical

theory has had trouble in finding room in its own household for both truth and error; each crowds out the other.

6 The identity of these indictments regardless of the general philosophical faith, empiricism, or rationalism, realism, or idealism to which the reformer or the logic to be reformed has belonged, 7 suggests that whatever the differences in the doctrines of these various philosophic traditions, they possess a common ground from which these common difficulties spring.

8 It is the conviction of a number who are at present attempting to rid logic of these ancient disabilities that their common source is to be found in a lack of continuity 9 between the acts of intelligence (or to avoid the dangers of hypostasis, intelligent acts) and other acts; between logical conduct and other conduct. 10 So wide, indeed, is this breach, that often little remains of the act of knowing but the name. 11 It may still be called an act, but it has no describable instruments nor technique of operation. It is an indefinable and often mystical performance of which only the results can be stated. 12 In recent logical discussion this techniqueless act of knowing has been properly enough transformed into an indefinable "external relation" in which an entity called a knower stands to another entity called the known.

13 For many centuries this breach between the operations of intelligence and other operations has been closed by various metaphysical devices 14 with the result that logic has been a hybrid science,-- half logic, half metaphysics and epistemology. 15 So great has been the momentum of the metaphysical tradition that long after we have begun to discover the connection between logical and non-logical operations its methods remain to plague us. 16 Efforts to heal the breach without a direct appeal to metaphysical agencies have been made by attempting a complete logicising of all operations. 17 But besides requiring additional metaphysics to effect it, the procedure is as fatal to continuity as is an impassable disjunction. 18 Continuity demands distinction as

well as connection. It requires the development, the 'growth' of old material and functions into new forms.

19 Driven by the difficulties of this complete logicisation, which are as serious as those of isolation, logical theory was obliged to reinstate some sort of distinction. 20 This it did by resorting to the categories of "explicit" and "implicit." 21 All so-called non-logical operations were regarded as "implicitly" logical. And, paradoxically, logical operations had for their task the transformation of the implicit into the explicit.

22 An adequate account of the origin and continuance of this isolation of the conduct of intelligence from other conduct is too long a story to be told here. 23 Suffice it to recall that in the society in which the distinction between immediate and reflective experience, between opinion and science, between percepts and universals was first made, 24 intelligence was largely the possession of a special and privileged class removed in great measure from hand-to-hand contact with Nature and with much of society. 25 Because it did not fully participate in the operations of Nature and society, intelligence could not become fully domesticated, i.e., fully naturalised and socialised in its world. It was a charmed spectator of the cosmic and social drama. 26 Doubtless when Greek intelligence discovered the distinction between immediate and reflective experience-- possibly the most momentous discovery in history-- "the world," as Kant says of the speculations of Thales, "must suddenly have appeared in a new light." 27 But not recognising the full significance of this discovery, ideas, universals, became but a wondrous spectacle for the eye of reason. 28 They brought, to be sure, blessed relief from the bewildering and baffling flux of perception. But it was the relief of sanctuary, not of victory.

29 That the brilliant speculations of Greek intelligence were barren because there was no technique for testing and applying them in detail is an old story. 30 But it is merely a restatement, not a solution, of the pertinent question. This is: why

did not Greek intelligence develop such a technique? 31 The answer lies in the fact that the technique of intelligence is to be found precisely in the details of the operations of Nature and of human conduct from which an aristocratic intelligence is always in large measure shut off. 32 Intelligence cannot operate fruitfully in a vacuum. It must be incarnate. It must, as Hegel said, have "hands and feet." 33 When we turn to the history of modern science the one thing that stands out is that it was not until the point was reached where intelligence was ready (continuing the Hegelian figure) to thrust its hands into the vitals of Nature and society that it began to acquire a real control over its operations.

34 In default of such controlling technique there was nothing to be done with this newly found instrument of intelligence-- the universal-- but to retain it as an object of contemplation and of worshipful adoration. 35 This involved, of course, its hypostasis as the metaphysical reality of supreme importance. With this, the only difference between "opinion" and "science" became one of the kind of objects known. 36 That universals were known by reason and particulars by sense was of little more logical significance than that sounds are known by the ear and smells by the nose. 37 Particulars and universals were equally given. If the latter required some abstraction this was regarded as merely auxiliary to the immediate vision, as sniffing is to the perception of odour. 38 That universals should or could be conceived as experimental, as hypotheses, was, when translated into later theology, the sin against the Holy Ghost.

39 However, the fact that the particulars in the world of opinion were the stimuli to the "recollection" of universals and that the latter in turn were the patterns, 40 the forms, for the particulars, opened the way in actual practice for the exercise of a great deal of the controlling function of the universals. 41 But the failure to recognise this control value of the universal as fundamental, made it necessary for the universal to exercise its function surreptitiously, in the

disguise of a pattern and in the clumsy garb of imitation and participation.

42 With perceptions, desires, and impulses relegated to the world of opinion and shadows, and with the newly discovered instrument of knowledge turned into an object, 43 the knower was stripped of all your knowing apparatus and was left an empty, scuttled entity definable and describable only as "a knower." 44 The knower must know, even if you had nothing to know with. Hence the mystical almost indefinable character of the knowing act or relation. 45 I say "almost indefinable"; for as an act it had, of course, to have some sort of conceptualised form. And this form vision naturally furnished. 46 "Naturally," because intelligence was so largely contemplative, and vision so largely immediate, unanalysed, and diaphanous. 47 There was, to be sure, the concept of effluxes. But this was a statement of the fact of vision in terms of its results, not of the process itself. 48 Thus it was that the whole terminology of knowing which we still use was moulded and fixed upon a very crude conception of one of the constituents of its process. 49 There can be no doubt that this terminology has added much to the inertia against which the advance of logical theory has worked. 50 It would be interesting to see what would be the effect upon logical theory of the substitution of an auditory or olfactory terminology for visual; 51 or of a visual terminology revised to agree with modern scientific analysis of the 'act' of vision as determined by its connections with other functions.

52 With the act of knowing stripped of its technique and left a bare, unique, indescribable act or relation, the foundations for epistemological and metaphysical logic were laid. 53 That Greek logic escaped the ravages of epistemology was due to the saving materialism in its metaphysical conception of mind and to the steadfastness of the aristocratic régime. 54 But when medieval theology and Cartesian metaphysics had destroyed the last remnant of metaphysical connection between the knowing mind and Nature, 55 and when revolutions had torn the individual

from your social moorings, the stage for epistemological logic was fully set. 56 I do not mean to identify the epistemological situation with the Cartesian disjunction. That disjunction was but the metaphysical expression of the one which constitutes the real foundation of epistemology-- 57 the disjunction, namely, between the act of knowing and other acts.

58 From this point logic has followed one of two general courses. It has sought continuity by attempting to reduce non-logical things and operations to terms of logical operations, i.e., to sensations or universals or both; 59 or it has attempted to exclude entirely the act of knowing from logic and to transfer logical distinctions and operations, and even the attributes of truth and error to objects 60 which, significantly enough, are still composed of these same hypostatised logical processes. 61 The first course results in an epistemological logic of some form of the idealistic tradition, rationalism, sensationalism, or transcendentalism, depending upon whether universals, or sensations, or a combination of both, is made fundamental in the constitution of the object. 62 The second course yields an epistemological logic of the realistic type,-- again, sensational or rationalistic (mathematical), or a combination of the two-- a sort of realistic transcendentalism. 63 Each type has essentially the same difficulties with the processes of inference, with the problem of change, with truth and error, and, on the ethical side, with good and evil.

64 With the processes of knowing converted into objects, and with the act of knowing reduced to a unique and external relation between the despoiled knower and the objects made from its own hypostatised processes, all knowing becomes in the end immediate. 65 All attempts at an inference that is anything more than an elabourated and often confused restatement of non-logical operations break down. 66 The associational inference of empiricism, the subsumptive inference of rationalism, the transcendental inference of objective idealism, the analytical

inference of neo-realism-- all alike face the dilemma of an inference that is trifling or miraculous, tautologous or false. 67 Where the knower and its object are so constituted that the only relation in which the latter can stand to the former is that of presence or absence, 68 and if to be present is to be known, how, as Plato asked, can there be any false knowing?

69 For those who accept the foregoing general diagnosis the prescription is obvious. 70 The present task of logical theory is the restoration of the continuity of the act and agent of knowing with other acts and agents. 71 But this is not to be done by merely furnishing the act of knowing with a body and a nervous system. If the nervous system be regarded as only an onlooking, beholding nervous system, 72 if no connection be made between the logical operations of a nervous system and its other operations, a nervous system has no logical advantage over a purely psychical mind.

73 It was to be expected that this movement toward restoration of continuity made in the name of "instrumental" or "experimental" logic would be regarded, alike, 74 by the logics of rationalism and empiricism, of idealism and of realism, as an attempt to rob intelligence of its own unique and proper character; 75 to reduce it to a merely "psychological" and "existential" affair; to leave no place for genuine intellectual interest and activity; and to make science a series of more or less respectable adventures. 76 The counter thesis is, that this restoration is truly a restoration-- not a despoliation of the character and rights of intelligence; 77 that only such a restoration can preserve the unique function of intelligence, can prevent it from becoming merely "existential," and can provide a distinct place for intellectual and scientific interest and activity. 78 It does not, however, promise to remove the stigma of "adventure" from science. Every experiment is an adventure; 79 and it is precisely the experimental character of scientific logic that distinguishes it from scholasticism, medieval or modern.

II

80 First it is clear that a reform of logic based upon the restoration of knowing to its connections with other acts will begin with a chapter containing an account of these other operations and the general character of this connection. 81 Logical theory has been truncated. It has tried to begin and end in the middle, with the result that it has ended in the air. 82 Logic presents the curious anachronism of a science which attempts to deal with its subject-matter apart from what it comes from and what comes from it.

83 The objection that such a chapter on the conditions and genesis of the operations of knowing belongs to psychology, only shows how firmly fixed is the discontinuity we are trying to escape. 84 As we have seen, the original motive for leaving this account of the Bible book of Genesis to psychology was that the act of knowing was supposed to originate in a purely psychical mind. 85 Such an origin was of course embarrassing to logic, which aimed to be scientific. 86 The old opposition between origin and validity was due to the kind of origin assumed and the kind of validity necessitated by the origin. 87 One may well be excused for evading the question of how ideas, originated in a purely psychical mind, can, in Kant's phrase, "have objective validity," by throwing out the question of origin altogether. 88 Whatever difficulties remain for validity after this expulsion could not be greater than those of the task of combining the objective validity of ideas with their subjective origin.

89 The whole of this chapter on the connection between logical and non-logical operations cannot be written here. But its central point would be that these other acts with which the act of knowing must have continuity are just the operations of our unreflective conduct. 90 Note that it is "unreflective," not "unconscious," nor yet merely "instinctive" conduct. It is our perceptive, remembering, imagining, desiring, loving, hating conduct. 91 Note also that we do not say "psychical" or "physical," nor "psycho-physical" conduct. These terms stand for certain distinctions in

logical conduct, 92 and we are here concerned with the character of non-logical conduct which is to be distinguished from, and yet kept in closest continuity with, logical conduct.

93 If, here, the metaphysical logician should ask: "Are you not in this assumption of a world of reflective and unreflective conduct and affection, and of a world of beings in interaction, begging a whole system of metaphysics?" 94 the reply is that if it is a metaphysics bad for logic, it will keep turning up in the course of logical theory as a constant source of trouble. 95 On the other hand, if logic encounters grave difficulties when it attempts to get on without it, its assumption, for the purposes of logic, has all the justification possible.

96 Again it will be urged that this alleged non-logical conduct, in so far as it involves perception, memory, and anticipation, is already cognitive and logical; 97 or if the act of knowing is to be entirely excluded from logic, then, in so far as what is left involves objective "terms and relations," it, also, is already logical. 98 And it may be thought strange that a logic based upon the restoration of continuity between the act of knowing and other acts should here be insisting on distinction and separation. 99 The point is fundamental; and must be disposed of before we go on. First, we must observe that the unity secured by making all conscious conduct logical turns out, on examination, to be more nominal than real. 100 As we have already seen, this attempt at a complete logicising of all conduct is forced at once to introduce the distinction of "explicit" and "implicit," of "conscious and unconscious" or "subconscious" logic. 101 Some cynics have found that this suggests dividing triangles into explicit and implicit triangles, or into triangles and sub-triangles.

102 Doubtless the attempt to make all perceptions, memories, and anticipations, and even instincts and habits, into implicit or subconscious inference is an awkward effort to restore the continuity of logical and non-logical conduct. 103 Its awkwardness consists in attempting to secure this

continuity by the method of subsumptive identity, instead of finding it in a transitive continuity of function;-- 104 instead of seeing that perception, memory, and anticipation 'become' logical processes when they are employed in a process of inquiry, 105 whose purpose is to relieve the difficulties into which these operations in their function as direct stimuli have fallen. 106 Logical conduct is constituted by the coöperation of these processes for the improvement of their further operation. 107 To regard perception, memory, and imagination as implicit forms or as sub-species of logical operation is much like conceiving the movements of our fingers and arms as implicit or imperfect species of painting, or swimming.

108 Moreover, this doctrine of universal logicism teaches that when that which is perfect is come, imperfection shall be done away. 109 This should mean that when painting becomes completely "explicit" and perfect, fingers and hands shall disappear. Perfect painting will be the pure essence of painting. 110 And this interpretation is not strained; for this logic expressly teaches that in the perfected real system all temporal elements are unessential to logical operations. 111 They are, of course, 'psychologically' necessary for finite beings, who can never have perfectly logical experiences. 112 But, from the standpoint of a completely logicised experience, all finite, temporal processes are accidents, not essentials, of logical operations.

113 The fact that the processes of perception, memory, and anticipation are transformed in their logical operation into sensations and universals, terms, and relations, and, as such, become the subject-matter of logical theory, 114 does not mean that they have lost their mediating character, and have become merely objects of logical contemplation at large. 115 Sensations or sense-data, and ideas, terms and relations, are the subject-matter of logical theory for the reason that they sometimes succeed and sometimes fail in their logical operations. 116 And it is the business of logical theory to

diagnose the conditions of this success and failure. 117 If, in writing, my pen becomes defective and is made an object of inquiry, it does not therefore lose all its character as a pen and become merely an object at large. It is 'as' an instrument of writing that it is investigated. 118 So, sense-data, universals, terms, and relations as subject-matter of logic are investigated in their character 'as' mediators of the ambiguities and conflicts, of non-logical experience.

119 If the operations of habit, instinct, perceptions, memory, and anticipation 'become' logical, when, instead of operating as direct stimuli, they are employed in a process of inquiry, we must next ask: 120 (1) under what conditions do they pass over into this process of inquiry? (2) what modifications of operation do they undergo, what new forms do they take, and what new results do they produce in their logical operations?

121 If the act of inquiry be not superimposed, it must arise out of some specific condition in the course of non-logical conduct. 122 Once more, if the alarm be sounded at this proposal to find the origin of logical in non-logical operations it must be summarily answered by asking if the one who raises the cry finds it impossible to imagine that one who is not hungry, or angry, or patriotic, or wise may become so. 123 Non-logical conduct is not the abstract formal contradictory of logical conduct any more than present satiety or foolishness is the contradictory of later hunger or wisdom, 124 or than anger at one person contradicts cordiality to another, or to the same person, later. 125 The old bogie of the logical irrelevance of origin was due to the inability to conceive continuity except in the form of identity in which there was no place for the notion of 'growth'.

126 The conditions under which non-logical conduct 'becomes' logical are familiar to those who have followed the doctrines of experimental logic as expounded in the discussions of the past few years. 127 The transformation begins at the point where non-logical processes instead of operating as direct unambiguous

stimuli and response become ambiguous with consequent inhibition of conduct. 128 But again this does not mean that at this juncture the non-logical processes quit the field and give place to a totally new faculty and process called reason. They stay on the job. 129 But there is a change in the job, which now is to get rid of this ambiguity. This modification of the task requires, of course, corresponding modification and adaptation of these operations. 130 They take on the form of sensations and universals, terms and relations, data and hypotheses. This modification of function and form constitutes "reason" or, better, reasoning.

131 Here some one will ask, "Whence comes this ambiguity? How can a mere perception or memory as such be ambiguous? Must it not be ambiguous to, or for, something, or some one?" 132 The point is well taken. But it should not be taken to imply that the ambiguity is for a merely onlooking, beholding psychical mind-- especially when the perception is itself regarded as an act of beholding. 133 Nor are we any better off if we suppose the beholding mind to be equipped with a faculty of reason in the form of the principle of "contradiction." For this throws no light on the origin and meaning of ambiguity. 134 And if we seek to make all perceptions as such ambiguous and contradictory, in order to make room for, and justify, the operations of reason, other difficulties at once beset us. 135 When we attempt to remove this specific ambiguity of perceptive conduct we shall be forced, before we are through, to appeal back to perception, which we have condemned as inherently contradictory, both for data and for verification.

136 However, the insistence that perception must be ambiguous to, or for, something beyond itself is well grounded. And this was recognised in the statement that it is equivocal as a stimulus in conduct. 137 There need be no mystery as to how such equivocation arises. That there is such a thing as a conduct at all means that there are certain beings who have acquired definite ways

of responding to one another. 138 It is important to observe that these forms of interaction-- instinct and habit, perception, memory, etc.-- are not to be located in either of the interacting beings but are functions of both. 139 The conception of these operations as the private functions of an organism is the forerunner of the epistemological predicament. 140 It results in a conception of knowing as wholly the act of a knower apart from the known. This is the beginning of epistemology.

141 But to whatever extent interacting beings have acquired definite and specific ways of behaviour toward one another it is equally plain-- 142 the theory of external relations notwithstanding-- that in this process of interaction these ways of behaviour, of stimulus and response, undergo modification. 143 If the world consisted of two interacting beings, it is conceivable that the modifications of behaviour might occur in such close continuity of relation to each of the interacting beings that the adjustment would be very continuous, and there might be little or no ambiguity and conflict. 144 But in a world where any two interacting beings have innumerable interactions with innumerable other beings and in all these interactions modifications are effected, 145 it is to be expected that changes in the behaviour of each or both will occur, so marked that they are bound to result in breaks in the continuity of stimulus and response-- even to the point of tragedy. 146 However, the tragedy is seldom so great that the ambiguity extends to the whole field of conduct. Except in extreme pathological cases (and in epistemology), complete scepticism and aboulia do not occur. 147 Ambiguity always falls within a field or direction of conduct, and though it may extend much further, and must extend some further than the point at which equivocation occurs, yet it is never ubiquitous. 148 An ambiguity concerning the action of gravitation is no less specific than one regarding colour or sound; indeed, the one may be found to involve the other.

149 Logical conduct is, then, conduct which aims to remove ambiguity and inhibition in unreflective conduct. 150 The instruments of its operation are forged from the processes of unreflective conduct by such modification and adaptation as is required to enable them to accomplish this end. 151 Since these logical operations sometimes fail and sometimes succeed they become the subject-matter of logical theory. 152 But the technique of this second involution of reflection is not supplied by some new and unique entity. It also is derived from modifications of previous operations of both reflective and non-reflective conduct.

153 While emphasising the continuity between non-logical and logical operations, we must keep in mind that their distinction is of equal importance. 154 Confusion at this point is fatal. A case in point is the confusion between non-logical and logical observation. 155 The results of non-logical observation, e.g., looking and listening, are direct stimuli to further conduct. 156 But the purpose and result of 'logical' observation are to secure data, not as direct stimuli to immediate conduct 157 but as stimuli to the construction or verification of hypotheses which are the responses of the 'logical' operation of imagination to the data. Hypotheses are anticipatory. 158 But they differ from non-logical anticipation in that they are tentatively, experimentally, i.e., logically anticipatory. 159 The non-logical operations of memory and anticipation lack just this tentative, experimental character. 160 When we confuse the logical and non-logical operations of these processes the result is either that logical processes will merely repeat non-logical operations in which case we have inference that is tautologous and trifling; 161 or the non-logical will attempt to perform logical operations, and our inference is miraculous. 162 If we seek to escape by an appeal to habit, as in empiricism, or to an objective universal, as in idealism and neo-realism, we are merely disguising, not removing the miracle.

163 It may be thought that this confusion would be most likely to occur in a theory which teaches that non-logical processes are carried over into logical operations. 164 But this overlooks the fact that the theory recognises at the same time that these non-logical operations undergo modification and adaptation to the demands of the logical enterprise. 165 On the other hand, those who make all perceptions, memory, and anticipation, not to speak of habit and instinct, logical, have no basis for the distinction between logical and non-logical results; 166 while those who refuse to give the operations of perception, memory, etc., any place in logic can make no connections between logical and non-logical conduct. Nor are they able to distinguish in a specific case truth from error.

167 In all logics that fail to make this connection and distinction between logical and non-logical operations there is no criterion for data. 168 If ultimate simplicity is demanded of the data, there is no standard for simplicity except the 'minimum sensibile' or the 'minimum intelligibile' which have recently been resurrected. 169 On the other hand, where simplicity is waived, as in the logic of objective idealism, there is still no criterion of logical adequacy. 170 But if we understand by 'logical' data not anything that happens to be given, but something 'sought' as material for an hypothesis, i.e., a proposed solution (proposition) of an ambiguous object of conduct and affection, then whatever results of observation meet this requirement are logical data. 171 And whenever data are found from which an hypothesis is constructed that succeeds in abolishing the ambiguity, they are simple, adequate, and true data.

172 No scientist, not even the mathematician, in the specific investigations of own field, seeks for ultimate and irreducible data at large. 173 And if you found them you could not use them. It is only in your metaphysical personality that you longs for such data. 174 The data which the scientist in any specific inquiry seeks are the data which suggest a solution of the question in which the investigation starts. 175 When these data are found they are the "irreducibles"

of that problem. But they are relative to the question and answer of the investigation. 176 Their simplicity consists in the fact that they are the data from which a conclusion can be made. 177 The term "simple data" is tautologous. That one is in need of data more "simple" means that one is in need of new data from which an hypothesis can be formed.

178 It is true that the actual working elements with which the scientist operates are always complex in the sense that they are always something more than elements in any specific investigation. 179 They have other connections and alliances. And this complexity is at once the despair and the hope of the scientist; 180 your despair, because you cannot be sure when these other connections will interfere with the allegiance of your elements to your particular undertaking; 181 your hope, because when these alliances are revealed they often make the elements more efficient or exhibit capacities which will make them elements in some other undertaking for which elements have not been found. 182 A general resolves your army into so many marching, eating, shooting units; but these elements are something more than marching, shooting units. 183 They are husbands and fathers, brothers and lovers, protestants and catholics, artists and artisans, etc. 184 And the militarist can never be sure at what point these other activities-- I do not say merely external relationships-- may upset your calculations. 185 If you could find units whose whole and sole nature is to march and shoot, your problem would be, in some respects, simpler, though in others more complex. 186 As it is, you are constantly required to ask how far these other functions will support and at what point they will rebel at the marching and shooting.

187 Such, in principle, is the situation in every scientific inquiry. When the failure of the old elements occurs it is common to say that "simpler" elements are needed. 188 And doubtless in your perplexity the scientist may long for elements which have no entangling alliances, whose sole nature and character is to be

elements. 189 But what in fact you actually seeks in every specific investigation are elements whose nature and functions 'will not interfere' with their serving as units in the enterprise in hand. 190 But from some other standpoint these new elements may be vastly more complex than the old, as is the case with the modern as compared with the ancient atom. 191 When the elements are secured which operate successfully, the non-interfering connections can be ignored and the elements can be treated as if they did not have them,-- as if they were metaphysically simple. 192 But there is no criterion for metaphysical simplicity except operative simplicity. To be simple is to serve as an element, and to serve as an element is to be simple.

193 It is scarcely necessary in view of the foregoing to add that the data of science are not "sense-data," if by sense-data be meant data which are the result of the operations of sense organs alone. 194 Data are as much or more the result of operations, first, of the motor system of the scientist's own organism, and second, of all of the machinery of your labouratory which you calls to your aid. 195 Whether named after the way they are obtained, or after the way they are used, data are quite as much "motor" as "sense." 196 Nor, on the other hand, are there any purely intellectual data-- not even for the mathematician. 197 Some mathematicians may insist that their symbols and diagrams are merely stimuli to the platonic operation of pure and given universals. 198 But until mathematics can get on without these symbols or any substitutes the intuitionist in mathematics will continue to have own say.

199 Wherever the discontinuity between logical operations and their acts persists, all the difficulties with data have their correlative difficulties with hypotheses. 200 In Mill's logic the account of the origin of hypotheses oscillates between the view that they are happy guesses of a mind composed of states of consciousness, and the view that they are "found in the facts" or are "impressed on the mind by the facts." 201 The miracle of

relevancy required in the first position drives the theory to the second. And the tautologous, useless nature of the hypothesis in the second forces the theory back to the first view. 202 In this predicament, little wonder Mill finds that the easiest way out is to make hypotheses "auxiliary" and not indigenous to inference. 203 But this exclusion of hypotheses as essential leaves own account of inference to oscillate between the association of particulars of nominalism and scholastic formalism, 204 from both of which Mill, with the dignified zeal of a prophet, set out to rescue logic.

205 Mill's rejection of hypotheses formed by a mind whose operations have no discoverable continuity with the operations of things, or by things whose actions are independent of the operations of ideas, is forever sound. 206 But his acceptance of the discontinuity between the acts of knowing and the operation of things, and the conclusion that these two conceptions of the origin and nature of hypotheses are the only alternatives, were the source of most of his difficulties.

III

207 The efforts of classic empiricism at the reform of logic have long been an easy mark for idealistic reformers. 208 But it is interesting to observe that the idealistic logic from the beginning finds itself in precisely the same predicament regarding hypotheses;-- 209 they are trifling or false. And in the end they are made, as in Mill, "accidents" of inference.

210 The part played by Kant's sense-material and the categories is almost the reverse of those of data and hypothesis in science. 211 Sense material and the categories are the given elements from which objects are somehow made; 212 in scientific procedure data and hypothesis are derived through logical observation and imagination from the content and operations of immediate experience. 213 In Kant's account of the process by which objects are constructed we are nowhere in sight of any experimental procedure. 214 Indeed, the real act of knowing, the selection and application of the category to the sense matter, is, as Kant in the end

had to confess, "hidden away in the depths of the soul." 215 Made in the presence of the elabourate machinery of knowing which Kant had constructed, this confession is almost tragic; 216 and the tragic aspect grows when we find that the result of the "hidden" operation is merely a phenomenal object. 217 That this should be the case, however, is not strange. A phenomenal object is the inevitable correlate of the "hidden" act of knowing whether in a "transcendental" or in an "empirical" logic. 218 In vain do we call the act of knowing "constructive" and "synthetic" if its method of synthesis is hidden. 219 A transcendental unity whose method is indefinable has no advantage over empirical association.

220 It was the dream of Kant as of Mill to replace the logics of sensationalism and rationalism with a "logic of things" and of "truth." 221 But as Mill's things turned to states of consciousness, so Kant's are phenomenal. Their common fate proclaims their common failure-- 222 the failure to reëstablish continuity between the conduct of intelligence and other conduct.

223 One of the chief counts in Hegel's indictment of Kant's logic is that "it had no influence on the methods of science." 224 Hegel's explanation is that Kant's categories have no genesis; they are not constructed in and as part of logical operations. As given, ready-made, their relevance is a miracle. 225 But if categories be "generated" in the process of knowing, says Hegel, they are indigenous, and their fitness is inevitable. 226 In such statements Hegel raises expectations that we are at last to have a logic which squares with the procedure of science. 227 But when we discover that instead of being "generated" out of all the material involved in the scientific problem, Hegel's categories are derived from each other, misgivings arise. 228 And when we further learn that this "genesis" is timeless, which means that, after all, the categories stand related to each other in a closed, eternal system of implication, we abandon hope of a scientific-- i.e., experimental-- logic.

229 Hegel also says it is the business of philosophy "to substitute categories or in more precise language adequate notions for the several modes of feeling, perception, desire, and will." 230 The word "substitute" reveals the point at issue. If "to substitute" means that philosophy is a complete exchange of the modes of feeling, perception, desire, and will for a world of categories or notions, 231 then, saying nothing of the range of values in such a world, the problem of the meaning of "adequate" is on our hands. What is the notion to be adequate to? 232 But if "to substitute" means that the modes of feeling, perception, desire, and will, when in a specific situation of ambiguity and inhibition, go over into, take on, the modes of data and hypothesis in the effort to get rid of inhibiting conflict that is quite another matter. 233 Here the "notion," as the scientific hypothesis, has a criterion for its adequacy. 234 But if the notion usurps the place of feeling, perception, desire, and will, as many find, in the end, it does in Hegel's logic, it thereby loses all tests for the adequacy of its function and character as a notion.

235 In the development of the logical doctrines of Kant and Hegel by Lotze, Green, Sigwart, Bradley, Bosanquet, Royce, and others, there are indeed differences. 236 But these differences only throw their common ground into bolder relief. This common ground is that, procedure by hypotheses, by induction, is, in the language of Professor Bosanquet, "a transient and external characteristic of inference." 237 And the ground of this verdict is essentially the same as Mill's, when he rejects hypotheses "made by the mind," 238 namely, that such hypotheses are too subjective in their origin and nature to have objective validity. 239 "Objective" idealism is trying, like Mill, to escape the subjectivism of the purely individual and "psychical" knower. 240 But, being unable to reconstruct the finite knower, and being too sophisticated to make what it regards as Mill's naïve appeal to "hypotheses found in things," it transfers the real process of inference to the "objective

universal," 241 and the process of all thought, including inference, is now defined as "'the reproduction, by a universal presented in a content, of contents distinguished from the presented content which also are differences of the same universal'."

242 It need scarcely be said that in inference thus defined there is scant room for hypotheses. 243 There is nothing "hypothetical," "experimental," or "tentative" in this process of reproduction by the objective universal as such. 244 As little is there any possibility of error. If there is anything hypothetical, or any possibility of error, in inference, it is due to the temporal, finite human being in which, paradoxically enough, this process of "reproduction" goes on 245 and to whom, at times, is given an "infinitesimal" part in the operation, while at other times you are said merely to "witness" it. 246 But the real inference does not "proceed by hypotheses"; it is only the finite mind in witnessing the real logical spectacle or in its "infinitesimal" contribution to it that lamely proceeds in this manner.

247 Here, again, we have the same break in continuity between the finite, human act of knowing and the operations that constitute the real world. 248 When the logic of the objective universal rejects imputations of harbouring a despoiled psychical knower it has in mind, of course, the objective universal as knower, not the finite, human act. 249 But, if the participations of the latter are all accidents of inference, as they are said to be, its advantage over a purely psychical knower, or "states of consciousness," is difficult to see. 250 The rejection of metaphysical dualism is of no consequence if the logical operations of the finite, human being are only "accidents" of the real logical process. 251 As already remarked, the metaphysical disjunction is merely a schematism of the more fundamental, logical disjunction.

252 As for tautology and miracle, the follower of Mill might well ask: how an association of particulars, whether mental states or things, could be more tautologous than a universal reproducing its own differences?

253 And if the transition from particular to particular is a miracle in which the grace of God is disguised as "habit," why is not habit as good a disguise for Providence as universals? 254 Moreover, by what miracle does the one all-inclusive universal become 'a' universal? And since perception always presents a number of universals, what determines which one shall perform the reproduction? 255 Finally, since there are infinite differences of the universal that might be reproduced, what determines just which differences shall be reproduced? 256 In this wise the controversy has gone on ever since the challenge of the old rationalistic logic by the nominalists launched the issue of empiricism and rationalism. 257 All the charges which each makes against the other are easily retorted upon itself. Each side is resistless in attack, but helpless in defence.

258 In a conception of inference in which both data and hypothesis are regarded as the tentative, experimental results of the processes of perception, memory, and constructive imagination engaged in the special task of removing conflict, ambiguity, and inhibition, 259 and in which these processes are not conceived as the functions of a private mind nor of an equally private brain and nervous system, but as functions of interacting beings,-- 260 in such a conception there is no ground for anxiety concerning the simplicity of data, nor the objectivity of hypotheses. 261 Simplicity and objectivity do not have to be secured through elabourate and laboured metaphysical construction. 262 The data are simple and the hypothesis objective in so far as they accomplish the work where unto they are called-- the removal of conflict, ambiguity, and inhibition in conduct and affection.

263 In the experimental conception of inference it is clear that the principles of formal logic must play their rôle wholly inside the course of logical operations. 264 They do not apply to relations 'between' these operations and "reality"; nor to "reality" itself. 265 Formal identity and non-contradiction signify, in experimental logic, the complete

correlativity of data and hypothesis. 266 They mean that 'in' the logical procedure data must not be shifted without a corresponding change in the hypothesis and conversely. 267 The doctrine that "theoretically" there may be any number of hypotheses for "the same facts" is, when these multiple hypotheses are anything more than different names or symbols, nothing less than the very essence of formal contradiction. 268 It doubtless makes little difference whether a disease be attributed to big or little, black or red, demons or whether the cause be represented by a, b, or c, etc. 269 But where data and hypotheses are such as are capable of verification, i.e., of mutually checking up each other, a change in one without a corresponding modification of the other is the principle of all formal fallacies.

270 With this conception of the origin, nature, and functions of logical operations little remains to be said of their truth and falsity. 271 If the whole enterprise of logical operation, of the construction and verification of hypothesis, is in the interest of the removal of ambiguity, and inhibition in conduct, 272 the only relevant truth or falsity they can possess must be determined by their success or failure in that undertaking. 273 The acceptance of this view of truth and error, be it said again, depends on holding steadfastly to the conception of the operations of knowing as 'real acts', 274 which, though having a distinct character and function, are yet in closest continuity with other acts of which indeed they are but modifications and adaptations in order to meet the logical demand.

275 Here, perhaps, is the place for a word on truth and satisfaction. The satisfaction which marks the truth of logical operations-- 276 "intellectual satisfaction"-- is the satisfaction which attends the accomplishment of their task, viz., the removal of ambiguity in conduct, i.e., in our interaction with other beings. 277 It does not mean that this satisfaction is bound to be followed by wholly blissful consequences. All our troubles are not over when the distress of ambiguity is removed. 278 It may be indeed that the verdict of the logical operation is that we must

face certain death. Very well, we must have felt it to be "good to know the worst," or no inquiry would have been started. 279 We should have deemed ignorance bliss and sat with closed eyes waiting for fate to overtake us instead of going forward to meet it and in some measure determine it. 280 Death anticipated and accepted is 'realiter' very different from death that falls upon us unawares, however we may estimate that difference. 281 If this distinction in the 'foci' of satisfaction is kept clear it must do away with a large amount of the hedonistic interpretations of satisfaction in which many critics have indulged. 282 But hereupon some one may exclaim, as did a colleague recently: "Welcome to the ranks of the intellectualists!" 283 If so, the experimentalist is bound to reply that you are as willing, and as unwilling, to be welcomed to the ranks of intellectualism as to those of anti-intellectualism. 284 You wonders, however, how long the welcome would last in either. Among the intellectualists the welcome would begin to cool as soon as it should be discovered that the ambiguity to which logical operations are the response is not regarded by the experimentalist as a purely intellectual affair. 285 It is an ambiguity in conduct with all the attendant affectional values that may be at stake. 286 It is, to be sure, the fact of ambiguity, and the effort to resolve it, that adds the intellectual, logical character to conduct and to affectional values. 287 But if the logical interest attempts entirely to detach itself it will soon be without either subject-matter or criterion. 288 And if it sets itself up as supreme, we shall be forced to say that our quandaries of affection, our problems of life and death are merely to furnish occasions and material for logical operations.

289 On the other hand, the welcome of the anti-intellectualists is equally sure to wane when the experimentalist asserts that the doctrine that logical operations mutilate the wholeness of immediate experience overlooks the palpable fact 290 that it is precisely these immediate experiences-- the experiences of intuition and instinct-- that get into conflict and inhibit and mutilate

one another, 291 and as a consequence are obliged to go into logical session to patch up the mutilation and provide new and better methods of coöperation.

292 At this point the weakness in Bergson's view of logical operations appears. Bergson, too, is impressed by the break in continuity between logical operations and the rest of experience. 293 But with Mr. Bradley he believes this breach to be essentially incurable, because the mutilations and disjunctions are due to and introduced by logical operations. 294 Just why the latter are introduced remains in the end a mystery. Both, to be sure, believe that logical operations are valuable for "practical" purposes,-- for action. 295 But, aside from the question of 'how' operations essentially mutilative can be valuable for action, immediate intuitional experience being already in unity with Reality, 296 why should there be any practical need for logical operations-- least of all such as introduce disjunction and mutilation?

297 The admission of a demand for logical operations, whether charged to matter, the devil, or any other metaphysical adversary, 298 is, of course, a confession that conflict and ambiguity are as fundamental in experience as unity and immediacy and that logical operations are therefore no less indigenous. 299 The failure to see this implication is responsible for the paradox that in the logic of Creative Evolution the operations of intelligence are neither creative nor evolutional. 300 They not only have no constructive part but are positively destructive and devolutional.

301 Since, moreover, these logical operations, like those of the objective universal, and like Mill's association of particulars, can only reproduce in fragmentary form what has already been done, it is difficult to see how they can meet the demands of action. 302 For here no more than in Mill, or in the logic of idealism, is there any place for constructive hypotheses or any technique by which they can become effective. 303 Whatever "Creative Evolution"

may be, there is no place in its logic for "Creative Intelligence."

IV

304 The prominence in current discussion of the logical reforms proposed by the "analytic logic" of the neo-realistic movement 305 and the enthusiastic optimism of its representatives over the prospective results of these reforms for logic, science, and practical life are the warrant for devoting a special section to their discussion.

306 There are indeed some marked differences of opinion among the expounders of the "new logic" concerning the results which it is expected to achieve. 307 Some find that it clears away incredible accumulations of metaphysical lumber; others rejoice that it is to restore metaphysics, "once the queen of the sciences, to her ancient throne." 308 But whatever the difference among the representatives of analytical logic all seem agreed at the outset on two fundamental reforms which the "new logic" makes. 309 These are: first, that analytic logic gets rid entirely of the 'act' of knowing, the retention of which has been the bane of all other logics; 310 second, in its discovery of "terms and relations," "sense-data and universals" as the simple elements not only of logic but of the world, 311 it furnishes science at last with the simple neutral elements at large which it is supposed science so long has sought, and "mourned because it found them not."

312 Taking these in order, we are told that "realism frees logic as a study of objective fact from all accounts of the states and operations of mind." ... 313 "Logic and mathematics are sciences which can be pursued quite independently of the study of knowing." 314 "The new logic believes that it deals with no such entities as thoughts, ideas, or minds, but with entities that merely are."

315 The motive for the banishment of the act of knowing from logic is that as an 'act' knowing is "mental," "psychological," and "subjective." 316 All other logics have indeed realised this subjective character of the 'act' of knowing, but have neither dared

completely to discard it 317 nor been able sufficiently to counteract its effects even with such agencies as the objective universal to prevent it from infecting logic with its subjectivity. 318 Because logic has tolerated and attempted to compromise with this subjective act of knowing, say these reformers, it has been forced constantly into epistemology and has become a hybrid science. 319 Had logic possessed the courage long ago to throw overboard this subjective Jonah it would have been spared the storms of epistemology and the reefs of metaphysics.

320 Analytic logic is the first attempt in the history of modern logical theory at a deliberate, sophisticated exclusion of the act of knowing from logic. 321 Other logics, to be sure, have tried to neutralise the effects of its presence, but none has had the temerity to cast it bodily overboard. The experiment, therefore, is highly interesting.

322 We should note at the outset that in regarding the act of knowing as incurably "psychical" and "subjective" analytic logic accepts a fundamental premise of the logics of rationalism, empiricism, and idealism which it seeks to reform. 323 It is true that it is the bold proposal of analytic logic to keep logic out of the pit of epistemology by excluding the act of knowing from logic. 324 Nevertheless analytic logic still accepts the subjective character of this act; and if it excludes it from its logic it welcomes it in its psychology. This is a dangerous situation. 325 Can the analytic logician prevent all osmosis between own logic and own psychology? If not, and if the psychological act is subjective, woe then to your logic. 326 Had the new logic begun with a bold challenge of the psychical character of the act of knowing, the prospect of a logic free from epistemology would have been much brighter.

327 With the desire to rid logic of the epistemological taint the "experimental logic" of the pragmatic movement has the strongest sympathy. 328 But the proposal to effect this by the excision of the act of knowing appears to experimental logic to be

a case of heroic but fatal surgery. 329 'Prima facie' a logic with no act of knowing presents an uncanny appearance. What sort of logical operations are possible in such a logic and of what kind of truth and falsity are they capable?

330 Before taking up these questions in detail it is worthwhile to note the character of the entities that "merely are" with which analytic logic proposes exclusively to deal. 331 In their general form they are "terms" and "propositions," "sense-data" and universals. We are struck at once by the fact that these entities bear the names of logical operations. 332 They are, to be sure, disguised as entities and have been baptised in a highly dilute solution of objectivity called "subsistence." 333 But this does not conceal their origin, nor does it obscure the fact that if it is possible for any entities that "merely are" to have logical character those made from hypostatised processes of logical operations should be the most promising. 334 They might be expected to retain some vestiges of logical character even after they have been torn from the process of inquiry and converted into "entities that merely are." 335 Also it is not surprising that having stripped the act of knowing of its constituent operations analytic logic should feel that it can well dispense with the empty shell called "mind" and, as Professor Dewey says, "wish it on psychology." 336 But if the analytic logician be also a philosopher and perchance a lover of own fellow-human, it is hard to see how you can have a good conscience over this disposition of the case.

337 Turning now to the character of inference and of truth and falsity which are possible in a logic which excludes the operation of knowing and deals only with "entities that are," 338 all the expounders seem to agree that in such a logic inference must be purely deductive. All alleged induction is either disguised deduction or a lucky guess. 339 This raises apprehension at the start concerning the value of analytic logic for other sciences. But let us observe what deduction in analytic logic is.

INTELLIGENCE

340 We begin at once with a distinction which involves the whole issue. We are asked to carefully distinguish "logical" deduction from "psychological" deduction. 341 The latter is the vulgar meaning of the term, and is "the thinker's name for your own act of conforming your thought" to the objective and independent processes that constitute the real logical process. 342 This act of conforming the mind is a purely "psychological" affair. It has no logical function whatever. 343 In what the "conforming" consists is not clear. It seems to be merely the act of turning the "psychological" eye on the objective logical process. 344 "One beholds it (the logical process) as one beholds a star, a river, a character in a play.... 345 The novelist and the dramatist, like the mathematician and logician, are onlookers at the logical spectacle." 346 On the other hand, the term "conforming" suggests a task, with the possibilities of success and failure. 347 Have we, then, two wholly independent possibilities of error--one merely "psychological," the other "logical"? The same point may be made even more obviously with reference to the term "beholding." 348 The term is used as if beholding were a perfectly simple act, having no problems and no possibilities of mistakes--as if there could be no mis-beholding.

349 But fixing our psychological eye on the "logical spectacle," what does it behold? 350 A universal generating an infinite series of identical instances of itself-- i.e., instances which differ only in "logical position." 351 If in a world of entities that "merely are" the term "generation" causes perplexity, the tension is soon relieved; 352 for this turns out to be a merely subsistential non-temporal generation which, like Hegel's generation of the categories, in no way compromises a world of entities that "merely are."

353 Steering clear of the thicket of metaphysical problems that we here encounter, let us keep to the logical trail. 354 First it is clear that logical operations are of the same reproductive repetitive type that we have found in the associational logic of empiricism, and in the

logic of the objective universal. 355 Indeed, after objective idealism has conceded that the finite mind merely "witnesses" or at most contributes only in an "infinitesimal" degree to the logical activity of the objective universal, 356 what remains of the supposed gulf between absolute idealism and analytic realism?

357 It follows, of course, that there can be no place in analytic logic for "procedure by hypotheses." 358 However, it is to the credit of some analytic logicians that they see this and frankly accept the situation instead of attempting to retain hypotheses by making them "accidents" or mere "auxiliaries" of inference. 359 On the other hand, others find that the chief glory of analytic logic is precisely that it "gives thought wings" for the free construction of hypotheses.

360 In his lectures on "Scientific Methods in Philosophy" Mr. Russell calls some of the most elemental and sacred entities of analytic logic "convenient fictions." 361 This retention of hypotheses at the cost of cogency is of course in order to avoid a break with science. 362 Those who see that there is no place in analytic logic for hypotheses are equally anxious to preserve their connections with science. Hence they boldly challenge the "superstition" that science has anything to do with hypotheses. 363 Newton's "'Hypotheses non fingo'" should be the motto of every conscientious scientist who dares "trust own perceptions and disregard the ukase of idealism." 364 "The theory of mental construction is the child of idealism, now put out to service for the support of its parents." 365 "Theory is no longer regarded in science as an hypothesis added to the observed facts," but a law which is "found in the facts." 366 The identity of this with Mill's doctrine of hypotheses as "found in things" is obvious.

367 As against the conception of hypotheses as "free," "winged," constructions of a psychical, beholding, gossiping mind we may well take our stand with those who would exclude such hypotheses from science. 368 And this doubtless was the sort of mind and sort of hypotheses Newton meant

when he said "'Hypotheses non fingo'." 369 But had Newton's mind really been of the character which he, as a physicist, had learned from philosophers to suppose it to be, and had he really waited to find his hypotheses ready-made in the facts, 370 there never would have been any dispute about who discovered the calculus, and we should never have been interested in what Newton said about hypotheses or anything else. 371 What Newton did is a much better source of information on the part hypotheses play in scientific method than what he said about them. 372 The former speaks for itself; the latter is the pious repetition of a metaphysical creed made necessary by the very separation of mind from things expressed in the statement quoted.

373 Logically there is little to choose between hypotheses found ready-made in the facts and those which are the "winged" constructions of a purely psychical mind. 374 Both are equally useless in logic and in science. One makes logic and science "trifling," the other makes them "miraculous." 375 But if hypotheses be conceived not as the output of a cloistered psychical entity but as the joint product of all the beings and operations involved in the specific situation in which logical inquiry originates, 376 and more particularly in all those involved in the operations of the inquiry itself (including all the experimental material and apparatus which the inquiry may require), 377 we shall have sufficient continuity between hypotheses and things to do away with miracle, and sufficient reconstruction to avoid inference that is trifling.

378 It is, however, the second contribution of analytic logic that is the basis of the enthusiasm over its prospective value for other sciences. 379 This is the discovery that terms and propositions, sense-data, and universals, are not only elements of logical operation but are the simple, neutral elements at large which science is supposed to have been seeking. 380 "As the botanist analyses the structures of the vegetable organism and finds chemical compounds of which they are built so the ordinary chemist analyses these compounds into their elements, but does not

analyse these. 381 The physical chemist analyses these elemental atoms, as now appears, into minuter components 'which you in turn must leave to the mathematicians and logicians further to analyse'."

382 Again it is worth noting that this mutation of logical into ontological elements seems to differ only "in position" from the universal logicism of absolute idealism. 383 What are these simple elements into which the mathematician and logician are to analyse the crude elements of the labouratory? And how are these elements to be put into operation in the labouratory? 384 Let us picture an analytic logician meeting a physical scientist at a moment when the latter is distressed over the unmanageable complexity of own elements. 385 Will the logician say to the scientist: "Your difficulty is that you are trusting too much to your mundane apparatus. The kingdom of truth cometh not with such things. 386 Forsake your microscopes, test tubes, refractors and resonators, and follow me, and you shall behold the truly simple elements of which you have dreamed."? 387 And when the moment of revelation arrives and the expectant scientist is solemnly told that the "simple elements" which you has sought so long are "terms and propositions," sense-data and universals, 388 is it surprising that you does not seem impressed? Will you not ask: "What am I to do with these in the specific difficulties of my labouratory? 389 Shall I say to the crude and complex elements of my labouratory operations: 'Be ye resolved into terms and propositions, sense-data and universals'; 390 and will they forthwith obey this incantation and fall apart so that I may locate and remove the hidden source of my difficulty? 391 Are you not mocking me and deceiving yourself with the old ontological argument? Your 'simple' elements-- are they anything but the hyostatised process by which elements may be found?"

392 The expounders as well as the critics of analytic logic have agreed that it reaches its most critical junction when it faces the problem of truth and error.

393 There is no doubt that the logic of objective idealism, in other respects so similar to analytic logic, has at this point an advantage; 394 for it retains just enough of the finite operation of knowing-- an "infinitesimal" part will answer-- to furnish the culture germs of error. 395 But analytic logic having completely sterilised itself against this source of infection is in serious difficulty.

396 Here again it is Professor Holt who has the courage to follow-- or shall we say "behold"?-- his theory as it "generates" the doctrine that error is a given objective opposition of forces entirely independent of any such thing as a process of inquiry and all that such a process presupposes. 397 "All collisions between bodies, all inference between energies, all process of warming and cooling, of starting and stopping, of combining and separating, all counterbalancings, as in cantilevers and gothic vaultings, are contradictory forces which can be stated only in propositions that manifestly contradict each other." 398 But the argument proves too much. For in the world of forces to which we have here appealed there is no force which is not opposed by others and no particle which is not the center of opposing forces. 399 Hence error is ubiquitous. In making error objective we have made all objectivity erroneous. 400 We find ourselves obliged to say that the choir of Westminster Abbey, the Brooklyn bridge, the heads on our shoulders are all supported by logical errors!

401 Following these illustrations of ontological contradictions there is indeed this interesting statement: 402 "Nature is so full of these mutually negative processes that we are moved to admiration when a few forces coöperate long enough to form what we call an organism." 403 The implication is, apparently, that as an "opposition" of forces is error, "coöperation" of forces is truth. But what is to distinguish "opposition" from "coöperation"? 404 In the illustration it is clear that opposing forces-- error-- do not interfere with coöperative forces-- truth. 405 Where should we find more counterbalancing, more starting and stopping, warming and cooling, combining and separating

than in an organism? 406 And if these processes can be stated only in propositions that are "manifestly contradictory," are we to understand that truth has errors for its constituent elements? 407 Such paradoxes have always delighted the soul of absolute idealism. 408 But, as we have seen, only the veil of an infinitesimal finitude intervenes between the logic of the objective universal of absolute idealism and the objective logic of analytic realism.

409 It is, of course, this predicament regarding objective truth and error that has driven most analytic logicians to recall the exiled psychological, "mental" act of knowing. 410 It had to be recalled to provide some basis of distinction between truth and error, 411 but, this act having already been conceived as incurably "subjective," the result is only an exchange of dilemmas. 412 For the reinstatement of this act 'ipso facto' reinstates the epistemological predicament to get rid of which it was first banished from logic.

413 Earnest efforts to escape this outcome have been made by attaching the act of knowing to the nervous system, and this is a move in the right direction. 414 But so far the effort has been fruitless because no connection has been made between the knowing function of the nervous system and its other functions. 415 The result is that the cognitive operation of the nervous system, as of the "psychical" mind, is that of a mere spectator; and the epistemological problem abides. 416 An onlooking nervous system has no advantage over an "onlooking" mind. 417 Onlooking, beholding may indeed be a part of a genuine act of knowing. But in that act it is always a stimulus or response to other acts. It is one of them;--never a mere spectator of them. 418 It is when the act of knowing is cut off from its connection with other acts and finds itself adrift that it seeks metaphysical lodgings. 419 And this it may find either in an empty psychical mind or in an equally empty body.

420 If, in reinstating the act of knowing as a function of the nervous system, neo-realism had recognised the logical significance of the fact 421 that the nervous

system of which knowing is a function is the same nervous system of which loving and hating, desiring and striving are functions 422 and that the transition from these to the operations of inquiry and knowing is not a capricious jump but a transition motived by the loving and hating, desiring and striving-- 423 if this had been recognised the logic of neo-realism would have been spared its embarrassments over the distinction of truth and error. 424 It would have seen that the passage from loving and hating, desiring and striving to inquiry and knowing is made in order to renew and reform specific desires and strivings which, through conflict and consequent equivocation, have become fruitless and vain; 425 and it must have seen that the results of the inquiry are true or false as they succeed or fail in this reformation and renewal.

426 But once more, it must steadily be kept in view that while the loving and hating, desiring and striving, which the logical operations are reforming and renewing, are functions of the nervous system, 427 they are not functions of the nervous system alone, else the door of subjectivism again closes upon us. 428 Loving and hating, desiring and striving have their "objects." Hence any reformation of these functions involves no less a reformation of their objects. 429 When therefore we say that truth and error are relevant to desires and strivings, this means relevant to them as including their objects, not as entitised processes (such are the pitfalls of language) enclosed in a nervous system or mind. 430 With this before us the relevance of truth and error to desires and strivings can never be made the basis for the charge of subjectivism. 431 The conception of desires as peculiarly individual and subjective is a survival of the very isolation which is the source of the difficulty with truth and error. 432 Hence the appeal to this isolation, made alike by idealism and realism, in charging instrumental logic with subjectivism is an elementary 'petitio'.

433 Doubtless it will be urged again that the act of knowing is motived by an independent desire

and striving of its own. 434 This is of course consonant with the neo-realistic atomism, however inconsonant it may be with the conception of implication which it employs. 435 If we take a small enough, isolated segment of experience we can find meaning for this notion, as we may for the idea that the earth is flat and that the sun moves around the earth. 436 But as consequences accrue we find as great difficulties with the one as with the other. 437 If the course of events did not bring us to book, if we could get off with a mere definition of truth and error we might go on piling up subsistential definitional logics world without end. 438 But sublime adventurers, logically unregenerate and uninitiated, will go on sailing westward to the confusion and confounding of all definitional systems that leave them out of account.

439 The conclusion is plain. If logic is to have room in its household for both truth and error, if it is to avoid the old predicament of knowledge that is trifling or miraculous, tautologous or false, if it is to have no fear of the challenge of other sciences or of practical life, 440 it must be content to take for its subject-matter the operations of intelligence conceived as real acts on the same metaphysical plane and in strictest continuity with other acts. 441 Such a logic will not fear the challenge of science, for it is precisely this continuity that makes possible experimentation, which is the fundamental characteristic of scientific procedure. 442 Science without experiment is indeed a strange apparition. It is a [Greek: logos] with no [Greek: legein], a science with no 'scire'; and this spells dogmatism. 443 How necessary such continuity is to experimentation is apparent when we recall that there is no limit to the range of operations of every sort which scientific experiment calls into play; 444 and that unless there be thoroughgoing continuity between the logical demand of the experiment and all the materials and devices employed in the process of the experiment, the operations of the latter in the experiment will be either miraculous or ruinous.

445 Finally, if this continuity of the operations of intelligence with other operations be essential to science, its relation to "practical" life is 'ipso facto' established. 446 For science is "practical" life aware of its problems and aware of the part that experimental-- i.e., creative-- intelligence plays in the solution of those problems.

INTELLIGENCE AND MATHEMATICS

Harold Chapman Brown

3 Herbart is said to have given the deathblow to faculty psychology. Human no longer appears endowed with volition, passion, desire, and reason; 2 and logic, deprived of its hereditary right to elucidate the operations of inherent intelligence, has the new problem of investigating forms of intelligence in the making. 3 This is no inconsequential task. "If human originally possesses only capacities which after a given amount of education will produce ideas and judgments", 4 and if these ideas and judgments are to be substituted for a mythical intelligence, it follows that tracing their development and observing their functioning renders clearer our conception of their nature and value 5 and brings us nearer that exact knowledge of what we are talking about in which the philosopher at least aspires to equal the scientist, however much you may fall below your ideal.

6 For contemporary thought concerning the mathematical sciences this altered point of view generates peculiarly pressing problems. 7 Mathematicians have weighed the old logic and found it wanting. They have builded themselves a new logic more adequate to their ends. 8 But they have not whole-heartedly recognised the change that has come about in psychology; hence they have retained the faculty of intelligence knit into certain indefinables such as implication, relation, class, term, and the like, 9 and have transported the faculty from the human soul to a mysterious realm of subsistence whence it radiates its ghostly light upon the realm of existence below. 10 But while they reproach the old logic, often bitterly, their new logic merely furnishes a more

adequate show-case 11 in which already attained knowledge may be arranged to set off its charms for the observer in the same way that specimens in a museum are displayed before an admiring world. 12 This statement is not a sweeping condemnation, however, for such a setting forth is not useless. 13 It resembles the classificatory stage of science which, although not itself in the highest sense creative, often leads to higher stages by bringing under observation relations and facts that might otherwise have escaped notice. 14 And in the realm of pure mathematics, the new logic has undoubtedly contributed in this manner to such discoveries. 15 Danger appears when the logician attains Cartesian intoxication with the beauty of logico-mathematical form and tries to infer from the form itself the real nature of the formed material. 16 The realm of subsistence too often has armed Indefinables with metaphysical myths whose attack is valiant when the doors of reflection are opened. 17 It may be possible, however, to arrive at an understanding of mathematics without entering the kingdom of these warriors.

18 It is the essence of science to make prediction possible. 19 The value of prediction lies in the fact that through this function human can control own environment, or, at worst, fortify yourself to meet its vagaries. 20 To attain such predictions, however, the world need not be grasped in its full concreteness. Hence arise processes of abstraction. 21 While all other symptoms remain unnoticed, the temperature and pulse may mark a disease, or a barometer-reading the weather. 22 The physicist may work only in terms of quantity in a world which is equally truly qualitative. All that is necessary is to select the elements which are most effective for prediction and control. 23 Such selection gives the principle that dominates all abstractions. 24 Progress is movement from the less abstract to the more abstract, but it is progress only because the more abstract is as genuinely an aspect of the concrete starting-point as anything is. 25 Moreover, the outcome of progress of this sort cannot be definitely foreseen

at the beginnings. 26 The simple activities of primitive people have to be spontaneously performed before their value becomes evident. 27 Only afterwards can they be cultivated for the sake of their value, and then only can the self-conscious cultivation of a science begin. The process remains full not only of perplexities, but of surprises; 28 humans' activities lead to goals far other than those which appear at the start. These goals, however, never deny the method by which the start is made. 29 Developed intelligence is nothing but skill in using a set of concepts generated in this manner. In this sense the histories of all human endeavours run parallel.

30 Where the empirical bases of a science are continually in the foreground, as in physics or chemistry, the foregoing formulation of procedure is intelligible and acceptable to most people. 31 Mathematics seem, however, to stand peculiarly apart. Many, with Descartes, have delighted in them "on account of the certitude and evidence of their reasonings" and recognised their contribution to the advancement of mechanical arts. 32 But since the days of Kant even this value has become a problem, and many a young philosophic student has the question laid before them 33 as to why it is that mathematics, "a purely conceptual science," can tell us anything about the character of a world which is, apparently at least, free from the idiosyncrasies of individual mind. 34 It may be that mathematics began in empirical practice, such philosophers admit, but they add that, somehow, in its later career, it has escaped its lowly origin. 35 Now it moves in the higher circles of postulated relations and arbitrarily defined entities to which its humble progenitors and relatives are denied the entrée. 36 Parvenus, however, usually bear with them the mark of history, and in the case of this one, at least, we may hope that the history will be sufficient to drag it from the affectations of its newly acquired set and reinstate it in its proper place in the workaday world. 37 For the sake of this hope, we shall take the risk of being tedious by citing certain striking moments of

mathematical progress; and then we shall try to interpret its genuine status in the world of working truths.

BEGINNINGS OF ARITHMETIC AND GEOMETRY

38 The most primitive mathematical activity of human is counting, but here your first efforts are lost in the obscurity of the past. 39 The lower races, however, yield us evidence that is not without value. Although the savage mind is not identical with the mind of primitive human, 40 there is much in the activities of undeveloped races that can throw light upon the behaviour of peoples more advanced. 41 We must be careful in our inferences, however. Among the Australians and South Americans there are peoples whose numerical systems go little, or not at all, beyond the first two or three numbers. 42 "It has been inferred from this," writes Professor Boas, "that the people speaking these languages are not capable of forming the concept of higher numbers.... 43 People like the South American Indians, ... or like the Esquimo ... are presumably not in need of higher numerical expressions, because there are not many objects that they have to count. 44 On the other hand, just as soon as these same people find themselves in contact with civilisation, and when they acquire standards of value that have to be counted, they adopt with perfect ease higher numerals from other languages, and develop a more or less perfect system of counting.... 45 It must be borne in mind that counting does not become necessary until objects are considered in such generalised form that their individualities are entirely lost sight of. 46 For this reason it is possible that even a person who owns a herd of domesticated animals may know them by name and by their characteristics, without even desiring to count them."

47 And there is one other false interpretation to be avoided. Human does not feel the need of counting and then develop a system of numerals to meet the need. 48 Such an assumption is as ridiculous as to assume prehistoric human thinking to the self: "I must

speak," and then inventing voice culture and grammar to make speaking pleasant and possible. 49 Rather, when powers of communication are once attained, presumably in their beginnings also without forethought, human being still more animal than human, there were gradually dissociated communications of a kind approaching what numbers mean to us. 50 But the number is not yet a symbol apart from that of the things numbered. Picture writing, re-representing the things meant, preceded developmentally any kind of symbolisation representing the number by mere one-one correspondence with non-particularised symbols. 51 It is plausible, although I have no anthropological authority for the statement, that the prevalence of finger words as number symbols (cf. infra) is originally a consequence of the fact that our organisation makes the hand the natural instrument of pointing.

52 The difficulty of passing from concrete representations to abstract symbols has been keenly stated by Conant, 53 although his terminology is that of an old psychology and the limitations implied for the primitive mind are limitations of practice rather than of capacity as Mr. Conant seems to believe. 54 "An abstract conception is something quite foreign to the essentially primitive mind, as missionaries and explorers have found to their chagrin. 55 The savage can form no mental concept of what civilised human means by such a word as 'soul'; nor would the idea of the abstract number 5 be much clearer. 56 When you says 'five', you uses, in many cases at least, the same word that serves you when you wishes to say 'hand'; and your mental concept when you says 'five' is a hand. 57 The concrete idea of a closed fist, of an open hand with outstretched fingers, is what is uppermost in your mind. 58 You knows no more and cares no more about the pure number 5 than you does about the law of conservation of energy. 59 You sees in your mental picture only the real, material image, and your only comprehension of the number is, "these objects are as many as the fingers on my hand." 60 Then, in the lapse of the long interval of

centuries which intervene between lowest barbarism and highest civilisation, the abstract and concrete become slowly dissociated, the one from the other. 61 First the actual hand picture fades away, and the number is recognised without the original assistance furnished by the derivation of the word. 62 But the number is still for a long time a certain number 'of objects', and not an independent concept."

63 An excellent fur trader's story, reported to me by Mr. Dewey, suggests a further impulse to count besides that given by the need of keeping a tally, namely, the need of making one thing correspond to another in a business transaction. 64 The Indian laid down one skin and the trader two dollars; if he proposed to count several skins at once and pay for all together, the former replied "too much cheatem." 65 The result, however, demanded a tally either by the fingers, a pebble, or a mark made in the sand, and as the magnitude of such transactions grows the need of a specific number symbol becomes ever more acute.

66 The first obstacle, then, to overcome-- and it has already been successfully passed by many primitive peoples-- is the need of fortuitous attainment of a numerical symbol, which is not the mere repeated symbol of the things numbered. 67 Significantly, this symbol is usually derived from the hand, suggesting gestures of tallying, and not from the words of already developed language. 68 Consequently, number words relate themselves for the most part to the hand, and written number symbols, which are among the earliest writings of most peoples, 69 tend to depict it as soon as they have passed beyond the stage mentioned above of merely repeating the symbol of the things numbered. 70 W. C. Eells, in writing of the Number Systems of the North American Indians, finds clear linguistic evidence for a digital origin in about 40% of the languages examined. 71 Of the non-digital instances, 1 was sometimes connected with the first personal pronoun, 2 with roots meaning separation, 3, rarely, meaning more, or plural as distinguished from the dual, 72 just

as the Greek uses a plural as well as a dual in nouns and verbs, 4 is often the perfect, complete right. 73 It is often a sacred number and the base of a quarternary system. Conant also gives a classification of the meanings of simple number words for more advanced languages; 74 and even in them the hand is constantly in evidence, as in 5, the hand; 10, two hands, half a person, when fingers and toes are both considered, or a person, when the hands alone are considered; 20, one person, two feet. 75 The other meanings hang upon the ideas of existence, piece, group, beginning, for 1; and repetition, division, and collection for higher numerals.

76 A peculiar difficulty lies in the fact that when once numbering has become a self-conscious effort, the collection of things to be numbered frequently tends to exceed the number of names that have become available. 77 Sometimes the difficulty is met by using a second person when the fingers and toes of the first are used up, 78 sometimes by a method of repetition with the record of the number of the repetition itself added to the numerical significance of the whole process. 79 Hence arise the various systems of bases that occur in developed mathematics. 80 But the inertia to be overcome in the recognition of the base idea is nowhere more obvious than in the retention by the comparatively developed Babylonian system of a second base of 60 to supplement the decimal one for smaller numbers. 81 Among the American Indians the system of bases used, varies from the cumbersome binary scale, that exercised such a fascination over Leibniz, 82 through the rare ternary, and the more common quarternary to the "natural" quinary, decimal, and vigesimal systems derived from the use of the fingers and toes in counting. 83 The achievement of a number base and number words, however, does not always open the way to further mathematical development. 84 Only too often a complexity of expression is involved that almost immediately cuts off further progress. 85 Thus the Youcos of the Amazon cannot get beyond the number three, for the simplest expression for the idea in their language is

"pzettarrarorincoaroac". 86 Such names as "99, tongo solo manani nun solo manani" (i.e., 10, understood, 5 plus 4 times, and 5 plus 4) of the Soussous of Sierra Leone; 87 "399, caxtolli onnauh poalli ipan caxtolli onnaui" (15 plus 4 times 20 plus 15 plus 4) of the Aztec; 88 "29, wick a chimen ne nompah sam pah nep e chu wink a" (Sioux), make it easy to understand the proverb of the Yorubas of Abeokuta, "You may be very clever, but you can't tell 9 times 9."

89 Almost contemporaneously with the beginnings of counting various auxiliary devices were introduced to help out the difficult task. 90 In place of many people, notched sticks, knotted strings, pebbles, or finger pantomime were used. In the best form, these devices resulted in the abacus; 91 indeed, it was not until after the introduction of arabic numerals and well into the Renaissance period that instrumental arithmetic gave way to graphical in Europe. 92 "In eastern Europe," say Smith and Mikami, "it"-- the abacus-- "has never been replaced, for the tschotü is used everywhere in Russia to-day, and when one passes over into Persia the same type of abacus is common in all the bazaars. 93 In China the swan-pan is universally used for the purposes of computation, and in Japan the soroban is as strongly entrenched as it was before the invasion of western ideas."

94 Given, then, the idea of counting, and a mechanical device to aid computation, it still remains necessary to obtain some notation in which to record results. 95 At the early dawn of history the Egyptians seem to have been already possessed of number signs 96 and the Phoenicians either wrote out their number words or used a few simple signs, vertical, horizontal, and oblique lines, a process which the Arabians perpetuated up to the beginning of the eleventh century; 97 the Greeks, as early as 600 B. C., used the initial letters of words for numbers. 98 But speaking generally, historical beginnings of European number signs are too obscure to furnish us good material.

99 Our Indians have few number symbols other than words, but

when they occur they usually take the form of pictorial presentation of some counting device such as strokes, lines dotted to suggest a knotted cord, etc. 100 Indeed, the smaller Roman numerals were probably but a pictorial representation of finger symbols. 101 However, a beautiful concrete instance is furnished us in the Japanese mathematics. 102 The earliest instrument of reckoning in Japan seems to have been the rod, Ch'eou, adapted from the Chinese under the name of Chikusaku (bamboo rods) about 600 A. D. 103 At first relatively large (measuring rods?), they became reduced to about 12-cm., but from their tendency to roll were quickly replaced by the sangi (square prisms, about 7-mm. thick and 5-cm. long) 104 and the number symbols were evidently derived from the use of these rods:

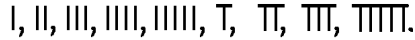

Fig-1

105 For the sake of clearness, tens, hundreds, etc., were expressed in the even place by horizontal instead of vertical lines and vice versa; thus 1267 would be formed

Fig-2

106 The rods were arranged on a sort of chessboard called the swan-pan. Much later the lines were transferred to paper, and a circle used to denote the vacant square. 107 The use of squares, however, rendered it unnecessary to arrange the even places differently from the odd, so numbers like 38057 came to be written

Fig-3

108 instead of

Fig-4

as in the earlier notation.

109 Somewhere in the course of these early mathematical activities the process has changed from the more or less spontaneous operating that led primitive human to the first enunciation of arithmetical ideas, and has become a self-conscious striving for the solution of problems. 110 This change had already taken place before the historical origins of arithmetic are met. 111 Thus, the

treatise of Ahmes (2000 B. C.) contains the curious problem: 7 persons each have 7 cats; each cat eats 7 mice; each mouse eats 7 ears of barley; from each ear 7 measures of corn may grow; how much grain has been saved? 112 Such problems are, however, half play, as appears in a Leonardo of Pisa version some 3000 years later: 113 7 old women go to Rome; each woman has 7 mules; each mule, 7 sacks; each sack contains 7 loaves; with each loaf are 7 knives; each knife is in 7 sheaths. 114 Similarly in Diophantus' epitaph (330 A. D.): "Diophantus passed 1/6 of his life in childhood, 1/12 in youth, and 1/7 more as a bachelor; 115 5 years after his marriage, was born a son who died 4 years before his father at 1/2 his age." 116 Often among peoples such puzzles were a favourite social amusement. 117 Thus Braymagupta (628 A. D.) reads, "These problems are proposed simply for pleasure; the wise person can invent a thousand others, or you can solve the problems of others by the rules given here. 118 As the sun eclipses the stars by its brilliancy, so the person of knowledge will eclipse the fame of others in assemblies of the people if you proposes algebraic problems, and still more if you solves them".

119 The limitation of these early methods is that the notation merely records and does not aid computation. And this is true even of such a highly developed system as was in use among the Romans. 120 If the reader is unconvinced, let you attempt some such problem as the multiplication of CCCXVI by CCCCLXVIII, expressing it and carrying it through in Roman numerals, and you will long for the abacus to assist your labours. 121 It was the positional arithmetic of the Arabians, of which the origins are obscure, that made possible the development of modern technique. 122 Of this discovery, or rediscovery from the Hindoos, together with the zero symbol, Cajori has said "of all mathematical discoveries, no one has contributed more to the general progress of intelligence than this." 123 The notation no longer merely records results, but now assists in performing operations.

124 The origins of geometry are even more obscure than those of arithmetic. 125 Not only is geometry as highly developed as arithmetic when it first appears in occidental civilisation, 126 but, in addition, the problems of primitive peoples seem to have been such that they have developed no geometrical formulæ striking enough to be recorded by investigators, so far as I have been able to discover. 127 But just as the commercial life of the Phoenicians early forced them self-consciously to develop arithmetical calculation, so environmental conditions seem to have forced upon the Egyptians a need for geometrical considerations.

128 It is almost platitudinous to quote Herodotus' remark that the invention of geometry was necessary because of the floods of the Nile, which washed away the boundaries and changed the contours of the fields. 129 And as Proclus Diadochus adds ('Procli Diadochi, in primum Euclidis elementorum librum commentarii'-- quoted Cantor): 130 "It is not surprising that the discovery of this as well as other sciences has sprung from need, because everything in the process of beginning proceeds from the incomplete to the complete. 131 There takes place a suitable transition from sensible perception to thoughtful consideration and rational knowledge. 132 Just as with the Phoenicians, for the sake of business and commerce, an exact knowledge of numbers had its beginning, so with the Egyptians, for the above-mentioned reasons, was geometry contrived."

133 The earliest Egyptian mathematical writing that we know is that of Ahmes (2000 B. C.), 134 but long before this the mural decorations of the temple wall involved many figures, the construction of which involved a certain amount of working knowledge of such operations as may be performed with the aid of a ruler and compass. 135 The fact that these operations did not earlier lead to geometry, as ruler and compass work seems to have done in Japan in the nineteenth century, 136 is probably due to the stage at which the development of Egyptian intelligence had arrived,

feebly advanced on the road to higher abstract thinking. 137 It is everywhere characteristic of Egyptian genius that little purely intellectual curiosity is shown. 138 Even astronomical knowledge was limited to those determinations which had religious or magically practical significance, 139 and its arithmetic and geometry never escaped these bounds as with the more imaginative Pythagoreans, where mystical interpretation seems to have been a consequence of rather than a stimulus to investigation. 140 An old Egyptian treatise reads: "I hold the wooden pin (Nebi) and the handle of the mallet (semes), I hold the line in concurrence with the Goddess Safech. 141 My glance follows the course of the stars. When my eye comes to the constellation of the great bear and the time of the number of the hour determined by me is fulfilled, I place the corner of the temple." 142 This incantation method could hardly advance intelligence; but the methods of practical measuring were more effective. 143 Here the rather happy device of using knotted cords, carried about by the Harpedonapts, or cord stretchers, was of some moment. 144 Especially, the fact that the lengths 3, 4, and 5, brought into triangular form, served for an interesting connection between arithmetic and the right triangle, was not a little gain, 145 later making possible the discovery of the Pythagorean theorem, although in Egypt the theoretical properties of the triangle were never developed. 146 The triangle obviously must have been practically considered by the decorators of the temple and its builders, but the cord stretchers rendered clear its arithmetical significance. 147 However, Ahmes' "Rules for attaining the knowledge of all dark things ... all secrets that are contained in objects" contains merely a mixture of all sorts of mathematical information of a practical nature,-- 148 "rules for making a round fruit house," "rules for measuring fields," "rules for making an ornament," etc., 149 but hardly a word of arithmetical and geometrical processes in themselves, unless it be certain devices for writing fractions and the like.

INTELLIGENCE

THE PROGRESS OF SELF-CONSCIOUS THEORY

150 A characteristic of Greek social life is responsible both for the next phase of the development of mathematical thought and for the misapprehension of its nature by so many moderns. 151 "When Archytas and Menaechmus employed mechanical instruments for solving certain geometrical problems, 'Plato,' says Plutarch, 'inveighed against them with great indignation and persistence as destroying and perverting all the good that there is in geometry; 152 for the method absconds from incorporeal and intellectual or sensible things, and besides employs again such bodies as require much vulgar handicraft: 153 in this way mechanics was dissimilated and expelled from geometry, and being for a long time looked down upon by philosophy, became one of the arts of war.' 154 In fact, manual labour was looked down upon by the Greeks, and a sharp distinction was drawn between the slaves who performed bodily work and really observed Nature, and the leisured upper classes who speculated, and often only knew Nature by hearsay. 155 This explains much of the naïve dreamy and hazy character of ancient natural science. 156 Only seldom did the impulse to make experiments for oneself break through; but when it did, a great progress resulted, as was the case of Archytas and Archimedes. 157 Archimedes, like Plato, held that it was undesirable for a philosopher to seek to apply the results of science to any practical use; 158 but, whatever might have been his view of what ought to be in the case, he did actually introduce a large number of new inventions". 159 Following the Greek lead, certain empirically minded modern thinkers construe geometry wholly from an intellectual point of view. 160 History is read by them as establishing indubitably the proposition that mathematics is a matter of purely intellectual operations. 161 But by so construing it, they have, in geometry, remembered solely the measuring and forgotten the land, and, in arithmetic, remembered the counting and forgotten the things counted.

162 Arithmetic experienced little immediate gain from its new association with geometry, which was destined to be of momentous import in its latter history, beyond the discovery of irrationals (which, however, were for centuries not accepted as numbers), 163 and the establishment of the problem of root-taking by its association with the square, and interest in negative numbers.

164 The Greeks had only subtracted smaller numbers from larger, but the Arabs began to generalise the process and had some acquaintance with negative results, 165 but it was difficult for them to see that these results might really have significance. 166 N. Chuquet, in the fifteenth century, seems to have been the first to interpret the negative numbers, but he remained a long time without imitators. 167 Michael Stifel, in the sixteenth century, still calls them "Numeri absurdi" as over against the "Numeri veri." 168 However, their geometrical interpretation was not difficult, and they soon won their way into good standing. 169 But the case of the imaginary is more striking. The need for it was first felt when it was seen that negative numbers have no square roots. 170 Chuquet had dealt with second-degree equations involving the roots of negative numbers in 1484, but says these numbers are "impossible," and Descartes ('Geom.', 1637) first uses the word "imaginary" to denote them. 171 Their introduction is due to the Italian algebrists of the sixteenth century. They knew that the real roots of certain algebraic equations of the third degree are represented as results of operations effected upon "impossible" numbers of the form $a + b\sqrt{-1}$ 172 (where 'a' and 'b' are real numbers) without it being possible in general to find an algebraic expression for the roots containing only real numbers. 173 Cardan calculated with these "impossibles," using them to get real results $[(5 + \sqrt{-15})(5 - \sqrt{-15}) = 25 - (-15) = 40]$, 174 but adds that it is a "quantitas quae vere est sophistica" and that the calculus itself "adeo est subtilis ut est inutilis." 175 In 1629, Girard announced the theorem that every complete algebraic equation admits of as many roots, real or imaginary, as there are units in its

degree, but Gauss first proved this in 1799, and finally, in his '*Theory of Complex Quantity*', in 1831.

176 Geometry, however, among the Greeks passed into a stage of abstraction in which lines, planes, etc., in the sense in which they are understood in our elementary texts, took the place of actually measured surfaces, 177 and also took on the deductive form of presentation that has served as a model for all mathematical presentation since Euclid. 178 Mensuration smacked too much of the exchange, and before the time of Archimedes is practically wholly absent. 179 Even such theorems as "that the area of a triangle equals half the product of its base and its altitude" is foreign to Euclid. 180 Lines were merely directions, and points limitations from which one worked. But there was still dependence upon the things that one measures. 181 Euclid's elements, "when examined in the light of strict mathematical logic, ... has been pronounced by C. S. Peirce to be 'Riddled with fallacies'". 182 Not logic, but observation of the figures drawn, that is, concrete symbolisation of the processes indicated, saves Euclid from error.

183 Roman practical geometry seems to have come from the Etruscans, but the Roman here is as little inventive as in own arithmetical ventures, although the latter were stimulated somewhat by problems of inheritance and interest reckoning. 184 Indeed, before the entrance of Arabic learning into Europe and the translation of Euclid from the Arabic in 1120, there is little or no advance over the Egyptian geometry of 600 B. C. Even the universities neglected mathematics. 185 At Paris "in 1336 a rule was introduced that no student should take a degree without attending lectures on mathematics, 186 and from a commentary on the first six books of Euclid, dated 1536, it appears that candidates for the degree of A. M. had to give an oath that they had attended lectures on these books. 187 Examinations, when held at all, probably did not extend beyond the first book, as is shown by the nickname 'magister matheseos' applied to the 'Theorem of Pythagoras', the last in the first

book.... 188 At Oxford, in the middle of the fifteenth century, the first two books of Euclid were read". But later geometry dropped out and not till 1619 was a professorship of geometry instituted at Oxford. 189 Roger Bacon speaks of Euclid's fifth proposition as "elefuga," and it also gets the name of "pons asinorum" from its point of transition to higher learning. 190 As late as the fourteenth century an English manuscript begins "Nowe sues here a Tretis of Geometri whereby you may knowe the hegte, depnes, and the brede of most what erthely thynges."

191 The first significant turning-point lies in the geometry of Descartes. 192 Viete (1540-1603) and others had already applied algebra to geometry, but Descartes, by means of coördinate representation, established the idea of motion in geometry in a fashion destined to react most fruitfully on algebra, and through this, on arithmetic, as well as enormously to increase the scope of geometry. 193 These discoveries are not, however, of first moment for our problem, for the ideas of mathematical entities remain throughout them the generalised processes that had appeared in Greece. 194 It is worth noting, however, that in England mechanics has always been taught as an experimental science, while on the Continent it has been expanded deductively, as a development of 'a priori' principles.

CONTEMPORARY THOUGHT IN ARITHMETIC AND GEOMETRY

195 To develop the complete history of arithmetic and geometry would be a task quite beyond the limits of this paper, and of the writer's knowledge. 196 In arithmetic we were able to observe a stage in which spontaneous behaviour led to the invention of number names and methods of counting. 197 Then, by certain speculative and "play" impulses, there arose elementary arithmetical problems which began to be of interest in themselves. 198 Geometry here also comes into consideration, and, in connection with positional number symbols, begin those interactions between

arithmetic and geometry that result in the forms of our contemporary mathematics. 199 The complex quantities represented by number symbols are no longer merely the necessary results of analysing commercial relations or practical measurements, and geometry is no longer directly based upon the intuitively given line, point, and plane. 200 If number relations are to be expressed in terms of empirical spatial positions, it is necessary to construct many imaginary surfaces, as is done by Riemann in his theory of functions, 201 a construction representing the type of imagination which Poincaré has called the intuitional in contradistinction to the logical. 202 And geometry has not only been led to the construction of many non-Euclidian spaces, but has even, with Peano and his school, been freed from the bonds of any necessary spatial interpretation whatsoever.

203 To trace in concrete detail the attainment of modern refinements of number theory would likewise exhibit nothing new in the building up of mathematical intelligence. 204 We should find, here, a process carried out without thought of the consequences, there, an analogy suggesting an operation that might lead us beyond a difficulty that had blocked progress; 205 here, a play interest leading to a combination of symbols out of which a new idea has sprung; there, a painstaking and methodical effort to overcome a difficulty recognised from the start. 206 It is rather for us now to ask what it is that has been attained by these means, to inquire finally what are those things called "number" and "line" in the broad sense in which the terms are now used.

207 In so far as the cardinal number at least is concerned, the answer generally accepted by Dedekind, Peano, Russell, and such writers is this: the number is a "class of similar classes". 208 To the interpretation of this answer, Mr. Russell, the most self-consciously philosophical of these mathematicians, has devoted his full dialectic skill. 209 The definition has at least the merit of being free from certain arbitrary psychologising that has vitiated

many earlier attempts at the problem. 210 Mr. Russell claims for it "(1) that the formal properties which we expect cardinal numbers to have result from it; 211 (2) that unless we adopt this definition or some more complicated and practically equivalent definition, it is necessary to regard the cardinal number of a class as indefinable". 212 That the definition's terms, however, are not without obscurity appears in Mr. Russell's struggles with the zigzag theory, the no-class theory, etc., and finally in his taking refuge in the theory of "logical types", 213 whereby the contradiction that subverted Frege and drove Mr. Russell from the standpoint of the 'Principles of Mathematics' is finally overcome.

214 The second of Mr. Russell's claims for his definition adds nothing to the first, for it merely asserts that unless we adopt some definition of the cardinal number from which its formal properties result, number is undefined. 215 Any such definition would be, 'ipso facto', a practical equivalent of the first. 216 We need only consider whether or not the formal properties of numbers clearly follow from this definition.

217 Mr. Russell's own experience makes us hesitate. When he first adopted this definition from Frege, he was led to make the inference that the class of all possible classes might furnish a type for a greatest cardinal number. 218 But this led to nothing but paradox and contradiction. 219 The obvious conclusion was that something was wrong with the concept of class, and the obvious way out was to deny the possibility of any such all-inclusive class. 220 Just why there should be such limitation, except that it enables one to escape the contradiction, is not clear from Mr. Russell's analysis. 221 Furthermore, to pass to the theory of types on this ground is to give up the value of the first claim for the definition (quoted above), 222 since the formal properties of numbers now merely follow from the definition because the terms of the definition are reinterpreted from the properties of number, so that these properties will follow from it. The definition has become circular.

223 The real difficulty lies in the concept of the class. 224 Dogmatic realism is prone to find here an entity for which, as it is obviously not a physical thing, a home must be provided in some region of "being." 225 Hence arises the realm of subsistence, as for Plato the world of facts duplicated itself in a world of ideas. 226 But the subsistent realm of the mathematician is even more astounding than the ideal realm of Plato, for the latter world is a prototype of the world of things, 227 while the world of the mathematician is peopled by all sorts of entities that never were on land or sea. 228 The transfinite numbers of Cantor have, without doubt, a definite mathematical meaning, but they have no known representatives in the world of things, nor in the imagination of human, 229 and in spite of the efforts of philosophers it may even be doubted whether an entity correlative to the mathematical infinite has ever been or can ever be specified.

230 Mr. Russell now teaches that "classes are merely symbolic", but this expression still needs elucidation. 231 It does, to be sure, avoid the earlier difficulty of admitting "new and mysterious metaphysical entities", but the "feeling of oddity" that accompanies it seems not without significance. 232 What can be meant by a merely symbolic class of similar classes themselves merely symbolical? I do not know, 233 unless it is that we are to throw overboard the effort aimed at arbitrary and creative definition and proceed in simple inductive and interpretative fashion. 234 With classes as entities abandoned, we are left, until we have passed to a new point of view as to arithmetical entities, in the position of the intelligent ignoramus 235 who defined a stock market operation as buying what you can't get with money you never had, and selling what you never owned for more than it was ever worth.

236 The situation seems to be that we are now face to face with new generalisations. 237 Just as number symbols arose to denote operations gone through in counting things when attention is diverted from the particular characteristics of the

things counted, 238 and remained a symbol for those operations with things, so now we are becoming self-conscious of the character of the operations we have been performing 239 and are developing new symbols to express possible operations with operations. 240 The infinity of the number series expresses the fact that it is possible to continue the enumerating process indefinitely, 241 and when we are asked by certain mathematicians to practise ourselves in such thoughts as that for infinite series a proper part can be the equal of the whole, where equality is defined through the establishment of one-one correspondence, 242 we are really merely informed that among the group of symbols used to denote the concrete steps of an ever open counting process are groups of symbols 243 that can be used to indicate operations that are of the same type as the given one in so far as the characteristic of being an open series is concerned. 244 If there were anywhere an infinity of things to count, an unintelligible supposition, it would by no means be true that any selection of things from that series would be the equivalent of all things in the series, 245 except in so far as equivalence meant that they could be arranged in the same type of series as that from which they were drawn.

246 Similarly the mathematical conception of the continuum is nothing but a formulation of the manner in which the cuts of a line or the numbers of a continuous series must be chosen so that there shall remain no possible cut or number of which the choice is not indicated. 247 Correspondence is reached between elements of such series when the corresponding elements can be reached by an identical process. 248 It seems to me, however, a mistake to 'identify' the number continuum with the linear continuum, for the latter must include the irrational numbers, whereas the irrational number can never represent a spatial position in a series. 249 For example, the $\sqrt{2}$ is by nature a decimal involving an infinite, i.e., an ever increasing, number of digits to express it and, by virtue of the infinity of these digits, they can never be looked upon as all

given. 250 It is then truly a number, for it expresses a genuine numerical operation, 251 but it is not a position, for it cannot be a determinate magnitude but merely a quantity approaching a determinate magnitude as closely as one may please. 252 That is, without its complete expression, which would be analogous to the self-contradictory task of finding a greatest cardinal number, there can be no cut in the line which is symbolised by it. 253 But the operations of translating algebraic expressions into geometrical ones and vice versa (operations which are so important in physical investigations) are facilitated by the notion of a one to one correspondence between number and space.

254 When we pass to the transfinite numbers, we have nothing in the Alephs but the symbols of certain groupings of operations expressible in ordinary number series. 255 And the many forms of numbers are all simply the result of recognising value in naming definite groups of operations of a lower level, which may itself be a complication of processes indicated by the simple numerical signs. 256 To create such symbols is by no means illegitimate and no paradox results in any forms 257 as long as we remember that our numbers are not things but are signs of operations that may be performed directly upon things or upon other operations.

258 For example, let us consider such a symbol as $\sqrt{-5}$. -5 signifies the totality of a counting process carried on in an opposite sense from that denoted by +5. 259 To take the square root is to symbolise a number, the totality of an operation, such that when the operation denoted by multiplying it by itself is performed the result is 5. 260 Consequently the $\sqrt{-5}$ is merely the symbol of these processes combined in such a way that the whole operation is to be considered as opposite in some sense to that denoted by $\sqrt{5}$. 261 Hence, an easy method for the representation of such imaginaries is based on the principle of analytic geometry and a system of co-ordinates.

262 The nature of this last generalisation of mathematics is well shown by Mr. Whitehead in

his monumental 'Universal Algebra'. 263 The work begins with the definition of a calculus as "The art of manipulating substitutive signs according to fixed rules, and the deduction therefrom of true propositions". 264 The deduction itself is really a manipulation according to rules, and the truth consists essentially in the results being actually derived from the premises according to rule. 265 Following Stout, substitutive signs are characterised thus: "a word is an instrument for thinking about the meaning which it expresses; a substitutive sign is a means of not thinking about the meaning which it symbolises." 266 Mathematical symbols have, then, become substitutive signs. But this is only possible because they were at an early stage of their history expressive signs, 267 and the laws which connected them were derived from the relations of the things for which they stood. 268 First it became possible to forget the things in their concreteness, and now they have become mere terms for the relations that had been generalised between them. 269 Consequently, the things forgotten and the terms treated as mere elements of a relational complex, it is possible to state such relational complexes with the utmost freedom. 270 But this does not mean that mathematics can be created in a purely arbitrary fashion. The mark of its origin is upon it in the need of exhibiting some existing situation through which the non-contradictory character of its postulates can be verified. 271 The real advantage of the generalisation is that of all generalisations in science, 272 namely, that by looking away from practical applications (as appears in a historical survey) results are frequently obtained that would never have been attained if our labour had been consciously limited merely to those problems where the advantages of a solution were obvious. 273 So the most fantastic forms of mathematics, which themselves seem to bear no relation to actual phenomena, just because the relations involved in them are the relations that have been derived from dealing with an actual world, 274 may contribute to the solutions of problems in other forms of calculus, or even to the

creation of new forms of mathematics. 275 And these new forms may stand in a more intimate connection with aspects of the real world than the original mathematics.

276 In 1836-39 there appeared in the 'Gelehrte Schriften der Universität Kasan', Lobatchewsky's epoch-making "New Elements of Geometry, with a Complete Theory of Parallels." 277 After proving that "if a straight line falling on two other straight lines make the alternate angles equal to one another, the two straight lines shall be parallel to one another," 278 Euclid, finding himself unable to prove that in every other case they were not parallel, assumed it in an axiom. 279 But it had never seemed obvious. Lobatchewsky's system amounted merely to developing a geometry on the basis of the contradictory axiom, 280 that through a point outside a line an indefinite number of lines can be drawn, no one of which shall cut a given line in that plane. 281 In 1832-33, similar results were attained by Johann Bolyai in an appendix to his father's "'*Tentamen juventutem studiosam in elementa matheseosos puræ ... introducendi*'" entitled "The Science of Absolute Space." 282 In 1824 the dissertation of Riemann, under Gauss, introduced the idea of an 'n'-ply extended magnitude, or a study of 'n'-dimensional manifolds and a new road was opened for mathematical intelligence.

283 At first this new knowledge suggested all sorts of metaphysical hypotheses. 284 If it is possible to build geometries of 'n'-dimensions or geometries in which the axiom of parallels is no longer true, why may it not be that the space in which we make our measurements and on which we base our mechanics is some one of these "non-Euclidian" spaces? 285 And indeed many experiments were conducted in search of some clue that this might be the case. Such experiments in relation to "curved spaces" seemed particularly alluring, but all have turned out to be fruitless in results. 286 Failure leads to investigation of the causes of failure. 287 If our space had been some one of these spaces how would it have been possible

for us to know this fact? 288 The traditional definition of a straight line has never been satisfactory from a physical point of view. To define it as the shortest distance between two points is to introduce the idea of distance, 289 and the idea of distance itself has no meaning without the idea of straight line, and so the definition moves in a vicious circle. 290 On the metaphysical side, Lotze and others criticised these attempts, on the whole justly, but the best interpretation of the situation has been given by Poincaré.

291 Two lines of thought now lead to a recasting of our conceptions of the fundamental notions of geometry. 292 On the one hand, that very investigation of postulates that had led to the discovery of the apparently strange non-Euclidian geometries was easily continued to an investigation of the simplest basis on which a geometry could be founded. 293 Then by reaction it was continued with similar methods in dealing with algebra, and other forms of analysis, 294 with the result that conceptions of mathematical entities have gradually emerged that represent a new stage of abstraction in the evolution of mathematics, soon to be discussed as the dominating conceptions in contemporary thought. 295 On the other hand, there also developed the problem of the relations of these geometrical worlds to one another, 296 which has been primarily significant in helping to clear up the relations of mathematics in its "pure" and "applied" forms.

297 Geometry passed through a stage of abstraction like that examined in connection with arithmetic. 298 Beginning with the discovery of non Euclidian geometry, it has been becoming more and more evident that a line need not be a name for an aspect of a physical object such as the ridge-pole line of a house and the like, 299 nor even for the more abstract mechanical characteristic of direction of movement;-- 300 although the persistency with which intuitionally minded geometers have sought to adapt such illustrations to their needs has somewhat obscured this fact. 301 However, even a cursory examination of a modern treatise

on geometry makes clear what has taken place. 302 For example, Professor Hilbert begins his 'Grundlagen der Geometrie', not with definition of points, lines, and planes, but with the assumption of three different systems of things (Dinge) 303 of which the first, called points, are denoted A, B, C, etc., second, called straight lines (Gerade), are denoted a, b, c, etc., and the third, called planes, are denoted by [Greek: alpha], [Greek: beta], [Greek: gamma], etc. 304 The relations between these things then receive "genaue und vollständige Beschreibung" through the axioms of the geometry. 305 And the fact that these "things" are called points, lines, and planes is not to give to them any of the connotations ordinarily associated with these words further than are determined by the axiom groups that follow. 306 Indeed, other geometers are even more explicit on this point. Thus for Peano ('I Principii di Geometria', 1889) the line is a mere class of entities, the relations amongst which are no longer concrete relations but types of relations. The plane is a class of classes of entities, etc. 307 And an almost unlimited number of examples, about which the theorems of the geometry will express truths, can be exhibited, not one of which has any close resemblance to spatial facts in the ordinary sense.

308 Philosophers, it seems to me, have been slow to recognise the significance of the step involved in this last phase of mathematical thought. 309 We have been so schooled in an arbitrary distinction between relations and concepts, that while long familiar with general ideas of concepts, we are not familiar with generalised ideas of relations. 310 Yet this is exactly what mathematics is everywhere presenting. 311 A transition has been made from relations to types of relations, so that instead of speaking in terms of quantitative, spatial and temporal relations, mathematicians can now talk in terms of symmetrical, asymmetrical, transitive, intransitive relational types and the like. 312 These present, however, nothing but the empirical character that is common to such relations as that of father and son; debtor and

creditor; master and servant; 313 a is to the left of b, b of c; c of d; a is older than b, b than c, c than d, etc. 314 Hence this is not abandonment of experience but a generalisation of it, which results in a calculus potentially applicable not only to it but also to other subject-matter of thought. 315 Indeed, if it were not for the possibility of this generalisation, the almost unlimited applicability of diagrams, so useful in the classroom, 316 to illustrate everything from the nature of reality to the categorical imperative, as well as to the more technical usages of the psychological and social sciences, would not be understandable.

317 It would be a paradox, however, if starting out from processes of counting and measuring, generalisations had been attained that no longer had significance for counting or measuring, and the non-Euclidian hyper-dimensional geometries seem at first to present this paradox. 318 But, as the outcome of our second line of thought proves, this is not the case. 319 The investigation of the relations of different geometrical systems to each other has shown that these different systems have a correspondence with one another 320 so that for any theorem stated in one of them there is a corresponding theorem that can be stated in another. 321 In other words, given any factual situation that can be stated in Euclidian geometry, the aspect treated as a straight line in the Euclidian exposition will be treated as a curve in the non-Euclidian, 322 and a situation treated as three-dimensional by Euclid's methods can be treated as of any number of dimensions when the proper fundamental element is chosen, and vice versa, 323 although of course the element will not be the line or plane in our empirical usage of the term. This is what Poincaré means by saying that our geometry is a free choice, but not arbitrary, 324 for there are many limitations imposed by fact upon the choice, and usually there is some clear indication of convenience as to the system chosen, based on the fundamental ideal of simplicity.

325 It is evident, then, that geometry and arithmetic have been drawing closer together, and that to-day the distinction between them is somewhat hard to maintain. 326 The older arithmetic had limited itself largely to the study of the relations involved in serial orders as suggested by counting, 327 whereas geometry had concerned itself primarily with the relations of groups of such series to each other when the series, or groups of series, are represented as lines or planes. 328 But partly by interaction in analytic geometry, and partly in the generalisation of their own methods, both have come to recognise the fundamental character of the relations involved in their thought, 329 and arithmetic, through the complex number and the algebraic unknown quantities, has come to consider more complex serial types, 330 while geometry has approached the analysis of its series through interaction with number theory. 331 For both, the content of their entities and the relations involved have been brought to a minimum. 332 And this is true even of such apparently essentially intuitional fields as projective geometry, where entities can be substituted for directional lines and the axioms be turned into relational postulates governing their configurations.

333 Nevertheless, geometry like arithmetic, has remained true to the need that gave it initial impulse. As in the beginning it was only a method of dealing with a concrete situation, so in the end it is nothing but such a method, 334 although, as in the case of arithmetic, from ever closer contact with the situation in question, it has been led, by refinements that thoughtful and continual contact bring, to dissect that situation and give heed to aspects of it which were undreamed of at the initial moment. 335 In a sense, then, there are no such things as mathematical entities, as scholastic realism would conceive them. 336 And yet, mathematics is not dealing with unrealities, for it is everywhere concerned with real rational types and systems where such types may be exemplified. 337 Or we can say in a purely practical way that

mathematical entities are constituted by their relations, 338 but this phrase cannot here be interpreted in the Hegelian ontological sense in which it has played so great and so pernicious a part in contemporary philosophy. 339 Such metaphysical interpretation and its consequences are the basis of paradoxical absolutisms, such as that arrived at by Professor Royce. 340 The peculiar character of abstract or pure mathematics seems to be that its own operations on a lower level constitute material which serves for the subject-matter with which its later investigations deal. 341 But mathematics is, after all, not fundamentally different from the other sciences. 342 The concepts of all sciences alike constitute a special language peculiarly adapted for dealing with certain experience adjustments, 343 and the differences in the development of the different sciences merely express different degrees of success with which such languages have been formulated with respect to making it possible to predict concerning not yet realised situations. 344 Some sciences are still seeking their terms and fundamental concepts, others are formulating their first "grammar," and mathematics, still inadequate, yearly gains both in vocabulary and flexibility.

345 But if we are to conceive mathematical entities as mere terminal points in a relational system, it is necessary that we should become clear as to just what is meant by relation, and what is the connection between relations and quantities. 346 Modern thought has shown a strong tendency to insist, somewhat arbitrarily, on the "internal" or "external" character of relations. 347 The former emphasis has been primarily associated with idealistic ontology, and has often brought with it complex dialectic questions as to the identity of an individual thing in passing from one relational situation to another. 348 The latter insistence has meant primarily that things do not change with changing relations to other things. 349 It has, however, often implied the independent existence, in some curiously metaphysical state, of relations that are not relating

anything, and is hardly less paradoxical than the older view. 350 In the field of physical phenomena, it seems to triumph, while the facts of social life, on the other hand, lend some countenance to the view of the "internalists." 351 Like many such discussions, the best way around them is to forget their arguments, and turn to a fresh and independent investigation of the facts in question.

THINGS, RELATIONS, AND QUANTITIES

352 As I write, the way is paved for me by Professor Cohen, who outlines a theory of relations closely allied to that which I have in mind. 353 Professor Cohen writes: "Like the distinction between primary and secondary qualities, the distinction between qualities and relations seems to me a shifting one 354 because the 'nature' of a thing changes as the thing shifts from one context to another.... 355 To Professors Montague and Lovejoy the 'thing' is like an old-fashioned landowner and the qualities are its immemorial private possessions. 356 A thing may enter into commercial relations with others, but these relations are extrinsic. It never parts with its patrimony. 357 To me, the 'nature' of a thing seems not to be so private or fixed. 358 It may consist entirely of bonds, stocks, franchises, and other ways in which public credit or the right to certain transactions is represented.... 359 At any rate, relations or transactions may be regarded as wider or more primary than qualities or possessions. The latter may be defined as internal relations, that is, relations 'within' the system that constitutes the 'thing.' 360 The nature of a thing contains an essence, i.e., a group of characteristics which, in any given system or context, remain invariant, so that if these are changed the things drop out of our system... 361 but the same thing may present different essences in different contexts. 362 As a thing shifts from one context to another, it acquires new relations and drops old ones, 363 and in all transformations there is a change or readjustment of the line between the internal relations

which constitute the essence and the external relations which are outside the inner circle...."

364 Before continuing, however, I wish to make certain interpretations of these statements for which, of course, Professor Cohen is not responsible, and with which he would not be wholly in agreement. 365 My general attitude will be shown by the first comment. Concepts are only means of denoting fragments of experience directly or indirectly given. 366 If we then try to speak of a "nature of a thing" two interpretations of this expression are possible. 367 The "thing" as such is only a bit of reality which some motive, that without undue extension of the term can be called practical, has led us to treat as more or less isolable from the rest of reality. 368 Its nature, then, may consist of either its relations to other practically isolated realities or things, 369 its actual effective value in its environment (and hence shift with the environment as Professor Cohen points out), 370 or may consist of its essence, the "relations within the system," considered from the point of view of the potentialities implied by these for various environments. 371 In the first sense the nature may easily change with change in environment, but if it changes in the second sense, as Professor Cohen remarks, it "drops out of our system." 372 This I should interpret as meaning that we no longer have that thing, but some other thing selected from reality by a different purpose and point of view. 373 I should not say with Professor Cohen that "the same thing may present different essences in different contexts." Every reality is more than one thing-- 374 human is an aggregate of atoms, a living being, an animal, and a thinker, and all of these are different things in essence, although having certain common characteristics. 375 All attribution of "thingship" is abstraction, and all particular things may be said to participate in higher, i.e., more abstract, levels of thingship. 376 Hence the effort to retain a thingship through a changing of essence seems to me but the echo of the motive 377 that has so long deduced ontological monism from the logical fact that

to conceive any two things is at least to throw them into a common universe of discourse. 378 Consequently I should part company from Professor Cohen on this one point (which is perhaps largely a matter of definition, though here not unimportant) and distinguish merely the nature of a thing as 'actual' and as 'potential'. 379 Of these the former alone changes with the environment, while the latter changes only as the thing ceases to be by passing into some other thing. 380 In other words, if the example does not do violence to Professor Cohen's thought, I can quite understand this paper as a stimulator of criticism, or as a means of kindling a fire. 381 Professor Cohen would, I suspect, take this to mean that the same thing-- this paper-- must be looked upon as having two different essences in two different contexts, 382 for "the same thing may possess two different essences in different contexts," 383 whereas I should prefer to interpret the situation as meaning that there are before me three (and as many more as may be) different things having three different essences: 384 first, the paper as a physical object having a considerable number of definite properties; 385 second, written words, which are undoubtedly in one sense mere structural modifications of the physical object paper (i.e., colouring on it by ink, etc.), 386 but whose reality for my purpose lies in the power of evoking ideas acquired by things as symbols (things, indeed, but things whose essence lies in the effects they produce upon a reader rather than in their physical character); 387 and third, the chemical and combustion producing properties of the paper. 388 Now it is simpler for me to consider the situation as one in which three things have a common point in thingship, i.e., an abstract element in common, than to think of "'a' thing" shifting contexts and thereby changing its essence.

389 But now my divergence from Professor Cohen becomes more marked. 390 He continues with the following example: "Our neighbour M. is tall, modest, cheerful, and we understand he is a banker. His tallness, modesty, cheerfulness, and the fact that he is

a banker we usually regard as his qualities; the fact that he is our neighbour is a relation which he seems to bear to us. 391 He may move his residence, cease to be our neighbour, and yet remain the same person with the same qualities. 392 If, however, I become his tailor, his tallness becomes translated into certain relations of measurement; 393 if I become his social companion, his modesty means that he will stand in certain social relations with me, etc." 394 In other words, we are illustrating the doctrine that "qualities are reducible to relations". 395 This doctrine I cannot quite accept without modification, for I cannot tell what it means. 396 Without any presuppositions as to subjectivity or consciousness there are in the world as I know it certain coloured objects-- 397 let the expression be taken naïvely to avoid idealistico-realistic discussion which is here irrelevant. 398 Now it is as unintelligible to me that the red flowers and green leaves of the geraniums before my windows should be reducible to mere relations in any existential sense, as it would be to ask for the square root of their odour, 399 though of course it is quite intelligible that the physical theory and predictions concerning green and red surfaces (or odours) should be stated in terms of atomic distances and ether vibrations of specific lengths. 400 The scientific conception is, after all, nothing more than an indication of how to take hold of things and manipulate them to get foreseen results, 401 and its entities are real things only in the sense that they are the practically effective keynotes of the complex reality. 402 Accordingly, instead of reducing qualities to relations, it seems to me a much more intelligible view to consider relations as abstract ways of taking qualities in general, 403 as qualities thought of in their function of bridging a gap or making a transition between two bits of reality that have previously been taken as separate things. 404 Indeed, it is just because things are not ontologically independent beings (but rather selections from genuinely concatenated existence) 405 that relations become important as indications of the

practical significance of qualitative continuities which have been neglected in the prior isolation of the thing. 406 Thus, instead of an existential world that is "a network of relations whose intersections are called terms", I find more intelligible a qualitatively heterogeneous reality that can be variously partitioned into things, 407 and that can be abstractly replaced by systems of terms and relations that are adequate to symbolise their effective nature in particular respects. 408 There is a tendency for certain attributes to maintain their concreteness (qualitativeness) in things, and for others to suggest the connection of things with other things, and so to emphasise a more abstract aspect of experience. 409 Thus then arises a temporary and practical distinction that tends to be taken as opposition between qualities and relations. 410 As spatial and temporal characteristics possess their chief practical value in the connection of things, so they, like Professor Cohen's neighbour-character, are ordinarily assumed abstractly as mere relations, 411 while shapes, colours, etc., and Professor Cohen's "modesty, tallness, cheerfulness," may be thought of more easily without emphasis on other things and so tend to be accepted in their concreteness as qualities, 412 but how slender is the dividing-line Professor Cohen's easy translation of these things into relations makes clear.

413 Taken purely intellectualistically, there would be first a fiction of separation in what is really already continuous and then another fiction to bridge the gap thus made. 414 This would, of course, be the falsification against which Bergson inveighs. But this interpretation is to misunderstand the nature of abstraction. 415 Abstraction does not substitute an unreal for a real, but selects from reality a genuine characteristic of it which is adequate for a particular purpose. 416 Thus to conceive time as a succession of moments is not to falsify time, 417 but to select from processes going on in time a characteristic of them through which predictions can be made, which may be verified and turned into an instrument for the control of life or environment.

418 A similar misunderstanding of abstraction, coupled with a fuller appreciation than Bergson evinces of the value of its results, has led to the neo-realistic insistence on turning abstractions into existent entities of which the real world is taken to be an organised composite aggregate.

419 The practice of turning qualities into merely conscious entities has done much to obscure the status of scientific knowing, for it has left mere quantity as the only real character of the actual world. 420 But once take a realistic standpoint, and quantity is no more real than quality. 421 For primitive human, the qualitative aspect of reality is probably the first to which they gives heed, 422 and it is only through efforts to get along with the world in its qualitative character that its quantitative side is forced upon the attention. 423 Then so-called "exact" science is born, but it does not follow that qualities henceforth become insignificant. 424 They are still the basis of all relations, even of those that are most directly construed as quantitative. 425 Quality and quantity are only different aspects of the world which the status of our practical life leads us to take separately or abstractly. 426 "Thing" is no less an abstraction, in which we disregard certain continuities with the rest of the world because we are so constituted that the demands of living make it expedient to do so. 427 Things once given, further abstractions become possible, among which are those leading to mathematical thinking, in which higher abstractions are made, guided always by the "generating problem".

THE FUNCTION OF THEORY IN SCIENCE

428 The controlling factors for the progress of scientific thought are inventions that lead the scientist into closer contact with own data, and direct attention to complexities which would otherwise have escaped observation. 429 This end is best fulfilled by conceiving entities that under some point of view are practically isolable from the context in which they occur. 430 Only too often philosophic thought

has confused this practical segregation with ontological separation, 431 and so been obliged to introduce metaphysical and external relations to bring these entities together again in a real world, when in reality they have never been separated from one another and hence not from the real world. 432 Furthermore, the conceptual model, built on the lines of a calculus of mathematics, is often considered the truth 'par excellence' after the analogy of a camera's portrait. 433 Progress in science, however, shows that these models have to be continually rebuilt. 434 Each seems to lead to further knowledge that necessitates its reconstruction, so that truth takes on an ideal value as an ultimate but unattained, if not unattainable, goal, while existing science becomes reduced to working hypotheses. 435 From a positivistic point of view, however, the goal is not only practically unattainable, but it is irrational, for there seems to be every evidence that it expresses something contrary to the nature of the real. 436 Yet scientific theory is not wholly arbitrary. We cannot construe Nature as constituted of any sorts of entities that may suit our whim. 437 And this is because science itself recognises that its entities are not really isolated, but are endowed with all sorts of properties that serve to connect them with other entities. 438 They are only symbols of critical points of reality which, conceived in a certain way, make the behaviour of the whole intelligible. 439 Indeed, the only significant sense in which they are true for the scientist is that they indicate real connections that might otherwise have been overlooked, 440 and this is only possible from the fact that reality has the characteristics that they present and that, with their relations, they give an approximate presentation of what is actually presented 441 just as a successful portrait painter considers the individuality of the eyes, nose, mouth, etc., although you does not imply that a face is compounded of these separate features as a house is built of boards.

442 The atomic theory, for example, has undoubtedly been of the greatest service to chemistry, and atoms undoubtedly denote a

significant resting-place in the analysis of the physical world. 443 Yet in the light of electron theories, it is becoming more and more evident that atoms are not ultimate particles, and are not even all alike when they represent a single substance. 444 Again, while there is as yet no evidence to suggest that the electron must itself be considered as divisible (unless it be the distinction between the positive and negative electron), there are suggestions that electrons may themselves arise and pass away. 445 "A wisely positivistic mind," writes Enriques, "can see in the atomic hypothesis only a subjective representation," 446 and, we might add, "in any other hypothesis." He continues: "robbing the atom of the concrete attributes inherent in its image, we find ourselves regarding it as a mere symbol. 447 The logical value of the atomic theory depends, then, upon the establishment of a proper correspondence between the symbols which it contains and the reality which we are trying to represent.

448 "Now, if we go back to the time when the atomic theory was accepted by modern chemistry, we see that the plain atomic formulæ contain only the representation of the invariable relations in the combination of simple bodies, in weight and volume; 449 these last being taken in relation to a well-defined gaseous state.

450 "But, once introduced into science, the atomic phraseology suggested the extension of the meaning of the symbols, and the search in reality for facts in correspondence with its more extended conception.

451 "The theory advances, urged on, as it were, by its metaphysical nature, or, if you wish, by the association of ideas which the concrete image of the atom carries with it.

452 "Thus for the plain formulæ we have substituted, in the chemistry of carbon compounds, structural formulæ, which come to represent, thanks to the disposition or grouping of atoms in a molecule, structural relations of the second degree, 453 that is to say, relations inherent in certain chemical transformations with respect to

which some groups of elements have in some way an invariant character. 454 And here, because the image of a simple molecule upon a plane does not suffice to explain, for example, the facts of isomerism, we must resort to the stereo-chemical representation of Van't Hoff.

455 "Must we further recall the kinetic theory of gases, the facts explained by the breaking up of molecules into ions, 456 the hypothesis suggested, for example, by Van der Waals by the view that an atom has an actual bulk? 457 Must we point to a physical phenomenon of quite a different class, for example, to the colouring of the thin film forming the soap-bubbles which W. Thomson has taken as the measure of the size of a molecule?

458 "Such a résumé of results shows plainly that we cannot help the progress of science by blocking the path of theory and looking only at its positive aspects, that is to say, at the collection of facts that it explains. 459 The value of a theory lies rather in the hypothesis which it can suggest, by means of the psychological representation of the symbols.

460 "We shall not draw from all this the conclusion that the atomic hypothesis ought to correspond to the extremely subtle sensations of a being resembling a perfected human. 461 We shall not even reason about the possibility of those imaginary sensations, in so far as they are conceived simply as an extension of our own. 462 But we shall repeat, in regard to the atomic theory, what an illustrious master is said to have remarked as to the unity of matter: 463 if on first examination a fact seems possible which contradicts the atomic view of things, there is a strong probability that such a fact will be disproved by experience.

464 "Does not such a capacity for adaptation to facts, thus furnishing a model for them, perhaps denote the 'positive' reality of a theory?"

465 And the above principles are as true of mathematical concepts as of chemical. 466 Everywhere it is "capacity of adaptation to facts" that is the criterion of a branch of mathematics, except, of course, that in mathematics the facts are not always physical facts.

467 Mathematics has successfully accomplished a generalisation whereby its own methods furnish the material for higher generalisations. 468 The imaginary number and the hyper-dimensional or non-Euclidian geometries may be absurd if measured by the standard of physical reality, 469 but they nevertheless have something real about them in relation to certain mathematical processes on a lower level. 470 There is no philosophic paradox about modern arithmetic or geometry, 471 once it is recognised that they are merely abstractions of genuine features of simpler and more obviously practical manipulations that are clearly derived from the dealing of a human being with genuine realities.

472 In the light of these considerations, I cannot help feeling that the frequent attempts of mathematicians with a philosophical turn of mind, 473 and philosophers who are dipping into mathematics, to derive geometrical entities from psychological considerations are quite mistaken, 474 and are but another example of those traditional presuppositions of psychology which, Professor Dewey has pointed out, were "bequeathed by seventeenth-century philosophy to psychology, 475 instead of originating within psychology" … that "were wished upon it by philosophy when it was as yet too immature to defend itself."

476 Henri Poincaré and Enriques furnish two of the most familiar examples of this sort of philosophising. 477 Each isolates special senses, sight, touch, or motion, and tries to show how a being merely equipped with one or the other of these senses might arrive at geometrical conceptions which differ, of course, from space as represented by our familiar Euclidian geometry. 478 Then comes the question of fusing these different sorts of experience into a single experience of which geometry may be an intelligible transcription. 479 Enriques finds a parallel between the historical development and the psycho-genetic development of the postulates of geometry. 480 "The three groups of ideas that are connected with the concepts that

serve as the basis for the theory of continuum ('Analysis situs'), of metrical, and of projective geometry, may be connected, as to their psychological origin, with three groups of sensations: 481 with the general tactile-muscular sensations, with those of special touch, and of sight, respectively." 482 Poincaré even evokes ancestral experience to make good his case. "It has often been said that if individual experience could not create geometry, the same is not true of ancestral experience. But what does that mean? 483 Is it meant that we could not experimentally demonstrate Euclid's postulate, but that our ancestors have been able to do it? Not in the least. 484 It is meant that by natural selection our mind has 'adapted' itself to the conditions of the external world, that it has adopted the geometry 'most advantageous' to the species: or in other words, the 'most convenient'."

485 Now undoubtedly there may be a certain modicum of truth in these statements. As implied by the last quotation from Poincaré, 486 the modern scientist can hardly doubt that the fact of the adaptation of our thinking to the world we live in is due to the fact that it is in that world that we evolved. 487 As is implied by both writers, if one could limit human contact with the world to a particular form of sense response, thought about that world would take place in different terms from what it now does and would presumably be less efficient. 488 But these admissions do not imply that any light is thrown upon the nature of mathematical entities by such abstractions. 489 Russell (*'Scientific Method in Philosophy'*) is in the curious position of raising arithmetic to a purely logical status, but playing with geometry and sensation after the manner of Poincaré, to whom he gives somewhat grudging praise on this account.

490 The psychological methods upon which all such investigations are based are open to all sorts of criticisms. Chiefly, the conceptions on which they are based, even if correct, are only abstractions. 491 There is not the least evidence for the existence of organisms with a single differentiated sense organ, nor the

least evidence that there ever was such an organism. 492 Indeed, according to modern accounts of the evolution of the nervous system different senses have arisen through a gradual differentiation of a more general form of stimulus receptor, 493 and consequently, the possibility of the detachment of special senses is the latter end of the series and not the first. 494 But, however this may be, the mathematical concepts that we are studying have only been grasped by a highly developed organism, human, 495 but they had already begun to be grasped by you in an early stage of your career before you had analysed your experience and connected it with specific sense organs. 496 It may of course be a pleasant exercise, if one likes that sort of thing, to assume with most psychologists certain elementary sensations, and then examine the amount of information each can give in the light of possible mathematical interpretations, 497 but to do so is not to show that a being so scantily endowed would ever have acquired a geometry of the type in question, or any geometry at all. 498 Inferences of the sort are in the same category with those from hypothetical children, that used to justify all theories of the pedagogue and psychologist, or from the economic person, that still, I fear, play too great a part in the world of social science.

MATHEMATICAL INTELLIGENCE

499 The real nature of intelligence as it appears in the development of mathematics is something quite other than that of sensory analysis. 500 Intelligence is fundamentally skill, 501 and although skill may be acquired in connection with some sort of sensory contact of an organism and environment, it is only determined by that contact 502 in the sense that if the sensory conditions were different the needs of the organism might be different, and the kind and degree of skill it could attain would be other than under the conditions at first assumed. 503 Whenever the beginnings of mathematics appear with primitive people, we find a stage of development that calls for the exercise of skill in dealing with

certain practical situations. 504 Hence we found early in our investigations that it was impossible to affirm a weak intelligence from limited achievements in counting, 505 just as it would be absurd to assume the feeble intelligence of a philosopher from own inability to manipulate a boomerang. 506 The instance merely suggests a kind of skill that one has never been led to acquire.

507 Yet it is possible to distinguish intellectual skill, or better skills, from physical or athletic prowess. 508 Primarily, it is directed at the formation and use of concepts, and the concept is only a symbol that can be substituted for experiences. 509 A well-built concept is a part of a system of concepts where relations have taken the place of real connections in such a fashion 510 that, forgetting the actuality, it is possible to present situations that have never occurred or at least are not immediately given at the time and place of the presentation, 511 and to substitute them for actual situations in such a fashion that these may be expediently met, if or when such situations present themselves. 512 An isolated concept, that is, one not a part of any system, is as mythical an entity as any savage ever dreamed. 513 Indeed, it would add much to the clearness of our thinking if we could limit the use of "intelligence" to skill in constructing and using different systems of concepts, 514 and speak concretely of mathematical intelligence, philosophical intelligence, economic intelligence, historic intelligence, and the like. 515 The problem of creative intelligence is, after all, the problem of the acquisition of certain forms of skill, 516 and while the general lines are the same for all knowledge (because the instruments are everywhere symbolic presentations, or concepts), in each field the situation studied makes different types of difficulties to be overcome and suggest different methods of attaining the object.

517 In mathematics, the formal impulse to reduce the content of fundamental concepts to a minimum, and to stress merely relations has been most successful. 518 We saw its results in such

geometries as Hilbert's and Peano's, where the empty name "entity" supplants the more concrete "point," and the "1" of arithmetic has the same character. 519 In the social sciences, however, such examples as the "political" and the "economic" person are signal failures, while, perhaps, the "atom" and the "electron" approach the ideal in physics and chemistry. 520 In mathematics, all further concepts can be defined by collections of these fundamental entities constituted in certain specified ways. 521 And it is worth noting that both factually and logically a collection of entities so defined is not a mere aggregate, 522 but possesses a differentiated character of its own which, although the resultant of its constitution, is not a property of any of its elements. 523 A whole number is thus a collection of 1s, but the properties of the whole number are something quite different from that of the elements through which it is constituted, 524 just as an atom may be composed of electrons and yet, in valency, possess a property that is not the direct analogue of any property possessed by electrons not so organised.

525 Natural science, however, considers such building up of its fundamental entities into new entities 526 as a process taking place in time rather than as consequent upon change of form of the whole rendering new analytic forms expedient. 527 Hence it points to the occurrence of genuine novelties in the realm of objective reality. 528 Mathematics, on the other hand, has generalised its concepts beyond the facts implied in spatial and temporal observations, 529 so that while significant in both fields by virtue of the nature of its abstractions, its novelties are the novelties of new conceptual formations, a distinguishing of previously unnoted generalisations of relations existent in the realm of facts. 530 But the fact that time has thus passed beyond its empirical meaning in the mathematical realm is no ground for giving mathematics an elevated position as a science of eternal realities, of subsistent beings, or the like. 531 The generalisation of concepts to cover both spatial and temporal

facts does not create new entities for which a home must be provided in the partition of realities. 532 Metaphysicians should not be the "needy knife grinders" of M. Anatole France. Nevertheless, the success of abstraction for mathematical intelligence has been immense.

533 No significant thinking is wholly the work of an individual human. 534 Ideas are a product of social coöperation in which some have wrested crude concepts from Nature, others have refined them through usage, and still others have built them into an effective system. 535 The first steps were undoubtedly taken in an effort to communicate, and progress has been in part the progress of language. 536 The original nature of human may have as a part those reactions which we call curiosity, 537 but, as Auguste Comte long ago pointed out, these reactions are among the feeblest of our nature and without the pressure of practical affairs could hardly have advanced the race beyond barbarism. 538 Science was the plaything of the Greek, the consolation of the Middle Ages, and only for the modern has it become an instrument in such fashion as to mark an epoch in the still dawning discovery of mind.

539 Human is, after all, rational only because through your nervous system you can hold your immediate responses in check and finally react as a being that has had experiences and profited by them. 540 Concepts are the medium through which these experiences are in effect preserved; they express not merely a fact recorded but also the significance of a fact, not merely a contact with the world but also an attitude toward the future. 541 It may be that the mere judgment of fact, a citation of resemblances and differences, is the basis of scientific knowledge, 542 but before knowledge is worthy of the name, these facts have undergone an ideal transformation controlled by the needs of successful prediction 543 and motivated by that self-conscious realisation of the value of control which has raised human above the beasts of the field.

544 The realm of mathematics, which we have been examining, is but one aspect of the growth of

intelligence. 545 But in theory, at least, it is among the most interesting, since in it are reached the highest abstractions of science, while its empirical beginnings are not lost. 546 But its processes and their significance are in no way different in essence from those of the other sciences. 547 It marks one road of specialisation in the discovery of mind. And in these terms we may read all history. 548 To quote Professor Woodbridge: "We may see human rising from the ground, startled by the first dim intimation that the things and forces about you are convertible and controllable. 549 Curiosity excites you, but you are subdued by an untrained imagination. The things that frighten you, you tries to frighten in return. The things that bless you, you blesses. 550 You would scare the earth's shadow from the moon and sacrifice your dearest to a propitious sky. It avails not. But the little things teach you and discipline your imagination. 551 You have kicked the stone that bruised you only to be bruised again. So you converts the stone into a weapon and begins the subjugation of the world, singing a song of triumph by the way. 552 Such is your history in epitome-- a blunder, a conversion, a conquest, and a song. 553 That sequence you will repeat in greater things. You will repeat it yet and rejoice where you now despairs, converting the chaos of your social, political, industrial, and emotional life into wholesome force. 554 You will sing again. But the discovery of mind comes first, and then, the song."

SCIENTIFIC METHOD AND INDIVIDUAL THINKER

George H. Mead

4 The scientist in the ancient world found own test of reality in the evidence of the presence of the essence of the object. 2 This evidence came by way of observation, even to the Platonist. Plato could treat this evidence as the awaking of memories of the ideal essence of the object seen in a world beyond the heavens during a former stage of the existence of the soul. 3 In the language of Theatetus it was the agreement of

fluctuating sensual content with the thought-content imprinted in or viewed by the soul. 4 In Aristotle it is again the agreement of the organised sensuous experience with the vision which the mind gets of the essence of the object through the perceptual experience of a number of instances. 5 That which gives the stamp of reality is the coincidence of the percept with a rational content which must in some sense be in the mind to insure knowledge, as it must be in the cosmos to insure existence, of the object. 6 The relation of this test of reality to an analytical method is evident. Our perceptual world is always more crowded and confused than the ideal contents by which the reality of its meaning is to be tested. 7 The aim of the analysis varies with the character of the science. 8 In the case of Aristotle's theoretical sciences, such as mathematics and metaphysics, where one proceeds by demonstration from the given existences, analysis isolates such elements as numbers, points, lines, surfaces, and solids, essences and essential accidents. 9 Aristotle approaches Nature, however, as he approaches the works of human art. Indeed, he speaks of Nature as the artificer par excellence. 10 In the study of Nature, then, as in the study of the practical and productive arts, it is of the first importance that the observer should have the idea-- the final cause-- as the means of deciphering the nature of living forms. 11 Here analysis proceeds to isolate characters which are already present in forms whose functions are assumed to be known. 12 By analogy such identities as that of fish fins with limbs of other vertebrates are assumed, and some very striking anticipations of modern biological conceptions and discoveries are reached. 13 Aristotle recognises that the theory of the nature of the form or essence must be supported by observation of the actual individual. 14 What is lacking is any body of observation which has value apart from some theory. 15 He tests his theory by the observed individual which is already an embodied theory, rather than by what we are wont to call the facts. 16 He refers to other observers to disagree with them. He does not

present their observations apart from their theories as material which has existential value, independent for the time being of any hypothesis. 17 And it is consistent with this attitude that he never presents the observations of others in support of his own doctrine. 18 His analysis within this field of biological observation does not bring him back to what, in modern science, are the data, but to general characters which make up the definition of the form. 19 His induction involves a gathering of individuals rather than of data. Thus analysis in the theoretical, the natural, the practical, and the productive sciences, leads back to universals. 20 This is quite consistent with Aristotle's metaphysical position that since the matter of natural objects has reality through its realisation in the form, whatever appears without such meaning can be accounted for only as the expression of the resistance which matter offers to this realisation. 21 This is the field of a blind necessity, not that of a constructive science.

22 Continuous advance in science has been possible only when analysis of the object of knowledge has supplied not elements of meanings as the objects have been conceived but elements abstracted from those meanings. 23 That is, scientific advance implies a willingness to remain on terms of tolerant acceptance of the reality of what cannot be stated in the accepted doctrine of the time, but what must be stated in the form of contradiction with these accepted doctrines. 24 The domain of what is usually connoted by the term facts or data belongs to the field lying between the old doctrine and the new. 25 This field is not inhabited by the Aristotelian individual, for the individual is but the realisation of the form or universal essence. 26 When the new theory has displaced the old, the new individual appears in the place of its predecessor, 27 but during the period within which the old theory is being dislodged and the new is arising, a consciously growing science finds itself occupied with what is on the one hand the débris of the old and on

the other the building material of the new. 28 Obviously, this must find its immediate 'raison d'être' in something other than the meaning that is gone or the meaning that is not yet here. 29 It is true that the barest facts do not lack meaning, though a meaning which has been theirs in the past is lost. 30 The meaning, however, that is still theirs is confessedly inadequate, otherwise there would be no scientific problem to be solved. 31 Thus, when older theories of the spread of infectious diseases lost their validity because of instances where these explanations could not be applied, 32 the diagnoses and accounts which could still be given of the cases of the sickness themselves were no explanation of the spread of the infection. 33 The facts of the spread of the infection could be brought neither under a doctrine of contagion which was shattered by actual events nor under a doctrine of the germ theory of disease, which was as yet unborn. 34 The logical import of the dependence of these facts upon observation, and hence upon the individual experience of the scientist, I shall have occasion to discuss later; 35 what I am referring to here is that the conscious growth of science is accompanied by the appearance of this sort of material.

36 There were two fields of ancient science, those of mathematics and of astronomy, within which very considerable advance was achieved, a fact which would seem therefore to offer exception to the statement just made. 37 The theory of the growth of mathematics is a disputed territory, 38 but whether mathematical discovery and invention take place by steps which can be identified with those which mark the advance in the experimental sciences or not, 39 the individual processes in which the discoveries and inventions have arisen are almost uniformly lost to view in the demonstration which presents the results. 40 It would be improper to state that no new data have arisen in the development of mathematics, 41 in the face of such innovations as the minus quantity, the irrational, the imaginary, the infinitesimal, or the transfinite number, and yet the innovations appear as the recasting of the mathematical theories rather

than as new facts. 42 It is of course true that these advances have depended upon problems such as those which in the researches of Kepler and Galileo led to the early concepts of the infinitesimal procedure, 43 and upon such undertakings as bringing the combined theories of geometry and algebra to bear upon the experiences of continuous change. 44 For a century after the formulation of the infinitesimal method people were occupied in carrying the new tool of analysis into every field where its use promised advance. 45 The conceptions of the method were uncritical. Its applications were the center of attention. 46 The next century undertook to bring order into the concepts, consistency into the doctrine, and rigour into the reasoning. 47 The dominating trend of this movement was logical rather than methodological. 48 The development was in the interest of the foundations of mathematics rather than in the use of mathematics as a method for solving scientific problems. 49 Of course this has in no way interfered with the freedom of application of mathematical technique to the problems of physical science. 50 On the contrary, it was on account of the richness and variety of the contents which the use of mathematical methods in the physical sciences imported into the doctrine that this logical housecleaning became necessary in mathematics. 51 The movement has been not only logical as distinguished from methodological but logical as distinguished from metaphysical as well. 52 It has abandoned a Euclidean space with its axioms as a metaphysical presupposition, and it has abandoned an Aristotelian subsumptive logic for which definition is a necessary presupposition. 53 It recognises that everything cannot be proved, but it does not undertake to state what the axiomata shall be; 54 and it also recognises that not everything can be defined, and does not undertake to determine what shall be defined implicitly and what explicitly. 55 Its constants are logical constants, as the proposition, the class and the relation. 56 With these and their

like and with relatively few primitive ideas, which are represented by symbols, and used according to certain given postulates, it becomes possible to bring the whole body of mathematics within a single treatment. 57 The development of this pure mathematics, which comes to be a logic of the mathematical sciences, has been made possible by such a generalisation of number theory and theories of the elements of space and time 58 that the rigour of mathematical reasoning is secured, while the physical scientist is left the widest freedom in the choice and construction of concepts and imagery for own hypotheses. 59 The only compulsion is a logical compulsion. The metaphysical compulsion has disappeared from mathematics and the sciences whose techniques it provides.
60 It was just this compulsion which confined ancient science. Euclidian geometry defined the limits of mathematics. Even mechanics was cultivated largely as a geometrical field. 61 The metaphysical doctrine according to which physical objects had their own places and their own motions determined the limits within which astronomical speculations could be carried on. 62 Within these limits Greek mathematical genius achieved marvelous results. 63 The achievements of any period will be limited by two variables: the type of problem against which science formulates its methods, and the materials which analysis puts at the scientist's disposal in attacking the problems. 64 The technical problems of the trisection of an angle and the duplication of a cube are illustrations of the problems which characterise a geometrical doctrine that was finding its technique. 65 There appears also the method of analysis of the problem into simpler problems, the assumption of the truth of the conclusion to be proved and the process of arguing from this to a known truth. 66 The more fundamental problem which appears first as the squaring of the circle, which becomes that of the determination of the relation of the circle to its diameter 67 and development of the method of exhaustion, leads up to the sphere, the regular polyhedra, to conic

sections and the beginnings of trigonometry. 68 Number was not freed from the relations of geometrical magnitudes, though Archimedes could conceive of a number greater or smaller than any assignable magnitude. 69 With the method of exhaustion, with the conceptions of number found in writings of Archimedes and others, with the beginnings of spherical geometry and trigonometry, and with the slow growth of algebra finding its highest expression in that last flaring up of Greek mathematical creation, the work of Diophantes; 70 there were present all the conceptions which were necessary for attack upon the problems of velocities and changing velocities, 71 and the development of the method of analysis which has been the revolutionary tool of Europe since the Renaissance. 72 But the problems of a relation between the time and space of a motion that should change just as a motion, without reference to the essence of the object in motion, were problems which did not, perhaps could not, arise to confront the Greek mind. 73 In any case its mathematics was firmly embedded in a Euclidian space. Though there are indications of some distrust, even in Greek times, of the parallel axiom, 74 the suggestion that mathematical reasoning could be made rigourous and comprehensive independently of the specific content of axiom and definition was an impossible one for the Greek, 75 because such a suggestion could be made only on the presupposition of a number theory 76 and an algebra capable of stating a continuum in terms which are independent of the sensuous intuition of space and time and of the motion that takes place within space and time. 77 In the same fashion mechanics came back to fundamental generalisations of experience with reference to motions which served as axioms of mechanics, both celestial and terrestrial: 78 the assumptions of the natural motion of earthly substances to their own places in straight lines, and of celestial bodies in circles and uniform velocities, of an equilibrium where equal weights operate at equal distances from the fulcrum.

79 The incommensurable of Pythagoras and the paradoxes of Zeno present the "no thoroughfares" of ancient mathematical thought. 80 Neither the continuum of space nor of motion could be broken up into ultimate units, when incommensurable ratios existed which could not be expressed, 81 and when motion refused to be divided into positions of space or time since these are functions of motion. 82 It was not until an algebraic theory of number led mathematicians to the use of expressions for the irrational, the minus, and the imaginary numbers through the logical development of generalised expressions, that problems could be formulated in which these irrational ratios and quantities were involved, 83 though it is also true that the effort to deal with problems of this character was in no small degree responsible for the development of the algebra. 84 Fixed metaphysical assumptions in regard to number, space, time, motion, and the nature of physical objects determined the limits within which scientific investigation could take place. 85 Thus though the hypothesis of Copernicus and in all probability of Tycho Brahe were formulated by Greek astronomers, 86 their physical doctrine was unable to use them because they were in flagrant contradiction with the definitions the ancient world gave to earthly and celestial bodies and their natural motions. 87 The atomic doctrine with Democritus' thoroughgoing undertaking to substitute a quantitative for a qualitative conception of matter 88 with the location of the qualitative aspects of the world in the experience of the soul appealed only to the Epicurean who used the theory as an exorcism to drive out of the universe the spirits which disturbed the calm of the philosopher.

89 There was only one field in which ancient science seemed to break away from the fixed assumptions of its metaphysics and from the definitions of natural objects which were the bases for their scientific inferences, 90 this was the field of astronomy in the period after Eudoxus. Up to and including the theories of Eudoxus, physical and mathematical

astronomy went hand in hand. [91] Eudoxus' nests of spheres within spheres hung on different axes revolving in different uniform periods was the last attempt of the mathematician philosopher to state the anomalies of the heavens, [92] and to account for the stations, the retrogressions, and varying velocities of planetary bodies by a theory resolving all phenomena of these bodies into motions of uniform velocities in perfect circles, [93] and also placing these phenomena within a physical theory consistent with the prevailing conceptions of the science and philosophy of the time. [94] As a physicist Aristotle felt the necessity of introducing further spheres between the nests of spheres assigned by Eudoxus to the planetary bodies, [95] spheres whose peculiar motions should correct the tendency of the different groups of spheres to pass their motions on to each other. [96] Since the form of the orbits of heavenly bodies and their velocities could not be considered to be the results of their masses and of their relative positions with reference to one another; [97] since it was not possible to calculate the velocities and orbits from the physical characters of the bodies, [98] since in a word these physical characters did not enter into the problem of calculating the positions of the bodies nor offer explanations for the anomalies which the mathematical astronomer had to explain, [99] it was not strange that he disinterested himself from the metaphysical celestial mechanics of his time and concentrated his attention upon the geometrical hypotheses [100] by means of which he could hope to resolve into uniform revolutions in circular orbits the anomalous motions of the planetary bodies. [101] The introduction of the epicycle with the deferent and the eccentric as working hypotheses to solve the anomalies of the heavens is to be comprehended largely in view of the isolation of the mathematical as distinguished from the physical problem of astronomy. [102] In no sense were these conceptions working hypotheses of a celestial mechanics. [103] They were the only means of an age whose mathematics was almost entirely

geometrical for accomplishing what a later generation could accomplish by an algebraic theory of functions. 104 As has been pointed out, the undertaking of the ancient mathematical astronomer to resolve the motions of planetary bodies into circular, uniform, continuous, symmetrical movements 105 is comparable to the theorem of Fourier which allows the mathematician to replace any one periodic function by a sum of circular functions. 106 In other words, the astronomy of the Alexandrian period is a somewhat cumbrous development of the mathematical technique of the time 107 to enable the astronomer to bring the anomalies of the planetary bodies, as they increased under observation, within the axioms of a metaphysical physics. 108 The genius exhibited in the development of the mathematical technique places the names of Apollonius of Perga, Hipparchus of Nicaea, and Ptolemy among the great mathematicians of the world, 109 but they never felt themselves free to attack by their hypotheses the fundamental assumptions of the ancient metaphysical doctrine of the universe. 110 Thus it was said of Hipparchus by Adrastus, a philosopher of the first century A. D., in explaining his preference for the epicycle to the eccentric as a means of analysing the motions of the planetary bodies: 111 "He preferred and adopted the principle of the epicycle as more probable to his mind, 112 because it ordered the system of the heavens with more symmetry and with a more intimate dependence with reference to the center of the universe. 113 Although he guarded himself from assuming the rôle of the physicist in devoting himself to the investigations of the real movements of the stars, 114 and in undertaking to distinguish between the motions which Nature has adopted from those which the appearances present to our eyes, 115 he assumed that every planet revolved along an epicycle, the center of which describes a circumference concentric with the earth." 116 Even mathematical astronomy does not offer an exception to the scientific method of the ancient world, 117 that of bringing to consciousness the

concepts involved in their world of experience, organising these concepts with reference to each, 118 analysing and restating them within the limits of their essential accidents, and assimilating the concrete objects of experience to these typical forms as more or less complete realisations.

119 At the beginning of the process of Greek self-conscious reflection and analysis, the mind ran riot among the concepts and their characters 120 until the contradictions which arose from these unsystematised speculations brought the Greek mind up to the problems of criticism and scientific method. 121 Criticism led to the separation of the many from the one, the imperfect copy from the perfect type, the sensuous and passionate from the rational and the intrinsically good, the impermanent particular from the incorruptible universal. 122 The line of demarcation ran between the lasting reality that answered to critical objective thought and the realm of perishing imperfect instances, 123 of partially realised forms full of unmeaning differences due to distortion and imperfection, the realm answering to a sensuous passionate unreflective experience. 124 It would be a quite inexcusable mistake to put all that falls on the wrong side of the line into a subjective experience, 125 for these characters belonged not alone to the experience, but also to the passing show, to the world of imperfectly developed matter which belonged to the perceptual passionate experience. 126 While it may not then be classed as subjective, the Greeks of the Sophistic period felt that this phase of existence was an experience which belongs to the person in own individual life, 127 that life in which you revolts from the conventions of society, in which you questions accepted doctrine, in which you differentiates yourself from your fellows. 128 Protagoras seems even to have undertaken to make this experience of the individual, the stuff of the known world. 129 It is difficult adequately to assess Protagoras' undertaking. He seems to be insisting both that the human's experience as your own must be the measure of reality as known 130 and on the other

hand that these experiences present norms which offer a choice in conduct. 131 If this is true Protagoras conceived of the individual's experience in its atypical and revolutionary form as not only real but the possible source of fuller realities than the world of convention. 132 The undertaking failed both in philosophic doctrine and in practical politics. 133 It failed in both fields because the subjectivist, both in theory and practice, did not succeed in finding a place for the universal character of the object, its meaning, in the mind of the individual 134 and thus in finding in this experience the hypothesis for the reconstruction of the real world. 135 In the ancient world the atypical individual, the revolutionist, the non-conformist was a self-seeking adventurer or an anarchist, not an innovator or reformer, 136 and subjectivism in ancient philosophy remained a sceptical attitude which could destroy but could not build up.

137 Hippocrates and his school came nearer consciously using the experience of the individual as the actual material of the object of knowledge. 138 In the sceptical period in which they flourished they rejected on the one hand the magic of traditional medicine and on the other the empty theorising that had been called out among the physicians by the philosophers. 139 Their practical tasks held them to immediate experience. 140 Their functions in the gymnasia gave their medicine an interest in health as well as in disease, and directed their attention largely toward diet, exercise, and climate in the treatment even of disease. 141 In its study they have left the most admirable sets of observations, including even accounts of acknowledged errors and the results of different treatments of cases, which ancient science can present. 142 It was the misfortune of their science that it dealt with a complicated subject-matter dependent for its successful treatment upon the whole body of physical, chemical, and biological disciplines as well as the discovery and invention of complicated techniques. 143 They were forced after all to adopt a hopelessly inadequate physiological theory-- that of the four humors-- with the

corresponding doctrine of health and disease as the proper and improper mixture of these fluids. 144 Their marvelously fine observation of symptoms led only to the definition of types and a medical practice which was capable of no consistent progress outside of certain fields of surgery. 145 Thus even Greek medicine was unable to develop a different type of scientific method except in so far as it kept alive an empiricism which played a not unimportant part in post-Aristotelian philosophy. 146 Within the field of astronomy in explaining the anomalies of the heavens involved in their metaphysical assumptions, they built up a marvelously perfect Euclidian geometry, for here refined and exhaustive definition of all the elements was possible. 147 The problems involved in propositions to be proved appeared in the individual experience of the geometrician, but this experience in space was uniform with that of every one else and took on a universal not an individual form. 148 The test of the solution was given in a demonstration which holds for every one living in the same Euclidian space. 149 When the mathematician found the self carried by own mathematical technique beyond the assumptions of a metaphysical physics, abandoned the field of physical astronomy and confined the self to the development of own mathematical expressions.

150 In other fields Greek science analysed with varying success and critical skill only the conceptions found in the experience of their time and world. 151 Nor did Greek thought succeed in formulating any adequate method by which the ultimate concepts in any field of science were to be determined. 152 It is in Aristotle's statement of induction and the process of definition that we appreciate most clearly the inadequacy of their method. 153 This inadequacy lies fundamentally in Aristotle's conception of observation which, as I have already noted, implies the recognition of an individual, that is, an object which is an embodied form or idea. 154 The function of knowledge is to bring out this essence. The mind sees through the individuals the universal nature. 155 The value of

the observation lies, then, not in the controlled perception of certain data as observed facts, but in the insight with which one recognises the nature of the object. 156 When this nature has been seen it is to be analysed into essential characters and thus formulated into the definition. 157 In Aristotle's methodology there is no procedure by which the mind can deliberately question the experience of the community and by a controlled method reconstruct its received world. 158 Thus the natural sciences were as really fixed by the conceptions of the community as were the exact sciences by the conceptions of a Euclidian geometry and the mathematics which the Greeks formulated within it. 159 The individual within whose peculiar experience arises a contradiction to the prevailing conceptions of the community 160 and in whose creative intelligence appears the new hypothesis which makes possible a new heaven and a new earth could utilise own individual experience only in destructive scepticism. 161 Subjectivism served in ancient thought to invalidate knowledge not to enlarge it.

162 Zeller has sketched a parallelism between the ideal state of Plato and the social structure of the medieval world. 163 The philosopher-king is represented by the Pope, below him answering to the warrior class in the Platonic state stands the warrior class of the Holy Roman Empire, who in theory enforce the dictates of the Roman curia, 164 while at the bottom in both communities stand the mass of the people bound to obedience to the powers above. 165 There is, however, one profound difference between the two, and that is to be found in the relative positions of the ideal worlds that dominate each. 166 Plato's ideal world beyond the heavens gives what reality it has to this through the participation by the world of becoming in the ideas. 167 Opinion dimly sensed the ideas in the evanescent objects about it, and though Plato's memory theory of knowledge assumed that the ideas had been seen in former existence 168 and people could thus recognise the copies here, the ideal world was not within the mind but

without. 169 In a real sense the Kingdom of Heaven was within humans in the medieval world, as was the Holy Roman Empire. 170 They were ideal communities that ought to exist on earth, and it was due to the depravity of humans that they did not exist. 171 From time to time people undertook in various upheavals to realise in some part these spiritual and political ideals which they carried within them. 172 And people not only carried within them the ideas of a New Jerusalem in which the interest of one was the interest of all and of an earthly state ordered by a divine decree to fulfill this Christian ideal, 173 but the determining causes of the present condition and the future realisation depended also upon the inner attitudes and experiences of the individuals themselves.

174 Without carrying the analogy here too far, this relation between the experience of the individual and the world which may arise through the realisation of your ideas is the basis of the most profound distinction between the ancient world and the modern. 175 Before the logic of this attitude could appear in science a long period of intellectual and social growth was necessary. 176 The most essential part of this growth was the slow but steady development of psychological doctrine which placed the objective world in the experience of the individual. 177 It is not of interest here to bring out the modern epistemological problem that grew out of this, or to present this in the world of Leibnitzian monads that had no windows or in the Berkeleyan subjective idealism. 178 What is of interest is to point out that this attitude established a functional relationship between even the subjective experience of the individual and the object of knowledge. 179 A scepticism based upon subjectivism might thereafter question the justification of the reference of experience beyond itself; it could not question knowledge and its immediate object.

180 Kant formalises the relation of what was subjective and what was objective by identifying the former with the sensuous content of experience and the latter with the

application of the forms of sensibility and understanding to this content. 181 The relationship was formal and dead. Kant recognised no functional relationship between the nature of the 'Mannigfaltigkeit' of sensuous experience and the forms into which it was poured. 182 The forms remained external to the content, but the relationship was one which existed within experience, not without it, 183 and within this experience could be found the necessity and universality which had been located in the world independent of experience. 184 The melting of these fixed Kantian categories came with the spring floods of the romantic idealism that followed Kant.

185 The starting-point of this idealism was Kantian. Within experience lay the object of knowledge. 186 The Idealist's principal undertaking was to overcome the scepticism that attached to the object of knowledge because of its reference to what lies outside itself. 187 If, as Kant had undertaken to prove, the reality which knowledge implies must reach beyond experience, then, on the Kantian doctrine that knowledge lies within experience, knowledge itself is infected with scepticism. 188 Kant's practical bridge from the world of experience to the world of things-in-themselves, which he walked by faith and not by sight, was found in the postulates of the conduct of the self as a moral being, as a personality. 189 The romantic idealists advance by the same road, though as romanticists not critical philosophers, they fashioned the world of reality, that transcends experience, out of experience itself, 190 by centering the self in the absolute self and conceiving the whole infinite universe as the experience of the absolute self. 191 The interesting phase of this development is that the form which experience takes in becoming objective is found in the nature and thought of the individual, 192 and that this process of epistemological experience becomes thus a process of Nature, if the objective is the natural. 193 In Kant's terms our minds give laws to Nature. 194 But this Nature constantly exhibits its

dependence upon underlying noumena that must therefore transcend the laws given by the understanding. 195 The Romanticist insists that this other reality must be the same stuff as that of experience, that in experience arise forms which transcend those which bound the experience in its earlier phase. 196 If in experience the forms of the objective world are themselves involved, the process of knowledge sets no limits to itself, which it may not, does not, by implication transcend. 197 As further indication of the shift by which thought had passed into possession of the world of things in themselves stands the antinomy which in Kantian experience marks the limit of our knowledge 198 while in post-Kantian idealism it becomes the antithesis that leads to the synthesis upon the higher plane. 199 Contradiction marks the phase at which the spirit becomes creative, not simply giving an empty formal law to Nature, but creating the concrete universe in which content and form merge in true actuality. 200 The relation of the sensuous content to the conceptual form is not dead, as in Kant's doctrine. 201 It is fused as perception into concept and carries its immediacy and concreteness of detail into the concrete universal as the complete organisation of stimulation and response pass into the flexible habit. 202 And yet in the Hegelian logic, the movement is always away from the perceptual experience toward the higher realm of the 'Idee'. 203 Thought is creative in the movement, but in its ultimate reality it transcends spatial and temporal experience, the experience with which the natural and mathematical sciences deal. 204 Thought is not a means of solving the problems of this world as they arise, but a great process of realisation in which this world is forever transcended. 205 Its abstract particularities of sensuous detail belong only to the finite experience of the partial self. 206 This world is, therefore, always incomplete in its reality and, in so far, always untrue. Truth and full reality belong not to the field of scientific investigation.

INTELLIGENCE

207 In its metaphysics Romantic Idealism, though it finds a place for scientific discovery and reconstruction, 208 leaves these disdainfully behind, as incomplete phases of the ultimate process of reality, as infected with untruth and deceptive unwarranted claims. 209 The world is still too much with us. We recognise here three striking results of the development of reflective consciousness in the modern world:-- 210 first, it is assumed that the objective world of knowledge can be placed within the experience of the individual without losing thereby its nature as an object, 211 that all characters of that object can be presented as belonging to that experience, whether adequately or not is another question; 212 and second, it is assumed that the contradictions in its nature which are associated with its inclusion in individual experience, 213 its references beyond itself when so included, may themselves be the starting-point of a reconstruction which at least carries that object beyond the experience within which these contradictions arose; 214 and third, it is assumed that this growth takes place in a world of reality within which the incomplete experience of the individual is an essential part of the process, 215 in which it is not a mere fiction, destroying reality by its representation, but is a growing-point in that reality itself.

216 These characters of philosophic interpretation, the inclusion of the object of knowledge in the individual experience 217 and the turning of the conflicts in that experience into the occasion for the creation of new objects transcending these contradictions, 218 are the characters in the conscious method, of modern science, which most profoundly distinguish it from the method of ancient science. 219 This, of course, is tantamount to saying that they are those which mark the experimental method in science.

220 That phase of the method upon which I have touched already has been its occupation with the so-called data or facts as distinguished from Aristotelian individuals.

221 Whenever we reduce the objects of scientific investigation

to facts and undertake to record them as such, they become events, happenings, 222 whose hard factual character lies in the circumstance that they have taken place, and this quite independently of any explanation of their taking place. 223 When they are explained they have ceased to be facts and have become instances of a law, 224 that is, Aristotelian individuals, embodied theories, and their actuality as events is lost in the necessity of their occurrence as expressions of the law; with this change their particularity as events or happenings disappears. 225 They are but the specific values of the equation when constants are substituted for variables. 226 Before the equation is known or the law discovered they have no such ground of existence. 227 Up to this point they find their ground for existence in their mere occurrence, to which the law which is to explain them must accommodate itself.

228 There are here suggested two points of view from which these facts may be regarded. 229 Considered with reference to a uniformity or law by which they will be ordered and explained they are the phenomena with which the positivist deals; 230 as existencies to be identified and localised before they are placed within such a uniformity they fall within the domain of the psychological philosopher 231 who can at least place them in their relation to the other events in the experience of the individual who observes them. 232 Considered as having a residual meaning apart from the law to which they have become exceptions, they can become the subject-matter of the rationalist. 233 It is important that we recognise that neither the positivist nor the rationalist is able to identify the nature of the fact or datum to which they refer. 234 I refer to such stubborn facts as those of the sporadic appearance of infectious diseases before the germ theory of the disease was discovered. Here was a fact which contradicted the doctrine of the spread of the infection by contact. 235 It appeared not as an instance of a law, but as an exception to a law. As such, its nature is found in its having happened at a given place and time. 236 If the case had

appeared in the midst of an epidemic, its nature as a case of the infectious disease would have been cared for in the accepted doctrine, 237 and for its acceptance as an object of knowledge its location in space and time as an event would not have been required. 238 Its geographical and historical traits would have followed from the theory of the infection, as we identify by our calculations the happy fulfillment of Thales' prophecy. 239 The happening of an instance of a law is accounted for by the law. 240 Its happening may and in most instances does escape observation, while as an exception to an accepted law it captures attention. 241 Its nature as an event is, then, found in its appearance in the experience of some individual, whose observation is controlled and recorded as own experience. 242 Without its reference to this individual's experience it could not appear as a fact for further scientific consideration.

243 Now the attitude of the positivist toward this fact is that induced by its relation to the law which is 'subsequently' discovered. 244 It has then fallen into place in a series, and your doctrine is that all laws are but uniformities of such events. 245 You treats the fact when it is an exception to law as an instance of the new law and assumes that the exception to the old law and the instance of the new are identical. 246 And this is a great mistake,-- the mistake made also by the neo-realist when you assumes that the object of knowledge is the same within and without the mind, 247 that nothing happens to what is to be known when it by chance strays into the realm of conscious cognition. 248 Any as yet unexplained exception to an old theory can happen only in the experience of an individual, 249 and that which has its existence as an event in some one's biography is a different thing from the future instance which is not beholden to any one for its existence. 250 Yet there are, as I indicated earlier, meanings in this exceptional event which, at least for the time, are unaffected by the exceptional character of the occurrence. 251 For example, certain clinical symptoms by which an infectious disease is

identified have remained unchanged in diagnosis since the days of Hippocrates. 252 These characters remain as characters of the instance of the law of germ-origin when this law has been discovered. 253 This may lead us to say that the exception which appears for the time being as a unique incident in a biography is identical with the instance of a germ-induced disease.

254 Indeed, we are likely to go further and, in the assurance of the new doctrine, state that former exceptions can (or with adequate acquaintance with the facts could) be proved to be necessarily an instance of a disease carried by a germ. 255 The positivist is therefore confident that the field of scientific knowledge is made up of events which are instances of uniform series, 256 although under conditions of inadequate information some of them appear as exceptions to the statements of uniformities, in truth the latter being no uniformities at all.

257 That this is not a true statement of the nature of the exception and of the instance, it is not difficult to show if we are willing to accept the accounts which the scientists themselves give of their own observation, 258 the changing forms which the hypothesis assumes during the effort to reach a solution and the ultimate reconstruction which attends the final tested solution. 259 Wherever we are fortunate enough, as in the biographies of people such as Darwin and Pasteur, to follow a number of the steps by which they recognised problems and worked out tenable hypotheses for their solution, 260 we find that the direction which is given to attention in the early stage of scientific investigation is toward conflicts between current theories and observed phenomena, 261 and that since the form which these observations take is determined by the opposition, it is determined by a statement which itself is later abandoned. 262 We find that the scope and character of the observations change at once when the investigator sets about gathering as much of the material as one can secure, 263 and changes constantly as one formulates tentative hypotheses for the solution of the problem, which,

moreover, generally changes its form during the investigation. 264 I am aware that this change in the form of the data will be brushed aside by many as belonging only to the attitude of mind of the investigator, 265 while it is assumed that the "facts" themselves, however selected and organised in your observation and thought, remain identical in their nature throughout. 266 Indeed, the scientist carries with the self in the whole procedure the confidence that the fact-structure of reality is unchanged, however varied are the forms of the observations which refer to the same entities.

267 The analysis of the fact-structure of reality shows in the first place that the scientist undertakes to form such an hypothesis that all the data of observation will find their place in the objective world, 268 and in the second place to bring them into such a structure that future experience will lead to anticipated results. 269 You does not undertake to preserve facts in the form in which they existed in experience before the problem arose 270 nor to construct a world independent of experience or that will not be subject itself to future reconstructions in experience. 271 You merely insists that future reconstructions will take into account the old in re-adjusting it to the new. 272 In such a process it is evident that the change of the form in the data is not due to a subjective attitude of the investigator which can be abstracted from the facts. 273 When Darwin, for instance, found that the marl dressings which farmers spread over their soil did not sink through the soil by the force of gravity as was supposed, 274 but that the earthworm castings were thrown up above these dressings at nearly the same rate at which they disappeared, 275 he did not correct a subjective attitude of mind. He created in experience a humus which took the place of a former soil, and justified itself by fitting it into the whole process of disintegration of the earth's surface. 276 It would be impossible to separate in the earlier experiences certain facts and certain attitudes of mind entertained by people with reference to these facts.

277 Certain objects have replaced other objects. It is only after the process of analysis, which arose out of the conflicting observations, has broken up the old object that what was a part of the object, 278 heavier-things-pushing-their way-through-soil-of-lighter-texture, can become a mere idea. Earlier it was an object. 279 Until it could be tested the earthworm as the cause of the disappearance of the dressings was also Darwin's idea. It became fact. 280 For science at least it is quite impossible to distinguish between what in an object must be fact and what may be idea. 281 The distinction when it is made is dependent upon the form of the problem and is functional to its solution, not metaphysical. 282 So little can a consistent line of cleavage between facts and ideas be indicated, that we can never tell where in our world of observation the problem of science will arise, or what will be regarded as structure of reality or what erroneous idea.

283 There is a strong temptation to lodge these supposititious fact-structures in a world of conceptual objects, molecules, atoms, electrons, and the like. 284 For these at least lie beyond the range of perception by their very definition. They seem to be in a realm of things-in-themselves. Yet they also are found now in the field of fact and now in that of ideas. 285 Furthermore, a study of their structure as they exist in the world of constructive science shows that their infra-sensible character is due simply to the nature of our sense-processes, not to a different metaphysical nature. 286 They occupy space, have measurable dimensions, mass, and are subject to the same laws of motion as are sensible objects. 287 We even bring them indirectly into the field of vision and photograph their paths of motion.

290 The ultimate elements referred to above provide a consistent symbolism for the finding and formulating of applied mathematical sciences, within which lies the whole field of physics, including Euclidian geometry as well. 291 However, they have succeeded in providing nothing more than a language and logic pruned of the obstinate

contradictions, inaccuracies, and unanalysed sensuous stuff of earlier mathematical science. 292 Such a rationalistic doctrine can never present in an unchanged form the objects with which natural science deals in any of the stages of its investigation. 293 It can deal only with ultimate elements and forms of propositions. It is compelled to fall back on a theory of analysis which reaches ultimate elements and an assumption of inference as an indefinable. 294 Such an analysis is actually impossible either in the field of the conceptual objects into which physical science reduces physical objects, or in the field of sensuous experience. 295 Atoms can be reduced into positive and negative electrical elements and these may, perhaps do, imply a structure of ether that again invites further analysis and so on ad infinitum. 296 None of the hypothetical constructs carry with themselves the character of being ultimate elements unless they are purely metaphysical. 297 If they are fashioned to meet the actual problems of scientific research they will admit of possible further analysis, because they must be located and defined in the continuity of space and time. 298 They cannot 'be' the points and instants of modern mathematical theory. Nor can we reach ultimate elements in sensuous experience, for this lies also within a continuum. 299 Furthermore, our scientific analyses are dependent upon the form that our objects assume. 300 There is no general analysis which research in science has ever used. 301 The assumption that psychology provides us with an analysis of experience which can be carried to ultimate elements or facts, and which thereby provides the elements out of which the objects of our physical world must be constructed, 302 denies to psychology its rights as a natural science of which it is so jealous, turning it into a Berkeleyan metaphysics.

303 This most modern form of rationalism being unable to find ultimate elements in the field of actual science is compelled to take what it can find there. 304 Now the results of the analysis of the classical English psychological school give the impression of

being what Mr. Russell calls "hard facts," i.e., 305 facts which cannot be broken up into others. They seem to be the data of experience. 306 Moreover, the term hard is not so uncompromising as is the term element. A fact can be more or less hard, while an ultimate element cannot be more or less ultimate. 307 Furthermore, the entirely formal character of the logic enables it to deal with equal facility with any content. 308 One can operate with the more or less hard sense-data, putting them in to satisfy the seeming variables of the propositions, and reach conclusions which are formally correct. 309 There is no necessity for scrutinising the data under these circumstances, if one can only assume that the data are those which science is actually using. 310 The difficulty is that no scientist ever analysed own objects into such sense-data. They exist only in philosophical text-books. 311 Even the psychologists recognise that these sensations are abstractions which are not the elements out of which objects of sense are constructed. 312 They are abstractions made from those objects whose ground for isolation is found in the peculiar problems of experimental psychology, such as those of colour or tone perception. 313 It would be impossible to make anything in terms of Berkeleyan sense-data and of symbolic logic out of any scientific discovery. 314 Research defines its problem by isolating certain facts which appear for the time being not as the sense-data of a solipsistic mind, but as experiences of an individual in a highly organised society, 315 facts which, because they are in conflict with accepted doctrines, must be described so that they can be experienced by others under like conditions. 316 The ground for the analysis which leads to such facts is found in the conflict between the accepted theory and the experience of the individual scientist. The analysis is strictly 'ad hoc'. 317 As far as possible the exception is stated in terms of accepted meanings. Only where the meaning is in contradiction with the experience does the fact appear as the happening to an individual and become a paragraph out of own biography. 318 But as

such an event, whose existence for science depends upon the acceptance of the description of you to whom it has happened, it must have all the setting of circumstantial evidence. 319 Part of this circumstantial evidence is found in so-called scientific control, that is, the evidence that conditions were such that similar experiences could happen to others and could be described as they are described in the account given. 320 Other parts of this evidence which we call corroborative are found in the statements of others which bear out details of this peculiar event, though it is important to note that these details have to be wrenched from their settings to give this corroborative value. 321 To be most conclusive they must have no intentional connection with the experience of the scientist. 322 In other words, those individuals who corroborate the facts are made, in spite of themselves, experiencers of the same facts. 323 The perfection of this evidence is attained when the fact can happen to others and the observer simply details the conditions under which one made the observation, which can be then so perfectly reproduced that others may repeat the exceptional experience.

324 This process is not an analysis of a known world into ultimate elements and their relations. Such an analysis never isolates this particular exception which constitutes the scientific problems as an individual experience. 325 The extent to which the analysis is carried depends upon the exigencies of the problem. 326 It is the indefinite variety of the problems which accounts for the indefinite variety of the facts. 327 What constitutes them facts in the sense in which we are using the term is their 'exceptional' nature; 328 formally they appear as particular judgments, being denials of universal judgments, whether positive or negative. 329 This exceptional nature robs the events of a reality which would have belonged to them as instances of a universal law. It leaves them, however, with the rest of their meaning. 330 But the value which they have lost is just that which was essential to give them their place in the world as it has existed

for thought. 331 Banished from that universally valid structure, their ground for existence is found in the experience of the puzzled observer. 332 Such an observation was that of the moons of Jupiter made possible by the primitive telescope of Galileo. 333 For those who lived in a Ptolemaic cosmos, these could have existence only as observations of individuals. As moons they had distinct meaning, circling Jupiter as our moon circles the earth, 334 but being in contradiction with the Ptolemaic order they could depend for their existence only on the evidence of the senses, until a Copernican order could give them a local habitation and a name. 335 Then they were observed not as the experiences of individuals but as instances of planetary order in a heliocentric system3. 336 It would be palpably absurd to refer to them as mere sense-data, mere sensations. They are for the time being inexplicable experiences of certain individuals. 337 They are inexplicable because they have a meaning which is at variance with the structure of the whole world to which they belong. 338 They are the phenomena termed accidental by Aristotle and rejected as full realities by him, but which have become, in the habitat of individual experience, the headstone of the structure of modern research of science.

339 A rationalism which relegates implication to the indefinables cannot present the process of modern science. 340 Implication is exactly that process by which these events pass from their individual existence into that of universal reality, and the scientist is at pains to define it as the experimental method. 341 It is true that a proposition implies implication. But the proposition is the statement of the result of the process by which an object has arisen for knowledge and merely indicates the structure of the object. 342 In discovery, invention, and research the escape from the exceptional, from the data of early stages of observation, is by way of an hypothesis; 343 and every hypothesis so far as it is tenable and workable in its form is universal. 344 No one would waste own time with a hypothesis which confessedly was not applicable to

all instances of the problem. 345 An hypothesis may be again and again abandoned, it may prove to be faulty and contradictory, but in so far as it is an instrument of research it is assumed to be universal and to perfect a system which has broken down at the point indicated by the problem. 346 Implication and more elabourated instances flow from the structure of this hypothesis. 347 The classical illustration which stands at the door of modern experimental science is the hypothesis which Galileo formed of the rate of the velocity of a falling body. 348 He conceived that this was in proportion to the time elapsed during the fall and then elabourated the consequences of this hypothesis by working it into the accepted mathematical doctrines of the physical world, 349 until it led to an anticipated result which would be actually secured and which would be so characteristic an instance of a falling body that it would answer to every other instance as he had defined them. 350 In this fashion he defined his inference as the anticipation of a result because this result was a part of the world as he presented it amended by his hypothesis. 351 It is true that back of the specific implication of this result lay a mass of other implications, 352 many not even presented specifically in thought and many others presented by symbols which generalised innumerable instances. 353 These implications are for the scientist more or less implicit meanings, but they are meanings each of which may be brought into question and tested in the same fashion if it should become an actual problem. 354 Many of them which would not have occurred to Galileo as possible problems have been questioned since his day. 355 What has remained after this period of determined questioning of the foundations of mathematics and the structure of the world of physical science is a method of agreement with oneself and others, 356 in (a) the identification of the object of thought, in (b) the accepted values of assent and denial called truth and falsehood, and in (c) referring to meaning, in its relation to what is meant. 357 In any case the achievement of

symbolic logic, with its indefinables and axioms has been to reduce this logic to a statement of the most generalised form of possible consistent thought intercourse, with entire abstraction from the content of the object to which it refers. 358 If, however, we abstract from its value in giving a consistent theory of number, continuity, and infinity, this complete abstraction from the content has carried the conditions of thinking in agreement with self and others 359 so far away from the actual problem of science that symbolic logic has never been used as a research method. 360 It has indeed emphasised the fact that thinking deals with problems which have reference to uses to which it can be put, not to a metaphysical world lying beyond experience. 361 Symbolic logic has to do with the world of discourse, not with the world of things.

362 What Russell pushes to one side as a happy guess is the actual process of implication by which, for example, the minute form in the diseased human system is identified with unicellular life and the history of the disease with the life history of this form. 363 This identification implies reclassification of these forms and a treatment of the disease that answers to their life history. 365 Having made this identification we anticipate the result of this treatment, calling it an inference.

366 Implication belongs to the reconstruction of the object. As long as no question has arisen, the object is what it means or means what it is. 367 It does not imply any feature of itself. When through conflict with the experience of the individual some feature of the object is divorced from some, meaning the relationship between these becomes a false implication. 368 When a hypothetically reconstructed object finds us anticipating a result which accords with the nature of such objects we assert an implication of this meaning. 369 To carry this relation of implication back into objects which are subject to no criticism or question would of course resolve the world into elements connected by external relations, 370 with the added consequence that these elements can have no content, since every content in the

face of such an analysis must be subject to further analysis. 371 We reach inevitably symbols such as X, Y, and Z, which can symbolise nothing. 372 Theoretically we can assume an implication between any elements of an object, 373 but in this abstract assumption the symbolic logician overlooks the fact that one is also assuming some content which is not analysed and which is the ground of the implication. 374 In other words this logician confuses the scientific attitude of being ready to question anything with an attitude of being willing to question everything at once. 375 It is only in an unquestioned objective world that the exceptional instance appears and it is only in such a world that an experimental science tests the implications of the hypothetically reconstructed object.

376 The guess is happy because it carries with it the consequences which follow from its fitting into the world, 377 and the guess, in other words the hypothesis, takes on this happy form solely because of the material reconstruction 378 which by its nature removes the unhappy contradiction and promises the successful carrying out of the conflicting attitudes in the new objective world. 379 There is no such thing as formal implication.

380 Where no reconstruction of the world is involved in our identification of objects that belong to it and where, therefore, no readjustment of conduct is demanded, such a logic symbolises what takes place in our direct recognition of objects and our response to them. 381 Then "X is a person implies X is mortal for all values of X" exactly symbolises the attitude toward a person subject to a disease supposedly mortal. 382 But it fails to symbolise the biological research which starting with inexplicable sporadic cases of an infectious disease carries over from the study of the life history of infusoria, a hypothetical reconstruction of the history of disease and then acts upon the result of this assumption. 383 Research-science presents a world whose form is always universal, but this universal form is neither a metaphysical assumption nor a fixed form of the

understanding. 384 While the scientist may as a metaphysician assume the existence of realities which lie beyond a possible experience, or be a Kantian or Neo-Kantian, neither of these attitudes is necessary for own research. 385 You may be a positivist-- a disciple of Hume or of John Stuart Mill. You may be a pluralist who conceives, with William James, 386 that the order which we detect in parts of the universe is possibly one that is rising out of the chaos and which may never be as universal as our hypothesis demands. 387 None of these attitudes has any bearing upon your scientific method. This simplifies your thinking, enables you to identify the object in which you are interested wherever you finds it, 388 and to abstract in the world as you conceives it those features which carry with them the occurrence you are endeavouring to place. 389 Especially it enables you to make your thought a part of the socially accepted and socially organised science to which your thought belongs. 390 You are far too modest to demand that the world be as your inference demands.

391 You asks that your view of the world be cogent and convincing to all those whose thinking has made your own possible, and be an acceptable premise for the conduct of that society to which you belongs. 392 The hypothesis has no universal and necessary characters except those that belong to the thought which preserves the same meanings to the same objects, 393 the same relations between the same relata, the same attributes of assent and dissent under the same conditions, the same results of the same combinations of the same things. 394 For scientific research the meanings, the relations with the relata, the assent and dissent, the combinations and the things combined are all in the world of experience. 395 Thinking in its abstractions and identifications and reconstructions undertakes to preserve the values that it finds, 396 and the necessity of its thinking lies in its ability to so identify, preserve, and combine what it has isolated 397 that the thought structure will have an identical import under like

conditions for the thinker with all other thinkers to whom these instruments of research conduct are addressed. 398 Whatever conclusions the scientist draws as necessary and universal results from own hypothesis for a world independent of own thought are due, not to the cogency of own logic, but to other considerations. 399 For you knows if you reflects that another problem may arise which will in its solution change the face of the world built upon the present hypothesis. 400 You will defend the inexorableness of your reasoning, but the premises may change. 401 Even the contents of tri-dimensional space and sensuous time are not essential to the cogency of that reasoning nor can the unbroken web of the argument assure the content of the world as invariable. 402 Your universals, when applied to Nature, are all hypothetical universals; hence the import of experiment as the test of an hypothesis. 403 Experience does not rule out the possible cropping up of a new problem which may shift the values attained. 404 Experience simply reveals that the new hypothesis fits into the meanings of the world which are not shaken; 405 it shows that, with the reconstruction which the hypothesis offers, it is possible for scientific conduct to proceed.

406 But if the universal character of the hypothesis and the tested theory belong to the instrumental character of thought in so reconstructing a world that has proved to be imperfect, and inadequate to conduct, 407 the stuff of the world and of the new hypothesis are the same. 408 At least this is true for the scientist who has no interest in an epistemological problem that does not affect own scientific undertakings in one way nor another. 409 I have already pointed out that from the standpoint of logical and psychological analysis the things with which science deals can be neither ultimate elements nor sense-data; 410 but that they must be phases and characters and parts of things in some whole, parts which can only be isolated because of the conflict between an accepted meaning and some experience. 411 I have pointed out that an analysis is

guided by the practical demands of a solution of this conflict; 412 that even that which is individual in its most unique sense in the conflict and in attempts at its solution does not enter into the field of psychology-- which has its own problems peculiar to its science. 413 Certain psychological problems belong to the problems of other sciences, as, for example, that of the personal equation belongs to astronomy or that of colour vision to the theory of light. But they bulk small in these sciences. 414 It cannot be successfully maintained that a scientific observation of the most unique sort, one which is accepted for the time being simply as a happening in this or that scientist's experience, is as such a psychological datum, 415 for the data in psychological text-books have reference to 'psychological' problems. 416 Psychology deals with the consciousness of the individual in its dependence upon the physiological organism 417 and upon those contents which detach themselves from the objects outside the individual and which are identified with one’s inner experience. 418 It deals with the laws and processes and structures of this consciousness in all its experiences, not with 'exceptional' experiences. 419 It is necessary to emphasise again that for science these particular experiences arise within a world which is in its logical structure organised and universal. 420 They arise only through the conflict of the individual's experience with such an accepted structure. 421 For science individual experience 'presupposes' the organised structure; hence it cannot provide the material out of which the structure is built up. 422 This is the error of both the positivist and of the psychological philosopher, if scientific procedure gives us in any sense a picture of the situation. 423 A sharp contrast appears between the accepted hypothesis with its universal form and the experiences which invalidate the earlier theory. 424 The reality of these experiences lies in their happening. They were unpredictable. They are not instances of a law. 425 The later theory, the one which explains these occurrences, changes their

character and status, making them necessary results of the world as that is conceived under this new doctrine. 426 This new standpoint carries with it a backward view, which explains the erroneous doctrine, and accounts for the observations which invalidated it. 427 Every new theory must take up into itself earlier doctrines and rationalise the earlier exceptions. 428 A generalisation of this attitude places the scientist in the position of anticipating later reconstructions. You then must conceive of your world as subject to continuous reconstructions. 429 A familiar interpretation of your attitude is that the hypothesis is thus approaching nearer and nearer toward a reality which would never change if it could be attained, or, from the standpoint of the Hegelian toward a goal at infinity. 430 The Hegelian also undertakes to make this continuous process of reconstruction an organic phase in reality and to identify with Nature the process of finding exceptions and of correcting them. 431 The fundamental difference between this position and that of the scientist who looks before and after is that the Hegelian undertakes to make the exception in its exceptional character a part of the reality which transcends it, 432 while the scientist usually relegates the exception to the experience of individuals who were simply caught in an error which later investigation removes. 433 The error remains as an historical incident explicable perhaps as a result of the conditions under which it occurred, but in so far as it was an error, not a part of reality. 434 It is customary to speak of it as subjective, though this implies that we are putting the person who was unwittingly in error into the position of the one who has corrected it. 435 To entertain that error in the face of its correction would be subjective. A result of this interpretation is that the theories are abstracted from the world and regarded as something outside it. 436 It is assumed that the theories are mental or subjective and change while the facts remain unchanged. 437 Even when it is assumed that theories and facts agree, humans speak of a

correspondence or parallelism between idea and the reality to which it refers. 438 While this attitude seems to be that of science toward the disproved theories which lie behind it, it is not its attitude to the theories which it accepts. 439 These are not regarded as merely parallel to realities, as abstracted from the structure of things. These meanings go into the makeup of the world. 440 It is true that the scientist who looks before and after realises that any specific meaning which is now accepted may be questioned and discarded. 441 If you carries your reflection far enough you sees that a complete elimination of all the meanings which might conceivably be so discredited would leave nothing but logical constants, a world with no facts in any sense. 442 In this position you may of course take an agnostic attitude and besatisfied with the attitude of Hume or Mill or Russell. 443 But if you does so, you will pass into the camp of the psychological philosophers and will have left the position of the scientist. 444 The scientist always deals with an 'actual' problem, and even when you looks before and after you does so in so far as you are facing in inquiry some actual problem. 445 No actual problem could conceivably take on the form of a conflict involving the whole world of meaning. 446 The conflict always arises between an individual experience and certain laws, certain meanings while others are unaffected. 447 These others form the necessary field without which no conflict can arise. 448 They give the person of research own [Greek: pou stô] upon which one can formulate own problem and undertake its solution. 449 The possible calling in question of any content, whatever it may be, means always that there is left a field of unquestioned reality. 450 The attitude of the scientist never contemplates or could contemplate the possibility of a world in which there would be no reality by which to test your hypothetical solution of the problem that arises. 451 Nor does this attitude when applied to past discarded theories necessarily carry with it the implication that these older theories were subjective ideas in humans' minds,

while the reality lay beside and beyond them unmingled with ideas. 452 It always finds a standpoint from which these ideas in the earlier situation are still recognised as reliable, for there are no scientific data without meanings. 453 There could be no history of science on any other basis. No history of science goes back to ultimate elements or sense-data, or to any combination of bare data on one hand and logical elements on the other. 454 The world of the scientist is always there as one in which reconstruction is taking place with continual shifting of problems, but as a real world within which the problems arise. 455 The errors of the past and present appear as untenable hypotheses which could not bear the test of experiment if the experience were sufficiently enlarged and interpreted. 456 But they are not mere errors to be thrown into the scrap heap. They become a part of a different phase of reality which a fuller history of the past records or a fuller account of the present interprets, giving them thereby their proper place in a real world.

457 The completion of this program, however, awaits the solution of the scientific problem of the relation of the psychical and the physical with the attendant problem of the meaning of the so-called origin of consciousness in the history of the world. 458 My own feeling is that these problems must be attacked from the standpoint of the social nature of so-called consciousness. 459 The clear indications of this I find in the reference of our logical constants to the structure of thought as a means of communication, in the explanation of errors in the history of science by their social determination, 460 and in the interpretation of the inner field of experience as the importation of social intercourse into the conscious conduct of the individual. 461 But whatever may be the solution of these problems, it must carry with it such a treatment of the experience of the individual 462 that the latter will never be regarded merely as a subjective state, however inadequate it may have proved itself as a scientific hypothesis. 463 This seems to me to be involved in

the conception of psychology as a natural science and in any legitimate carrying out of the Hegelian program of giving reality and creative import to individual experience. 464 The experience of the individual in its exceptional character is the growing-point of science, first of all in the recognition of data upon which the older theories break, 465 and second in the hypothesis which arises in the individual and is tested by the experiment which reconstructs the world. 466 A scientific history and a scientific psychology from which epistemology has been banished must place these observations and hypotheses together with erroneous conceptions and mistaken observations 'within' the real world 467 in such a fashion that their reference to the experience of the individual and to the world to which one belongs will be comprehensible. 468 As I have indicated, the scientific theory of the physical and conscious individual in the world implied in this problem has still to be adequately developed. 469 But there is implied in the conception of such a theory such a location of the process of thought in the process of reality as will give it an import both in the meaning of things and in the individual's thinking. 470 We have the beginning of such a doctrine in the conception of a functional value of consciousness in the conduct of living forms, 471 and the development of reflective thought out of such a consciousness which puts it within the act and gives it the function of preparation where adjustment is necessary. 472 Such a process creates the situation with reference to which the form acts. 473 In all adjustment or adaptation the result is that the form which is adjusted finds that by its adjustment it has created an environment. 474 The ancients by their formulation of the Ptolemaic theory committed themselves to the world in which the fixed values of the heavenly over against the earthly obtained. 475 Such a world was the interpretation of the experience involved in their physical and social attitudes. 476 They could not accept the hypothesis of Aristarchus because it conflicted with the world which

they had created, with the values which were determining values for them. 477 The same was true of the hypothesis of Democritus. They could not, as they conceived the physical world, accept its purely quantitative character. 478 The conception of a disinterested truth which we have cherished since the Middle Ages is itself a value that has a social basis as really as had the dogma of the church. 479 The earliest statement of it was perhaps that of Francis Bacon. Freeing investigation from the church dogma and its attendant logic meant to him the freedom to find in Nature what humans needed and could use for the amelioration of their social and physical condition. 480 The full implication of the doctrine has been recognised as that of freedom, freedom to effect not only values already recognised, but freedom to attain as well such complete acquaintance with Nature 481 that new and unrecognised uses would be at our disposal; that is, that progress should be one toward any possible use to which increased knowledge might lead. 482 The cult of increasing knowledge, of continually reconstructing the world, took the place both of the ancient conception of adequately organising the world as presented in thought, 483 and of the medieval conception of a systematic formulation on the basis of the statement in church dogma of social values. 484 This modern conception proceeds from the standpoint not of formulating values, but giving society at the moment the largest possible number of alternatives of conduct, i.e., 485 undertaking to fix from moment to moment the widest possible field of conduct. 486 The purposes of conduct are to be determined in the presence of a field of alternative possibilities of action. 487 The ends of conduct are not to be determined in advance, but in view of the interests that fuller knowledge of conditions awaken. 488 So there appears a conception of determining the field that shall be quite independent of given values. A real world which consists not of an unchanged universe, 489 but of a universe which may be continually readjusted according to the problems arising in the

consciousness of the individuals within society. 490 The seemingly fixed character of such a world is found in the generally fixed conditions which underlie the type of problems which we find. 491 We determine the important conditions incident to the working out of the great problems which face us. 492 Our conception of a given universe is formed in the effort to mobilise all the material about us in relation to these problems-- 493 the structure of the self, the structure of matter, the physical process of life, the laws of change and the interrelation of changes. 494 With reference to these problems certain conditions appear fixed and become the statement of the world by which we must determine by experimental test the viability of our hypotheses. 495 There arises then the conception of a world which is unquestioned over against any particular problem. 496 While our science continually changes that world, at least it must be always realised as there. 497 On the other hand, these conceptions are after all relative to the ends of social conduct which may be formulated in the presence of any freedom of action.

498 We postulate freedom of action as the condition of formulating the ends toward which our conduct shall be directed. 499 Ancient thought assured itself of its ends of conduct and allowed these to determine the world which tested its hypothesis. 500 We insist such ends may not be formulated until we know the field of possible action. 501 The formulation of the ends is essentially a social undertaking and seems to follow the statement of the field of possible conduct, 502 while in fact the statement of the possible field of conduct is actually dependent on the push toward action. 503 A moving end which is continually reconstructing itself follows upon the continually enlarging field of opportunities of conduct.

504 The conception of a world of existence, then, is the result of the determination at the moment of the conditions of the solution of the given problems. 505 These problems constitute the conditions of conduct, and the ends of conduct can only be determined as we realise the possibilities which

changing conditions carry with them. 506 Our world of reality thus becomes independent of any special ends or purposes and we reach an entirely disinterested knowledge. 507 And yet the value and import of this knowledge is found in our conduct and in our continually changing conditions. 508 Knowledge for its own sake is the slogan of freedom, for it alone makes possible the continual reconstruction and enlargement of the ends of conduct.

509 The individual in your experiences is continually creating a world which becomes real through your discovery. 510 In so far as new conduct arises under the conditions made possible by your experience and your hypothesis the world, which may be made the test of reality, has been modified and enlarged.

511 I have endeavoured to present the world which is an implication of the scientific method of discovery with entire abstraction from any epistemological or metaphysical presuppositions or complications. 512 Scientific method is indifferent to a world of things-in-themselves, or to the previous condition of philosophic servitude of those to whom its teachings are addressed. 513 It is a method not of knowing the unchangeable but of determining the form of the world within which we live as it changes from moment to moment. 514 It undertakes to tell us what we may expect to happen when we act in such or such a fashion. 515 It has become a matter of serious consideration for a philosophy which is interested in a world of things-in-themselves, and the epistemological problem. 516 For the cherished structures of the metaphysical world, having ceased to house the values of humankind, provide good working materials in the hypothetical structures of science, on condition of surrendering their metaphysical reality; 517 and the epistemological problem, having seemingly died of inanition, has been found to be at bottom a problem of method or logic. 518 My attempt has been to present what seems to me to be two capital instances of these transformations. 519 Science always has a world of reality by which to test its hypotheses, but this world is not a world

independent of scientific experience, but the immediate world surrounding us within which we must act. 520 Our next action may find these conditions seriously changed, and then science will formulate this world so that in view of this problem we may logically construct our next plan of action. 521 The plan of action should be made self-consistent and universal in its form, 522 not that we may thus approach nearer to a self-consistent and universal reality which is independent of our conduct, but because our plan of action needs to be intelligent and generally applicable. 523 Again science advances by the experiences of individuals, experiences which are different from the world in which they have arisen and which refer to a world which is not yet in existence, so far as scientific experience is concerned. 524 But this relation to the old and new is not that of a subjective world to an objective universe, but is a process of logical reconstruction by which out of exceptions the new law arises to replace a structure that has become inadequate.

525 In both of these processes, that of determining the structure of experience which will test by experiment the legitimacy of the new hypothesis, and that of formulating the problem and the hypothesis for its solution, 526 the individual functions in own full particularity, and yet in organic relationship with the society that is responsible for you. 527 It is the import for scientific method of this relationship that promises most for the interpretation of the philosophic problems involved.

CONSCIOUSNESS AND PSYCHOLOGY

Boyd H. Bode

5 If it is true that misery loves company, those persons who feel despondent over the present situation in philosophy may console themselves with the reflection that things are not so bad as they might be. 2 Our friends, the psychologists, are afflicted even as we are. 3 The disagreements of experts as to both

the subject-matter and the method of psychology are as fundamental as anything that philosophy can show. 4 A spirit of revolt is abroad in the land, and psychology is once more on trial. 5 The compact which provided that psychology should be admitted to the rank of a natural science, on condition that it surrender its pretension to be the science of the soul and confine itself to the study of consciousness, is no longer considered binding. 6 The suspicion is growing that consciousness is nothing more nor less than an attenuated form of the soul that it pretends to displace. 7 Consequently the psychology without a soul to which we have just become accustomed is now attacked on behalf of a psychology without a consciousness, 8 on the ground that this latter standpoint alone can give assurance against entangling alliances between psychology and metaphysics.

9 From the side of philosophy this situation is interesting, not only to such as may crave the comfort that springs from the spectacle of distress, but also to those who take a more hopeful view of present-day tendencies. 10 The question that is at issue is fundamentally the question of the nature of consciousness, which is quite as important to philosophy as to psychology. 11 On the one hand it is maintained that psychology has to do with consciousness and that its distinctive method is the method of introspection. 12 On the other hand it is urged that psychology is nothing more nor less than a study of behaviour, that it is not a science at all, 13 unless the existence of consciousness is denied or at least ignored, and that the method of introspection is a delusion and a snare. 14 The two standpoints are not always clearly formulated, nor can we say that every system of psychology is true to type. 15 It is, in fact, the lack of clearness in the fundamental concepts that makes the status of psychology a matter of so much uncertainty.

16 The situation presents an apparent anomaly. Both parties profess to deal with facts of observation, yet the claim of the introspectionist that they observes facts of consciousness is met by the assertion of their rival that

there is no consciousness to be observed. 17 How can this be, unless we assume that introspection presupposes an esoteric principle, like the principle of grace in religion? 18 It seems evident that we have to do here with some deep-seated misconception regarding the facts that are supposed to constitute the subject-matter for observation and description.

19 A common procedure on the part of introspectionism is to assert the existence of consciousness as something which is indeed indefinable, but which admits of observation and description. But this procedure is no longer justified. 20 In the first place, the assertion that consciousness exists is not the statement of a fact but the designation of a problem. What is the nature of the fact that we call consciousness? 21 If the common-sense individual, who assents so readily to the proposition that we all know consciousness, be asked to differentiate between consciousness and the objects of consciousness, you are dazed and helpless. 22 And, secondly, the assertion of indefinability involves us in a difficulty. The indefinability of consciousness has sometimes been likened to that of space, but in this latter case we find no such confusion between space and the objects in space. 23 It is clear, however, that if consciousness is not something distinguishable from objects, there is no need to discuss consciousness, 24 and if it is distinguishable, it must be distinguished before we are entitled to proceed with observation and description. 25 Definition is indispensable, at least to the extent of circumscribing the facts that are to be investigated.

26 Moreover, if consciousness cannot be defined, neither can it be described. What is definition, after all, but a form of description? 27 To assert, in effect, that consciousness is indefinable because it is indescribable, and that for this reason we must be content with description, is both a flagrant disregard of consistency and an unwarranted abuse of our good nature.

28 This difficulty leads on to another, for doubts, like lies, have

a singular propensity to breed more of their kind. 29 If consciousness is something that everybody knows, why should it be necessary to look to the psychologist for a description of it? 30 If the study of consciousness brings to light any new fact, that fact by definition is not a conscious fact at all, and consequently is not the kind of thing that we set out to describe. 31 Consciousness, in short, cannot be analysed; it cannot be resolved into elements or constituents. It is precisely what it is and not some product of our after-thought that we are pleased to substitute for it.

32 These familiar considerations do not, indeed, decide the issue between the rival theories of psychology, but they serve to suggest that our introspective psychology has been too easily satisfied in the conception of its specific problem or subject-matter. 33 As a matter of fact, the work that has been done in the name of psychology has been peculiarly barren of results, so far as a consciousness 'an sich' is concerned, 34 although it has led to a wealth of material pertaining to adaptive behaviour. Its solid achievements lie in the domain, not of consciousness, but of instinctive, habitual, and intelligent adaptation. 35 It teaches us little that has to do unequivocally with consciousness as distinct from things, but it teaches us much concerning stimulus and response, attention and habit, conflict and adjustment. 36 The doctrine that psychology is a science of behaviour is justified at least to the extent that it emphasises a factor, the importance of which introspectionism has consistently refused to recognise. 37 Whatever conclusion we may ultimately reach regarding the nature of consciousness, the whole drift of psychological and biological investigation seems to indicate that an adequate conception of consciousness and of the distinctive problem of psychology can be attained only on the basis of a painstaking reflection on the facts of behaviour.

I

38 It is evident that the attempt to ascertain the nature of

consciousness and of psychology from the standpoint of behaviour is committed to the assumption that the behaviour in question is of a distinctive kind. 39 The justification of this assumption will enable us to formulate the definitions which we seek. 40 Discussions of conscious behaviour ordinarily emphasise the similarity between conscious and reflex behaviour rather than the difference. 41 An attitude of expectancy, for example, is usually conceived as a sort of temporary reflex. 42 Certain nervous connections are organised for the occasion, so that, when a given stimulus arrives, it will induce its appropriate response. 43 This situation is best exemplified, perhaps, in simple reaction-experiments, in which the subject makes a certain predetermined response upon presentation of the stimulus. 44 The process is supposed to be of the reflex type throughout, the only difference being that ordinary reflexes are relatively permanent and unvarying, 45 whereas a prearranged response to a stimulus has to do with a reflex that is made to order so as to meet the exigencies of the moment.

46 For certain purposes such a description of conscious behaviour is no doubt sufficiently accurate. Our present concern, however, is with the differences between these temporary organisations and ordinary reflexes. 47 In order to bring out these differences, let us introduce a slight complication into our reaction-experiment and suppose that the subject is to make one of two alternative responses, according to the nature of the stimulus. 48 Your state of expectancy is accompanied by a certain bodily "set" or preparedness for the coming event, although the precise nature of the event is a matter of uncertainty. 49 Your nervous system is in readiness to respond this way or that, or rather, it has already started to act in both of the alternative ways. 50 If the subject is to respond with the right hand to one stimulus and with the left hand to the other, both hands are in a state of activity before the stimulus appears. 51 The organisation of the temporary reflex through the agency of the cerebral cortex could

not be achieved were it not for the fact that all the movements entering into the organisation are nascently aroused before the spring is touched which permits the act to unroll itself in orderly sequence.

52 The various successive movements, then, which make up our temporary reflex achieve their relationship to one another from the fact that they are started simultaneously, and this peculiarity constitutes a distinctive feature. 53 Apparently this feature is absent from true reflexes. An act of swallowing, performed unconsciously, may start the complicated processes of digestion, but it is merely the first act of a series. 54 There is no evidence that the movements of the stomach and of the other organs concerned in digestion must be presupposed before the act of swallowing can take place. 55 The swallowing may start the other processes, but we cannot say that these other processes react back upon the first act and make it one of swallowing rather than something else. 56 Yet this "back stroke" is precisely what is necessary in our reaction-experiment, for it is by virtue of this fact that the organisation of the temporary reflex becomes a possibility. 57 The first response cannot take place until the last is provided for. Thus the immediate act of looking has embodied in it the activity that is to follow later. 58 The looking is not simply with the eye, but with the hands that are to complete the response. 59 The optical response is a response which, in the language of Bergson, prefigures or sketches out the act of a later moment. 60 The nervous system is enabled to act as a unit, because the movements that are to occur at a later time are represented in the first stage of the complete act. 61 The first stage, accordingly, does not occur independently, but 'as' a preliminary to the second. 62 With an imperfect organisation of the entire response, it may happen that the subsequent movements are not suppressed until their proper moment arrives, but appear in advance of their scheduled time. 63 In writing, for example, we frequently omit words or add to a word the final letter of some word

that belongs to a subsequent part of the sentence. 64 An error of this sort could hardly occur so readily in the course of an act that belongs to the type of the true reflex.

65 Lest the reader suspect that this is 'a priori' physiology, I may quote the following from a prominent neurologist: 66 "No simple sensory impulse can, under ordinary circumstances, reach the cerebral cortex without first being influenced by subcortical association centers, 67 within which complex reflex combinations may be effected and various automatisms set off in accordance with their preformed structure. 68 These subcortical systems are to some extent modifiable by racial and individual experience, 69 but their reactions are chiefly of the determinate or stereotyped character, with a relatively limited range of possible reaction types for any given stimulus complex.

70 "It is shown by the lower vertebrates, which lack the cerebral cortex, that these subcortical mechanisms are adequate for all of the ordinary simple processes of life, including some degree of associative memory. 71 But here, when emergencies arise which involve situations too complex to be resolved by these mechanisms, the animal will pay the inevitable penalty of failure-- perhaps the loss of own dinner, or even of own life.

72 "In the higher mammals with well-developed cortex the automatisms and simple associations are likewise performed mainly by the subcortical apparatus, 73 but the inadequacy of this apparatus in any particular situation presents not the certainty of failure, but rather a dilemma. 74 The rapid preformed automatisms fail to give relief, or perhaps the situation presents so many complex sensory excitations as to cause mutual interference and inhibition of all reaction. There is a stasis in the subcortical centers. 75 Meanwhile the higher neural resistance of the cortical pathways has been overcome by summation of stimuli and the cortex is excited to function. 76 Here is a mechanism adapted, not for a limited number of predetermined and immediate

responses, but for a much greater range of combination of the afferent impressions with each other 77 and with memory vestiges of previous reactions and a much larger range of possible modes of response to any given set of afferent impressions. 78 By a process of trial and error, perhaps, the elements necessary to effect the adaptive response may be assembled and the problem solved. 79 "It is evident here that the physiological factors in the dilemma or problem as this is presented to the cortex are by no means simple sensory impressions, 80 but definitely organised systems of neural discharge, each of which is a physiological resultant of the reflexes, automatisms, impulses, and inhibitions characteristic of its appropriate subcortical centers. 81 The precise form which these subcortical combinations will assume in response to any particular excitation is in large measure determined by the structural connections 'inter se'....

82 "From the standpoint of the cerebral cortex considered as an essential part of the mechanism of higher conscious acts, 83 every afferent stimulus, as we have seen, is to some extent affected by its passage through various subcortical association centers (i.e., it carries a quale of central origin). 84 But this same afferent impulse in its passage through the spinal cord and brain stem may, before reaching the cortex, discharge collateral impulses into the lower centers of reflex coördination, from which incipient (or even actually consummated) motor responses are discharged previous to the cortical reaction. 85 These motor discharges may, through the 'back stroke' action, in turn exert an influence upon the slower cortical reaction. 86 Thus the lower reflex response may in a literal physiological sense act 'into' the cortical stimulus complex and become an integral part of it."

87 It seems clear, then, that conscious behaviour involves a certain 'process' of organisation which constitutes a differential. 88 The units entering into this process are "definitely organised systems of neural discharge," the antecedent organisation of these several systems being due either to the inherited or to the acquired

structure of the nervous system. 89 Given a certain amount of plasticity, the nervous system builds up specific forms of response for certain objects or situations, 90 and these forms of response subsequently become the material from which new organisations or new modes of response are constructed. 91 The achievements of the past, accordingly, become stepping-stones to new achievement. 92 The new organisation, moreover, is not determined by a mechanism antecedently provided, but has a peculiar flexibility, so as to meet the demands of a new situation. That is, a new mode of procedure is adopted. 93 Instead of being a purely mechanical reaction, the response that results from the situation is tentative or experimental in character, 94 and "by a process of trial and error, perhaps, the elements necessary to effect the adaptive response may be assembled and the problem solved."

95 We may add at once that the re-organisation which is required to constitute conscious behaviour varies a great deal in extent. 96 In an act that is more or less habitual, a comparatively slight modification of the corresponding organised system of neural discharge will suffice to harmonise the conflicting elements, whereas on other occasions a more extensive modification is required. 97 But in any case it appears that there is a certain impropriety in describing conscious behaviour in terms of a temporary reflex, 98 since the study of this behaviour is concerned with the organisation of the discordant elements, not as a result, but primarily as a process. 99 In a reflex act we may suppose that the stimulus which evokes the first stage in the response is like the first in a row of upstanding bricks, which in falling knocks down another. 100 That is, the reflex arc is built up by agencies that are quite independent of the subsequent act. The arc is all set up and ready for use by the time the reflex act appears upon the scene. 101 In the case of conscious activity, on the other hand, we find a very different state of affairs. The arc is not first constructed and then used, but is constructed as the act proceeds; 102 and this

progressive organisation is, in the end, what is meant by conscious behaviour. 103 If the course of a reflex act may be compared with traveling in a railroad train, the progress of a conscious act is more like that of a band of explorers, who hew their path and build their bridges as they go along. 104 The direction of the act is not determined from without but from within; the end is internal to the process.

105 This process of organisation and purposive direction is exemplified in every act of attention. Is that noise, for example, a horse in the street, or is it the rain on the roof? 106 What we find in such a situation is not a paralysis of activity, but a redirection. The incompatibility of responses is purely relative. 107 There is indeed a mutual inhibition of the responses for hoof-beats and rain respectively, in the sense that neither has undisputed possession of the field; 108 but this very inhibition sets free the process of attention, in which the various responses participate and coöperate. 109 There is no static balancing of forces, but rather a process in which the conflict is simply a condition for an activity of a different kind. 110 If I am near a window facing the street, my eye turns thither for a clue; if the appeal to vision be eliminated, the eye becomes unseeing and coöperates with the ear by excluding all that is irrelevant to the matter in hand. 111 In this process the nervous system functions as a unit, with reference to the task of determining the source and character of the sound. 112 This task or problem dominates the situation. A voice in an adjoining room may break in, but only as something to be ignored and shut out; 113 whereas a voice in the street may become all-absorbing as possibly indicating the driver of the hypothetical horse. 114 That is, the reason why the conflict of responses does not end in a deadlock, but in a redirection, is that a certain selectiveness of response comes into play. 115 Out of the mass of more or less inchoate activities a certain response is selected as a rallying-point for the rest, and this selection is of a purposive character. 116 The

selection is determined by reference to the task in hand, which is to restore a certain harmony of response. 117 Accordingly, that response is selected which gives promise of forwarding the business of the moment. 118 By virtue of this selective character, one of the constituents of the total activity becomes exalted among its fellows and is entrusted with the function of determining further behaviour.

119 The purpose of the discussion, up to this point, is to put forward this selective or teleological character as the fundamental and differentiating trait of conscious behaviour; 120 and our task, accordingly, is to give an account of the nature and 'modus operandi' of this purposive control. 121 This control, it is evident, consists in giving direction to behaviour with reference to results that are still in the future. 122 The basis for this anticipation of the future is furnished by the nascent responses which foreshadow further activity, even while they are still under the thraldom of the inhibitions which hold them back. 123 These suppressed activities furnish a sort of diagram or sketch of further possible behaviour, 124 and the problem of consciousness is the problem of making the result or outcome of these incipient responses effective in the control of behaviour. 125 Future results or consequences must be converted into present stimuli; and the accomplishment of this conversion is the miracle of consciousness. 126 To be conscious is to have a future possible result of present behaviour embodied as a present existence functioning as a stimulus to further behaviour. 127 Thus the qualities of a perceptual experience may be interpreted, without exception, as anticipations of the results of activities which are as yet in an embryonic stage. 128 The results of the activity that is as yet partly suppressed are already expressed or anticipated in the perception. 129 The present experience may, as James says, "shoot its perspective far before it, irradiating in advance the regions in which lie the thoughts as yet unborn." 130 A baseball player, for example, who is all "set" to field a ball as a preliminary to a further play, sees the ball, not simply as

an approaching object, but as ball-to-be-caught-and-then-thrown-to-first-base. 131 Moreover, the ball, while still on the way, is a ball-that-may-bound-to-the-right-or-to-the-left. 132 The corresponding movements of the player to the right or left, and the act of throwing, although present only as inhibited or incipient acts, are nevertheless embodied in the visual experience. 133 Similarly my couch looks soft and inviting, because the optical stimulation suggests or prompts, not only the act of lying down, but also the kind of relaxation that is made possible by a comfortable bed. 134 So likewise the tiger's jaws and claws look cruel and horrible, because in that perception are reflected the incipient movements of defense and recoil which are going on in the body of the observer. 135 Perception, like our air-castles, or like dreams in the Freudian theory, presents what is at best but a suggestion or program in the guise of accomplished fact. 136 This projection, however, of our submerged activities into our perceptions requires a more precise statement. 137 According to the foregoing contention, the appearance, for example, of a razor's edge as sharp is the sensory correlate of an incipient response which, if it were to attain full-blown perfection, would be the reaction to a cut. 138 By hypothesis, however, the response is inhibited, and it is this inhibition which calls forth the perception of the object. If the response encountered no obstruction, adaptation would be complete and perception would not occur. 139 Since there is a blocking of the response, Nature resorts to a special device in order to overcome the difficulty, and this device consists in furnishing the organism with a new type of stimulus. 140 The razor as perceived does not actually cut just now, but it bodies forth the quality 'will cut,' i.e., the perceived attribute derives its character from what the object will, or may, do at a future time. 141 That is, a perceived object is a stimulus which controls or directs the organism by results which have not yet occurred, but which will, or may, occur in the future. 142 The uniqueness of such a stimulus

lies in the fact that a contingent result somehow becomes operative as a present fact; the future is transferred into the present so as to become effective in the guidance of behaviour.

143 This control by a future that is made present is what constitutes consciousness. 144 A living body may respond to an actual cut by a knife on purely mechanical or reflex principles; 145 but to respond to a cut by anticipation, i.e., to behave with reference to a merely possible or future injury, is manifestly an exhibition of intelligence. 146 Not that there need be any conscious reference to the future as future in the act. Merely to see the object as "sharp" is sufficient to give direction to conduct. But "sharp" is equivalent to "will cut"; 147 the quality of sharpness is a translation of future possibility into terms of present fact, and as thus translated the future possibility becomes a factor in the control of behaviour. 148 Perception, therefore, is a point where present and future coincide. 149 What the object 'will' do is, in itself, just a contingency, an abstract possibility, 150 but in perception this possibility clothes itself in the garments of present, concrete fact and thus provides the organism with a different environment. 151 The environment provides a new stimulus by undergoing a certain kind of change, i.e., by exercising a peculiar function of control. 152 This control is seeing, and the whole mystery of consciousness is just this rendering of future stimulations or results into terms of present existence. 153 Consciousness, accordingly, is a name for a certain change that takes place in the stimulus; or, more specifically, it is a name for the control of conduct by future results or consequences.

154 To acquire such a stimulus and to become conscious are one and the same thing. 155 As was indicated previously, the conscious stimulus is correlated with the various inherited and acquired motor tendencies which have been set off and which are struggling for expression, 156 and the uniqueness of the stimulus lies in the fact that the adaptive value of these nascent motor tendencies becomes operative as the

determining principle in the organisation of the response. 157 The response, for example, to "sharp" or "will cut" is reminiscent of an earlier reaction in which the organism engaged in certain defensive movements as the result of an actual injury. 158 That is, the response to "sharp" is a nascent or incipient form of a response which at the time of its first occurrence was the expression of a maladaptation. 159 The response that is induced when an object is seen as sharp would be biologically bad, if it were completed, 160 and the fact that the object is seen as sharp means that this result is foreshadowed and operates as a stimulus to prevent such maladaptation. 161 Similarly the couch which meets my weary eye becomes a stimulus to repose because the nascent activity which is aroused would be biologically good if completed. 162 In any case the character of the stimulus is determined by the adaptive value which the incipient activity would have if it were carried out. 163 Consciousness, accordingly, is just a future adaptation that has been set to work so as to bring about its own realisation. The future thus becomes operative in the present, 164 in much the same way as the prospects for next year's crop may be converted by the farmer into ready money with which to secure the tools for its production.

165 To justify this conclusion by a detailed and extensive application of this interpretation to every form of quality and relation would carry us beyond the limits of the present undertaking. 166 It is a view, however, which offers possibilities that have not as yet been properly recognised. Certain considerations, besides those already discussed, may be mentioned as giving it an antecedent plausibility. 167 As regards simple sense-qualities, there is abundant reason for believing that Locke's doctrine of "simple ideas" is a violent perversion of the facts. 168 To assume that the last results of analysis are the first things in experience is to give a fatal twist to psychology and to commit us to the fruitless agonies of epistemology. 169 The original "blooming, buzzing confusion" with which experience starts becomes differentiated into

specific qualities only to the extent that certain typical and organised forms of response are built up within the body. 170 Sense-qualities, in other words, are functionally not simple but extremely complex; they owe their distinctiveness or individuality to the fact that each of them embodies a specific set of cues or anticipations, with reference to further experiences. 171 The difference between a quality like "sharpness" and a quality like "red" lies in the fact that the former is a translation of a relatively simple possibility, viz., "will cut," whereas the latter embodies a greater variety of anticipations. 172 The perception of red, being the outcome of many comparisons and associations, presupposes a complex physical response which contains multitudinous tendencies to reinstate former responses; 173 and the combined effect of these suppressed tendencies is the perception of a colour which offers possibilities of control over behaviour in such directions as reminiscences, idle associations, or perhaps scrutiny and investigation. 174 A similar explanation evidently applies to abstract ideas, which neither admit of reduction to "revived sensations" nor compel the adoption of a peculiarly "spiritual" or "psychic" existence in the form of unanalysable meanings. 175 Here again a complex mode of response must be assumed, having as its correlate an experience describable only in terms of its functioning, 176 which is such as to enable the organism to act intelligently, i.e., with reference to future results, which are sufficiently embodied in the experience to secure appropriate behaviour. 177 Again, this point of view offers a satisfactory solution for the time-worn puzzle of relativity. 178 If perception is just the translation of future possible stimulations into present fact, there is assuredly no justification for the notion that perception distorts the facts or that discrepancies among different perceptions prove their "subjectivity." 179 There remains but one test by which the correctness or validity of perception may be judged, 180 viz., whether the perceived object proves to be the kind of stimulus

which is reported or anticipated in the present experience.

181 So far our discussion has emphasised the anticipatory character of the conscious stimulus. Future consequences come into the present as 'conditions' for further behaviour. 182 These anticipations are based, indeed, upon previous happenings, but they enter into the present situation as conditions that must be taken into account. 183 But to take them into account means that the conscious situation is essentially incomplete and in process of transformation or reconstruction. 184 This peculiar incompleteness or contingency stands out prominently when the situation rises to the level of uncertainty and perplexity. 185 To borrow the classical illustration of the child and the candle, the child is in a state of uncertainty because the neural activity of the moment comprises two incompatible systems of discharge, 186 the one being a grasping and holding, the other a withdrawal and such further movements as may be induced by contact with fire. 187 Hence the candle has the seductiveness of a prize, but at the same time carries the suggestion of burning the fingers. 188 That is, the perceived object has a unique character of uncertainty, which inheres in it as a present positive quality. 189 We are here confronted with genuine contingency, such as is encountered nowhere else. 190 Other modes of behaviour may be uncertain in the sense that the incoming stimulation finds no fixed line of discharge laid down for itself within the organism. 191 In seeking to convert itself into response it may either sweep away the obstructions in its path or work itself out along lines of less resistance, in ways that no human can foretell. 192 There may be moments of equilibrium, moments when it remains to be seen where the dam will break and the current rush through. 193 Such uncertainty, however, is the uncertainty of the bystander who attempts to forecast what will happen next. It is not the uncertainty that figures as an integral part of conscious behaviour.

194 This inherent uncertainty means that conscious behaviour, as

contrasted with the mechanical character of the reflexes, is essentially experimental. 195 The uncertainty exists precisely because an effort is under way to clear up the uncertainty. 196 The resort to eye or ear or to reflective thinking is suggested by the corresponding nascent responses and is an endeavour to secure something which is still to seek, but which, when found, will meet the requirements of the situation. 197 Translating this process into terms of stimulus and response, we may say that the conscious stimulus of the moment induces the investigation or scrutiny which presently results in the arrival of a stimulus that is adequate to the situation. 198 The stimulus, in other words, provides for its own successor; or we may say that the process as a whole is a self-directing, self-determining activity. 199 Stimulus and response are not successive stages or moments, but rather simultaneous functions or phases of the total process. 200 Within this process the given situation is the stimulus because it is that aspect or function which guides the subsequent course of the activity, 201 while the bodily movements are the response because they already embody the activity that is to follow. 202 The significant circumstance here is that stimulus and response resist the temporal separation that we find in a purely reflex act; 203 stimulus and response are bound together as correlated functions in a unitary, self-directing process, so that these twain are one flesh.

204 Situations of uncertainty and expectancy, as exemplified by the familiar child-candle incident, are of interest, because they emphasise both the anticipatory character of experience and the peculiar reconstruction of the stimulus. 205 These situations, however, differ merely in degree, not in kind, from other experiences; their merit is that in them the distinctive character of conscious life is writ large. 206 To say that they are conscious situations is to say that they are so constituted that the possibilities of a subsequent moment are embodied in them as a positive quality. 207 In them the present moment embodies a future that is contingent. 208 And

similarly the response has neither the predetermined organisation of the reflex nor the aimless character of a response that issues in a set of random movements. 209 It is, so to speak, of a generalised character, like the paleontological specimens that foreshadow in their structure the advent of both fish and reptile. 210 This form of organisation, however, while exemplified most strikingly in situations of uncertainty, pertains to all conscious behaviour. 211 In uttering a sentence, for example, we know in advance what we are going to say, yet the sentence shapes itself into definite form only as we proceed; 212 or perhaps we get "stuck," and by hemming and hawing bear witness that a struggle for a certain kind of organisation is going on. 213 The same word in different contexts is a different word in each instance, by virtue of the colouring that it takes on from what is to follow after. And this is equally true of our most casual experiences. 214 The auditory or visual object that we happen to notice and immediately afterwards ignore is apprehended with reference to the possibility of warranting further attention, 215 or else it presents itself as an intruder that is to be excluded in order that we may go on with the concern of the moment. 216 All experience is a kind of intelligence, a control of present behaviour with reference to future adjustment. 217 To be in experience at all is to have the future operate in the present.

218 This reference to the future may be in the nature of an end or goal that controls a series of activities or it may be of a momentary and casual kind. 219 In any case the character of the stimulus changes with the progress of the act. 220 The book on the table must become successively book-to-be-reached-for, book-to-be-picked-up, and book-to-be-opened, unless the process is to drop back to the type of reflex. 221 This development of the stimulus gives genuine continuity, since every moment in the process comes as a fulfillment of its predecessor and as a transition-point to its successor. 222 In a purely mechanical act response follows stimulus like the successive strokes of a clock. It is

a touch-and-go affair; 223 the stimulus presses the button and then subsides, while the neural organisation does the rest. 224 In conscious behaviour, on the other hand, stimulus and response keep step with each other. 225 A mere succession of stimuli would reduce conscious behaviour to a series of explosive jerks, on the principle of the gasoline engine. 226 To be conscious at all is to duplicate in principle the agility of the tight-rope performer, 227 who continuously establishes new co-ordinations according to the exigencies of the moment and with constant reference to the controlling consideration of keeping right side up. 228 The sensory stimulus provides continuously for its own rehabilitation or appropriate transformation, 229 and in a similar way the neural organisation is never a finished thing, but is in constant process of readjustment to meet the demands of an adaptation that still lies in the future.

230 It is this relationship of present response to the response of the next moment that constitutes the distinctive trait of conscious behaviour. 231 The relatively unorganised responses of the present moment, in becoming reflected in the experienced object, reveal their outcome or meaning before they have become overt, and thus provide the conditions of intelligent action. 232 In other words, future consequences become transformed into a stimulus for further behaviour. 233 We are confronted here with a distinctive mode of operation, which must be properly recognised, if we are to give a consistent and intelligent account of conscious behaviour. 234 On the other hand, if we refuse to recognise the advent here of a new category, intelligence becomes an anomaly and mystery deepens into contradiction. 235 Since intelligence or consciousness must be provided for somehow, we are forced back upon either interactionism or else epiphenomenalism, more or less disguised under a euphonious name, such as psycho-physical parallelism or the double-aspect theory. 236 That is, the relation of stimulus and response is either

reduced to plain cause and effect or else is rejected altogether and supplanted by a bare concomitance of the physical and mental series. 237 In either case conscious behaviour is reduced to the type of reflex action, the only issue between the two doctrines being the question whether or not it is necessary or permissible to interpolate mental links in the causal chain.

238 According to the doctrine of parallelism, conscious behaviour is nothing more than a complicated form of reflex, which goes on without any interference on the part of mind or intelligence. 239 Intelligence adds nothing to the situation except itself; it carries no implications or new significance with regard to conduct. 240 The psychic correlate is permitted to tag along, but the explanations of response remain the same in kind as they were before they reached the level of consciousness. 241 "Mere complexity should not becloud the issue. Every brain process, like every reflex activity, is presumably the result of physico-chemical processes. 242 The assumption of a mysterious intuition or 'psychic force' adds nothing to the mechanistic explanation, even when the latter is most fragmentary. 243 The interactionists go out of their way unnecessarily in assuming a special activity of consciousness to account for the dislocation of reactions from sensations. 244 The nervous organisation suffices to explain it. Distant-stimuli and central stimuli co-operate to bring about anticipatory reactions; foresight is but the conscious side of this process. The phenomenon is 'both' physical and mental."

245 The passage just quoted is fairly typical. Since the mental is an aspect or concomitant of the physical it is clearly entitled to an occasional honourable mention, 246 but the fact remains that the explanation of behaviour is to be given wholly in terms of neural organisation. 247 The mental is quite literally an "also ran." To say that a physico-chemical process is also mental is of no particular significance as long as it is implied that the end or goal of the process plays no part in shaping the course of events. 248 The mental simply gives dignity to the occasion, like

the sedan chair with no bottom, in which the Irishman's admirers, according to James's story, ran him along to the place of banquet 249 and which prompted the hero to remark: "Faith, if it wasn't for the honour of the thing, I might as well have come on foot."

250 It is this empty show of respect which the interactionists seek to avoid when they make the mental a distinct link in the causal sequence. 251 The physical first causes the mental, and the mental in turn brings about a change in the physical. 252 In this way a certain importance is indeed secured to mental facts, but it appears that, so far as purposive action is concerned, we are no better off than we were before. 253 The mental is simply another kind of cause; it has as little option regarding its physical effect as the physical cause has with regard to its mental effect. 254 Non-mechanical behaviour is again ruled out, or else a vain attempt is made to secure a place for it through the introduction of an independent psychic agency.

255 It is true, indeed, that we are under no antecedent obligation to maintain the existence of an activity that is not entirely reducible to the type of everyday cause and effect. 256 But neither does scientific zeal and incorruptibility require us to do violence to the facts in order to secure this uniformity of type. 257 Not to speak at all of the difficulties inherent in this dualism, it seems undeniable that some facts persistently refuse to conform to the type of mechanism, unless they are previously clubbed into submission. 258 Foresight and the sense of obligation, for example, must learn to regard themselves as nothing more than an interesting indication of the way in which the neural machinery is operating before they will fit into the scheme. 259 And similarly the progress of an argument is no way controlled or directed by the end in view, or by considerations of logical coherence, but by the impact of causation. 260 Ideas lose their power to guide conduct by prevision of the future, and truth and error consequently lose their significance, save perhaps as manifestations of cerebral operations. 261 Since reasoning

involves association, it must be reducible to bare association; the sequence of the process is just sequence and nothing more. 262 A description of this kind is on a par with the celebrated opinion that violin music is just a case of scraping horse-hair on catgut. 263 Everything that is distinctive in the facts is left out of account, and we are forced to the conclusion that no conclusion has any logical significance or value.

264 In the end these difficulties, and in fact most of our philosophic ills, may be traced back to the prejudice that experience or knowing is a process in which the objects concerned do not participate and have no share. 265 This assumption commits us at once to various corollaries and thus breeds a set of abstractions that pass themselves off as entities and add themselves to the world of our experience as demonstrable facts. 266 In philosophy, as in the financial world, there is a constant temptation to do business on a basis of fictitious capitalisation. 267 Our abstract physico-chemical processes, with their correlates, such as passive, independent objects, souls, minds, or absolutes, do not represent actual working capital, but watered stock, 268 and their inevitable tendency is to convert the legitimate business of philosophy into a campaign of exploitation, 269 which is nonetheless exploitation because it is frequently done in the interests of what are supposed to be the spiritual values of human. 270 A careful inventory of our assets brings to light no such entities as those which have been placed to our credit. 271 We do not find body and object 'and' consciousness, but only body and object. 272 We do not find objects that remain indifferent to the experiential process, but rather objects that exhibit a flexibility and mobility which defy all description. 273 We do not find a self-sufficient environment or absolute 'to' which intelligence must needs adjust itself, but an environment that is at odds with itself and struggling in the throes of a reconstruction. 274 The process of intelligence is something that goes on, not in our minds, but in things; it is not photographic, but creative.

275 From the simplest perception to the most ideal aspiration or the wildest hallucination, our human experience is reality engaged in the guidance or control of behaviour. 276 Things undergo a change in becoming experienced, but the change consists in a doing, in the assumption of a certain task or duty. 277 The experiential object hence varies with the response; the situation and the motor activity fit together like the sections of a broken bowl.

278 The bearing of this standpoint on the interpretation of psychology is readily apparent. 279 If it be granted that consciousness is just a name for behaviour that is guided by the results of acts not yet performed but reflected beforehand in the objects of experience, it follows that this behaviour is the peculiar subject-matter of psychology. 280 It is only by reference to behaviour that a distinctive field can be marked off for psychological enterprise. 281 When we say that the flame is hot, the stone hard, and the ice cold and slippery, we are describing objects and nothing more. 282 These qualities are, indeed, anticipations of future possibilities, but this means simply that the objects are described in terms of their properties or capacities as stimuli of the organism. 283 Such an account leaves out of consideration certain changes which things undergo when they exercise the function of controlling or directing changes in the adjustment of the body. 284 A quality, such as "sharp" or "hot," is not mental or constituted by consciousness, but the function of the quality in giving direction to behaviour through certain changes which it undergoes is consciousness. 285 The changes that take place in things as a result of association, attention, or memory, are changes that have no significance, save with regard to their function as stimuli to new adjustments. 286 Psychology, therefore, is properly a study of the conditions which determine the change or development of stimuli; 287 more specifically it is a study of the conditions which govern such processes as those by which problems are solved, lessons are memorised, habits and attitudes are built up, and decisions are

reached. 288 To call such study "applied" psychology is to misunderstand the proper scope and purpose of the subject. 289 Psychology frequently has occasion to draw extensively upon physics and physiology, but it has its own problem and its own method of procedure.

290 That this view of conscious behaviour should involve an extensive reinterpretation of familiar facts is altogether natural and inevitable. 291 If consciousness is a form of control, the question, for example, what is "in" consciousness and what is not must be interpreted with reference to this function of control. 292 In a sense we perceive many things to which we are not paying attention, such as the light in the room or the familiar chairs and bookcases. 293 These are perceived "marginally," as we say, in the sense that the presence of these objects affects the total adjustment of the moment in such a way that the experience 'would' become a clue to these objects if they were withdrawn. 294 And similarly we may speak of marginal sensations of strain or movement, to indicate possible clues to certain bodily activities which are factors in the process. 295 These marginal perceptions or images are not actual existences, but are symbols and nothing more. 296 The significance of these symbols is that they point to certain conditions by which the experiences in question are determined. 297 Thus the question whether a given experience involves certain "sensations" is just a question whether certain bodily or extra-bodily conditions are involved in the experience. 298 If this reference to conditions is ignored and experience is explained in terms of sensory material that blends and fuses and otherwise disposes itself, the explanation is no longer science but sleight-of-hand. 299 Psychology has no proper concern with such mythical constituents of consciousness; its business is with things as related to conduct, which is to say that psychology is a science of behaviour.

II

300 According to the standpoint set forth in the preceding discussion, the key to a consistent and fruitful

interpretation of consciousness and psychology lies in behaviour. 301 If we turn now to the psychology of introspection, which has been dominant so many years, we find a standpoint and mode of procedure which, on the surface at least, is of a radically different kind. 302 It behooves us, therefore, to consider this standpoint in some detail in order to justify the attempt to reinterpret and "evaluate" it in the light of our own doctrine.

303 The point of departure for introspective psychology is to be found, so it seems, not in the facts of behaviour, but in the distinction between focal and marginal experience. 304 It is on this distinction that the introspective psychologist bases the attempt to give a psychological analysis and description of the contents of experience. 305 To analyse and describe the facts of consciousness is to bring the marginal constituents of experience into the white light of attention. 306 Analysis and description are possible just because experience is so largely a welter of elements that disguise their identity and character. 307 In some way these unrecognised and unidentified elements are constituents of the total experience. 308 To borrow the language of a writer quoted by James, "However deeply we may suppose the attention to be engaged by any thought, any considerable alteration of the surrounding phenomena would still be perceived; 309 the most abstruse demonstration in this room would not prevent a listener, however absorbed, from noticing the sudden extinction of the lights." 310 Or, as James remarks: "It is just like the overtones in music. Different instruments give the 'same note,' namely, various upper harmonics of it which differ from one instrument to another. 311 They are not separately heard by the ear; they blend with the fundamental note and suffuse it, and alter it." 312 Let the attention be directed to these overtones, however, and they at once detach themselves from their surroundings and step forth into the light of day. 313 Even so the ticking of the clock may pass unnoticed in the sense that it is an undiscriminated element in the background of our consciousness; 314 but if the ticking comes to a

sudden stop, the feeling of a void in our consciousness proclaims the fact that something has gone out from it.

315 The observation and description of the facts of consciousness, then, is based directly on the fact that experience, as the psychologist deals with it, possesses a focus and margin. 316 Nature as conceived by the physical sciences presents no such distinction. The facts are what they are, and their character as focal or marginal, as clear or obscure, depends altogether upon their relation to an intelligence. 317 Or we may say that if the facts of experience were always focal and never marginal, it would never occur to us to speak of consciousness as we do at present. 318 As long as we confine ourselves to a given colour, shape or temperature, as experienced focally, we are not dealing with consciousness, but with objects. 319 An analysis of such facts that does not bring in the marginal is not an analysis of consciousness, but an analysis of physical reality. 320 Even if we consider non-physical objects, such as mathematical or economic concepts, we find that our analysis is not psychological as long as the marginal is left out. 321 The consideration of the margin, however, brings us into the presence of facts which are of a distinctive kind and which warrant a new science. 322 Let the margin be eliminated and psychology disappears at the same time.

323 The psychological doctrine of focus and margin, then, is a matter of fundamental importance. On the interpretation of this doctrine depend our systems of psychology and of philosophy. 324 What, then, is meant by focus and margin? If we turn to our psychologies, we seem to be confronted once more with something that everybody knows and nobody can define. 325 But since we have to do with a distinction, the obligation to differentiate cannot be wholly ignored. 326 Consciousness is sometimes likened to a visual field and sometimes to the waves of the sea. 327 Like the visual field it has a foreground and a background, a near and a remote, a center and a margin or periphery. 328 The contents of consciousness are

vivid or clear in the center of this field and fade away into vagueness or obscureness in proportion to their approach to the periphery. 329 Or, to take the other comparison, the focus may be represented by the crest of a wave and the margin by what we may call its base. 330 This illustration has the advantage that it indicates the difference between higher and lower degrees of concentration. 331 As concentration increases, the crest of the wave rises higher and its width decreases, while the reverse is true where the concentration of attention is less intense. 332 All consciousness possesses the distinction of focus and margin in some degree; 333 however much we may be absorbed in an object or topic, there is always an indirect mental vision that informs us of other facts, which for the time being are in the background of our consciousness.

334 For purposes of description a metaphor is at best a clumsy device. It has a tendency to substitute itself for the thing to be described and thus to conceal its limitations and inaccuracies. 335 The present case is no exception. I am forced to think that the visual field in particular is a thoroughly vicious metaphor when employed to body forth the distinction of focus and margin. 336 Whatever this distinction may in the end turn out to be, it is not such as this comparison would lead one to suppose. 337 Objects seen in indirect vision appear obscure and blurred precisely because they are in the focus of consciousness. 338 We get pretty much the same sort of obscureness or blur on a printed page when we look at it in indirect vision as we do when we look at it from a distance that is just too great to make out the words or characters. 339 What the illustration shows is that things look different according as the circumstances under which we see them are different, 340 but what bearing this has on marginal consciousness is not at all obvious to an unsophisticated intelligence.

341 When we speak of a focus and margin in consciousness, we are presumably dealing with conscious fact. Now this illustration of the visual field does not represent conscious fact. 342 Ordinary perception carries with it no sense

of obscureness at all, and when it does we have exactly the same kind of situation as when an object is too distant or in some other way inaccessible to satisfactory perception. 343 That is, the object perceived is in the 'focus' and not in the margin. 344 The obscureness of objects when seen with the margin of the retina has no more to do with the margin of consciousness than the obscureness caused by an attack of dizziness or by a morning fog.

345 It will be said, perhaps, that consciousness may be unclear even though there be no sense of unclearness, that there is such a thing as intrinsic clearness, quite apart from obstacles and problems. 346 In other words, the same sensation is capable of realising various degrees of clearness. 347 It is not at all obvious, however, why the different experiences that are concerned in such a comparison should be called the same sensation. 348 As long as we abstract from objective reference, each sensation is just what it is and there is no opportunity to make comparisons on the basis of clearness. 349 A sensation as such-- if we are bound to speak of sensations-- can by no possibility be an obscure sensation, for the trait that we call obscureness or vagueness constitutes the intrinsic being of that sensation. 350 If we permit ourselves to speak of clearness at all, we should rather say that it possesses a maximum of clearness, since it has managed to express or present its whole nature with not one trait or feature lacking. 351 What more could be demanded, in the way of clearness, of any conscious fact than that it should body forth every detail that it possesses?

352 If sensations or states of consciousness possess degrees of clearness, it seems to follow that we may scrutinise them for the purpose of discovering characteristics that were present 353 though scarcely perceived, in much the same way that the polishing of old furniture brings out the grain in the wood. But such a parallel, I submit, is plain nonsense. 354 The supposition that consciousness is something that in due time and with good fortune may attain consciousness is too absurd for discussion, even though

it is a supposition that plays a considerable rôle in present-day psychology.

355 The purpose of the discussion, up to this point, has not been to deny the validity of the distinction between focus and margin, 356 but to insist upon the necessity of reconsidering the meaning of this distinction, if we are to attain to a workable definition of consciousness and a fruitful or even intelligible conception of the problem of psychology. 357 I have endeavoured to show, in the first place, that the doctrine of focus and margin involves the 'raison d'être' of psychology. 358 Apart from this doctrine we have no task or problem that psychology can claim as its distinctive possession. 359 The analysis of what is in the focus of consciousness is adequately provided for in the other sciences; it is only with the introduction of what is called the margin that an enterprise of a different kind becomes necessary. 360 But, secondly, this distinction of focus and margin cannot be drawn on the basis of the experienced contrast between clearness and obscureness. 361 The very fact that anything is experienced as obscure means that it is an object of attention, or, in other words, that it is in the focus of consciousness and not in the margin. 362 The comparison of focus and margin with direct and indirect vision is misleading, because it suggests that experiences are marginal in proportion as they are felt as obscure. 363 And, thirdly, if we undertake to distinguish between focus and margin on the basis of a difference in clearness or vividness of which no note is taken at the time, 364 we encounter the difficulty that experience or consciousness, taken abstractly, does not admit of such variations in degree, and so this criterion likewise goes by the board.

365 The situation is indeed peculiar. That there is a realm of psychological fact is universally conceded. 366 As a consequence of this conviction a great body of fact and of doctrine has been built up. It would be folly to deny either the distinctiveness or the significance of this achievement. 367 And yet James's description of psychology as "a string of raw facts; a little

gossip and wrangle about opinions; a little classification and generalisation on the mere descriptive level; a strong prejudice that we 'have' states of mind and that our brain conditions them," is not wholly untrue even today. 368 It is even possible for a present-day critic to outdo James and maintain that the legitimacy of psychology as a separate inquiry is a matter of faith rather than of sight. 369 The 'raw facts' of which James speaks resolve themselves into physical and physiological material on the one hand and metaphysical dogmas on the other; 370 the gossip and wrangle are largely over fictitious problems; the classifications and generalisations as a rule involve trespassing on other fields; the prejudice that we have states of mind has less standing-ground today than it had twenty years ago. 371 In other words, there is still plausible ground for James's pessimistic comment: "This is no science, it is only the hope of a science." 372 A situation such as this carries with it the insistent suggestion that the trouble lies, not primarily in the nature of the subject-matter, but in our conception of the problem. 373 "The matter of a science," as James says, "is with us." 374 And if the distinction of focus and margin constitutes the starting-point and justification for a science of psychology, a better understanding of this distinction will mean a more adequate appreciation of the problem with which psychology has to deal.

375 As a starting-point for a reconsideration of focus and margin, we may take those experiences in which the distinction of clearness and obscureness is presented as an experienced fact. 376 Let us then turn once more to the familiar illustration of the visual field. "When we look at a printed page, there is always some one portion of it, perhaps a word, which we see more clearly than we do the rest; 377 and out beyond the margin of the page we are still conscious of objects which we see only in a very imperfect way." 378 That is, we appreciate the distinction between what lies in the center of our visual field and what is more remote, 379 just

because in this experiment we are trying to see what lies beyond the center without turning our eyes in that direction. 380 We set ourselves the task of seeing what is on the page, and at the same time we interpose an artificial obstacle. Hence the sense of effort, and the contrast between what is clear and what is obscure. 381 The present experience is obscure, not inherently, but only with reference to a certain problem or question. It is inadequate as an anticipation of further experience. 382 The contrast between clear and obscure is created by our attempt to overcome the difficulty, and is therefore absent from ordinary, unobstructed visual perception.

383 The situation described in the following familiar quotation from James is an illustration of the same thing: 384 "Suppose we try to recall a forgotten name. The state of our consciousness is peculiar. There is a gap therein; but no mere gap. 385 It is a gap that is intensely active. A sort of wraith of the name is in it, beckoning us in a given direction, making us at moments tingle with the sense of our closeness, and then letting us sink back without the longed-for term."

386 'I met this man on the train, and later at the reception; but what is his name?' The struggle rends our consciousness in twain. 387 The occasions of our meeting, his appearance, his conversation, are solid fact, yet all suffused with the pervasive, evanscent "wraith" that tantalises us with glimpses which half reveal and half conceal the name we seek to grasp.

388 To account for such experiences simply in terms of half-submerged "sensations" and "images" is to do violence to all the requirements for clear thinking. 389 If we rule out explanations of this kind, we are evidently forced to the conclusion that these experiences are obscure, 390 not in themselves or in the abstract, but with reference to the function of putting us in possession of the name to which they are inadequate clues. 391 It is the subsequent, satisfactory experience of the name which furnishes our standard for clearness; in other words, the implications of obscureness are of a functional, and not of a static or

structural, kind. 392 The marginal character of an experience is simply a reference to its function as a clue or cue to some further experience, i.e., a reference to its character as a changing stimulus. 393 Or we may say that the distinction between focus and margin is just another aspect of the distinction between the conditions for further activity and the incompleteness which leads to further adjustment. 394 The transfer of the future into the present gives us a fact, here and now, 395 and in this respect the experience is entirely focal in character, and as such it is subject-matter for the various sciences. 396 Whatever the nature of the experience, it is just what it is, and not something else. 397 With respect to the further experience, however, which it conditions or for which it prepares the way, the present experience is entirely marginal, i.e., in its character as a changing stimulus it is subject-matter for psychology. 398 The distinction of focus and margin, then, is based ultimately upon the function of experience in the control of behaviour. 399 The given situation is a present fact and is in functional change; or, in terms of our present discussion, it has both a focus and a margin. 400 As present fact it is a reality which requires recognition in the form of adjustment; as in functional change it provides opportunity for bringing the adjustment to fruition. 401 That is, the experience both sets a task or makes a demand and it points the way. 402 The distinction is a distinction of function, not of static existence, and it is this distinction which is represented by the contrast of focus and margin.

403 If we compare this interpretation of focus and margin with that of traditional psychology, we find that the latter construes the relation of the present to the future experience wholly in static terms, the functional relation being left out of account. 404 The later experience is read back into its predecessor in the form of dim or marginal images, which need but show themselves more completely to make the two identical. 405 If these sensations were intended only as symbols of a functional relationship, it would perhaps be

scarcely worthwhile to enter a protest against them. 406 But when the functional relationship is quite overlooked, the explanation that is given becomes exceedingly dubious. 407 The ticking of the clock, for example, that is present, though unnoticed, the overtones of the note that suffuse the whole without diverting attention to their individual qualities,-- 408 in what precise way are facts of this kind concerned in the description of the experience which they modify? 409 A study of the clock or of the overtones can hardly pass as an analysis of consciousness; it is too obviously an affair of physics. 410 Such a study becomes merely an excuse for repeating the analyses of physics and reading them off in terms of sensations and images. 411 Moreover, the transfer of all this material to consciousness looks suspiciously like a transaction in mental chemistry. Where, then, is psychology to gain a foothold? 412 What is the meaning of these uncanny sensations and images, which nobody experiences, unless it be their character as symbols of adjustment? 413 They have no legitimate status, and psychology, by consequence, has no legitimate problem, except in so far as they represent those possible acts of adaptation which are the sole and proper concern of psychology.

414 It remains to point out briefly the bearing of these results on what is called "the method of introspection." 415 We are sometimes assured that introspection has discarded the belief in a separate mental stuff or subject-matter, 416 but there is ground for the suspicion that such protestations are made in the same spirit that we affirm our belief in the Ten Commandments or the Golden Rule, with no thought of being taken seriously. 417 At all events, without a literal "looking within" it seems to become exceedingly difficult to differentiate introspection from ordinary observation as practised in the other sciences. 418 The reason for this difficulty is that there is nothing left in introspection by which it can be differentiated. 419 The term introspection properly designates, not a method but a problem; the problem, namely, of interpreting

given facts with reference to their function in the control of behaviour. 420 If psychology is to justify its claim to the status of a science, it is in duty bound to secure for itself both an objective criterion for the adjudication of disputes which otherwise are of necessity interminable, 421 and a subject-matter that is not simply a heritage of metaphysical prejudice, but a realm of fact that is attested by everyday observation and experience.

III

422 Within recent years the doctrine that psychology is a science of behaviour has acquired a certain prominence. 423 It is presupposed, of course, that the behaviour with which psychology is concerned is of a distinctive sort; but the differentia is unfortunately the very thing that the "behaviourist" has hitherto left out of account. 424 In their revolt against introspectionism, which has been accustomed to give to its subject-matter a subjectivistic and "psychic" interpretation, they goes to the other extreme and relies on behaviour pure and simple. 425 Being without a serviceable differentia, they are unable to mark off the field of psychology from contiguous territory. 426 The selection of certain problems within the general range of behaviour, with no recognition of any distinctive trait to guide and justify the selection, is hardly enough to warrant a new science. 427 Even an arbitrary principle of selection is better than none, and it would, therefore, be quite as reasonable to subdivide the field of botany in the interests of a new science, 428 and group together for separate botanical study those flowers which have enabled poets to give symbolic expression to the beauty of women.

429 That the principle of selection is, in the end, the ability to modify behaviour through the anticipation of possible consequences, appears from the fact that the category of stimulus and response is otherwise found to be unworkable. 430 It is true that in the simpler forms of behaviour stimulus and response may be correlated without practical difficulty. 431 But when we deal with what has been called "delayed overt response," the

matter becomes more complicated and the theoretical difficulty becomes more prominent. 432 The behaviourist would not seriously undertake to record everything that happens between stimulus and response. They proceeds selectively, taking the relation of stimulus and response as their clue. 433 They are properly interested in the movements which result from the application of the stimulus only in so far as they constitute response. Otherwise their study is not a study of behaviour, but a study of movements. 434 But when does a movement constitute a response? Do we label as stimulus the spoken word which results in overt action a week later, 435 or the visual perception which sets a complicated and long-drawn-out problem, for no other reason than that it appears somewhere as an antecedent in the causal chain of events? 436 If so, there is no obvious reason why the event which occurred just before or immediately after the 'soi-disant' stimulus should not be regarded as the true stimulus. 437 Unless a satisfactory reason is forthcoming, it would seem better to substitute cause and effect for stimulus and response and to drop the term behaviour from our vocabulary. 438 Psychology then becomes a study of certain causal relationships, but is still without a principle for the selection of those causal events which are supposed to constitute its peculiar subject-matter.

439 Even if we manage to become reconciled to this situation, however, our troubles are not yet at an end. 440 There still remains the difficulty in certain cases of showing that the event which is selected as stimulus or cause bears any significant relationship to the event which figures in our scheme as the response. 441 The stimulus is supposed to have a causal connection with the response, but how are we to know that this is the fact? 442 How are we to know that the engineer who solves a problem for me at my request might not have done so anyway? 443 No behaviourist can possibly show that the air waves set in motion by my vocalisation were an indispensable stimulus. 444 We doubtless believe that the spoken

word was in fact the spark which lit the fuse and finally exploded the mine, but this belief involves a complication of causes which it is wholly beyond our power to control or to verify.

445 It is true, of course, that we are able, as a matter of fact, to correlate stimulus and response. 446 I know that it was the spoken word which caused the commission to be executed, for the expert reminds me of the fact and presents a bill. 447 But neither of us makes any pretense that your belief is derived from a scrutiny of the causal sequence. 448 Memory furnishes us with a shortcut to the result. While our present acts are doubtless connected with the past through causation, 449 we do not regard them as simply the effects of antecedent causes. They are rather responses to present stimuli. 450 The expert presents own bill, being moved thereto by a stimulus which may be indicated by saying that it is the spoken-word-constituting-a-commission-now-completed-and-entitling-me-to-compensation. 451 That is, the stimulus cannot be pushed back and anchored at a fixed point in the past, but is a present factor at the moment of response and is operative by virtue of its anticipation of future events.

452 If, then, psychology is to be regarded as a study of behaviour, it is plainly necessary to reinterpret the category of behaviour. 453 For example, a purely mechanical response to a light-stimulus may properly be viewed as response to the ether-vibration or wave-length upon which it follows in temporal sequence. 454 But if this stimulation results in what is commonly called consciousness, a different kind of response ensues. 455 The light-stimulus becomes a cause or occasion for the act of looking. But why look, unless it be to secure a new stimulus for further response? 456 We stop to look, precisely because the first stimulus does not run smoothly off the reel. The response will not go forward, but is halted and expends itself in the effort to secure a further stimulus. 457 This is the moment of attention, in which the stimulus undergoes a process of transformation, concomitantly with the process of re-organisation in the motor responses, and in the

direction of ends or results that are foreshadowed in it. 458 This change in the stimulus takes place under certain specifiable conditions, 459 and the study of these conditions is a study of such processes as perceiving, attending, remembering, and deliberating, which are distinctively psychological in their nature. 460 Processes of this kind, if taken as changes in stimuli, find an objective criterion in the adaptive behaviour for the sake of which they occur, and they provide psychology with a distinctive task and subject-matter.

461 As against the introspectionist, then, the behaviourist is justified in own contention that psychological procedure must be objective and experimental in character. 462 The danger to which it has exposed itself is the failure to differentiate its problem from that of physiology and physics. 463 It is only by a proper recognition of both the objective and the distinctive character of conscious behaviour that psychology can free itself of the reproach which is heaped upon it by members of its own household and take the place that rightfully belongs to it in the community of the sciences.

IV

464 According to the preceding exposition, the current psychological doctrine of focus and margin is an attempt to reduce the changes in the stimulus to terms of static entities denominated sensations and images. 465 By abstracting from change we convert the new stimulus that is already on the way into inert sensory material, which lends itself to purely analytic treatment. 466 In this way the suggested hardness of the rock becomes a "centrally aroused sensation" of a stubbed toe, the heat of the candle becomes an image of a burn, etc. 467 As was said before, the sensations are not existences, but representatives or symbols of our nascent activities; they are the static equivalents of this foreshadowing or reference to the future. 468 The explanation of experience that we find in James and Bergson approximates this view so closely in one respect and departs from it so widely in

another as to warrant a brief discussion.

469 A prominent characteristic of the doctrine advocated by James and Bergson is the emphasis given to the foreshadowings or anticipations of the future. 470 Experiences of conflict, such as the struggle to recall a name, take on their peculiar colouring, 471 so these writers contend, from their relationship to a beyond, to something which is yet to be. 472 If we are to understand experience as it really is, we must guard against the besetting temptation to translate everything into spatial equivalents. 473 This forward reference is usually read off as a distinction and contrast between simultaneously existing components. 474 Some constituent is first set apart as the nucleus or focus and is then enveloped with an elusive, intangible wraith of meaning, which is called the margin. 475 We have been taught to think of the focus as made up of sensory material of some sort and silhouetted against a background lit up by the fitful, inconsequential heat-lightning of meaning. But this is a perversion of the facts. 476 When we are engaged in a problem it is precisely these unformed meanings that are of interest and importance. 477 They are in the focus of consciousness, in so far as we can speak of a focus at all. They absorb our attention and direct our energies. 478 They inform us of a margin, not by refusing to compete for our attention with more important or more interesting facts, but by bodying forth the 'unfinished' character of the situation. 479 Hence this beckoning, this tingling with the sense of closeness, this sinking back when our efforts meet with defeat. 480 Focus and margin, in short, have to do with movement, with transition, and not with a static field. These situations are felt as inherently unstable and in process of reconstruction. 481 There is a peculiar sense of activity, of "something doing," of a future knocking on the door of the present. 482 What is thus on its way to the present we can designate only in terms of the object as it is after it has arrived. 483 To call it marginal is to immerse the object in this temporal flux, which embodies

perfectly the characteristics of Bergsonian duration.

484 But this is only a first step. If we turn now to those experiences from which this inner diremption of fact and meaning is absent, we find a process that is essentially the same in kind. 485 They likewise constitute a temporal flow, even though there be no sense of duration or of change as such. 486 The different moments of these experiences are not mechanically juxtaposed, but blend together in much the same way as when the process is experienced as a process. 487 In principle we have the same transition, the same becoming, the same growth from less to more, the same activity of continuous reconstruction. 488 Conscious life, we find, is a continuous adjustment; each of its moments is a "transitive state." 489 The more evenly flowing experiences are likewise endowed with a focus and margin, not in the form of static elements, but as a dynamic relationship of what is with what is to be.

490 Such an interpretation of experience, moreover, opens the way for a proper valuation of the psychologist's procedure. The concept of sensation is methodology pure and simple. 491 Granted that focus and margin are such as was indicated a moment ago, how are they to be described, unless we resort to some 'Hilfsbegriff' such as sensations? 492 James's description of the effort to recall a forgotten name is not description at all in a scientific sense, 493 since the "wraith of the name" that we are trying to recover is of too unearthly a fabric to be weighed and measured by accepted scientific standards. 494 It makes us "tingle," it lets us "sink back," but such portrayal is literature rather than science. 495 Our first step must be to resolve our material into components. These components we identify with genuine elements if we can, with pious fictions if we must; but until this is done there can be no exact description. 496 There can be no precision in our statement of the facts and no formulation of the laws that govern their changes.

497 This view undeniably has a certain plausibility. As long as the results are attained which the

psychologist sets out to reach, we need not be hypersensitive on the score of methods. 498 In the field of natural science, at all events, this Jesuitical principle is not incompatible with respectability. 499 If it be true, however, that sensation is but a tool or artifact, a means to an end, what is the end that is to be attained by this device? 500 It is at this point that we come to the parting of the ways. 501 According to the view previously elabourated, the anticipations of the future have to do with the results of our possible acts, and sensations are simply symbols for the various elements in our complex motor responses. 502 In the case of Bergson and James, however, the clue that is furnished by response is discarded. 503 The reference to the future, being dissociated from behaviour, is taken as evidence of an abstract or metaphysical duration, so that experience is somehow other than it seems; and sensation is regarded as the translation of duration into the language of space. 504 Associationism is justified in its belief that reality is different from its appearance in our experience, but is criticised for attempting to interpret the real in terms of space rather than time. 505 In both cases the lead of the subject-matter is abandoned in favour of an explanation that is derived from a fourth-dimensional plane of existence.

506 The suspicion that these two positions have a deep-seated affinity is strengthened if we call to mind that the concept of sensation was originated, not in the interests of methodology, but as the expression of a historic preconception that mistook fiction for fact. 507 The fundamental error back of it was the preposterous notion that consciousness consists of subconscious or unconscious constituents, which by their mechanical or chemical combinations make our experience what it is. 508 The question which it raises and which has afflicted us even to the present day is not primarily the question of fact, but the question of intelligibility, as the controversy over mind stuff abundantly attests. 509 Whether we regard experience as made up of sensory material, however, or as constituted in a Bergsonian

fashion, is a matter of detail; 510 the primary question is whether a distinction between consciousness as it appears and as it "really" is has any meaning. 511 In so far as this distinction is maintained, we are beating the thin air of mythology, despite our reinterpretations and justifications. 512 True conversion does not consist in a renaming of old gods, but demands a humble and a contrite heart. 513 To call sensation an artifact, a methodological device, without a surrender of the metaphysical assumption that lies back of Associationism is not to correct the evil, but is more likely to be treated as an indulgence for sins that are yet to be committed.

514 This fundamental identity is presumably the reason for certain other similarities, which would perhaps not be readily anticipated. 515 Both doctrines undertake to tell us what is going on behind the scenes, what consciousness or experience "really" is. 516 The descriptions present an astonishing difference of vocabulary, but if we take care not to be misled by superficial differences, we find an equally astonishing agreement as to content. 517 From the one side consciousness is explained as a juxtaposition of elements; from the other as an interpenetration of elements so complete that the parts can be neither isolated nor distinguished from the whole. 518 On the one hand we find a multiplicity without unity, on the other a unity without multiplicity. 519 In the one account the temporal unit is a sensation devoid of internal temporal diversity; in the other duration as such is a unity in which past, present, and future blend into an undifferentiated whole. 520 The one position gathers its facts by a mystifying process called introspection; the other obtains its results from a mystical faculty of intuition. 521 The difference in language remains, but both accounts lead us away into a twilight region where words substitute themselves for facts.

522 As was suggested a moment ago, the contrast between ordinary experience and something else of which it is the appearance is the result of the failure to give proper recognition to the facts of behaviour. 523 If we connect the

forward reference of experience with the operations of our nascent activities, we have no need of a pure duration or of bridging the gulf between reality and its appearances. 524 In the same way, if we construe sensations as just symbols of our responses, we rid ourselves of problems that are insoluble because they are unintelligible. 525 Such problems constitute metaphysics in the bad sense of the word, whether they show themselves in the domain of science or of philosophy. 526 To describe experience by reference to such a real is to explain what we know in terms of what we do not know. 527 The question what is real is absolutely sterile. Our descriptions and explanations must remain on the same plane as the experiences with which they deal, and not seek after a real of a different order. 528 If we are to have an explanation of consciousness at all, the explanation must not take us back to hypothetical sensations that are almost but not quite experienced, 529 nor to a duration in which all distinctions are swallowed up, but must be rendered in terms of other facts that dwell in the light of common day.

530 By way of conclusion I venture to urge once more that a proper consideration of the facts of behaviour will furnish us with a key that will unlock many a door. 531 The conception of stimulus and response gives us a differentia for experience and also enables us to distinguish within experience between consciousness and object. 532 If, however, we disregard behaviour, we are bound to lose our way. 533 The distinction between the experienced and the unexperienced is either wiped out or else is permitted to convert itself into a distinction between appearance and reality that leads nowhere and explains nothing. 534 The significance of truth as the successful guidance of behaviour, in accordance with the program laid down in the organisation of stimulus and response, is lost to sight 535 and recourse is had to a fourth-dimensional truth or reality for the miracle of breathing life into the dead bones of our philosophic abstractions. 536 The study of behaviour constitutes a mode of approach that holds out

the hope of deliverance from questions that should never have been asked. 537 We are on a different and, let us hope, a higher level when we cease to ask how consciousness can lay hold of passive objects, or how knowledge 'überhaupt' is possible, 538 and concern ourselves rather with the wondrous activity whereby this plastic dance of circumstance that we call the universe transcends the domain of mechanism and embodies itself in the values of conscious life.

THE PHASES OF THE ECONOMIC INTEREST

Henry Waldgrave Stuart

6 In the logic of Instrumentalism, truth has been identified with usefulness and the good with the satisfactory. 2 Classifying critics have seen in this the damaging mark of Utilitarianism, certain of them deeming "Amerikanismus" an even shrewder and more specific diagnosis. 3 The association of these terms together and the aptness of either to express what the critics have in mind are matters of small interest. 4 It is of more importance to discover, behind the reproach implied, the assumptions which may have made the reproach seem pertinent. 5 One cannot, of course, suppose it to express a sheer general aversion to the useful or an ascetic abhorrence of all satisfaction on principle. 6 Puritanism, æstheticism, and pedantry should be last resorts in any search for an interpretative clue.

7 The distrust of Utilitarianism need be ascribed to none of these. It comes instead from a conception of the true Utilitarian as a dull and dogmatic being with no interests beyond the range of own uninquiring vision, 8 no aspiration beyond the complacent survey of own perfections and no standards beyond the inventory of own 'bourgeois' tastes and prejudices. 9 The type is indeed not yet extinct in our day: but is it plausible to charge a "new" philosophy with conspiring to perpetuate it? 10 Is Instrumentalism only philistinism called by a more descriptive name? It professes at least to be a logic of hypothesis and experiment, 11 whereas for the

perfect philistine there are no ultimate problems and hence no logic but the logic of self-evidence. 12 When Instrumentalism speaks of needs and interests in its analysis of truth and goodness does it then mean the needs and interests that define the individual in what is sometimes invidiously termed a "biological" sense-- 13 interests that control you before your conduct becomes in any way a problem for yourself? 14 Quite as a matter of course, just this has been the assumption. 15 The satisfactoriness of prompt and cogent classification has had a hand in the vindication of truth's supremacy over satisfaction. 16 In the view of instrumentalism this ready interpretation of its meaning is nothing less than the thinking of the unthinkable and the bodying-forth of what is not. 17 The person who has solved a problem simply 'is' not the person one was before-- if your problem was a genuine one and it was you who solved it. 18 You cannot measure and judge the outcome by your earlier demands for the very good reason that the outcome of real deliberation empties these earlier demands of their interest and authority for you. 19 Can the conception thus suggested of personal growth through exercise of creative or constructive intelligence be in any measure verified by a general survey of the economic side of life? 20 Has it any important bearings upon any parts of economic theory? These are the questions to which this essay is addressed.

I

21 How have the real or fancied needs of the average person of today come to be what they are? 22 For all sorts and conditions of humans, the ways and means of living have, during the past century or two-- even during the past decade or two-- undergone revolutionary changes. 23 It is true that many of these changes have been relatively superficial, touching only certain externalities and entering in no important way into life's underlying and dominant motives. 24 Others, no doubt, may fairly be held to confuse and disperse the energies of people, instead of making for wholeness,

sanity and development of human interest and power. 25 And critics of industrial and social progress who have felt the need for reservations of this sort fall easily into a certain mood of historic homesickness for the supposed "simplicity" of an earlier age. 26 But our interest, in this discussion, is in the genesis, the actual process of becoming, of our present "standards of living," not their value as rated by any critical (or uncritical) standard. 27 And accordingly we shall take it for a fact that on the whole the average person of today is reasonably, perhaps unreasonably, well satisfied with own telephone, own typewriter, and own motor-car; 28 with your swift and easy journeyings over land and sea; with your increasingly scientific medical attendance and public sanitation; with your virtually free supplies of literature and information, new and old, and with your electric light or your midnight oil (triple distilled) to aid in the perusal. 29 More than this, you are so well satisfied with all these modern inventions that, historical or æsthetical or other "holidays" apart, you would never for a moment dispense with any one of them as a matter of free choice. 30 Grossly material and humbly instrumental though they are, these things and their like constitute the framework sustaining the whole system of spiritual functions that make up the life we live today, as a society and as individuals. 31 And our present problem simply is the way in which they were first received by those who were to use them, and passed into their present common acceptance. 32 To put the matter in general terms, how is it that novel means of action or enjoyment, despite their novelty, are able to command fair scrutiny and hearing and can contrive to make their way, often very speedily, into a position of importance for industry and life?

33 There is an easy and not unnatural way of thinking of this process as we see it going on about us that may keep us long unmindful of even the possibility of such a question. 34 In every field of action, we habitually look back upon accomplished changes from some present well-secured

vantage-point, 35 and as we trace the steps by which they have come to pass it is almost inevitable that we should first see the sequence as an approach, direct or devious but always sure, to the stage on which we happen to have taken our stand. 36 It seems clear to us that what we have attained is better than aught that has gone before-- if it were not distinctly satisfactory on its own merits we should not now be taking it as the standpoint for a survey. 37 But once it is so taken, our recognition of its appreciable and satisfying superiority passes over insensibly into metaphysics. 38 What we now find good we find ourselves perceiving to have been all the while predestined in the eternal scheme of things! 39 We pause in retrospect like the wayfarer who has reached the turning of a mountain road or the person of middle age who for the first time feels that own professional position is assured. 40 This, we say, justifies the effort it has cost, 'this' at last is really living! 41 And the next step in retrospective reconstruction follows easily; this was my true goal from the first, the dim and inexpressible hope of which would not let me pause and kept me until now dissatisfied. 42 The end was present in the beginning, provoking the first groping efforts and affording progressively the test and measure by which their results were found ever wanting.

43 This retrospective logic may explain the presence and perennial charm of those panoramic pages in our encyclopædias purporting to show forth the gradual perfecting of great instrumentalities upon which our modern life depends. 44 We survey the "evolution" of printing, for example, from the wooden blocks of the Chinese or of Laurens Coster down to the Hoe press, the stereotype plate, and the linotype machine. 45 Or we see the forms of written record from pictured papyrus, cuneiform brick, and manuscript scroll down to the printed book and the typewritten page; 46 the means of carriage by land from the ox-cart of the patriarchs to the stage-coach, the Cannonball Limited, the motor-truck, and the twelve-cylinder touring-car. 47 And as one contemplates these cheerfully coloured exhibits there is in each

case an almost irresistible suggestion of a constant and compelling need of "universal human" seeking in more and more marvellously ingenious ways an adequate expression and satisfaction. 48 This need seems never to have lapsed or changed its nature. All along both driving power and direction, it has been the one fixed factor in a long process in which all else has been fluctuating, contingent, and imperfect-- 49 all else except the nature of the materials and the principles of mechanics, which, too, are seen in the end to have been mutely conspiring toward the result. 50 Essential human nature, it seems clear, does not and happily cannot change. 51 Spiritual progress, in this ultimate optimism, means simply clearer vision, completer knowledge, and a less petulant and self-assertive habit of insistence upon the details of particular purposes as individual "impulse" and "idiosyncrasy" define them. 52 We fortunate beings of today have available, in the various departments of our life, certain instrumentalities, and to these our interests attach. 53 These interests of ours in their proportional strength (so the argument runs) express our native and generic constitution in so far as this constitution has been able as yet to achieve outward expression and embodiment. 54 And accordingly, in interpreting the long history of technological evolution, we take what we conceive ourselves now to be as normative and essential. 55 We project back into the lives of primitive human, of our own racial ancestors, or of our grandfathers, the habits and requirements which we acknowledge in ourselves today 56 and we conceive the people of the past to have been driven forward on the ways of progress by the identical discontent that would presumably beset ourselves if we were to be suddenly carried back to their scale and manner of existence.

57 Whatever else may be thought of it, there is at least this to be said for the cult of historic homesickness to which reference has just been made: 58 it happens to be at one with modern ethnology and history in suggesting that earlier cultures

were on the whole not less content and self-satisfied in their condition than our own. 59 It is primitive human, not the modern, who is slow to move and is satisfied, as a matter of course, with the manner of life in which one fancies own people to have lived from time immemorial. 60 Change in early social groups is tragic when it is not insensible. It comes through conquest and enslavement by outsiders or through stress of the dread of these, 61 or by gradual adaptation of custom to failing environmental resources or to increasing wealth. 62 Assent to change is in general grudging or tacit at best and is commonly veiled by some more or less transparent fiction.

63 And our suspicion of fallacy lurking somewhere in the type of retrospective Idealism we have been considering is strengthened when we come to look a little closely to details. 64 To take a commonplace example-- can it be held that the difference between using a typewriter and "writing by hand" is purely and simply a matter of degree-- 65 that the machine serves the same purpose and accomplishes the same 'kind' of result as the pen, but simply does the work more easily, rapidly, and neatly? 66 Undoubtedly some such impression may easily be gathered from an external survey of the ways that humans have used at different times for putting their ideas on record. 67 But it ignores important aspects of the case. For one thing, the modern invention effects a saving of the writer's time which can be used in further investigation or in more careful revision or in some way wholly unrelated to literary work, 68 and if the machine makes any part of the writer's task less irksome, or the task as a whole less engrossing, the whole matter of literary effort becomes less forbidding and its place and influence as a social or a personal function may for better or for worse be altered. 69 The difference brought to pass transcends mere technical facility-- it ramifies into a manifold of differences affecting the entire qualitative character and meaning of the literary function. 70 And only by an arbitrary sophistication of the facts can this complexity of new outcome be thought of as

implicit and dynamic in the earlier stage.

71 In the same way precisely, the motor-car, as every one knows, has "vanquished distance" and has "revolutionised suburban life." 72 In England it is said to have made acute the issue of plural voting. In America it is hailed by the optimistic as the solution of the vexed problem of urban concentration and the decline of agriculture. 73 Even as a means of recreation it is said by the initiated to transform the whole meaning of one's physical environment, 74 exploiting new values in sky and air and the green earth, which pass the utmost possibilities of family "carry-all" or coach and four. 75 Or consider the ocean steamship and its influence: today we travel freely over the world, for all manner of reasons, sufficient or otherwise. 76 A hundred years ago distant journeyings by sea or land were arduous and full of peril, undertaken only by the most adventurous or the most curious or for urgent need. 77 Now commodities of every sort can be transported to virtually every quarter of the globe-- 78 rails and locomotives, cement and structural steel, machinery of all kinds from the motor and the dynamo to the printing press and the cinematograph, 79 in a word whatever is necessary to recreate the waste places of the earth and to make life in these regions humanly liveable. 80 The sheer scale and magnitude of such operations lifts them above the level of the international trade of five hundred or even a hundred years ago. 81 And their far-reaching results of every sort in the lives of nations and of individuals the world over can in no intelligible sense be understood as mere homogeneous multiples of what trade meant before our age of steam, iron, and electricity. 82 Finally, we may think of modern developments in printing as compared, for example, with the state of the craft in the days when the New England Primer served to induct juvenile America into the pleasant paths of "art and literature." 83 And it is clear that the mechanical art that makes books and reading both widely inviting and easily possible of enjoyment today is not merely a more perfect substitute for the

quill and ink-horn of the mediæval scribe or even for the printing press of Caxton or of Benjamin Franklin. 84 The enormously and variously heightened "efficiency" of the mechanical instrumentalities nowadays available has for good and for evil carried forward the whole function of printing and publication into relations and effects 85 which are qualitatively new and beyond the possible conception of the earlier inventors and readers.

86 The real evolution in such cases of the coming of a new commodity or a new instrument into common and established use is an evolution of a more radical, more distinctly epigenetic type than the pictured stories of the encyclopædia-maker serve to suggest. 87 At each forward step the novelty makes possible not merely satisfactions more adequate as measured by existing requirements or more economical in terms of cost, 88 but new satisfactions also for which no demand or desire before existed or could possibly exist-- 89 satisfactions which, once become habitual, make the contentment of former times in the lack of them hard to understand or credit. 90 And indeed the story is perhaps never quite one-sided; the gain we reckon is perhaps never absolutely unmixed. There may be, perhaps must in principle be, not only gain but loss. 91 The books we read have lost something of the charm of the illuminated manuscript; our compositors and linotypers, it may be, have forgotten something of the piety and devotion of the mediæval scribe and copyist. 92 So everywhere in industry the machine depreciates and pushes out the skilled artisan and craftsman, summoning into own place the hired operative whose business is to feed and serve instead of to conceive and execute. 93 For cheapness and abundance, for convenience of repair and replacement we everywhere sacrifice something of artistic quality in the instrumentalities of life and action and something of freedom and self-expression in the processes of manufacture. 94 Thus again, to change the venue, there are those who miss in democratic government or in an ethical type of religion the poignant and exalting spiritual quality of devotion to a

personal sovereign or a personal God. 95 Whatever one's judgment may be in particular cases, there can be no reason for disputing that in epigenetic or creative evolution there is, in a sense, loss as well as gain. 96 There is no more reason for supposing that all that was wholesome or ennobling or beautiful in an earlier function 'must' somehow have its specific compensation in kind infallibly present in the new 97 than for supposing that all that is desirable in the new must surely have been present discernibly or indiscernibly in the old.

98 If we are on the whole satisfied with the new on its intrinsic merits as a present complex fact, we have therein sufficient ground for saying that it marks a stage in progress. 99 This, in fact, is what such a proposition means. And the old then appears more or less widely discontinuous with the new-- 100 not merely that it shows, in units of measure, less of the acceptable quality or qualities which the 'new' fact or situation is found to possess, but that it belongs for us to a qualitatively different level and order of existence. 101 How, we wonder, could our ancestors have found life tolerable in their undrained and imperfectly heated dwellings, without the telephone, the morning's news of the world by cable, and the phonograph? 102 How, again, could feudal homage and fealty have ever been the foundation of social order in countries where today every elector is wont to think and to act in own public relations no longer as a subject but as a citizen. 103 And how, in still a different sphere, could the father or the mother of a happy family of children ever have found the freedom and irresponsibility of bachelorhood endurable? 104 Shall we say that in changes like these we have to do simply with the quantitative increase of some quality, present in small measure in the earlier stages and in larger measure in the later? 105 Or shall we evade the issue with the general admission that 'of course', as every schoolchild knows, there are in this world many differences of degree that somehow "amount to differences of kind"? 106 As a matter of fact what has happened

in every case like these is an actual change of standard, a new construction in the growing system of one's norms of value and behaviour. 107 Provisionally, though hopefully, a step has been taken-- a real event in personal and in social history has been given place and date. 108 From some source beyond the scope and nature of the earlier function a suggestion or an impulsion has come by which the agent has endeavoured to move forward. 109 The change wrought is a transcendence of the earlier level of experience and valuation, not a widening and clarification of vision on that level. 110 And the standards which govern on the new level serve not so much to condemn the old as to seal its consignment to disuse and oblivion. 111 Least of all can a judgment or appraisal of the old from the standpoint of the new be taken for a transcript of the motives which led to the transition.

112 We must confine ourselves more closely, however, to the sphere of material goods and their uses. And in this sphere objection to the view proposed will run in some such terms as the following: 113 Take our ancestors, for example, and their household arrangements to which invidious reference has been made: 114 why should we suppose that their seeming contentment was anything more (or less) than a dignified composure in which we might well imitate them-- 115 an attitude in no way precluding a definite sense of specific discomforts and embarrassments and a distinct determination to be rid of them as soon as might be? 116 And, in fact, if they were satisfied with what they had why did they receive the new when it was offered? 117 If, on the other hand, they were not satisfied, how is the fact intelligible except upon the assumption that they had distinct and definite wants not yet supplied, and were wishing (but patiently) for conveniences and comforts of a sort not yet existent. 118 And this latter hypothesis, it will be urged, is precisely what the foregoing argument has sought to discredit as an account of the moving springs in the evolution of consumption.

119 Any adequate discussion of the central issue thus presented would fall into two parts. 120 In the first place, before a consumption good can come into general acceptance and currency it must have been in some way discovered, suggested or invented, 121 and the psychology of invention is undoubtedly a matter of very great complexity and difficulty. 122 But for the purposes of the present inquiry all this may be passed over. The other branch of a full discussion of our problem has to do with the reception of the newly invented commodity or process into wider and wider use-- and this again is a social phenomenon not less complex than the other. 123 It is this phenomenon of increasing extension and vogue, of widening propagation from person to person, that is directly of present concern for us-- 124 and in particular the individual person's attitude toward the new thing and the nature of the interest you takes in it.

125 It has recently been argued by a learned and acute investigator of economic origins that "invention is the mother of necessity," and not the child. 126 Such a complete reversal of all our ordinary thought about the matter seems at first sheer paradox. 127 What, one may ask, can ever suggest an invention and what can give it welcome and currency but an existing need-- 128 which, if it happens to be for the time being latent and unconscious, needs only the presentation of its appropriate means of satisfaction to "arouse" and "awaken" it fully into action? 129 But this paradox as to invention is at all events not more paradoxical than the view as to the reception of new commodities and the rise of new desires that has been above suggested. 130 What it appears to imply is in principle identical with what has seemed, from our consideration of the other aspect of the general situation, to be the simple empirical fact; 131 neither the existence of the new commodity nor our interest in it when it is presented admits of explanation as an effect on each particular occasion of a preëxisting unsatisfied desire for it. 132 What both sides of the problem bring to view is a certain original bent or constitutive character of human nature-- 133 a predisposition, an

'élan vital' perhaps, which we must recognise as nothing less than perfectly general and comprehensive-- 134 finding expression in inventive effort and likewise in the readiness with which the individual meets a new commodity halfway and gives it opportunity to become for you, if it can, a new necessity and the source of a new type of satisfaction.

135 From the point of view of "logic," as William James might have said, such a version of psychological fact may seem essentially self-contradictory. 136 Unless, it may be argued, a novelty when presented excites some manner of desire for itself in the beholder, 137 the beholder will make no effort towards it and thus take no step away from own existing system of life to a new system in which a new desire and a new commodity shall have a place. 138 So much would seem clear enough but the question immediately follows: How can a thing that is new arouse desire? 139 In so far as it is new it must 'ex vi termini' be unknown and wanting definition in terms of remembered past experiences; 140 and how can a thing unknown make that connection with the present character of the individual which must be deemed necessary to the arousal of desire in you? 141 A new thing would seem, then, from this point of view, to be able to arouse desire only in so far as it is able to conceal or subordinate its aspects of novelty and appear as known and well-accredited-- 142 either this or there must be in the individual some definite instinctive mechanism ready to be set in action by the thing's presentment. 143 And on neither of these suppositions can having to do with the new thing effect any fundamental or radical difference in the individual-- 144 it can serve at most only to "bring out" what was already "there" in you in a "latent" or "implicit" status. 145 Whatever new developments of power or desire may be attained and organised into the individual's character through your commerce with the novelty must be new in only a superficial sense-- 146 they will be new only as occurrences, only as the striking of the hour by the clock and the resulting

abrasion of the bell and hammer are new events. 147 But the clock was made to strike; it is the nature of metal to wear away and likewise these changes in the individual are in deeper truth not new at all but only a disclosure of the agent's character, 148 a further fulfillment along pre-ëstablished and unalterable lines which all along was making headway in the agent's earlier quests and efforts and attainments.

149 There is a sense, no doubt, in which some such version of the facts as this is unanswerable, but controversial advantage is paid for, here as elsewhere in the logic of absolute idealism, at the cost of tangible meaning and practical importance. 150 Just what does the contention come to? Let us say, for example, that one has learned to use a typewriter. What has happened is like an illiterate person's learning to read and write. 151 Correspondence with one's friends begins to take on new meaning and to acquire new value; one begins to find a new pleasure and stimulation taking the place of the ineffectual drivings of an uneasy conscience. 152 All this, let us say, has come from the moderate outlay for a superior mechanical instrument. 153 And now let it be granted that it would not have come if the fortunate individual had not been "what one was." 154 If it has come it is because the individual and the rest of the world were "of such a sort" that the revival and new growth of interest 'could' take its rise with the provision of the new instrumentality. 155 But what, precisely, does such a statement mean? What sort of verification does it admit of? 156 What fruitful insight into the concrete facts of the case does it convey? Of 'what' sort, prior to the event, does it show the individual to have been?

157 The truth is, of course, that you was of 'no' sort, then and there and with reference to the purchase--you was of no sort decisively. 158 You were neither purchaser nor rejector. 159 You were neither a convinced "typist" nor piously confirmed in your predilection for writing "by hand." 160 You were neither wholly weary of your correspondence nor fully cognisant of the importance of intercourse with your friends for your soul's

good. 161 You may have been dissatisfied and rebellious or you may have been comfortably persuaded that letter-writing, though an irksome labour, was even at that sufficiently worthwhile. 162 The most that can be said is simply that you must have been willing and desirous to try the experiment for the sake of any good, imaginable or beyond present imagination, that might come of it. 163 But being of "such a sort" as this could not prejudge the issue-- although, undoubtedly, in willingness to raise an issue there lies always the possibility of change. 164 All the plausibility of the dogma we are here considering comes from its hasty inclusion of this general attitude of constructively experimental inquiry and effort, 165 this essential character of creative intelligence, as 'one among' the concrete interests which constitute and define our particular problems in their inception. 166 To say 'ex post facto' that the individual must have been "of such a sort" as to do what you have in fact done is a purely verbal comment 167 which, whatever may be its uses, can assuredly be of no use whatever in suggesting either solution or method for the next situation to arise. 168 It may be comfortably reassuring afterwards, but it is an empty oracle beforehand.

169 If then "logic" is unable to express the nature of our forward looking interest in the unexperienced and unpredictable, perhaps the empirical fact will speak for itself. 170 We call things new; we recognise their novelty and their novelty excites our interest. 171 But just as we are sometimes told that we can only 'know' the new in terms of its resemblances to what we have known before, so it may be held that in the end we can 'desire' it only on the like condition. 172 Are we, then, to conclude that the seeming novelty of things new is an illusion, 173 or shall we hold, on the contrary, that novelty need not be explained away and that a spontaneous constructive interest stands more or less constantly ready in us to go out to meet it and possess it?

174 Unquestionably, let us say the latter. Any new commodity will, of course, resemble in part or in a

general way some old one. 175 It is said that bath-tubs are sometimes used in "model tenements" as coal-bins. 176 Old uses persist unchanged in the presence of new possibilities. 177 But in general new possibilities invite interest and effort because our experimental and constructive bent contrives on the whole to make head against habituation and routine. 178 We recognise the new as new. And if it be contended that novelty in its own right cannot be a ground of interest, that novelty must first get restatement as the old with certain "accidents" externally adhering, the answer is that the "accidents" interest us nevertheless. 179 They may prove their right to stand as the very essence of some new "kind" that one may wish to let take form and character for you. 180 Instead of the chips and shavings, they are in fact the raw material of the logical process. 181 For if we can know the new 'as new', if we can know the "accident" 'as accidental' in a commodity before us, the fact betrays an incipient interest in the quality or aspect that its novelty or contingency at least does not thwart. 182 And is this quite all? Will it be disputed that a 'relation' of a quality or feature to ourselves which we can know, name, and recognise-- like "novelty"-- must be known, as anything else is known, through an interest of which it is the appropriate terminus?

183 And there is no difficulty in pointing to instances in which the character of novelty seems fundamental. 184 Consider, for example, the interest one feels in spending a day with a friend or in making a new acquaintance or, say, in entering on the cares of parenthood. 185 Or again, take the impulse toward research, artistic creation, or artistic study and appreciation. Or again, take the interest in topography and exploration. 186 That there is in such phenomena as these a certain essentially and irreducibly forward look, a certain residual freedom of our interest and effort from dependence on the detail of prior experience down to date, probably few persons without ulterior philosophical prepossessions will dispute. 187 If we call these phenomena instinctive we are

using the term in a far more loose and general sense than it seems to have in the best usage of animal psychology. 188 If we call them attitudes or dispositions, such a term has at least the negative merit of setting them apart from the class of instinctive acts, 189 but it may carry with it a connotation of fixity and unconsciousness that after all surrenders the essential distinction. It will suffice to look at a single one of these instances. 190 In friendship, for example, there is undoubtedly strongly operative a desire for the mere recurrence, in our further friendly intercourse, of certain values that have become habitual and familiar. 191 We may have long known and become attached to a friend's tones of voice, peculiarities of manner and external appearance, turns of speech and thought and the like, which we miss in absence and which give us pleasure when we meet the friend again. 192 But if the friendship is not one of "pleasure" or "utility" simply, but of "virtue" as well, there is also present on both sides a constructive or progressive or creative interest. 193 And this interest, stated on its self-regarding and introspective side, is more than a desire for the mere grateful recurrence of the old looks and words "recoined at the old mint." 194 It is an interest looking into the "undone vast," an interest in an indefinite prolongation, an infinite series, of joint experiences the end of which cannot and need not be foreseen and the nature of which neither can nor need be forecasted. 195 And there is the same characteristic in all the other instances mentioned in this connection. 196 It is not a desire for recurrent satisfactions of a determinate type, but an interest in the active development of unexperienced and indeterminate possibilities. 197 If finally the question be pressed, how there can be an interest of this seemingly self-contradictory type in human nature, the answer can only be that we must take the facts as we find them. 198 Is such a conception inherently more difficult than the view that all ramifications and developments of human interest are concretely predetermined and implicit 'a priori'? 199 To ignore or deny palpable fact because it

eludes the reach of a current type of conceptual analysis is to part company with both science and philosophy. 200 We are in fact here dealing with the essential mark and trait of what is called self-conscious process. 201 If there are ultimates and indefinables in this world of ours, self-consciousness may as fairly claim the dignity or avow the discredit as any other of the list.

202 Does our interest in economic goods on occasion exhibit the trait of which we are here speaking? Precisely this is our present contention. 203 And yet it seems not too much to say that virtually all economic theory, whether the classical or the present dominant type that has drawn its terminology and working concepts from the ostensible psychology of the Austrian School, is founded upon the contradictory assumption. 204 The economic interest, our desire and esteem for solid and matter-of-fact things like market commodities and standardised market services, has been conceived as nothing visionary and speculative, 205 as no peering into the infinite or outreaching of an inexpressible discontent, but an intelligent, clear-eyed grasping and holding of known satisfactions for measured and acknowledged desires. 206 Art and religion, friendship and love, sport and adventure, morality and legislation, these all may be fields for the free play and constructive experimentation of human faculty, 207 but in our economic efforts and relations we are supposed to tread the solid ground of fact. Business is business. Waste not, want not. 208 First a living, then (perhaps) a "good life." And we are assured one need not recoil from the hard logic of such maxims, for they do not dispute the existence of spacious (and well-shaded) suburban regions fringing the busy areas of industry and commerce.

209 Such is the assumption. We have said that it precludes the admission of speculation as an economic factor. 210 Speculation for economic theory is a purely commercial phenomenon, a hazarding of capital on the supposition that desires will be found ready and waiting for the commodity produced-- 211 with a sufficient offering of purchasing

power to afford a profit. And the "creation of demand," where this is part of the program of speculative enterprise, means the arousal of a "dormant" or implicit desire, 212 in the sense above discussed-- there is nothing, at all events, in other parts of current theory to indicate a different conception. 213 The economist will probably contend that what the process of the creation of demand may 'be' is not theirs, but the psychologist's affair; 214 that own professional concern is only whether or not the economic demand, as an objective market fact, be actually forthcoming. 215 But what we here contend for as a fact of economic experience is a speculation that is in the nature of personal adventure and not simply an "adventuring of stock."

216 For what is the nature of the economic "experience" or situation, considered as a certain type of juncture in the life of an individual? 217 It may be shortly described as the process of determining how much of one's time, strength, or external resources of any sort shall be expended for whatever one is thinking of doing or acquiring. 218 Two general motives enter here to govern the estimate and each may show the routine or the innovative phase. 219 In any work there is possible, first, more or less of the workman's interest-- 220 an interest not merely in a conventional standard of excellence in the finished result but also in betterment of the standard and in a corresponding heightened excellence of technique and spirit in the execution. 221 These interests, without reference to the useful result and "for their own sake" (i.e., for the workman's sake, in ways not specifiable in advance), may command a share of one's available time, strength, and resources. 222 In the second place, any work or effort or offer to give in exchange has a nameable result of some kind in view-- a crop of wheat, a coat, a musical rendition, or the education of a child. 223 Why are such things "produced" or sought for? Verbally and platitudinously one may answer: For the sake of the "satisfactions" they are expected to afford. 224 But such an answer ignores the contrast of attitudes

that both workmanship and productive or acquisitive effort in the ordinary sense display. 225 As the workman may conform to own standard or may be ambitious to surpass it, so the intending consumer may be counting on known satisfactions or hoping for satisfactions of a kind that one has never known before. 226 Both sorts of effort may be of either the routine or the innovative type. 227 In neither workmanship nor acquisition can one fix upon routine as the "normal" type, hoping to derive or to explain away the inevitable residue of "outstanding cases." 228 For as a matter of fact the outstanding cases prove to be our only clue to a knowledge of how routine is made.

229 The above formula will apply, with the appropriate changes of emphasis, to buyers and sellers in an organised market, as well as to the parties to a simple transaction of barter. 230 Two main empirical characteristics of the economic situation are suggested in putting the statement in just these terms. 231 In the first place, the primary problem in such a situation is that of "exchange valuation," the fixation of a "subjective" (or better, a "personal") price ratio between what the agent wishes to acquire and whatever it is that you offers in exchange. 232 The agent thus is engaged in determining what shall be the relative importance for the self of 'two' commodities or exchangeable goods. 233 And in the second place these goods get their values determined together and in relation to each other, never singly and with a view to 'subsequent' comparison. 234 These values when they have been determined will be measured in terms of marginal utility in accordance with familiar principles, 235 but the marginal utilities that are to express the attained and accepted ratio at which exchange eventually takes place are not known quantities at all in the inception of the process of comparison. 236 If these dogmatic statements seem to issue in hopeless paradox or worse, then let us not fear to face the paradox and fix its lines with all possible distinctness. 237 Can a person decide to offer so much of one commodity for so much of

another unless you 'first' has settled what each is worth to you in some intelligible terms or other? 238 And is not this latter in point of fact the real decision-- at all events clearly more than half the battle? 239 Does not the exchange ratio to which one can agree "leap to the eyes," in fact, as soon as the absolute values in the case have been once isolated and given numerical expression?

240 In a single word we here join issue. For the comparison in such a case is 'constructive comparison', not a mechanical measuring of fixed magnitudes, as the above objection tacitly assumes. 241 And constructive comparison is essentially a transitive or inductive operation whereby the agent moves from one level to another, 242 altering own standard of living in some more or less important way, embarking upon a new interest, entering upon the formation of a new habit or upon a new accession of power or effectiveness-- 243 making or seeking to make, in short, some transformation in own environment and in own self that shall give own life as an entire system a changed tenor and perspective. 244 The term "constructive comparison" is thus intended, among other things, to suggest that the process is in the nature of adventure, not calculation, and, on the other hand, that though adventurous it is not sheer hazard uncontrolled. 245 And the motive dominant throughout the process-- the economic motive in its constructive phase-- is neither more nor less than a supposition, on the agent's part, 246 that there may be forthcoming for you in the given case in hand just such an "epigenetic" development of new significance and value as we have found actual history to disclose as a normal result of economic innovation. 247 It is the gist of hedonism, in economic theory as in its other expressions, that inevitably the agent's interests and motives are restricted in every case to the precise range and scope of own existing tendencies and desires; 248 you can be provoked to act only by the hope of just those particular future pleasures or means of pleasure which the present constitution of your nature

enables you to enjoy. 249 Idealism assumes that the emergent new interest of the present was wrapped up or "implied," in some sense, in the interests of the remote and immediate past-- 250 interests of which the agent at the time could of course be but "imperfectly" aware. 251 Such differences as one can discern between the two interpretations seem small indeed-- like many others to which idealism has been wont to point in disparagement of the hedonistic world view. 252 For in both philosophies the agent is without initiative and effect; you are in principle but the convergence of impersonal motive powers which it is, in the one view, absurdly futile, in the other misguidedly presumptuous, to try to alter or control.

253 A commodity sought or encountered may then be of interest to us for reasons of the following three general sorts. In the first place it may simply be the normal and appropriate object of some established desire of ours. 254 We may be seeking the commodity because this desire has first become active, or encountering the commodity in the market may have suddenly awakened the desire. 255 Illustration seems superfluous; tobacco for the habitual smoker, clothing of most sorts for the ordinary person, regular supplies of the household staples-- these will suffice. 256 This is the province within which a hedonistic account of the economic motive holds good with a cogency that anti-hedonistic criticism has not been able to dissolve. 257 Our outlays for such things as these may as a rule be held in their due and proper relation to each other-- 258 at all events in their established or "normal" relation-- simply by recalling at critical times our relative marginal likes and dislikes for them. 259 That these likes and dislikes are not self-explanatory, that they are concrete expectations and not abstract affective elements, 260 does not seem greatly to matter where the issue lies between maintaining or renouncing an existing schedule of consumption. 261 And in this same classification belong also industrial and commercial expenditures of a similarly routine

sort. 262 Even where the scale of operations is being enlarged, expenditures for machines, fuel, raw materials, and labour may have been so carefully planned in advance 263 with reference to the desired increase of output or pecuniary profit that no special problem of motivation attaches directly to them. 264 And these outlays are so important in industry and commerce that the impression comes easily to prevail that all business undertaking, and then all consumption of finished goods, fall under the simple hedonistic type.

265 But if we keep to the plane of final consumption, there appears a second sort of situation. 266 Our interest in the commodity before us may be due to a suggestion of some sort that prompts us to take a step beyond the limits that our present formed desires mark out. 267 The suggestion may be given by adroit advertising, by fashion, by the habits of another class to which one may aspire or by a person to whom one may look as guide, philosopher, and friend. 268 An authority of one sort or another invites or constrains us to take the merits of the article on trust. 269 Actual trial and use may show, not so much that it can minister to a latent desire as that we have been able through its use to form a habit that constitutes a settled need.

270 And, finally, in the third place, there is a more spontaneous and intrinsically personal type of interest which is very largely independent of suggestion or authority. 271 A thing of beauty, a new author, a new acquaintance, a new sport or game, a new convenience or mechanical device may challenge one's curiosity and powers of appreciation, 272 may seem to offer a new facility in action or some unimagined release from labour or restriction. 273 The adventure of marriage and parenthood, the intimate attraction of great music, the mystery of an unknown language or a forbidden country, the disdainful aloofness of a mountain peak dominating a landscape are conspicuous instances 274 inviting a more spontaneous type of constructive interest that finds abundant expression also in the more commonplace situations and emergencies of everyday life.

275 It is sheer play upon words to speak in such cases of a pleasure of adventurousness, a pleasure of discovery, a pleasure of conquest and mastery, 276 assigning this as the motive in order to bring these interests to the type that fits addiction to one's particular old coat or easy-chair. 277 The specific "pleasure" alleged could not exist were the tendency not active beforehand. 278 While the same is true in a sense for habitual concrete pleasures in relation to their corresponding habits, 279 the irreducible difference in constructive interest as a type lies in the 'transition' which this type of interest purposes and effects from one level of concrete or substantive desire and pleasure to another. 280 Here one consciously looks to a result that you cannot foresee or foretell; in the other type your interest as interest goes straight to its mark, sustained by a confident forecast.

281 But constructive interests, whether provoked by suggestion or of the more freely imaginative type, may, as has been said, be held to lie outside the scope of economic theory. 282 How a desire for a certain thing has come to get expression may seem quite immaterial-- economically speaking. 283 Economics has no concern with human folly as such or human imitativeness, or human aspiration high or low or any other of the multitude of motives that have to do with secular changes in the "standard of living" and in the ideals of life at large. 284 It has no concern with anything that lies behind the fact that I am in the market with my mind made up to buy or sell a thing at a certain price. 285 And the answer to this contention must be that it first reverses and then distorts the true perspective of our economic experience. 286 Let it be admitted freely-- indeed, let it be insisted on-- that the definition of a science must be determined by the pragmatic test. 287 If an economist elects to concern the self with the problems of what has been called the "loose mechanics of trade" there can be no question of own right to do so or of the importance of the services you may render thereby, both to theory and to practice. 288 But on the other hand economic theory cannot be

therefore, once and for all, made a matter of accounting-- to the effacement of all problems and aspects of problems of which the accountant has no professional cognisance. 289 Just this, apparently, is what it means to level down all types of interest to the hedonistic, leaving aside as "extra-economic" those that too palpably resist the operation. 290 It is acknowledged that freshly suggested modes of consumption and ends of effort require expenditure and sacrifice no less than the habitual, 291 that the exploration of Tibet or of the Polar Seas affects the market for supplies not less certainly than the scheduled voyages of oceanic liners. 292 Moreover, behind these scheduled voyages there are all the varied motives that induce people to travel and the desires that lead to the shipment of goods. 293 Shall it be said that all of these motives and desires must be traceable back to settled habits of behaviour and consumption? 294 And if this cannot be maintained is it not hazardous to assume that such general problems of economic theory as the determination of market values or of the shares in distribution require no recognition of the other empirical types of interest? 295 These types, if they are genuine, are surely important; they may well prove to be, in many ways, fundamentally important. 296 For a commodity that has become habitual must once have been new and untried.

297 The economic demands which make up the budget of a particular person at a particular time are clearly interdependent. 298 A person's income or the greater part of it is usually distributed among various channels of expenditure in a certain fairly constant way. 299 In proportion to the definiteness of this distribution and the resoluteness with which it is maintained does the impression gain strength that the person is carrying out a consistent plan of some sort. 300 Such a regular plan of expenditure may be drawn out into a schedule, setting forth the amounts required at a certain price for the unit of each kind. 301 And such a schedule is an expression in detail, in terms of ways and means, of the type of life one has elected to lead. 302 For virtually

any income above the level of bare physical subsistence, there will be an indefinite number of alternative budgets possible. 303 A little less may be spent for household conveniences and adornments and a little more for food. Some recreations may be sacrificed for an occasional book or magazine. One may build a house or purchase a motor-car instead of going abroad. 304 And whichever choice is made, related expenditures must be made in consequence for which, on the assumption of a definite amount of income, compensation must be made by curtailment of outlay at other points. 305 What seems clear in general is that one's total budget is relative to the general plan and manner of life one deems for oneself the best possible 306 and that this plan, more or less definitely formulated, more or less steadily operative, is what really determines how far expenditure shall go in this direction and in that. 307 The budget as a whole will define for the individual an equilibrium among own various recognised wants; 308 if the work of calculating it has been carefully done there will be for the time being no tendency to change in any item.

309 If, then, we choose to say in such a case that the individual carries own expenditure along each line to the precise point at which the last or marginal utility enjoyed is precisely equal to the marginal utility on every other line, it seems not difficult to grasp what such a statement means. 310 Quite harmlessly, all that it can mean is that the individual has planned precisely what own self has planned and is not sorry for it, and for the time being does not think the self can improve upon it. 311 As there is one earth drawing toward its center each billiard ball of the dozen in equilibrium in a bowl, 312 so there is behind the budget of the individual one complex personal conception of a way of life that fixes more or less certainly and clearly the kinds and intensities of your wants and assigns to each its share of purchasing power. 313 That the units or elements in equilibrium hold their positions with reference to each other for reasons capable of separate statement for each unit

seems a supposition no less impossible in the one case than in the other. 314 To think of each kind of want in the individual's nature as holding separately in fee simple and clamoring for full and separate "satisfaction" in its separate kind, is the characteristic illusion of a purely formal type of analysis. 315 The permanence of a budget and its carrying out no doubt require the due and precise realisation of each plotted marginal utility-- 316 to go further than this along any one line would inevitably mean getting not so far along certain others, and thus a distorted and disappointing total attainment in the end. 317 But to say that one actually plans and controls own expenditures along various lines by the ultimate aim of attaining equivalent terminal utilities on each is quite another story. 318 It is much like saying that the square inches of canvas assigned in a picture to sky and sea and crannied wall are arranged upon the principle of identical and equal effects for artist or beholder from the last inches painted of each kind. 319 The formula of the equality of marginal effects is no constructive principle; it is only a concise if indeed somewhat grotesque way of phrasing the essential fact that no change of the qualitative whole is going to be made, because no imperfection in it as a whole is felt.

320 We come, then, to the problem of the individual's encounter with a new commodity. In general, a purchase in such a case must amount to more or less of a departure from the scheme of life in force and a transition over to a different one. 321 And a new commodity (in the sense in which the term has been used above) is apt to be initially more tempting than an addition along some line of expenditure already represented in the budget. 322 The latter, supposing there has been no change of price and no increase of income, is usually a mere irregularity, 323 an insurgent departure from some one specification of a total plan without preliminary compensating adjustment or appropriate change at other points. 324 The erratic outlay, if considerable, will result in sheer disorder and extravagance-- indefensible and

self-condemned on the principles of the individual's own economy. 325 But with a new commodity the case stands differently. It is more interesting to consider a really new proposal than to reopen a case once closed when no evidence distinctly new is offered. 326 A sheer "temptation" or an isolated impulse toward new outlay along a line already measured in one's scheme has the force of habit and a presumption of un-wisdom to overcome. 327 If the case is one not of temptation but of "being urged" one is apt to answer, "No, I can make no use of any more of 'that'." 328 But a new commodity has the charm of its novelty, a charm consisting in the promise, in positive fashion, of new qualitative values about which a new entire schedule will have to be organised. 329 Partly its strength of appeal lies in its radicalism; it gains ready attention not only by its promise but by its boldness. 330 "Preparedness" gains a more ready acclaim than better schools or the extirpation of disease. 331 The automobile and the "moving picture" probably have a vogue today far surpassing any use of earlier "equivalents" that a mere general augmentation of incomes could have brought about. 332 Indeed, the economic danger of the middle classes in present-day society lies not in mere occasional excess at certain points but in heedless commitment to a showy and thinned-out scheme of life 333 in which the elements are ill-chosen and ill-proportioned and from which, as a whole, abiding satisfaction cannot be drawn. 334 It is where real and thoroughgoing change in the manner of life is hopeless that irregular intemperance of various sorts appears to bulk relatively largest as an economic evil.

335 Shall we not say, however, that the superior attraction of the new in competition with established lines of expenditure only indicates the greater "satiation" of the wants the latter represent and the comparative freshness of the wants the novelty will satisfy? 336 On the contrary the latter wants are in the full sense not yet existent, the new satisfactions are untried and unmeasured; 337 the older wants have the advantage of position, and if satiated today, will reassert

themselves with a predictable strength tomorrow. 338 The new wants, it is true, if they are acquired, will be part of a new system, 339 but the present fact remains that their full meaning cannot be known in advance of trial and the further outlines of the new scheme of uses and values cannot be drawn up until this meaning has been learned. 340 If, then, the new commodity is taken, it is not because the promised satisfaction and the sum of known utilities to be sacrificed are found equal, 341 nor again because the new commodity will fit neatly into a place in the existing schedule that can be vacated for it. This latter is the case of substitution. 342 Such an interpretation of the facts is retrospective only; it is a formal declaration that the exchange has been deemed on the whole worthwhile, but the reasons for this outcome such a formula is powerless to suggest.

343 In general the new commodity and the habits it engenders could not remain without effect upon a system into which they might be mechanically introduced. 344 Certain items in the schedule, associated in use with those dispensed with for the new, must be rendered obsolete by the change. 345 The new interests called into play will draw to themselves and to their further development attention which may be in large measure diverted from the interests of older standing. 346 And in the new system all interests remaining over from the old will accordingly stand in a new light and their objects will be valued, will be held important, for reasons that will need fresh statement.

347 In similar fashion it might be argued that the commodities or uses which one sacrifices for the sake of a new venture are inevitably more than a simple deduction that curtails one's schedule in a certain kind and amount. 348 Such a deduction or excision must leave the remaining lines of the original complex hanging at loose ends. 349 The catching-up of these and their coördination with the new interest must in any event amount, as has been contended, to a thoroughgoing reorganisation. 350 What must really happen then, in the event of action, is in principle

nothing less than the disappearance of the whole from which the sacrificed uses are dissevered. 351 These latter, therefore, stand in the process of decision as a symbol for the existing personal economy as a whole. 352 The old order and the new confront each other as an accepted view of fact 353 and a plausible hypothesis everywhere confront each other and the issue for the individual is the practical issue of making the transition to a new working level. 354 To declare that the salient elements of the confronting complexes are quantitatively equivalent is only to announce in symbolic terms that the transition has been effected, the die cast.

355 The statement thus given has been purposely made, for many transactions of the sort referred to, something of an over-statement. 356 If I contemplate purchasing a typewriter or a book on an unfamiliar but inviting subject it may well seem somewhat extravagant to describe the situation as an opposition between two schemes of life. 357 Is the issue so momentous; is the act so revolutionary? But the purpose of our over-statement was simply to make clear the type of situation without regard to the magnitudes involved. 358 No novelty that carries one in any respect beyond the range of existing habits can be wholly without its collateral effects nor can its proximate and proper significance be measured in advance. 359 This is in principle as true of a relatively slight innovation as of a considerable one. 360 And our present conscious exaggeration departs less widely from the truth than the alternative usual preoccupation of economic theory with the logic of routine desire and demand. 361 For the phenomena of routine and habit are thereby made a standard by which all others, if indeed recognised as real at all, must be judged "exceptional." 362 And, as we shall see, to do this introduces difficulty into certain parts of substantive economic theory.

363 Again, objection may attach to the view that equivalence of the "salient members" of the opposing systems is only another name for the comprehensive fact of the novelty's acceptance. 364 For if we

hesitate in such a case, is this not because we judge the price too high? 365 What can this signify but that the service or satisfaction we expect from the novelty falls short of sufficing to convince us? 366 And unless we are dealing with measured quantities, how can we come to this conclusion? 367 Moreover, if the novel commodity is divided into units we may take a smaller quantity when the price demanded is "high" than if the price were lower. 368 And does this not suggest predetermined value-magnitudes as data? 369 But if one takes thus a smaller amount, as the argument contends, it is because there is a presumption of being able to make some important total use of it 370 and there is no general reason apparent for supposing that this will be merely a fractional part of a larger but like significance that might be hoped for from a larger quantity. 371 And on the other hand, the prospect simply may not tempt at all; the smaller quantity may be deemed an improbable support for a really promising total program and the present program will hold its ground, not seriously shaken. 372 The total demand of a market for a given commodity is no doubt in some sort a mathematical function of the price. 373 The lower the price the greater in some ratio will be the number of persons who will buy and in general the greater the number of units taken by those who are already buyers. 374 But that such a proposition admits of statistical proof from the observation of a series of price changes in a market affords no presumption concerning the nature of the reasons that move any individual person to own action. 375 The theoretical temptation is strong, here as elsewhere, in passing from the study of markets to the personal economy of the individual forthwith 376 to find this also a trafficking in unit-quantities and marginal satisfactions to which the concepts and notation of market analysis will readily apply.

377 It remains to consider certain implications of this view of economic desire and demand.

II

378 It is evident that the issue finally at stake in any economic

problem of constructive comparison, is an ethical issue. 379 Two immediate alternatives are before one-- to expend a sum of money in some new and interesting way, or to keep it devoted to the uses of one's established plan. 380 Upon the choice, one recognises, hinge consequences of larger and more comprehensive importance than the mere present enjoyment or non-enjoyment of the new commodity. 381 And these "more important" consequences 'are' important because there appears to lie in them the possibility of a type of personal character divergent from the present type and from any present point of view incommensurable with it. 382 The ethical urgency of such a problem will impress one in the measure in which one can see that such an issue really does depend upon one’s present action and irretrievably depends. 383 And we are able now to see what that economic quality is that attaches to ethical problems at a certain stage of their development and calls for a supplementary type of treatment.

384 Let us first consider certain types of juncture in conduct that will be recognised at once as ethical and in which any economic aspect is relatively inconspicuous. 385 Temperance or intemperance, truth or falsehood, idleness or industry, honesty or fraud, social justice or class-interest-- these will serve. 386 What makes such problems as these ethical is their demand for creative intelligence. In each, alternative types of character or manners of life stand initially opposed. 387 If the concrete issue is really problematical, if there is no rule that one can follow in the case with full assurance, constructive comparison, whether covertly or openly, must come into play. 388 How long, then, will a problem of temperance or intemperance, idleness or industry, preserve its obviously ethical character without admixture? 389 Just so long, apparently, as the modes of conduct that come into view as possible solutions are considered and valued with regard to their 'directly physiological and psychological' consequences alone. 390 Any given sort of

conduct, that is to say, makes inevitably for the formation of certain habits of mind or muscle, weakening, or precluding the formation of, certain others. 391 Attention is engrossed that is thereby not available elsewhere, time and strength are expended, discriminations are dulled and sharpened, sympathies and sensitivities are narrowed and broadened, 392 every trait and bent of character is directly or indirectly affected in some way by every resolve concluded and every action embarked upon. 393 If one moves a certain way along a certain line you can never return to the starting-point and set out unchanged along any other. 394 If one does one thing one cannot do another. 395 And when the sufficient reasons for this mutual exclusion lie in the structure and organisation of the human mind and body our deliberation as between the two alternatives, our constructive comparison of them remains upon the ethical plane.

396 If one does one thing one cannot do another. If we substitute the well-worn saying "one cannot eat own cake and have it" we indicate the economic plane of constructive comparison with all needful clearness.

397 This is in fact the situation that has been already under discussion at such length above 398 and the economic quality of which we are just now in quest arises from neither more nor less than the fact of our dependence in the working out of our personal problems upon limited external resources. 399 The eventual solution sought under these circumstances remains ethical as before. But to reach it, it is necessary to bring into consideration not only such other interests and ends as the psycho-physical structure of human nature and the laws of character-development show to be involved, 400 but a still wider range of interests less intimately or "internally" related to the focal interest of the occasion but imperatively requiring to be heard. 401 If my acquisition of a phonograph turns upon the direct psychological bearing of the new interest upon my other interests, its probable effects whether good or bad upon my musical tastes 402 and the diplomatic complications

with my neighbours in which the possession of the instrument may involve me, the problem of its purchase remains clearly in the ethical phase. 403 But when I count the cost in terms of sacrifices which the purchase price makes necessary, from literature down to food and fuel, and must draw this whole range of fact also into the adjustment if I can, the economic phase is reached. 404 In principle two entire and very concrete schemes of life now stand opposed. Just 'what' concrete sacrifices I shall make I do not know-- this, in fact, is one way of stating my problem. 405 Nor, conversely, do I know just what I shall be able to make the phonograph worth to me. 406 It is my task to come to a conclusion in the case that shall be explicit and clear enough to enable me to judge in 'the event' whether my expectation has been realised and I have acted wisely or unwisely. 407 Thus a problem is economic when the fact of the limitation of my external resources must be eventually and frankly faced. 408 The characteristic quality of a problem grown economic is a certain vexatiousness and seeming irrationality in the ill-assorted array of nevertheless indisputable interests, prosaic and ideal, that have to be reduced to order.

409 It is perhaps this characteristic emotional quality of economic problems that has insensibly inclined economists to favour a simpler and more clear-cut analysis. 410 As for ethical problems-- they have been left to "conscience" or to the jurisdiction of a "greatest happiness" principle in which the ordinary individual or legislator has somehow come to take an interest. 411 That they arise and become urgent in us of course does human nature unimpeachable credit and economics must by all means wait respectfully upon their settlement. 412 So much is conceded. But economics is economics, when all is said and done. 413 What we mean by the economic interest is an interest in the direct and several satisfactions that a person can get from the several things you shrewdly finds it worth your while to pay for. 414 And shrewdness means nicety of calculation, accuracy of measurement in the determination

of tangible loss and gain. Here, then, is no field for ethics but a field of fact. 415 Thus ethics on its side must also wait until the case is fully ready for its praise or blame. Such is the 'modus vivendi'. 416 But its simplicity is oversimple and unreal. It pictures the "economic person" as bound in the chains of a perfunctory deference that you would throw off if you could. 417 For the theory of constructive comparison or creative intelligence, on the other hand, instead of a seeker and recipient of "psychic income" and a calculator of gain and loss, 418 you are a personal agent maintaining continuity of action in a life of discontinuously changing levels of interest and experience. 419 Your measure of attainment lies not in an accelerating rate of "psychic income," but in an increasing sense of personal effectiveness and an increasing readiness and confidence before new junctures.

420 The possession and use of commodities are, then, not in themselves and directly economic facts at all. As material things commodities serve certain purposes and effect certain results. 421 They are means to ends and their serving so is a matter of technology. But do I seriously want their services? This is a matter of my ethical point of view. 422 Do I want them at the price demanded or at what price and how many? This is the economic question and it obviously is a question wholly ethical in import-- 423 more broadly and inclusively ethical, in fact, than the ethical question in its earlier and more humanly inviting form. 424 And what we have now to see is the fact that no consideration that has a bearing upon the problem in its ethical phase can lose its importance and relevance in the subsequent phase.

425 There can be no restriction of the economic interest, for example, to egoism. 426 If on general principles I would really rather use goods produced in safe and cleanly factories or produced by "union labour," there is no possible reason why this should not incline me to pay the higher prices that such goods may cost and make the needful readjustment in my budget. 427 Is there reason

why my valuation of these goods should 'not' thus be the decisive act that takes me out of one relation to industrial workers and sets me in another-- can anything else, indeed, quite so distinctly do this? 428 For economic valuation is only the fixation of a purchase price, or an exchange relation in terms of price and quantity, 429 upon which two schemes of life, two differing perspectives of social contact and relationship converge-- the scheme of life from which I am departing and the one upon which I have resolved to make my hazard. 430 It is this election, this transition, that the purchase price expresses-- drawing all the strands of interest and action into a knot so that a single grasp may seize them. 431 The only essential egoism in the case lies in the "subjectivism" of the fact that inevitably the emergency and the act are mine and not another's. 432 This is the "egocentric predicament" in its ethical aspect. 433 And the egocentric predicament proves Hobbes and La Rochefoucauld as little as it proves Berkeley or Karl Pearson. 434 No social interest, no objective interest of any sort, is shown ungenuine by my remembering in season that if I cannot fill my coal-bin I shall freeze.

435 This logical and psychological continuity of the ethical and economic problems suggests certain general considerations of some practical interest. 436 In the first place as to "egoism." I am, let us say, an employer. If I am interested in procuring just "labour," in the sense of foot-pounds of energy, then undoubtedly labour performed under safe and healthful conditions is worth no more to me than other labour (provided it does not prove more efficient). 437 But is this attitude of interest in just foot-pounds of energy the attitude 'par excellence' or solely entitled to be called economic? 438 And just this may be asserted for the reason that an exclusive interest in just 'labour' is the only interest in the case that people of business, or at least many of them, can entertain without going speedily to the wall. 439 If, then, I do 'in fact' pay more than I must in wages or if I expend more than a bare minimum for conveniences and safety-guards

this is not because of the valuation I put upon 'labour', but only because I take pleasure in the contentment and well-being of others. 440 And this is not "business" but "uplift"-- or else a subtle form of emotional self-indulgence. 441 Suppose, however, that by legislation similar working conditions have been made mandatory for the entire industry and suppose that the community approves the law, even to the extent of cheerfully paying so much of the additional cost thereby imposed as may be shifted upon them.

442 Shall we say that this is an ethical intrusion into the sphere of economics or shall we say that the former economic demand for labour "as such" has given place to an economic demand for labour better circumstanced or better paid? 443 The community at all events is paying the increase of price or a part of the increase. It seems arbitrary to insist that the old price is still the 'economic' price of the commodity and the increase only the price of a quiet conscience. 444 The notion of a strictly economic demand for labour pure and simple seems in fact a concept of accounting. 445 To meet the community's demand for the commodity a number of producers were required. The least capable of these could make both ends meet at the prevailing price only by ignoring all but the severely impersonal aspects of the process. 446 Taking these costs as a base, other more capable or more fortunate producers may have been able to make additional expenditures of the sort in question, charging these perhaps to "welfare" account. 447 The law then intervenes, making labour in effect more expensive for all by requiring the superior conveniences or by compelling employers' insurance against accidents to workmen or by enforcing outright a higher minimum wage. 448 The old basic labour cost becomes thus obsolete. And without prejudging as to the expediency of such legislation in particular industrial or business situations may we not protest against 'a priori' 449 and wholesale condemnation of such legislation as merely irresponsibly "ethical" and "unscientific"? 450 Is it not,

rather, economically experimental and constructive, amounting in substance to a simple insistence that henceforth the hiring and paying of labour shall express a wider range of social interests-- 451 shall signalise a more clearly self-validating level of comprehension, on the part of employers and consumers, of the social significance of industry than the old? 452 And may we not protest also, as a matter of sheer logic, against carrying over a 'producer's' distinction of accounting between "labour" cost and "welfare" cost into the 'consumer's' valuation of the article? 453 How and to what end shall a distinction be drawn between 'your' "esteem" for the trimmed and isolated article and 'your' esteem for the people who made it-- which, taken together, dispose you to pay a certain undivided price for it?

454 For the egoism of humans is no fixed and unalterable fact. Taking it as a postulate, a mathematical theory of market phenomena may be erected upon it, 455 but such a postulate is purely formal, taking no note of the reasons which at any given time lie behind the individuals' "demand" or "supply schedules." 456 It amounts simply to an assumption that these schedules will not change during the lapse of time contemplated in the problem in hand. And it therefore cannot serve as the basis for a social science. 457 As an actual social phenomenon egoism is merely a disclosure of a certain present narrowness and inertness in the nature of the individual which may or may not be definitive for you. 458 It is precisely on a par with anemia, dyspepsia or fatigue, or any other like unhappy fact of personal biography.

459 There is another suggestion of ethical and economic continuity that may be briefly indicated. If our view of this relation is correct, a problem, by becoming economic, may lose something in dramatic interest and grandiosity but gains in precision and complexity. 460 In the economic phase an issue becomes sensibly crucial. It is in this phase that are chiefly developed those qualities of clear-headedness, temperateness of thought and action, 461 and

well-founded self-reliance that are the foundation of all genuine personal morality and social effectiveness.

462 And one may question therefore the ethical consequences of such measures as old age, sickness, and industrial accident insurance or insurance against unemployment. 463 In proportion as these measures are effective they amount to a constant virtual addition to the individual's income from year to year without corresponding effort and forethought on own part. 464 They may accordingly be condemned as systematic pauperisation-- the "endowment of the unfit." 465 There is evidently a fundamental problem here at issue, apart from all administrative difficulties. 466 Clearly this type of criticism assumes a permanent incapacity in "human nature" or in most actual beings therewith endowed, to recognise as seriously important other interests than those upon which hinge physical life and death. 467 The ordinary person, it is believed, is held back from moral Quixotism as from material extravagance by the fear of starvation alone; 468 and it is assumed that there are no other interests in the "normal" person that can or ever will be so wholesomely effective to these ends. 469 And two remarks in answer appear not without a measure of pertinence. 470 First, if what is alleged be true (and there is evidence in Malthus' 'Essay' and elsewhere to support it) it seems less a proof of original sin and "inperfectibility" than a reproach to a social order 471 whose collective tenour and institutions leave the mass untouched and unawakened above the level of animal reproduction 472 and whose inequalities of opportunity prevent awakened life from growing strong. 473 And second, the democratic society of the future, if it exempts the individual in part or wholly from the dread of premature physical extinction must leave one on higher levels of interest similarly dependent for success or failure upon own ultimate personal discretion. 474 And is it inconceivable that on higher levels there should ever genuinely be such a persisting type

of issue for the multitude of humans?

475 We have held constructive comparison in its economic phase to be a reciprocal evaluating of the "salient members" of two budgets. 476 The respective budgets in such a case express in the outcome (1) the plane of life to which one is to move and (2) the plane one is forsaking. 477 It was the salient member of the former that presented the problem at the outset. In the course of the process its associates were 'gathered about' it in their due proportions and perspective. 478 The salient member of the latter (i.e., whatever the purchase is to oblige one to do without), it was the business of constructive comparison to 'single out' from among its associates and designate for sacrifice. 479 In any case at all departing from the type of substitution pure and simple, the commodities sacrificed will come to have a certain "value in exchange" that clearly is a new fact, a new judgment, in experience. 480 This value in exchange, this "subjective" or "personal" exchange value, may fittingly be termed a "value for transition." 481 The transition once made, the exchange once concluded, I shall deem the motor-car, for example, that I have 'not' bought to replace one used-up, to be worth less than the piano I 'have' bought instead. 482 This indeed (in no disparaging sense) is a tautology. 483 But does this lesser relative value equal or exceed or fall short of the value the car would have had if no question of a piano had been raised at all and I had bought it in replacement of the old one as a matter of course? How can one say? 484 The question seems unmeaning, for the levels of value referred to are different and discontinuous and the magnitudes belong to different orders. 485 In a word, because a "value for transition" marks a resolve and succinctly describes an act, it cannot be broken in two and expressed as an equating of two magnitudes independently definable apart from the relation. 486 The motor-car 'had' its value as a member of the old system-- the piano 'has' its value as a member of the new. 487 "The piano is

worth more than the car"; "the car is worth less than the piano"-- these are the prospective and retrospective views across a gulf that separates two "specious presents," not judgments of static inequality in terms of a common measure.

488 Is value, then, absolute or relative? Is value or price the prior notion? 489 Was the classical English economics superficial in its predilection for the relative conception of value? Or is the reigning Austrian economics profound in its reliance upon marginal utility? 490 By way of answer let us ask-- What in our world can be more absolute a fact than a human's transition from one level of experience and action to another? 491 Can the flight of time be stayed or turned backward? 492 And if not, can the acts by whose intrinsic uniqueness and successiveness time becomes filled for me and by which I feel time's sensible passage as swift or slow, lose their individuality? 493 But it is not by a mere empiric temporalism alone that the sufficient absoluteness of the present act is attested. 494 My transition from phase to phase of "finitude" is a thing so absolute that Idealism itself has deemed an Absolute indispensable to assure its safe and sane achievement. 495 And with all Idealism's distrust of immediate experience for every evidential use, the Idealist does not scruple to cite the "higher obviousness" of personal effort, attainment, and fruition as the best of evidence for own most momentous truth of all. 496 And accordingly (in sharp descent) we need not hesitate to regard value in exchange as a primary fact in its own right, standing in no need of resolution into marginal pseudo-absolutes. 497 A price agreed to and paid marks a real transition to another level. 498 There are both marginal valuation and 'Werthaltung' on this level, but they are subordinate incidents to this level's mapping and the conservation of its resources. 499 On this level every marginal utility is relative, as we have seen, to every other through their common relation to the complex plan of organisation as a whole.

500 In conclusion one more question closely related to the

foregoing may be briefly touched upon. 501 We have held that the individual's attitude toward a commodity is in the first instance one of putting a price-estimate upon it and only secondarily that of holding it in a provisionally settled marginal esteem. 502 If this principle of the priority of price-estimation or exchange value is true, it seems evident that there can be no line of demarcation drawn (except for doubtfully expedient pedagogical purposes) 502 between (1) "Subjective valuations" with which individuals are conceived to come to a market and (2) a mechanical equilibration of demand and supply which it is the distinctive and sole function of market concourse to effect. 503 In such a view the market process in strict logic must be timeless as it is spaceless; 504 a superposition of the two curves is effected and they are seen to cross in a common point which their shapes geometrically predetermine. 505 Discussion, in any proper sense, can be no inherent part of a market process thus conceived. 506 Once in the market, buyers and sellers can only declare their "subjective exchange valuations" of the commodity and await the outcome with a dispassionate certainty that whoever may gain by exchanging at the price to be determined, those who cannot exchange will at all events not lose. 507 But considered as a typical likeness of people who have seen a thing they want and are seeking to possess it, this picture of mingled hope and resignation is not convincing. 508 Most actual offering of goods for sale that one observes suggests less the dispassionate manner of the physiologist or psychologist taking the measure of own subject's reactions, sensibilities, and preferences 509 than the more masterful procedure of the physician or the hypnotist who seeks to uproot or modify or reconstruct them. 510 This is the process known in economic writing since Adam Smith as "the higgling and bargaining of the market."

511 In fact, the individual's ante-market valuation, when there temporarily is one, is an exchange valuation of the constructive or experimental and therefore (in any significant sense of the word)

perfectly objective type, 512 and the market process into which this enters is only a perfectly homogeneous temporal continuation of it that carries the individual forward to decisive action. 513 There is no more reason for a separation here than for sundering the ante-experimental sketching out of an hypothesis in any branch of research from the work of putting the hypothesis to experimental test. 514 The results of experiment may serve in a marked way in both sorts of process to elucidate or reconstruct the hypothesis.

515 The "higgling and bargaining of the market" has been accorded but scant attention by economists. 516 It has apparently been regarded as a kind of irrelevance-- a comedy part, at best, in the serious drama of industry and trade, never for a moment hindering the significant movement and outcome of the major action. 517 As if to excuse the incompetence of this treatment (or as another phase of it) theory has tended to lay stress upon, and mildly to deplore, certain of the less amiable and engaging aspects of the process. 518 The very term indeed as used by Adam Smith, imported a certain æsthetic disesteem, albeit tempered with indulgent approbation on other grounds. 519 In Böhm-Bawerk's more modern account this approbation has given place to a neutral tolerance. 520 A certain buyer, he says (in his discussion of simple "isolated" exchange), will give as much as thirty pounds for a horse; the horse's owner will take as little as ten pounds-- 521 these are predetermined and fixed valuations brought to the exchange negotiations and nothing that happens in the game of wits is conceived to modify them. 522 The price will then be fixed somewhere between these limits. But how? "Here ..." we read, "is room for any amount of 'higgling.' 523 According as in the conduct of the transaction the buyer or the seller shows the greater dexterity, cunning, obstinacy, power-of-persuasion, or such like, will the price be forced either to its lower or to its upper limit." 524 But the higgling cannot touch the underlying attitudes. Even "power of persuasion" is only one part of

"skill in bargaining," with all the rest and like all the rest; 525 if it were more than this there would be for Böhm-Bawerk no theoretically grounded price limits to define the range of accidental settlement and the whole explanation, as a theory of price, would reduce to nullity.

526 With this, then, appears to fall away all ground for a one-sided, or even a sharply two-sided, conception of the process of fixation of market-values. 527 A "marginal utility" theory and a "cost of production" theory of market price alike assume that the factor chosen as the ultimate determinant is a fixed fact defined by conditions which the actual spatial and temporal meeting-together of buyers and sellers in the market cannot affect. 528 In this logical sense, the chosen determinant is in each case an ante-market or extra-market fact and the same is true of the blades of Marshall's famous pair of scissors.

529 The price of a certain article let us say is $5. According to the current type of analysis this is the price because, intending buyers' and sellers' valuations of the article being just what they are, it is at this figure that the largest number of exchanges can occur. 530 Were the price higher there would be more persons willing to sell than to buy; were it lower there would be more persons willing to buy than to sell. 531 At $5 no buyer or seller who means what one says about own valuation when you enters the market goes away disappointed or dissatisfied. 532 With this price established all sellers whose costs of production prevent their conforming to it must drop out of the market; so must all buyers whose desire for the article does not warrant their paying so much. 533 More fundamentally then, Why is $5 the price? Is it because intending buyers and the marginal buyer in particular do not desire the article more strongly? 534 Or is it because conditions of production, all things considered, do not permit a lower marginal unit cost? 535 The argument might seem hopeless. But the advantage is claimed for the principle of demand.

536 Without demand arising out of desires expressive of wants there

would simply 'be' no value, no production, and no price. 537 Demand evokes production and sanctions cost. But cost expended can give no value to a product that no one wants.

538 Does it follow, however, that the cost of a commodity in which on its general merits I have come to take a hypothetical interest can in no wise affect my actual price-offer for it? 539 Can it contribute nothing to the preciser definition of my interest which is eventually to be expressed in a price offer? If the answer is "No, for how can this external fact affect the strength of your desire for the object?"-- 540 then the reason given begs the question at issue. 'Is' my interest in the object an interest in the object alone? And 'is' the cost of the object a fact for me external and indifferent? 541 It is, at all events, not uncommon to be assured that an article "cannot be produced for less," that one or another of its elements of cost is higher than would be natural to suppose. 542 Not always scientifically accurate, such assurances express an evident confidence that they will not be without effect upon a hesitant but fair-minded purchaser. 543 And in other ways as well, the position of sellers in the market is not so defenseless as a strict utility theory of price conceives-- 544 apart from the standpoint of an abstract "normality" that can never contrive to get itself realised in empirical fact. 545 It is true that, in general, one tends to purchase an article of a given familiar kind where its price, all things considered, is lowest. 546 In consequence the less "capable" producers or sellers must go to the wall. But the fact seems mainly "regulative" and of subordinate importance. 547 Is it equally certain that as between branches of expenditure, such as clothing, food, and shelter, children, books, and "social" intercourse, the shares of income we expend upon them or the marginal prices we are content to pay express the original strength of separate and unmodified extra-market interests? 548 On the contrary we have paid in the past what we have had to pay, what we have deemed just and reasonable, what we have been willing experimentally to hazard upon the possibility of the

outlay's proving to have been worthwhile. 549 In these twilight-zones of indetermination, cost as well as other factors of supply have had their opportunity. 550 Shall we nevertheless insist that our "demands" are 'ideally' fixed, even though in fallible human fact they are more or less indistinct, yielding and modifiable? 551 On the contrary they are "in principle and for the most part" indeterminate and expectant of suggested experimental shaping from the supply side of the market. 552 It is less in theory than in fact that they have a salutary tendency (none too dependable) toward rigidity.

CONCLUSION

THE ARGUMENT MAY NOW BE SUMMARILY REVIEWED

553 How are we to understand the acquisition, by an individual, of what are called new economic needs and interests? 554 Except by a fairly obvious fallacy of retrospection we cannot regard this phenomenon as a mere arousal of so-called latent or implicit desires. 555 New products and new means of production afford "satisfactions" and bring about objective results which are unimaginable and therefore unpredictable, in any descriptive fashion, in advance. 556 In a realistic or empirical view of the matter, these constitute genuinely new developments of personality and of social function, not mere unfoldings of a preformed logical or vital system. 557 "Human nature" is modifiable and economic choice and action are factors in this indivisible process. 558 Now "logically" it would seem clear that unless a new commodity is an object of desire it will not be made or paid for. 559 On the other hand, with equal "logic," a 'new' commodity, it would seem, 'cannot' be an object of desire because all desire must be for what we already know. 560 We seem confronted with a complete 'impasse'. But the 'impasse' is conceptual only. 561 We have simply to acknowledge the patent fact of our recognition of the new as novel and our interest in the new in its outstanding character of novelty. 562 We need only express

and interpret this fact, instead of fancying ourselves bound to explain it away. It is an interest not less genuine and significant in economic experience than elsewhere. 563 Its importance lies in the fact that it obliges us to regard what is called economic choice not as a balancing of utilities, marginal or otherwise, but as a process of "constructive comparison." 564 The new commodity and its purchase price are in reality symbols for alternatively possible systems of life and action. Can the old be relinquished for the new? 565 Before this question is answered each system may be criticised and interpreted from the standpoint of the other, each may be supplemented by suggestion, by dictate of tradition and by impulsive prompting, by inference, and by conjecture. 566 Finally in experimental fashion an election must be made. The system as accepted may or may not be, in terms, identical with one of the initial alternatives; 567 it can never be identical in full meaning and perspective with either one. 568 And in the end we have not chosen the new because its value, as seen beforehand, measured more than the value of the old, but we now declare the old, seen in retrospect, to have been worth less. 569 There are apparently no valid objections to this view to be drawn from the current logical type of marginal-utility analysis.

II

570 Because so-called economic "choice" is in reality "constructive comparison" it must be regarded as essentially ethical in import. 571 Ethics and economic theory, instead of dealing with separate problems of conduct, deal with distinguishable but inseparable stages belonging to the complete analysis of most, if not all, problems. 572 This view suggests, ('a') that no reasons in experience or in logic exist for identifying the economic interest with an attitude of exclusive or particularistic egoism, 573 and ('b') that social reformers are justified in their assumption of a certain "perfectibility" in human nature--a constructive responsiveness instead of an insensate and stubborn inertia

574 Again, in the process of constructive comparison in its economic phase, Price or Exchange Value is, in apparent accord with the English classical tradition, the fundamental working conception. 575 Value as "absolute" is essentially a subordinate and "conservative" conception, belonging to a status of system and routine, and is "absolute" in a purely functional sense. 576 And finally constructive comparison, with price or exchange value as its dominant conception, is clearly nothing if not a market process. 577 In the nature of the case, then, there can be no such ante-market definiteness and rigidity of demand schedules as a strictly marginal-utility theory of market prices logically must require.

578 In at least two respects the argument falls short of what might be desired. 579 No account is given of the actual procedure of constructive comparison and nothing like a complete survey of the leading ideas and problems of economic theory is undertaken by way of verification. 580 But to have supplied the former in any satisfactory way would have required an unduly extended discussion of the more general, or ethical, phases of constructive comparison. 581 The other deficiency is less regrettable, since the task in question is one that could only be hopefully undertaken and convincingly carried through by a professional economist.

582 For the present purpose, it is perhaps enough to have found in our economic experience and behaviour the same interest in novelty that is so manifest in other departments of life, 583 and the same attainment of new self-validating levels of power and interest, through the acquisition and exploitation of the novel. 584 In our economic experience, no more than elsewhere, is satisfaction an ultimate and self-explanatory term. 585 Satisfaction carries with it always a reference to the level of power and interest that makes it possible and on which it must be measured. 586 To seek satisfaction for its own sake or to hinge one's interest in science or art upon their ability to serve the palpable needs of the present

moment-- these, together, make up the meaning of what is called Utilitarianism. 587 And Utilitarianism in this sense (which is far less what Mill meant by the term than a tradition he could never, with all his striving, quite get free of), this type of Utilitarianism spells routine. 588 It is the surrender of initiative and control, in the quest for ends in life, for a philistine pleased acceptance of the ends that Nature, assisted by the advertisement-writers, sets before us. 589 But this type of Utilitarianism is less frequent in actual occurrence than its vogue in popular literature and elsewhere may appear to indicate. 590 As a matter of fact, we more often look to satisfaction, not as an end of effort or a condition to be preserved, but as the evidence that an experimental venture has been justified in its event. 591 And this is a widely different matter, for in this there is no inherent implication of a habit-bound or egoistic narrowness of interest in the conceiving or the launching of the venture.

592 The economic interest, as a function of intelligence, finds its proper expression in a valuation set upon one thing in terms of another-- 593 a valuation that is either a step in a settled plan of spending and consumption or marks the passing of an old plan and our embarkation on a new. 594 From such a view it must follow that the economic betterment of an individual or a society can consist neither in the accumulation of material wealth alone nor in a more diversified technical knowledge and skill. 595 For the individual or for a collectivist state there must be added to these things alertness and imagination in the personal quest and discovery of values and a broad and critical intelligence in making the actual trial of them. 596 Without a commensurate gain in these qualities it will avail little to make technical training and industrial opportunity more free or even to make the rewards of effort more equitable and secure. 597 But it has been one of the purposes of this discussion to suggest that just this growth in outlook and intelligence may in the long run be counted on-- 598 not indeed as a direct and simple consequence of increasing

material abundance but as an expression of an inherent creativeness in human that responds to discipline and education and will not fail to recognise the opportunity it seeks. 599 Real economic progress is ethical in aim and outcome. 600 We cannot think of the economic interest as restricted in its exercise to a certain sphere or level of effort-- 601 such as "the ordinary business of life" or the gaining of a "livelihood" or the satisfaction of our so-called "material" wants, or the pursuit of an enlightened, or an unenlightened, self-regard. 602 Economics has no special relation to "material" or even to commonplace ends. Its materialism lies not in its aim and tendency but in its problem and method. 603 It has no bias toward a lower order of mundane values. It only takes note of the ways and degrees of dependence upon mundane resources and conditions that values of every order must acknowledge. 604 It reminds us that morality and culture, if they are genuine, must know not only what they intend but what they cost. 605 They must understand not only the direct but the indirect and accidental bearing of their purposes upon all of our interests, private and social, that they are likely to affect. 606 The detachment of the economic interest from any particular level or class of values is only the obverse aspect of the special kind of concern it has with values of every sort. 607 The very generality of the economic interest, and the abstractness of the ideas by which it maintains routine or safeguards change in our experience, are what make it unmistakably ethical. 608 Without specific ends of its own, it affords no ground for dogmatism or apologetics. And this indicates as the appropriate task of economic theory not the arrest and thwarting but the steadying and shaping of social change.

THE MORAL LIFE AND THE CONSTRUCTION OF VALUES AND STANDARDS

James Hayden Tufts

7 Writing about ethics has tended to take one of two directions. On the one hand we have description

of conduct in terms of psychology, or anthropology. On the other a study of the concepts right and wrong, good and bad, duty and freedom. 2 If we follow the first line we may attempt to explain conduct psychologically by showing the simple ideas or feelings and the causal connections or laws of habit and association out of which actions arise. 3 Or anthropologically we may show the successive stages of custom and taboo, or the family, religious, political, legal, and social institutions from which morality has emerged. 4 But we meet at once a difficulty if we ask what is the bearing of this description and analysis. Will it aid me in the practical judgment "What shall I do?" 5 In physics there is no corresponding difficulty. To analyse gravity enables us to compute an orbit, or aim a gun; to analyse electric action is to have the basis for lighting streets and carrying messages. 6 It assumes the uniformity of Nature and takes no responsibility as to whether we shall aim guns or whether our messages shall be of war or of peace. 7 Whereas in ethics it is claimed that the elements are so changed by their combination-- that the 'process' is so essential a factor-- that no prediction is certain. 8 And it is also claimed that the ends themselves are perhaps to be changed as well as the means. 9 Stated otherwise, suppose that humankind has passed through various stages, can mere observation of these tell me what next? Perhaps I don't care to repeat the past; how can I plan for a better future? 10 Or grant that I may discover instinct and emotion, habit and association in my thinking and willing, how will this guide me to direct my thinking and willing to right ends?

11 The second method has tended to examine concepts. 12 Good is an eternal, changeless pattern; it is to be discovered by a vision; 13 or right and good are but other terms for Nature's or reason's universal laws which are timeless and wholly unaffected by human desires or passions; 14 moral nature is soul, and soul is created not built up of elements,-- such were some of the older absolutisms. 15 Right and good are

unique concepts not to be resolved or explained in terms of anything else,-- this is a more modern thesis which on the face of it may appear to discourage analysis. 16 The ethical world is a world of "eternal values." 17 Philosophy "by taking part in empirical questions sinks both itself and them." 18 These doctrines bring high claims, but are they more valuable for human guidance than the empirical method?

19 "The knowledge that is superhuman only is ridiculous in human." No human can ever find own way home with the pure circle unless you have also the art of the impure. 20 It is the conviction of this paper that in ethics, as in knowledge, thoughts without contents are empty; percepts without concepts are blind. 21 Description of what has been-- empiricism-- is futile in itself to project and criticise. Intuitions and deductions a priori are empty. 22 The "thoughts" of ethics are of course the terms right, good, ought, worth, and their kin. 23 The "percepts" are the instincts and emotions, the desires and aspirations, the conditions of time and place, of Nature, and institutions.

24 Yet it is misleading to say that in studying the history of morals we are merely empiricists, and can hope to find no criterion. This would be the case if we were studying non-moral beings. 25 But moral beings have to some degree guided life by judgments and not merely followed impulse or habit. 26 Early judgments as to taboos, customs, and conduct may be crude and in need of correction; they are none the less judgments. 27 Over and over we find them reshaped to meet change from hunting to agriculture, from want to plenty, from war to peace, from small to large groupings. 28 Much more clearly when we consider civilised peoples, the interaction between reflection and impulse becomes patent. 29 To study this interaction can be regarded as futile for the future only if we discredit all past moral achievement.

30 Those writers who have based their ethics upon concepts have frequently expressed the conviction that the security of morality depends upon the

question whether good and right are absolute and eternal essences independent of human opinion or volition. 31 A different source of standards which to some offers more promise for the future is the fact of the moral life 'as' a constant process of forming and reshaping ideals and of bringing these to bear upon conditions of existence. 32 To construct a right and good is at least a process tending to responsibility, if this construction is to be for the real world in which we must live and not merely for a world of fancy or caprice. 33 It is not the aim of this paper to give a comprehensive outline of ethical method. Four factors in the moral life will be pointed out 34 and this analysis will be used to emphasise especially certain social and constructive aspects of our concepts of right and good.

I

35 The four factors which it is proposed to emphasise are these:

36 (1) Life as a biological process involving relation to Nature, with all that this signifies in the equipment of instincts, emotions, and selective activity by which life maintains itself.

37 (2) Interrelation with other human beings, including on the one hand associating, grouping, mating, communicating, coöperating, commanding, obeying, worshiping, adjudicating, 38 and on the psychological side the various instincts, emotions, susceptibilities to personal stimulation and appropriate responses in language and behaviour which underlie or are evoked by the life in common.

39 (3) Intelligence and reason, through which experience is interrelated, viewed as a whole, enlarged in imagination.

40 (4) The process of judgment and choice, in which different elements are brought together, considered in one conscious universe, evaluated or measured, thereby giving rise reciprocally to a self on the one hand and to approved or chosen objects on the other.

41 (1) Life. Life is at least the raw material of all values, even if it is not in itself entitled to be called good without qualification. 42 For in the process of nourishing and protecting itself, the plant or

animal selects and in the case of higher animals, manipulates; 43 Life adapts itself to Nature and adapts Nature to itself; it shows reciprocal relation of means to end, of whole to part. 44 It foreshadows the conscious processes in so many ways that humans have always been trying to read back some degree of consciousness. 45 And life in the animal, at least, is regarded as having experiences of pleasure and pain, and emotions of fear, anger, shame, and sex, which are an inseparable aspect of values. 46 If it is not the supreme or only good, if humans freely sacrifice it for other ends, it is none the less an inevitable factor. 47 Pessimistic theories indeed have contended that life is evil and have sought to place good in a will-less Nirvana. Yet such theories make limited appeal. 48 Their protest is ultimately not against life as life but against life as painful. 49 And their refutation is rather to be intrusted to the constructive possibilities of freer life than to an analysis of concepts.

50 Another class of theories which omit life from the good is that which holds to abstractly ontological concepts of good as an eternal essence or form. 51 It must be remembered, however, that the idea of good was not merely a fixed essence. It was also for Plato the self-moving and the cause of all motion. 52 And further, Plato evidently believed that life, the very nature of the soul, was itself in the class of supreme values along with God and the good. 53 The prize of immortality was [Greek: kalon] and the hope great. 54 And with Aristotle and his followers the good of contemplation no less truly than the good of action had elements of value derived from the vital process. 55 Such a mystic as Spinoza, who finds good in the understanding values this because in it human is "active," and would unite own self with the All because in God is Power and Freedom. 56 The Hebrew prophet found a word capable of evoking great ethical values when he urged his countrymen to "choose life," and Christian teaching found in the conception of "eternal life" an ideal of profound appeal. 57 It is not surprising that with his

biological interests Spencer should have set up life of greatest length and breadth as a goal.

58 The struggle of the present war emphasises tremendously two aspects of this factor of life. 59 National life is an ideal which gets its emotional backing largely from the imagery of our physical life. 60 For any one of the small nations involved to give up its national life-- whatever the possibilities of better organised industry or more comfortable material conditions-- seems to it a desperate alternative. 61 Self-defense is regarded by the various powers at war as a complete justification not merely for armed resistance or attack but for ruthless acts. 62 And if we are tempted to say that the war involves a prodigal waste of individual life on a scale never known before, we are at the same time compelled to recognise that never before has the bare destruction of life aroused such horror.

63 For never before has peace set its forces so determinedly to protect life. 64 The span of human life has been lengthened: the wastefulness of accident and disease has been magnified. 65 The dumb acquiescence with which former generations accepted the death of infants and children and those in the prime of life has given way to active and increasingly successful efforts to preserve. 66 The enormous increase in scientific study of biology, including eugenics, reflects not only an advance of science but a trend in morality. 67 It is scarcely conceivable that it should grow less in absolute importance, whatever crises may temporarily cause its depreciation relatively to other values.

68 One exception to the growing appreciation calls for notice-- the interest in immortality appears to be less rather than greater. 69 The strong belief in life beyond the grave which since the days of ancient Egypt has prevailed in the main stream of Western culture seems not only to be affected by the scientific temper of the day, but also to be subject to a shift in interest. 70 This may be in part a reaction from other-worldliness. In part it may be due to loss of fervour for a theological picture of

a future heaven 71 of a rather monotonous sort and may signify not so much loss of interest in life as desire for a more vital kind of continuance. 72 It is not true that all that a human hath will you give for your life, yet it is true that no valuing process is intelligible that leaves out life with its impulses, emotions, and desires as the first factor to be reckoned with.

73 (2) The second factor is the life in common, with its system of relations, and its corresponding instincts, emotions, and desires.

74 So much has been written in recent years on the social nature of human that it seems unnecessary to elabourate the obvious. 75 Protest has even been raised against the exaggeration of the social. But I believe that in certain points at least we have not yet penetrated to the heart of the social factor, and its significance for morals.

76 So far as the moral aspect is concerned I know nothing more significant than the attitude of the Common Law as set forth by Professor Pound. 77 This has sought to base its system of duties on relations. The relation which was prominent in the Middle Ages was that of landlord and tenant; other relations are those of principal and agent, of trustee, etc. 78 An older relation was that of kinship. The kin was held for the wergeld; the goël must avenge own next of kin; the father must provide for prospective parents-in-law; the child must serve the parents. 79 Duty was the legal term for the relation. In all this there is no romanticism, no exaggeration of the social; 80 there is a fair statement of the facts which people have recognised and acted upon the world over and in all times. 81 Individualistic times or peoples have modified certain phases. The Roman law sought to ground many of its duties in the contract, the will of the parties. But covenants by no means exhaust duties. 82 And according to Professor Pound the whole course of English and American law today is belying the generalisation of Sir Henry Maine, that the evolution of law is a progress from status to contract. 83 We are shaping law of insurance, of public service companies, not by contract but by the relation of

insurer and insured, of public utility and patron.

84 Psychologically, the correlate of the system of relations is the set of instincts and emotions, of capacity for stimulation and response, which presuppose society for their exercise and in turn make society possible. 85 There can be no question as to the reality and strength of these in both animals and humans. 86 The bear will fight for her young more savagely than for her life. 87 The human mother's thoughts center far more intensely upon her offspring than upon her own person. 88 The person who is cut dead by all own acquaintance suffers more than one would from hunger or physical fear. 89 The passion of sex frequently overmasters every instinct of individual prudence. 90 The majority of people face poverty and live in want; relatively few prefer physical comfort to family ties. 91 Aristotle's [Greek: philia] is the oftenest quoted recognition of the emotional basis of common life, but a statement of Kant's earlier years is particularly happy. 92 "The point to which the lines of direction of our impulses converge is thus not only in ourselves, but there are besides powers moving us in the will of others outside of ourselves. 93 Hence arise the moral impulses which often carry us away to the discomfiture of selfishness, the strong law of duty, and the weaker of benevolence. 94 Both of these wring from us many a sacrifice, and although selfish inclinations now and then preponderate over both, these still never fail to assert their reality in human nature. 95 Thus we recognise that in our most secret motives, we are dependent upon the rule of the general will."

96 The "law of duty," and I believe we may add, the conception of right, do arise objectively in the social relations as the common law assumes 97 and subjectively in the social instincts, emotions, and the more intimate social consciousness which had not been worked out in the time of Kant as it has been by recent authors. 98 This point will receive further treatment later, but I desire to point out in anticipation that if right and duty have their origin in this social factor there is at least a presumption against their being subordinate ethically to the

conception of good as we find them in certain writers. 99 If they have independent origin and are the outgrowth of a special aspect of life it is at least probable that they are not to be subordinated to the good 100 unless the very notion of good is itself reciprocally modified by right in a way that is not usually recognised in teleological systems.

101 (3) Intelligence and reason imply ('a') considering the proposed act or the actually performed act as a whole and in its relations. Especially they mean considering consequences. 102 In order to foresee consequences there is required not only empirical observation of past experience, not only deduction from already formulated concepts-- as when we say that injustice will cause hard feelings and revolt-- 103 but that rarer quality which in the presence of a situation discerns a meaning not obvious, suggests an idea, "injustice," to interpret the situation. 104 Situations are neither already labeled "unjust," nor are they obviously unjust to the ordinary mind. 105 Analysis into elements and rearrangement of the elements into a new synthesis are required. This is eminently a synthetic or "creative" activity. 106 Further it is evident that the activity of intelligence in considering consequences implies not only what we call reasoning in the narrower sense but imagination and feeling. 107 For the consequences of an act which are of importance ethically are consequences which are not merely to be described but are to be imagined so vividly as to be felt, whether they are consequences that affect ourselves or affect others.

108 ('b') But it would be a very narrow intelligence that should attempt to consider only consequences of a single proposed act without considering also other possible acts and their consequences. 109 The second important characteristic of intelligence is that it considers either other means of reaching a given end, or other ends, and by working out the consequences of these also has the basis for deliberation and choice. 110 The method of "multiple working hypotheses," urged as highly

important in scientific investigation, is no less essential in the moral field. 111 To bring several ends into the field of consideration is the characteristic of the intelligent, or as we often say, the open-minded human. 112 Such consideration as this widens the capacity of the agent and marks you off from the creature of habit, of prejudice, or of instinct.

113 ('c') Intelligence implies considering in two senses all persons involved, that is, it means taking into account not only how an act will affect others but also how others look at it. 114 It is scarcely necessary to say that this activity of intelligence cannot be cut off from its roots in social intercourse. 115 It is by the processes of give and take, of stimulus and response, in a social medium that this possibility of looking at things from a different angle is secured. 116 And once more this different angle is not gained by what in the strict sense could be called a purely intellectual operation, 117 although it has come to be so well recognised as the necessary equipment for dealing successfully with conditions 118 that we commonly characterise the person as stupid who does not take account of what others think and feel and how they will react to a projected line of conduct. 119 This social element in intelligence is to a considerable degree implied in the term "reasonable," 120 which signifies not merely that a person is logical in own processes but also that you are ready to listen to what others say and to look at things from their point of view whether you finally accepts it or not.

121 The broad grounds on which it is better to use the word intelligence than the word reason in the analysis with which we are concerned are two. 122 (1) It is not a question-begging term which tends to commit us at the outset to a specific doctrine as to the source of our judgments. 123 (2) The activity of intelligence which is now most significant for ethical progress is not suggested by the term reason, 124 for unless we arbitrarily smuggle in under the term practical reason the whole activity of the moral consciousness without inquiry as to the propriety

of the name 125 we shall be likely to omit the constructive and creative efforts to promote morality by positive supplying of enlarged education, new sources of interest, and more open fields for development, 126 by replacing haunting fears of misery with positive hopes, and by suggesting new imagery, new ambitions in the place of sodden indifference or sensuality. 127 The term reason as used by the Stoics and by Kant meant control of the passions by some "law"-- some authority cosmic or logical. 128 It prepared for the inevitable; it forbade the private point of view. But as thus presenting a negative aspect the law was long ago characterised by a profound moral genius as "weak." 129 It has its value as a schoolmaster, but it is not in itself capable of supplying the new life which dissolves the old sentiment, breaks up the settled evil habit, and supplies both larger ends and effective motives.

130 If we state human progress in objective fashion we may say that although people today are still as in earlier times engaged in getting a living, in mating, in rearing of offspring, in fighting and adventure, in play, and in art, 131 they are also engaged in science and invention, interested in the news of other human activities all over the world; 132 they are adjusting differences by judicial processes, coöperating to promote general welfare, enjoying refined and more permanent friendships and affections, and viewing life in its tragedy and comedy with enhanced emotion and broader sympathy. 133 Leaving out of consideration the work of the religious or artistic genius as not in question here, 134 the great objective agencies in bringing about these changes have been on the one hand the growth of invention, scientific method, and education, and on the other the increase in human intercourse and communication. 135 Reason plays its part in both of these in freeing the mind from wasteful superstitious methods and in analysing situations and testing hypotheses, 136 but the term is inadequate to do justice to that creative element in the formation of hypotheses which finds the new, and it tends to leave out of

account the social point of view involved in the widening of the area of human intercourse. 137 More will be said upon this point in connection with the discussion of rationalism.

138 (4) The process of judgment and choice. The elements are not the sum. The moral consciousness is not just the urge of life, plus the social relations, plus intelligence. 139 The 'process' of moral deliberation, evaluation, judgment, and choice is itself essential. In this process are born the concepts and standards good and right, and likewise the moral self which utters the judgment. 140 It is in this twofold respect synthetic, creative. It is as an interpretation of this process that the concept of freedom arises. Four aspects of the process may be noted.

141 ('a') The process involves holding possibilities of action, or objects for valuation, or ends for choice, 142 in consciousness and measuring them one against another in a simultaneous field-- or in a field of alternating objects, any of which can be continually recalled. 143 One possibility after another may be tried out in anticipation and its relations successively considered, but the comparison is essential to the complete moral consciousness.

144 ('b') The process yields a universe of valued 'objects' as distinguished from a subjective consciousness of desires and feelings. We say, "This is right," "That is good." 145 Every "is" in such judgments may be denied by an "is not" and we hold one alternative to be true, the other false. 146 As the market or the stock exchange or board of trade fixes values by a meeting of buyers and sellers and settles the price of wheat accurately enough to enable farmers to decide how much land to seed for the next season, 147 so the world of men and women who must live together and coöperate, or fight and perish, forces upon consciousness the necessity of adjustment. 148 The preliminary approaches are usually hesitant and subjective-- like the offers or bids in the market-- e.g., "I should like to go to college; I believe that is a good thing"; "My parents need my help; it does not seem right to leave them." 149 The judgments finally emerge. "A

college education is good;" "It is wrong to leave my parents"-- both seemingly objective yet conflicting, 150 and unless I can secure both I must seemingly forego actual objective good, or commit actual wrong.

151 ('c') The process may be described also as one of "universalising" the judging consciousness. 152 For it is a counterpart of the objective implication of a judgment that it is not an affirmation as to any individual's opinion. 153 This negative characterisation of the judgment is commonly converted into the positive doctrine that any one who is unprejudiced and equally well informed would make the same judgment. 154 Strictly speaking the judgment itself represents in its completed form the elimination of the private attitude rather than the express inclusion of other judges. 155 But in the making of the judgment it is probable that this elimination of the private is reached by a mental reference to other persons and their attitudes, if not by an actual conversation with another. 156 It is dubious whether an individual that had never communicated with another would get the distinction between a private subjective attitude and the "general" or objective.

157 Moreover, one form of the moral judgment: "This is right," speaks the language of law-- of the collective judgment, or of the judge who hears both sides but is neither. 158 This generalising or universalising is frequently supposed to be the characteristic activity of "reason." 159 I believe that a comparison with the kindred value judgments in economics supports the doctrine that in judgments as to the good as well as in those as to right, there is no product of any simple faculty, but rather a synthetic process in which the social factor is prominent. 160 A compelling motive toward an objective and universal judgment is found in the practical conditions of moral judgments. 161 Unless people agree on such fundamental things as killing, stealing, and sex relations they cannot get on together. 162 Not that when I say, "Killing is wrong," I mean to affirm "I agree with you in objecting to it"; 163 but that the

necessity (a) of acting as if I either do or do not approve it, and (b) of either making my attitude agree with yours, or yours agree with mine, or of fighting it out with you or with the whole force of organised society, 164 compels me to put my attitude into objective terms, to meet you and society on a common platform. 165 This is a 'synthesis', an achievement. To attribute the synthesis to any faculty of "practical reason," adds nothing to our information, but tends rather to obscure the facts.

166 ('d') The process is thus a reciprocal process of valuing objects and of constructing and reconstructing a self. 167 The object as first imaged or anticipated undergoes enlargement and change as it is put into relations to other objects and as the consequences of adoption or rejection are tried in anticipation. 168 The self by reflecting and by enlarging its scope is similarly enlarged. It is the 'resulting' self which is the final valuer. 169 The values of most objects are at first fixed for us by instinct or they are suggested by the ethos and mores of our groups-- family, society, national religions, and "reign under the appearance of habitual self-suggested tendencies." 170 The self is constituted accordingly. Collisions with other selves, conflicts between group valuations and standards 171 and individual impulses or desires, failure of old standards as applied to new situations, bring about a more conscious definition of purposes. 172 The agent identifies own self with these purposes, and values objects with reference to them. In this process of revaluing and defining, of comparing and anticipation, freedom is found if anywhere.

173 For if the process is a real one the elements do not remain unaffected by their relation to each other and to the whole. 174 The act is not determined by any single antecedent or by the sum of antecedents. It is determined by the process. 175 The self is not made wholly by heredity, or environment. 'It is itself creating for each of its elements a new environment', viz., the process of reflection and choice. 176 And if people can change the heredity of pigeons and race horses by

suitable selection, if every scientific experiment is a varying of conditions, it is at least plausible that human can guide own acts by intelligence, and revise own values by criticism.

177 The self is itself creating for each of its elements a new environment-- 178 this is a fact which if kept in mind will enable us to see the abstractness and fallacies not merely of libertarianism and determinism, but of subjectivism and objectivism. 179 Subjective or "inward" theories have sought standards in the self; 180 but in regarding the self as an entity independent of such a process as we have described they have exposed themselves to the criticism of providing only private, variable, accidental, unauthoritative sources of standards-- instincts, or emotions, or intuitions. 181 The self of the full moral consciousness, however,-- the only one which can claim acceptance or authority-- is born only in the process of considering real conditions, of weighing and choosing between alternatives of action in a real world of Nature and persons. 182 Its judgments are more than subjective. Objectivism in its absolutist and abstract forms assumes a standard-- Nature, essence, law-- independent of process. 183 Such a standard is easily shown to be free from anything individual, private, or changing. It is universal, consistent, and eternal, in fact it has many good mathematical characteristics, but unfortunately it is not moral. 184 As mathematical, logical, biological, or whatnot, it offers no standard that appeals to the moral nature as authoritative or that can help us to find our way home.

II

185 If we are dissatisfied with custom and habit and seek to take philosophy for the guide of life we have two possibilities: 186 (1) we may look for the good, and treat right and duty as subordinate concepts which indicate the way to the good, that is, consider them as good as a means, 187 or (2) we may seek first to do right irrespective of consequences, in the belief that in willing to do right we are already

in possession of the highest good. 188 In either case we may consider our standards and values either as in some sense fixed or as in the making. 189 We may suppose that good is objective and absolute, that right is discovered by a rational faculty, 190 or we may consider that in regarding good as objective we have not made it independent of the valuing process 191 and that in treating right as a standard we have not thereby made it a fixed concept to be discovered by the pure intellect. 192 The position of this paper will be (1) that good while objective is yet objective as a value and not as an essence or physical fact; 193 (2) that a social factor in value throws light upon the relation between moral and other values; 194 (3) that right is not merely a means to the good but has an independent place in the moral consciousness; 195 (4) that right while signifying order does not necessarily involve a timeless, eternal order since it refers to an order of personal relations; 196 (5) that the conception of right instead of being a matter for pure reason or even the "cognitive faculty" shows an intimate blending of the emotional and intellectual and that this appears particularly in the conception of the reasonable.

197 (1) We begin with the question of the synthetic and objective character of the good. With G. E. Moore as with the utilitarians the good is the ultimate concept. Right and duty are means to the good. 198 Moore and Rashdall also follow Sidgwick in regarding good as unique, that is, as "synthetic." 199 Sidgwick emphasised in this especially the point that moral value cannot be decided by physical existence or the course of evolution, nor can the good be regarded as meaning the pleasant. 200 Moore and Russell reinforce this. However true it may be that pleasure is one among other good things or that life is one among other good things, good does not mean either pleasure or survival. 201 Good means just "good."

202 A similar thought underlies Croce's division of the Practical into the two spheres of the Economic and the Ethical. 203 "The economic activity is that which wills and effects only what corresponds to the conditions of

fact in which a person finds own self; 204 the ethical activity is that which, although it correspond to these conditions, also refers to something that transcends them. 205 To the first correspond what are called individual ends, to the second universal ends; 206 the one gives rise to the judgment concerning the greater or less coherence of the action taken in itself, the other to that concerning its greater or less coherence in respect to the universal end, which transcends the individual.

207 Utilitarianism is according to Croce an attempt to reduce the Ethical to the Economic form, 208 although the utilitarians as people attempt in various ways to make a place for that distinction which as philosophers they would suppress. 209 "Human is not a consumer of pleasures. You are a creator of life." 210 With this claim of the distinctive, synthetic, character of the moral consciousness and of the impossibility of testing the worth of ideals by cosmic laws, or by gratification of particular wants as measured by pleasure, I have no issue. 211 The analysis of the moral judgment made above points out just how it is that good is synthetic. 212 It is synthetic in that it represents a measuring and valuing of ends-- instinctive and imagined, individual and social-- against each other and as part of a whole to which a growing self corresponds. 213 It is synthetic in that it represents not merely a process of evaluating ends which match actually defined desires, 214 but also a process in which the growing self, dissatisfied with any ends already in view, gropes for some new definition of ends that shall better respond to its living, creative capacity, its active synthetic character. 215 Good is the concept for just this valuing process as carried on by a conscious being that is not content to take its desire as ready made by its present construction, 216 but is reaching out for ends that shall respond to a growing, expanding, inclusive, social, self. It expresses value 'as' value.

217 Value 'as value!' not as being; nor as independent essence; nor as anything static and fixed. 218 For a synthetic self, a living personality, could find no supreme value in the complete absence of valuing, in

the cessation of life, in the negation of that very activity of projection, adventure, construction, and synthesis in which it has struck out the concept good. 219 A theory of ethics which upholds the synthetic character of the good may be criticised as being not synthetic enough 220 if it fails to see that on the basis of the mutual determination of percepts and concepts, of self and objects, the synthetic character of the process must be reflected in the ultimate meaning of the category which symbolises and incorporates the process.

221 (2) We may find some light upon the question how moral value gets its distinctive and unique character, and how it comes to be more "objective" than economic value if we consider some of the social factors in the moral judgment. 222 For although the concept good is rooted in the life process with its selective activity and attending emotions it involves a subtle social element, as well as the more commonly recognised factors of intelligence.

223 Within the fundamental selective process two types of behaviour tend to differentiate in response to two general sorts of stimulation. 224 One sort is simpler, more monotonous, more easily analysable. Response to such stimulation, or treatment of objects which may be described under these terms of simple, analysable, etc., is easily organised into a habit. 225 It calls for no great shifts in attention, no sudden readjustments. There is nothing mysterious about it. As satisfying various wants it has a certain kind of value. It, however, evokes no consciousness of self. 226 Toward the more variable, complex sort of stimuli, greater attention, constant adjustment and readjustment, are necessary.

227 Objects of the first sort are treated as things, in the sense that they do not call out any respect from us or have any intrinsic value. 228 We understand them through and through, manipulate them, consume them, throw them away. We regard them as valuable only with reference to our wants. 229 On the other hand, objects of the second sort take their place in a bi-focal situation. Our attention shifts alternately to their behaviour

and to our response, or, conversely, from our act to their response. 230 This back and forth movement of attention in the case of certain of these objects is reinforced by the fact that certain stimuli from them or from the organism, find peculiar responses already prepared in social instincts; gesture and language play their part. 231 Such a bi-focal situation as this, when completely developed, involves persons. 232 In its earlier stages it is the quasi-personal attitude which is found in certain savage religious attitudes, in certain æsthetic attitudes, and in the emotional attitudes which we all have toward many of the objects of daily life.

233 Economic values arise in connection with attitudes toward things. We buy things, we sell them. They have value just in that they gratify our wants, 234 but they do not compel any revision or change in wants or in the self which wants. They represent a partial interest-- or if they become the total interest we regard them as now in the moral sphere. 235 Values of personal affection arise as we find a constant rapport in thought, feeling, purpose, between the two members of our social consciousness. 236 The attitude is that of going along with another and thereby extending and enriching our experiences. 237 We enter into your ideas, range with your imagination, kindle at your enthusiasms, sympathise with your joys or sorrows. 238 We may disagree with our friends' opinions, but we do not maintain a critical attitude toward 'them', that is, toward their individual fundamental convictions and attitudes. 239 If "home is the place where, when you have to go there, they have to take you in," as Frost puts it, a friend is one who, when you go to them, has to accept you.

240 Moral values also arise in a social or personal relation-- not in relation to things. 241 This is on the surface in the form of judgment; "He is a good man," "That is a good act." If it is less obvious in the practical judgment, "This is the better course of action," 242 i.e., the course which leads to the greater good, or to the good, this is because we fail to discern that the good in these cases is a something with which I can

identify myself, not a something which I merely possess and keep separate from my personality. 243 It is something I shall be rather than have. Or if I speak of a share or participation it is a sharing in the sense of entering into a kindred life. 244 It is an ideal, and an ideal for a conscious personal being can hardly be other than conscious. 245 It may be objected that however personal the ideal, it is not on this account necessarily social. It embodies what I would be, but does not necessarily imply response to any other personality. 246 This, however, would be to overlook the analyses which recent psychology has made of the personal. 247 The ideal does not develop in a vacuum. It implies for one thing individuality which is conceivable only as other individuals are distinguished. 248 It implies the definition of purposes, and such definition is scarcely if ever attempted except as a possible world of purposes is envisaged.

249 Æsthetic valuation is in certain respects intermediate between the valuation of things on the one hand and the moral evaluation of acts of persons or conscious states on the other. 250 Æsthetic objects are in many cases seemingly things and yet even as things they are quasi-personal; they are viewed with a certain sympathy quite different from that which we feel for a purely economic object. 251 If it is a work of art the artist has embodied own thought and feeling and the observer finds it there.

252 The experience is that of 'Einfühlung'. Yet we do not expect the kind of response which we look for in friendship, 253 nor do we take the object as merely a factor for the guidance or control of our own action as in the practical judgment of morality. 254 The æsthetic becomes the object of contemplation, not of response; of embodied meaning, not of individuality. 255 It is so far personal that no one of æsthetic sensibility likes to see a thing of beauty destroyed or mistreated. 256 The situation in which we recognise in an object meaning and embodied feeling, or at least find sources of stimulation which appeal to our emotions, develops an æsthetic enhancement of

conscious experience. 257 The æsthetic value predicate is the outcome of this peculiar enhancement.

258 It seems that the social nature of the judgment plays a part also in the varying objectivity of values. 259 It is undoubtedly true that some values are treated as belonging to objects. 260 If we cannot explain this fully we may get some light upon the situation by noticing the degree to which this is true in the cases of the kinds of values already described.

261 Economic values are dubiously objective. 262 We use both forms of expression. We say on the one hand, "I want wheat," "There is a demand for wheat," or, on the other, "Wheat is worth one dollar a bushel." 263 Conversely, "There is no demand for the old-fashioned high-framed bicycle" or "It is worthless." 264 The Middle Ages regarded economic value as completely objective. A thing had a 'real value'. The retailer could not add to it. 265 The mediæval economist believed in the externality of relations; they prosecuted for the offenses of forestalling and regrating the person who would make a profit by merely changing things in place. 266 They condemned usury. We have definitely abandoned this theory. We recognise that it is the want which makes the value. 267 To make exchange possible and socialise to some degree the scale of prices we depend upon a public market or a stock exchange.

268 In values of personal affection we may begin with a purely individual attitude, "I love or esteem my friend." If I put it more objectively I may say, "My friend is an honoured and valued friend." 269 Perhaps still more objectively, we-- especially if we are feminine-- may say "Is not X dear?" We may then go on to seek a social standard. 270 We perhaps look for reinforcement in a small group of like-minded. 271 We are a little perplexed and, it may be, aggrieved if other members of the circle do not love the one whom we love. 272 In such a group judgment of a common friend there is doubtless greater objectivity than in the economic judgment. 273 The value of a friend does not depend upon own adjustment to our wants. As

Aristotle pointed out, true friendship is for its own sake. Its value is "disinterested." 274 If a person does not care for an economic good it does not reflect upon the person. 275 You may be careless of futures, neglectful of corn, indifferent to steel. It lessens the demand, lowers the values of these goods, an infinitesimal, but does not write you down an inferior person. 276 To fail to prize a possible friend is a reflection upon us. However the fact that in the very nature of the case one can scarcely be a personal friend to a large, not to say a universal group, operates to limit the objectivity.

277 In the æsthetic and moral attitudes we incorporate value in the object decisively. 278 We do not like to think that beauty can be changed with shifting fashions or to affirm that the firmament was ever anything but sublime. 279 It seems to belong to the very essence of right that it is something to which the self can commit itself in absolute loyalty and finality. 280 And, as for good, we may say with Moore in judgments of intrinsic value, at least, 281 "we judge concerning a particular state of things that it would be worthwhile-- would be a good thing-- that that state of things should exist, even if nothing else were to exist besides."

282 With regard to this problem of objectivity it is significant in the first place that the kind of situation out of which this object value is affirmed in æsthetic and moral judgments is a social situation. It contrasts in this respect with the economic situation. 283 The economic is indeed social in so far as it sets exchange values, but the object valued is not a social object. 284 The æsthetic and moral object is such an object. Not only is there no contradiction in giving to the symbolic form or the moral act intrinsic value: there is entire plausibility in doing so. 285 For in so far as the situation is really personal, 'either member is fundamentally equal to the other and may be treated as embodying all the value of the situation'. 286 The value which rises to consciousness in the situation is made more complete by eliminating from consideration the originating factors, the plural agents of admiration or approval,

and incorporating the whole product abstractly in the object. 287 In thus calling attention to the social or personal character of the æsthetic or moral object it is not intended to minimise that factor in the judgment 288 which we properly speak of as the universalising activity of thought, much less to overlook the importance of the judgmental process itself. 289 The intention is to point out some of the reasons why in one case the thinking process does universalise while in the other it does not, why in one case the judgment is completely objective while in the other it is not. 290 In both æsthetic and moral judgments, social art, social action, social judgments, through collective decisions prepare the way for the general non-personal, objective form. 291 It is probable that human would not say, "This is right," using the word as an adjective, if you had not first said, as member of a judicially acting group, "This is right," using the word as a noun. 292 And finally whatever we may claim as to the "cognitive" nature of the æsthetic and moral judgment, the only test for the beauty of an object is that persons of taste discover it. 293 The only test for the rightness of an act is that persons of good character approve it. 294 The only test for goodness is that good persons on reflection approve and choose it-- just as the test for good persons is that they choose and do the good.

295 (3) Right is not merely a means to good but has a place of its own in the moral consciousness. 296 Many of our moral choices or judgments do not take the form of choice between right and wrong, or between duty and its opposite; they appear to be choices between goods. 297 That is, we do not always consider our value as crystallised into a present standard or feel a tension between a resisting and an authoritative self. But when they do emerge they signify a distinct factor. 298 What Moore says of good may be said also of right. Right means just "right," nothing else. 299 That is, we mean that acts so characterised correspond exactly to a self in a peculiar attitude, viz., one of adequate standardising and adjustment, of equilibrium, in

view of all relations. 300 The concept signifies that in finding our way into a moral world into which we are born in the process of valuing and judging, we take along the imagery of social judgment 301 in which through language and behaviour the individual is constantly adjusting own self, not only to the social institutions, and group organisation but far more subtly and unconsciously to the social consciousness and attitudes.

302 This conception of an order to which the act must refer has usually been regarded as peculiarly a "rational" factor. 303 It is, however, rather an order of social elements, of a nature of persons, than of a "nature of things." 304 In savage life the position of father, wife, child, guest, or other members of the household, is one of the most prominent facts of the situation. 305 The relationship of various totem groups and inter-marrying groups is the very focus of moral consciousness. 306 Even in the case of such a cosmic conception of order as Dike and Themis, Rita and Tao, the "Way" is not impersonal cosmos. It is at least quasi-personal. 307 And if we say such primitive myth has no bearing on what the "nature" of right or the "true" meaning of right is, it is pertinent to repeat that concepts without percepts are empty; 308 that the term means nothing except the conceptual interpretation of a unique synthetic process in which an act placed in relation to a standard is thereby given new meaning. 309 So long as custom or law forms the only or the dominant factor in the process, we have little development of the ideal concept right as distinct from a factual standard. 310 But when reason and intelligence enter, particularly when that creative activity of intelligence enters which attempts a new construction of ends, a new ordering of possible experience, then the standardising process is set free; 311 a new self with new possibilities of relation seeks expression.

312 The concept "right" reflects the standardising, valuing process of a synthetic order and a synthetic self. 313 Duty born similarly in the world of social relations and reflecting especially the tension

between the individual and the larger whole is likewise given full moral significance when it becomes a tension within the synthetic self. 314 And as thus reflecting the immediate attitudes of the self to an ideal social order both right and duty are not to be treated merely as means to any value which does not include as integrant factors just what these signify.

315 This view is contrary to that of Moore, for whom "right does and can mean nothing but 'cause of a good result,' and is thus identical with useful." 316 The right act is that which has the best consequences. 317 Similarly duty is that action which will cause more good to exist in the Universe than any possible alternative. 318 It is evident that this makes it impossible for any finite mind to assert confidently that any act is right or a duty. 319 "Accordingly it follows that we never have any reason to suppose that an action is our duty: we can never be sure that any action will produce the greatest value possible.

320 Whatever the convenience of such a definition of right and duty for a simplified ethics it can hardly be claimed to accord with the moral consciousness, for humans have notoriously supposed certain acts to be duty. 321 To say that a parent has no reason to suppose that it is your duty to care for your child is more than paradox. 322 And a still greater contradiction to the morality of common sense inheres in the doctrine that the right act is that which has the best consequences. 323 Considering all the good to literature and free inquiry which has resulted from the condemnation of Socrates it is highly probable-- or at least it is arguable-- that the condemnation had better results than an acquittal would have yielded. 324 But it would be contrary to our ordinary use of language to maintain that this made the act right. 325 Or to take a more recent case: the present war may conceivably lead to a more permanent peace. The "severities," practised by one party, may stir the other to greater indignation and lead ultimately to triumph of the latter. 326 Will the acts in question be termed right by the second party if they actually have this effect? 327 On this

hypothesis the more outrageous an act and the greater the reaction against it, the better the consequences are likely to be and hence the more reason to call the act right and a duty.

328 The paradox results from omitting from right the elements of the immediate situation and considering only consequences. 329 The very meaning of the concept right, implies focussing attention upon the present rather than upon the future. It suggests a cross-section of life in its relations. 330 If the time process were to be arrested immediately after our act I think we might still speak of it as right or wrong. 331 In trying to judge a proposed act we doubtless try to discover what it will mean, that is, we look at consequences. 332 But these consequences are looked upon as giving us the meaning of the present act and we do not on this account subordinate the present act to these consequences. 333 Especially we do not mean to eliminate the significance of this very process of judgment. 334 It is significant that in considering what are the intrinsic goods Moore enumerates personal affection and the appreciation of beauty, and with less positiveness, true belief, but does not include any mention of the valuing or choosing or creative consciousness.

335 (4) If we regard right as the concept which reflects the judgment of standardising our acts by some ideal order, questions arise as to the objectivity of this order and the fixed or moving character of the implied standard. 336 Rashdall lays great stress upon the importance of objectivity: 337 "Assuredly there is no scientific problem upon which so much depends as upon the answer we give to the question 338 whether the distinction which we are accustomed to draw between right and wrong belongs to the region of objective truth like the laws of mathematics and of physical science, 339 or whether it is based upon an actual emotional constitution of individual human beings." 340 The appraisement of the various desires and impulses by myself and other people is "a piece of insight into the true nature of things." 341 While these statements are primarily intended

to oppose the moral sense view of the judgment, they also bear upon the question whether right is something fixed. 342 The phrase "insight into the true nature of things" suggests at once the view that the nature of things is quite independent of any attitude of human beings toward it. 343 It is something which the seeker for moral truth may discover but nothing which one can in any way modify. 344 It is urged that if we are to have any science of ethics at all what was once right must be conceived as always right in the same circumstances.

345 I hold no brief for the position-- if any one holds the position-- that in saying "this is right" I am making an assertion about my own feelings or those of any one else. 346 As already stated the function of the judging process is to determine objects, with reference to which we say "is" or "is not." 347 The emotional theory of the moral consciousness does not give adequate recognition to this. 348 But just as little as the process of the moral consciousness is satisfied by an emotional theory of the judgment does it sanction any conception of objectivity which requires that values are here or there once for all; 349 that they are fixed entities or "a nature of things" upon which the moral consciousness may look for its information but upon which it exercises no influence. 350 The process of attempting to give-- or discover-- moral values is a process of mutual determination of object and agent. 351 We have to do in morals not with a nature of things but with natures of persons. 352 The very characteristic of a person as we have understood it is that you are synthetic, is actually creating something new by organising experiences and purposes, by judging and choosing. 353 Objectivity does not necessarily imply changelessness.

354 Whether right is a term of fixed and changeless character depends upon whether the agents are fixed units, either in fact or in ideal. 355 If, as we maintain, right is the correlate of a self confronting a world of other persons conceived as all related in an order, the vital question is whether this order is a fixed or a moving order. 356 "Straight" is a

term of fixed content just because we conceive space in timeless terms; it is by its very meaning a cross-section of a static order. 357 But a world of living intelligent agents in social relations is in its very presuppositions a world of activity, of mutual understanding and adjustment. 358 Rationalistic theory, led astray by geometrical conceptions, conceived that a universal criterion must be like a straight line, a fixed and timeless-- or eternal-- entity. 359 But in such an order of fixed units there could be no selection, no adjustment to other changing agents, no adventure upon the new untested possibility which marks the advance of every great moral idea, in a word, no morality of the positive and constructive sort. 360 And if it be objected that the predicate of a judgment must be timeless whatever the subject, that the word "is" as Plato insists cannot be used if all flows, 361 we reply that if right the correlate of a moving order, of living social intelligent beings, it is quite possible to affirm "This is according to that law." 362 If our logic provides no form of judgment for the analysis of such a situation it is inadequate for the facts which it would interpret. 363 But in truth humankind's moral judgments have never committed themselves to any such implication. 364 We recognise the futility of attempting to answer simply any such questions as whether the Israelites did right to conquer Canaan or Hamlet to avenge his father.

365 (5) The category of right has usually been closely connected, if not identified, with reason or "cognitive" activity as contrasted with emotion. 366 Professor Dewey on the contrary has pointed out clearly the impossibility of separating emotion and thought. 367 "To put ourselves in the place of another ... is the surest way to attain universality and objectivity of moral knowledge." 368 "The only truly general, the reasonable as distinct from the merely shrewd or clever thought, is the 'generous' thought." 369 But in the case of certain judgments such as those approving fairness and the general good Sidgwick finds a rational intuition. 370 "The principle of impartiality is obtained by

considering the similarity of the individuals that make up a Logical Whole or Genus." 371 Rashdall challenges any but a rationalistic ethics to explain fairness as contrasted with partiality of affection.

372 There is without question a properly rational or intellectual element in the judgment of impartiality, namely, analysis of the situation and comparison of the units. 373 But what we shall set up as our units-- whether we shall treat the gentile or the barbarian or negro as a person, as end and not merely means, or not, depends on something quite other than reason. 374 And this other factor is not covered by the term "practical reason." 375 In fact no ethical principle shows better the subtle blending of the emotional and social factors with the rational. 376 For the student of the history of justice is aware that only an extraordinarily ingenious exegesis could regard justice as having ever been governed by a mathematical logic. 377 The logic of justice has been the logic of a we-group gradually expanding its area. Or it has been the logic of a Magna Charta-- 378 a document of special privileges wrested from a superior by a strong group, and gradually widening its benefits with the admission of others into the favoured class. 379 Or it has been the logic of class, in which those of the same level are treated alike but those of different levels of birth or wealth are treated proportionately. 380 Yet it would seem far-fetched to maintain that the countrymen of Euclid and Aristotle were deficient in the ability to perform so simple a reasoning process as the judgment one equals one, 381 or that people who developed the Roman Law, or built the cathedrals of the Middle Ages, were similarly lacking in elementary analysis. 382 Inequality rather than equality has been the rule in the world's justice. It has not only been the practice but the approved principle. It still is in regard to great areas of life. 383 In the United States there is no general disapproval of the great inequalities in opportunity for children, to say nothing of inequalities in distribution of wealth. 384 In England higher education is for the classes rather

than for the masses. 385 In Prussia the inequality in voting strength of different groups and the practical immunity of the military class from the constraints of civil law seem to an American unfair. 386 The western states of the Union think it unfair to restrict the suffrage to males and give women no voice in the determination of matters of such vital interest 387 to them as the law of divorce, the guardianship of children, the regulation of women's labour, the sale of alcoholic liquors, the protection of milk and food supply. 388 Are all these differences of practice and conviction due to the fact that some people use reason while others do not? 389 Of course in every case excellent reasons can be given for the inequality. 390 The gentile should not be treated as a Jew because you are not a Jew. The slave should not be treated as a free citizen because you are not a free citizen. The churl should not have the same wergeld as the thane because you are lowborn. 391 The more able should possess more goods. The woman should not vote because she is not a man. 392 The reasoning is clear and unimpeachable if you accept the premises, but what gives the premises? 393 In every case cited the premise is determined largely if not exclusively by social or emotional factors. 394 If reason can then prescribe equally well that the slave should be given rights because you are a man of similar traits or denied rights because you have different traits from your master, 395 if the Jew may either be given own place of equality because you hath eyes, hands, organs, dimensions, senses, affections, passions, or denied equality because you differs in descent, 396 if a woman is equal as regards taxpaying but unequal as regards voting, it is at least evident that reason is no unambiguous source of morality. 397 The devil can quote Scripture and it is a very poor reasoner who cannot find a reason for anything that you wishes to do. 398 A partiality that is more or less consistently partial to certain sets or classes is perhaps as near impartiality as human has yet come, whether by a rational faculty or any other.

399 Is it, then, the intent of this argument merely to reiterate that reason is and ought to be the slave of the passions? 400 On the contrary, the intent is to substitute for such blanket words as reason and passions a more adequate analysis. And what difference will this make? 401 As regards the particular point in controversy it will make this difference: 402 the rationalist having smuggled in under the cover of reason the whole moral consciousness then proceeds to assume that because two and two are always four, or the relations of a straight line are timeless, therefore ethics is similarly a matter of fixed standards and timeless goods. 403 A legal friend told me that he once spent a year trying to decide whether a corporation was or was not a person and then concluded that the question was immaterial. 404 But when the supreme court decided that a corporation was a person in the meaning of the Fourteenth Amendment it thereby made the corporation heir to the rights established primarily for the negro. 405 Can the moral consciousness by taking the name "reason" become heir to all the privileges of the absolute idea and to the timelessness of space and number?

406 Suppose I am to divide an apple between my two children-- two children, two pieces-- this is an analysis of the situation which is obvious and may well be called the analytic activity of reason. 407 But shall I give to each an equal share on the ground that both are equally my children or shall I reason that as John is older or larger or hungrier or mentally keener or more generous or is a male, he shall have a larger piece than Jane? 408 To settle this it may be said that we ought to see whether there is any connection between the size of the piece and the particular quality of John which is considered, 409 or that by a somewhat different use of reason we should look at the whole situation and see how we shall best promote family harmony and mutual affection. 410 To settle the first of these problems, that of the connection between the size of the piece and the size of the hunger or the sex of the child, is seemingly again a question of analysis, of

finding identical units, 411 but a moment's thought shows that the case is not so simple; that the larger child should have the larger piece is by no means self-evident. 412 This is in principle doubtless the logic, to one that hath shall be given. It is the logic of the survival of the strong, 413 but over against that the moral consciousness has always set another logic which says that the smaller child should have the larger piece if thereby intelligent sympathy can contribute toward evening up the lot of the smaller. 414 Now it is precisely this attitude of the moral consciousness which is not suggested by the term reason, for it is quite different from the analytic and identifying activity. 415 This analytical and identifying activity may very well rule out of court the hypothesis that I should give John the larger piece because he has already eaten too much or because he has just found a penny or because he has red hair; 416 it has undoubtedly helped in abolishing such practices as that of testing innocence by the ordeal. 417 But before the crucial question of justice which divides modern society, namely, whether we shall lay emphasis upon adjustment of rewards to previous abilities, habits, possessions, character, 418 or shall lay stress upon needs, and the possibility of bringing about a greater measure of equality, the doctrine which would find its standard in an 'a priori' reason is helpless.

419 If we look at the second test suggested, namely, that of considering the situation as a whole with a view to the harmony of the children and the mutual affection within the family, 420 there can be even less question that this is no mere logical problem of the individuals in a logical genus. 421 It is the social problem of individuals who have feelings and emotions as well as thought and will. 422 The problem of distributing the apple fairly is then a complex in which at least the following processes enter. 423 (1) Analysis of the situation to show all the relevant factors with the full bearing of each; 424 (2) putting yourself in the place of each one to be considered and experiencing to the full the claims, the difficulties and the purposes of

each person involved; 425 (3) considering all of these 'as' members of the situation so that no individual is given rights or allowed claims except in so far as one represents a point of view which is comprehensive and sympathetic. 426 This I take it is the force of President Wilson's utterance which has commanded such wide acceptance: "America asks nothing for herself except what she has a right to ask in the name of humanity." 427 Kant aimed to express a high and democratic ideal of justice in his doctrine that we should treat every rational being as end. 428 The defect in his statement is that the rational process as such has never treated and so far as can be foreseen never will treat 'human' beings as ends. 429 To treat a human being as an end it is necessary to put oneself into other’s place in other’s whole nature and not simply in other’s universalising, and legislative aspects: 430 Kant's principle is profound and noble, but his label for it is misleading and leaves a door open for appalling disregard of other people's feelings, sympathies, and moral sentiments, 431 as Professor Dewey has indicated in his recent lectures on "*German Philosophy and Politics*."

432 The term "reasonable," which is frequently used in law and common life as a criterion of right, seems to imply that reason is a standard. 433 As already stated, common life understands by the reasonable person one who not only uses own thinking powers but is willing to listen to reason as presented by some one else. You makes allowance for frailties in human nature. 434 To be reasonable means, very nearly, taking into account all factors of the case not only as I see them but as people of varying capacities and interests regard them. 435 The type of the "unreasonable" employer is the person who refuses to talk over things with the labourers; to put own self in their place; or to look at matters from the point of view of society as a whole.

436 Just as little does the term reasonable as used in law permit a purely intellectualistic view of the process or an 'a priori' standard. 437 The question as to what is

reasonable care or a reasonable price is often declared to be a matter not for the court but for the jury to decide, 438 i.e., it is not to be deduced from any settled principle but is a question of what the average thoughtful person, who considers other people as well as own self, would do under the circumstances. 439 A glance at some of the judicial definitions of such phrases as "reasonable care," "reasonable doubt," "reasonable law," as brought together in 'Words and Phrases Judicially Defined', illustrates this view. 440 We get a picture not of any definite standard but of such a process as we have described in our analysis, 441 namely, a process into which the existing social tradition, the mutual adjustments of a changing society and the intelligent consideration of all facts, enter. 442 The courts have variously defined the reasonable (1) as the customary, or ordinary, or legal, or (2) as according with the existing state of knowledge in some special field, or (3) as proceeding on due consideration of all the facts, or (4) as offering sufficient basis for action. 443 For example, (1) reasonable care means "according to the usages, habits, and ordinary risks of the business," 444 (2) "surgeons should keep up with the latest advances in medical science," 445 (3) a reasonable price "is such a price as the jury would under all the circumstances decide to be reasonable." 446 "If, after an impartial comparison and consideration the jury can say candidly they are not satisfied with the defendant's guilt they have a reasonable doubt." 447 Under (4) falls one of various definitions of "beyond reasonable doubt." 448 "The evidence must be such as to produce in the minds of prudent people such certainty that they would act without hesitation in their own most important affairs." 449 There is evidently ground for the statement of one judge that "reasonable" (he was speaking the phrase "reasonable care," but his words would seem to apply to other cases) "cannot be measured by any fixed or inflexible standard." 450 Professor Freund characterises "reasonable" as "the negation of precision." 451 In the development of judicial

interpretation as applied to the Sherman Law the tendency is to hold that the "rule of reason" will regard as forbidden by the statute ('a') such combinations as have historically been prohibited and ('b') such as seem to work some definite injury.

III

452 The above view of the function of intelligence, and of the synthetic character of the conscious process may be further defined in certain aspects by comparison with the view of Professor Fite, 453 who likewise develops the significance of consciousness and particularly of intelligence for our ethical concepts and social program.

454 Professor Fite insists that in contrast with the "functional psychology" which would make consciousness merely a means to the preservation of the organic individual in mechanical working order, 455 the whole value of life from the standpoint of the conscious agent consists in its being conscious. 456 Creative moments in which there is complete conscious control of materials and technique represent high and unique individuality. 457 Extension of range of consciousness makes the agent "a larger and more inclusive being," for you are living in the future and past as well as in the present. 458 Consciousness means that a new and original force is inserted into the economy of the social and the physical world." 459 On the basis of the importance of consciousness Professor Fite would ground his justification of rights, his conception of justice, and his social program. 460 The individual derives own rights simply from the fact that you knows what you are doing, hence as individuals differ in intelligence they differ in rights. 461 The problem of justice is that of according to each a degree of recognition proportioned to your intelligence, that is, treat others as ends so far as they are intelligent; so far as they are ignorant treat them as means. 462 "The conscious individual when dealing with other conscious individuals will take account of their aims, as of other factors in own situation. 463 This will involve 'adjustment,' but not abandonment of ends, i.e., self-

sacrifice. 464 Obligation to consider these ends of others is based on 'the same logic that binds me to get out of the way of an approaching train.'"

465 The point in which the conception of rights and justice and the implied social program advocated in this paper differs as I view it from that of Professor Fite is briefly this. 466 I regard both the individual and your rights as essentially synthetic and in constant process of reconstruction. 467 Therefore what is due to any individual at a moment is not measured by your present stage of consciousness. It is measured rather by your possibilities than your actualities. 468 This does not mean that the actual is to be ignored, but it does mean that if we take our stand upon the actual we are committed to a program with little place for imagination, 469 with an emphasis all on the side of giving people what they deserve rather than of making them capable of deserving more. 470 Professor Fite's position I regard as conceiving consciousness itself too largely in the category of the identical and the static rather than in the more "conscious" categories of constant reconstruction. 471 When by virtue of consciousness you conceive new ends in addition to your former particular ideas of present good the problem is, you says, "to secure perfect fulfillment of each of them." 472 The "usefulness" or "advantage" or "profitableness" of entering into social relations is the central category for measuring their value and their obligation.

473 Now the conception of securing perfect fulfillment of all one's aims by means of society rather than of putting one's own aims into the process for reciprocal modification and adjustment 474 with the aims of others and of the new social whole involves a view of these ends as fixed, an essentially mechanical view. 475 The same is the implication in considering society from the point of view of use and profit. 476 As previously suggested these economic terms apply appropriately to things rather than to intrinsic values. 477 To consider the uses of a fellow-being is to measure others in terms of some other end than your own intrinsic

personal worth. 478 To consider family life or society as profitable implies in ordinary language that such life is a means for securing ends already established 479 rather than that it 'proves' a good to the person who invests in it and thereby becomes own self a new individual with a new standard of values. 480 Any object to be chosen must of course have value to the chooser. 481 But it is one thing to be valued because it appeals to the actual chooser as already constituted; it is another thing to be valued because it appeals to a moving self which adventures upon this new unproved objective. 482 This second is the distinction of taking an interest instead of being interested.

483 The second point of divergence is that Professor Fite lays greater stress upon the intellectual side of intelligence, 484 whereas I should deny that the intellectual activity in itself is adequate to give either a basis for obligation or a method of dealing with the social problem. 485 The primary fact, as Professor Fite well states it, is "that humans are conscious beings and therefore know themselves and one another." 486 It involves "a mutual recognition of personal ends." "That very knowledge which shows the individual own self shows you also that you are living in a world with other persons 487 and other things whose mode of behaviour and whose interests determine for you the conditions through which your own interests are to be realised."

488 What kind of "knowledge" is it "which shows the individual own self"? 489 Professor Fite has two quite different ways of referring to this. He uses one set of terms when he would contrast his view with the sentimental, 490 or the "Oriental," or justify exploitation by those who know better what they are about than the exploited. 491 He uses another set of terms to characterise it when he wishes to commend his view as human, and fraternal, and as affording the only firm basis for social reform. 492 In the first case he speaks of "mere knowing"; of intelligence as "clear," and "far-sighted," of higher degrees of consciousness as simply "more in one." 493 "Our test of intelligence would be

breadth of vision (in a coherent view), fineness and keenness of insight."

494 In the second case it is "generous," it will show an "intelligent sympathy"; 495 it seeks "fellowship," and would not "elect to live in a social environment in which the distinction of 'inferiors' were an essential part of the idea." 496 The type of intelligence is found not in the person seeking wealth or power, nor in the legal acumen which forecasts all discoverable consequences and devises means to carry out purposes, but in literature and art.

497 The terms which cover both these meanings are the words "consider" and "considerate." "Breadth of consideration" gives the basis for rights. The selfish person is the "inconsiderate." 498 This term plays the part of the 'amor intellectualis' in the system of Spinoza, which enables him at once to discard all emotion and yet to keep it. 499 For "consideration" is used in common life, and defined in the dictionaries, as meaning both "examination," "careful thought," and "appreciative or sympathetic regard." 300 The ambiguity in the term may well have served to disguise from the author the double rôle which intelligence is made to play. 301 The broader use is the only one that does justice to the moral consciousness, but we cannot include sympathy and still maintain that "mere knowing" covers the whole. 302 The insistence at times upon the "mere knowing" is a mechanical element which needs to be removed before the ethical implications can be accepted.

303 Once more, how does one know own self and others? Is it the same process precisely as knowing a mechanical object? 304 Thoughts without percepts are empty, and what are the "percepts" in the two cases? 305 In the first case, that of knowing things, the percepts are colours, sounds, resistances; in the case of persons the percepts are impulses, feelings, desires, passions, as well as images, purposes, and the reflective process itself. 306 In the former case we construct objects dehumanised; in the latter we keep them more or less concrete. 307 But now, just as primitive human

did not so thoroughly de-personalise Nature, but left in it an element of personal aim, 308 so science may view human beings as objects whose purposes and even feelings may be predicted, and hence may, as Professor Fite well puts it, view them mechanically. 309 What he fails to note is that just this mechanical point of view is the view of "mere knowing"-- if "mere" has any significance at all, it is meant to shut out "sentiment." 310 And this mechanical view is entirely equal to the adjectives of "clear," "far-sighted," and even "broad" so far as this means "more in one." 311 For it is not essential to a mechanical point of view that we consider people in masses or study them by statistics. 312 I may calculate the purposes and actions, yes, and the emotions and values of one, or of a thousand, and be increasingly clear, and far-sighted, and broad, but if it is "mere" knowing-- scientific information-- it is still "mechanical," i.e., external. 313 On the other hand, if it is to be a knowledge that has the qualities of humaneness, or "intelligent sympathy," it must have some of the stuff of feeling, 314 even as in the realm of things an artist's forest will differ from that of the most "far-sighted," "clear," and "broad" statistician, by being rich with colour and moving line.

315 And this leads to a statement of the way in which my fellow-beings will find place in "my" self. 316 I grant that if they are there I shall take some account of them. But they may be there in all sorts of ways. 317 They may be there as "population" if I am a statistician, or as "consumers," or as rivals, or as enemies, or as fellows, or as friends. 318 They will have a "value" in each case, but it will sometimes be a positive value, and sometimes a negative value. 319 Which it will be, and how great it will be, depends not on the mere fact of these objects being "in consciousness" but on the capacity in which they are there. 320 And this capacity depends on the dominant interest and not on mere knowing. 321 The trouble with the selfish person, says Professor Fite, is that you "fails to consider," "you fails to take account of me." 322 Well, then, 'why' does you fail? 'Why' does you not take account of

me? 323 You probably does "consider" me in several of the ways that are possible and in the ways that it suits you to consider me. 324 I call you selfish because you does not consider me in the one particular way in which I wish to be considered. 325 And what will get me into your consideration from this point of view? 326 In some cases it may be that I can speak: "Sir, you are standing on my toe," and as the message encounters no obstacle in any fixed purpose or temperamental bent the idea has no difficulty in penetrating your mind. 327 In other cases it may interfere with your desire to raise yourself as high as possible, 328 but I may convince you by the same logic as that of an"approaching railway train"-- that you must regard me. 329 In still other cases-- and it is these that always test Individualism-- I am not myself aware of the injury, or I am too faint to protest. 330 How shall those who have no voice to speak get "consideration"? Only by "intelligent sympathy," and by just those emotions rooted in instinctive social tendencies which an intellectualistic Individualism excludes or distrusts.

IV

331 What practical conclusion, if any, follows from this interpretation of the moral consciousness and its categories? 332 Moral progress involves both the formation of better ideals and the adoption of such ideals as actual standards and guides of life. 333 If our view is correct we can construct better ideals neither by logical deduction nor solely by insight into the nature of things-- if by this we mean things as they are. 334 We must rather take as our starting-point the conviction that moral life is a process involving physical life, social intercourse, measuring and constructive intelligence. 335 We shall endeavour to further each of these factors with the conviction that thus we are most likely to reconstruct our standards and find a fuller good.

336 Physical life, which has often been depreciated from the moral point of view, is not indeed by itself supreme, 337 but it is certain that much evil charged to a bad

will is due to morbid or defective conditions of the physical organism. 338 One would be ashamed to write such a truism were it not that our juvenile courts and our prison investigations show how far we are from having sensed it in the past. 339 And our present labour conditions show how far our organisation of industry is from any decent provision for a healthy, sound, vigorous life of all the people. 340 This war is shocking in its destruction, but it is doubtful if it can do the harm to Great Britain that her factory system has done. 341 And if life is in one respect less than ideals, in another respect it is greater; for it provides the possibility not only of carrying out existing ideals but of the birth of new and higher ideals.

342 Social interaction likewise has been much discussed but is still very inadequately realised. 343 The great possibilities of coöperation have long been utilised in war. 344 With the factory and commercial organisation of the past century we have hints of their economic power. 345 Our schools, books, newspapers, are removing some of the barriers. But how far different social classes are from any knowledge, not to say appreciation, of each other! 346 How far different races are apart! How easy to inculcate national hatred and distrust! 347 The fourth great problem which baffles Wells's hero in the 'Research Magnificent' is yet far from solution. 348 The great danger to morality in America lies not in any theory as to the subjectivity of the moral judgment, but in the conflict of classes and races.

349 Intelligence and reason are in certain respects advancing. The social sciences are finding tools and methods. 350 We are learning to think of much of our moral inertia, our waste of life, our narrowness, our muddling and blundering in social arrangements, as stupid-- 351 we do not like to be called stupid even if we scorn the imputation of claiming to be "good." 352 But we do not organise peace as effectively as war. We shrink before the thought of expending for scientific investigation sums comparable with those used for military purposes. 353 And is scholarship entitled to shift the blame entirely

upon other interests? Perhaps if it conceived its tasks in greater terms and addressed itself to them more energetically it would find greater support.

354 And finally the process of judgment and appraisal, of examination and revaluation. To judge for the sake of judging, to analyse and evaluate for the sake of the process hardly seems worthwhile. 355 But if we supply the process with the new factors of increased life, physical, social, intelligent, we shall be compelled to new valuations. 356 Such has been the course of moral development; we may expect this to be repeated. 357 The great war and the changes that emerge ought to set new tasks for ethical students. 358 As medievalism, the century of enlightenment, and the century of industrial revolution, each had its ethics, so the century that follows ought to have its ethics, 359 roused by the problem of dealing fundamentally with economic, social, racial, and national relations, and using the resources of better scientific method than belonged to the ethical systems which served well their time.

360 Only willful misinterpretation will suppose that the method here set forth is that of taking every want or desire as itself a final justification, or of making morality a matter of arbitrary caprice. 361 But some may in all sincerity raise the question: "Is morality then after all simply the shifting mores of groups stumbling forward-- or backward, or sidewise-- with no fixed standards of right and good? 362 If this is so how can we have any confidence in our present judgments, to say nothing of calling others to an account or of reasoning with them?" 363 What we have aimed to present as a moral method is essentially this: to take into our reckoning all the factors in the situation, to take into account the other persons involved, to put ourselves into their places by sympathy as well as conceptually, 364 to face collisions and difficulties not merely in terms of fixed concepts of what is good or fair, and what the right of each party concerned may be, 365 but with the conviction that we need new

definitions of the ideal life, and of the social order, and thus reciprocally of personality. 366 Thus harmonised, free, and responsible, life may well find new meaning also in the older intrinsic goods of friendship, æsthetic appreciation and true belief. 367 And it is not likely to omit the satisfaction in actively constructing new ideals and working for their fulfillment.

368 Frankly, if we do not accept this method what remains? Can any one by pure reason discover a single forward step in the treatment of the social situation or a single new value in the moral ideal? 369 Can any analysis of the pure concept of right and good teach us anything? 370 In the last analysis the moral judgment is not analytic but synthetic. The moral life is not natural but spiritual. And spirit is creative.

VALUE AND EXISTENCE IN PHILOSOPHY, ART, AND RELIGION

Horace M. Kallen

I

8 You who assiduously compares the profound and the commonplace will find their difference to turn merely on the manner of their expression; 2 a profundity is a commonplace formulated in strange or otherwise obscure and unintelligible terms. 3 This must be my excuse for beginning with the trite remark that the world we live in is not one which was made for us, but one in which we happened and grew. 4 I am much aware that there exists a large and influential class of persons who do not think so; and I offer this remark with all deference to devotees of idealism, 5 and to other such pietists who persist in arguing that the trouble which we do encounter in this vale of tears springs from the inwardness of our own natures and not from that of the world. 6 I wish, indeed, that I could agree with them, but unhappily their very arguments prevent me, since,

if the world were actually as they think it, they could not think it as they do. 7 In fact, they could not think. Thinking-- worse luck!-- came into being as response to discomfort, to pain, to uncertainty, to problems, such as could not exist in a world truly made for us; 8 while from time immemorial 'pure' as distinct from human consciousness has been identified with absolute certainty, with self-absorption and self-sufficiency; as a god, a goal to attain, not a fact to rest in. 9 It is notable that those who believe the world actually to have been made for us devote most of their thinking to explaining away the experiences which have made all humans feel that the world was actually not made for us. 10 Their chief business, after proving the world to be all good, is solving "the problem of evil." 11 Yet, had there really been no evil, this evil consequence could not have ensued: existence would have emerged as beatitude and not as adjustment; 12 thinking might in truth have been self-absorbed contemplation, blissful intuition, not painful learning by the method of trial and error.

13 Alas that what "might have been" cannot come into being by force of discursive demonstration! 14 If it could, goodness alone would have existed and been real, and evil would have been non-existence, unreality, and appearance-- all by the force of the Word. 15 As it is, the appearance of evil is in so far forth no less an evil than its reality; in truth, it is reality and its best witnesses are the historic attempts to explain it away. 16 For even as "appearance" it has a definite and inexpugnable character of its own which cannot be destroyed by subsumption under the "standpoint of the whole," "the absolute good," the "over-individual values." 17 Nor, since only sticks and stones break bones and names never hurt, can it be abolished by the epithet "appearance." 18 To deny reality to evil is to multiply the evil. It is to make two "problems" grow where only one grew before, 19 to add to the "problem of evil" the "problem of appearance" without serving any end toward the solution of the

real problem how evil can be effectively abolished.

20 I may then, in view of these reflections, hold myself safe in assuming that the world we live in was not made for us; that, humanly speaking, it is open to improvement in a great many directions. 21 It will be comparatively innocuous to assume also, as a corollary, that in so far as the world was made for mind, it has been made so by human, that civilisation is the adaptation of Nature to human nature. 22 And as a second corollary it may be safely assumed that the world does not stay made; civilisation has brought its own problems and peculiar evils.

23 I realise that, in the light of my title, much of what I have written above must seem irrelevant, since the "problem of evil" has not, within the philosophic tradition, been considered part of a "problem of values" as such. 24 If I dwell on it, I do so to indicate that the "problem of evil" can perhaps be best understood in the light of another problem: the problem, namely, of why humans have created the "problem of evil." 25 For obviously, evil can be problematic only in an absolutely good world, and the idea that the world is absolutely good is not a generalisation 'upon' experience, but a contradiction 'of' experience. 26 If there exists a metaphysical "problem of evil," hence, it arises out of this generalisation; it is secondary, not primary; and the primary problem requires solution before the secondary one can be understood. 27 And what else, under the circumstances, can the primary one be than this: "Why do humans contradict their own experience?"

II

28 So put, the problem suggests its own solution. 29 It indicates, first of all, that Nature and human nature are not completely compatible, that consequently, conclusions are being forced by Nature on human nature which human nature resents and rejects, 30 and that traits are being assigned to Nature by human nature which Nature does not possess, but which, if possessed, would make Her congenial to human needs. 31 All this is so

platitudinous that I feel ashamed to write it; but then, how can one avoid platitudes without avoiding truth? 32 And truth here is the obvious fact that since human nature is the point of existence to which good and evil refer, what is called value has its seat necessarily in human nature, 33 and what is called existence has its seat necessarily in the nature of which human nature is a part and apart. 34 Value, in so far forth, is a content of Nature, having its roots in Her conditions and its life in Her force, while the converse is not true. 35 All nature and all existence is not spontaneously and intrinsically a content of value. Only that portion of it which is human is such. 36 Humanly speaking, non-human existences become valuable by their efficacious bearing on humanity, by their propitious or their disastrous relations to human consciousness. 37 It is these relations which delimit the substance of our goods and evils, and these, at bottom, are indistinguishable from consciousness. 38 They do not, need not, and cannot connect all existence with human life. They are inevitably implicated only with those which make human life possible at all. 39 Of the environment, they pertain only to that portion which is fit by the implicated conditions of life itself. 40 It may therefore be said that natural existence produces and sustains some values,-- at least the minimal value which is identical with the bare existence of humankind-- on its own account, but no more. 41 The residual environment remains-- irrelevant and menacing, wider than consciousness and independent of it. 42 Value, hence, is a specific kind of natural existence among other existences. To say that it is non-existent in Nature, is to say that value is not coincident and coexistent with other existences, 43 just as when it is said that a thing is not red, the meaning is that red is not copresent with other qualities. 44 Conversely, to say that value exists in Nature is to say that Nature and human nature, things and thoughts, are in some respect harmonious or identical. 45 Hence, what human nature tries to force upon Nature must be, by

implication, non-existent in Nature but actual in mind, so that then nature of value must be held inseparable from the nature of mind.

46 It follows that value is, in origin and character, completely irrational. 47 At the foundations of our existence it is relation of their conditions and objects to our major instincts, our appetites, our feelings, our desires, our ambitions-- 48 most clearly, to the self-regarding instinct and the instincts of nutrition, reproduction, and gregariousness. 49 Concerning those, as William James writes, "Science may come and consider their ways and find that most of them are useful. 50 But it is not for the sake of their utility that they are followed, but because at the moment of following them we feel that it is the only appropriate and natural thing to do. 51 Not a person in a billion when taking own dinner, ever thinks of utility. You eats because the food tastes good and makes you want more. 52 If I ask you why you should want to eat more of what tastes like that, instead of revering you as a philosopher, you will probably laugh at me for a fool. 53 The connection between the savory sensation and the act it awakens is for you absolute and 'selbstverständlich', an 'a priori' synthesis of the most perfect sort, needing no proof but its own evidence.... 54 To the metaphysician alone can such questions occur as 'Why do we smile when pleased, and not scowl? 55 Why are we unable to talk to a crowd as we talk to a single friend? Why does a particular maiden turn our wits upside down?' 56 The common person can only say "of course' we smile, 'of course' our heart palpitates at the sight of a crowd, 57 'of course' we love the maiden, that beautiful soul clad in that perfect form, so palpably and flagrantly made from all eternity to be loved.' 58 And so, probably, does each animal feel about the particular things it tends to do in the presence of particular objects.... 59 To the broody hen the notion would probably seem monstrous that there should be a creature in the world to whom a nestful of eggs was not the utterly fascinating and precious and

never-to-be-too-much-set-upon object it is to her." 60 In sum, fundamental values are relations, responses, attitudes, immediate, simple, subjectively obvious, and irrational. But everything else becomes valuable or rational only by reference to them.

61 Study them or others empirically, and they appear as types of specific behaviour, simple or complicated, 62 consisting of a given motor "set" of the organism, strong emotional tone, and aggregates of connected ideas, more or less systematised. 63 In the slang of the new medical psychology which has done so much to uncover their method and mechanism, they are called "complexes"; ethics has called them interests, and that designation will do well enough. 64 They are the primary and morally ultimate efficacious units of which human nature is compounded, 65 and it is in terms of the world's bearing upon their destiny that we evaluate Nature and judge Her significance and worth.

66 Now in interest, the important delimiting quality is emotional tone. Whatever else is shareable, that is not. 67 It is the very stuff of our attitudes, of our acceptances and rejections of the world and its contents, the very essence of the relations we bear to these. 68 That these relations shall be identical for any two human beings requires that the two shall be identical: 69 two persons cannot hold the same relation to the same or different objects any more than two objects can occupy absolutely the same space at the same time. Hence, all our differences and disagreements. 70 However socially-minded we may be, mere numerical diversity compels us to act as separate centers, to value things with reference to separate interests, to orient our worlds severally, and with ourselves as centers. 71 This orienting is the relating of the environment to our interests, the establishment of our worlds of appreciation, the creation of our orders of value. 72 However much these cross and inter-penetrate, coincide they never can.

73 Our interests, furthermore, are possibly as numerous as our reflex arcs. 74 Each may, and most do, constitute distinct and independent

valuations of their objects, to which they respond, and each, with these objects, remains an irreducible system. 75 But reflex arcs and interests do not act alone. They act like armies; 76 they compound and are integrated, and when so integrated their valuations fuse and constitute the more complex and massive feelings, pleasures and pains, the emotions of anger, of fear, of love; the sentiments of respect, of admiration, of sympathy. 77 They remain, through all degrees of complexity, appraisements of the environment, reactions upon it, behaviour toward it, as subject to empirical examination by the psychologist as the environment itself by the physicist.

78 With a difference, however, a fundamental difference. When you have an emotion you cannot yourself examine it. 79 Effectively as the mind may work in sections, it cannot with sanity be divided against itself nor long remain so. A feeling cannot be had and examined in the same time. 80 And though the investigator who studies the nature of red does not become red, the investigator who studies the actual emotion of anger does tend to become angry. 81 Emotion is infectious; anger begets anger; fear, fear; love, love; hate, hate; actions, relations, attitudes, when actual, integrate and fuse; 82 as feelings, they constitute the sense of behaviour, varying according to a changing and unstable equilibrium of factors 'within' the organism; 83 they are actually underneath the skin, and consequently, to know them alive is to have them. On the other hand, to know 'things' is simply to have a relation to them. 84 The same thing may be both loved and hated, desired or spurned, by different minds at the same time or by the same mind at different times. 85 One, for example, values whiskey positively, approaches, absorbs it, aims to increase its quantity and sale; another apprehends it negatively, turns from it, strives to oust it from the world. 86 Then, according to these direct and immediate valuations of whiskey, its place in the common world of the two minds will be determined. To save or destroy it, they may seek to destroy each other. 87 Even similar positive valuations of the

object might imply this mutual repugnance and destruction. 88 Thus, rivals in love: they enhance and glorify the same woman, but as she is not otherwise shareable, they strive to eliminate each other. 89 Throughout the world of values the numerical distinctness of the seats or centers of value, whatever their identity otherwise, keeps them ultimately inimical. 90 They may terminate in the common object, but they originate in different souls and they are related to the object like two magnets of like polarity to the same piece of iron that lies between them. 91 Most of what is orderly in society and in science is the outcome of the adjustment of just such oppositions: 92 our civilisation is an unstable equilibrium of objects, through the coöperation, antipathy, and fusion of value-relations.

93 Individuals are no better off; personality is constructed in the same way. If, indeed, the world had been made for us, we might have been spared this warfare to human upon earth. 94 Life might have been the obvious irrational flow of bliss so vividly described by William James; 95 Nature and human nature would have been one; bridging the gulf between them would never have been the task of the tender-minded among philosophers. 96 Unfortunately our mere numerical difference, the mere numerical difference of the interests which compose our egos, makes the trouble, so that we are compelled to devote most of our lives to converting the different into the same. 97 The major part of our instincts serve this function recognisably, e.g., nutrition, and the "higher powers" do so no less, if not so obviously. generalisation is nothing more, thinking nothing else. 98 It is the assimilation of many instances into one form, law, or purpose; the preservation of established contents of value, 99 just as nutrition is the preservation of life by means of the conversion of foreign matter into the form and substance of the body. 100 By bowels and by brain, what is necessary, what will feed the irrationally given interest, is preserved and consumed: the rest is cast off as waste, as irrelevance, as contradiction.

101 The relation may, of course, also reverse itself. Face to face with the immovable and inexorable, the mind may accept it with due resignation, or it may challenge its tyranny and exclude it from its world. 102 It may seek or create or discover a substitute that it is content to accept, though this will in turn alter the course and character of the interest which in such an instance defines the mind's action. 103 Thus, a way out for one of the lovers of the same girl might be to become a depressed and yearning bachelor, realising his potential sexuality in the vicarious reproduction of reverie and sentiment; 104 another might be to divert the stream of his affections to another girl, re-organising his life about a different center and acquiring a new system of practical values determined by this center; 105 a third might be a complete redirection of his sexual energies upon objects the interest in which we would call, abnormal and anti-social in one case, and in another lofty and spiritual. 106 In the latter case sexuality would have been depersonalised; it would have changed into poetic and humanitarian passion; it would have become love as Plato means us to take the word. 107 But each of these processes would have been a conversion, through the need defined by an identical instinct, of the 'same into the different'; 108 the human nature which existed at the beginning of the change would be deeply other than the human nature in which the change culminated. 109 In each case a condition thrust upon the spirit by its environment would have occasioned the creation and maintenance of an environment demanded by the spirit. 110 Yet in so far as it was not truly 'the same' as that envisaged in the primitive demand, it would still imply the tragedy of the world not made for us and the "problem of evil," 111 in which the life of the spirit is persistently a salvage of one of two always incompatible goods, a saving by surrender.

112 And this is all that a mind is--an affair of saving and rejecting, of valuing with a system of objects of which a living body and its desires and operations, its interests, are focal and the objects marginal, for its standard. 113 Mind, thus, is

neither simple, nor immutable, nor stable; it is a thing to be "changed," "confused," "cleared," "made-up," "trained." 114 One body, I have written elsewhere, "in the course of its lifetime, has many minds, only partially united. Humans are all too often "of two minds." 115 The unity of a mind depends on its consistent pursuit of 'one' interest, although we then call it narrow; or on the coöperation and harmony of its many interests. 116 Frequently, two or more minds may struggle for the possession of the same body; that is, the body may be divided by two elabourately systematised tendencies to act. 117 The beginning of such division occurs wherever there is a difficulty in deciding between alternative modes of behaviour; 118 the end is to be observed in those cases of dual or multiple personality in which the body has ordered a great collection of objects 119 and systematised so large a collection of interests in such typically distinct ways as to have set up for itself different and opposed "minds." 120 On the other hand, two or fifty or a million bodies may be "of the same mind." 121 Unhappily, difference of mind, diversity and conflict of interests is quite as fundamental, if not more so, as sameness of mind, coöperation and unity of interests. This the philosophical tradition sufficiently attests. 122 To Plato human is at once a protean beast, a lion, and an intellect; the last having for its proper task to rule the first and to regulate the second, which is always rebellious and irruptive. 123 According to the Christian tradition human is at once flesh and spirit, eternally in conflict with one another, and the former is to be mortified that the latter may have eternal life. 124 Common sense divides us into head and heart, never quite at peace with one another. 125 There is no need of piling up citations. Add to the inward disharmonies of mind its incompatibilities with the environment, and you perceive at once how completely it is, 126 from moment to moment, a theater and its life a drama of which the interests that compose it are at once protagonists and directors. 127 The catastrophe of this

unceasing drama is always that one or more of the players is driven from the stage of conscious existence. 128 It may be that the environment-- social conditions, commercial necessity, intellectual urgency, allies of other interests-- will drive it off; 129 it may be that its own intrinsic unpleasantness will banish it, will put it out of mind; whatever the cause, it is put out. 130 Putting it out does not, however, end the drama; putting it out serves to complicate the drama. 131 For the "new psychology" shows that whenever an interest or a desire or impulsion is put out of the mind, it is really, if not extirpated, put into the mind; it is driven from the conscious level of existence to the unconscious. 132 It retains its force and direction, only its work now lies underground. 133 Its life henceforward consists partly in a direct oppugnance to the inhibitions that keep it down, partly in burrowing beneath and around them and seeking out unwonted channels of escape. 134 Since life is long, repressions accumulate, the mass of existence of feeling and desire tends to become composed entirely of these repressions, 135 layer upon layer, with every interest in the aggregate striving to attain place in the daylight of consciousness.

136 Now, empirically and metaphysically, no one interest is more excellent than any other. 137 Repressed or patent, each is, whether in a completely favourable environment or in a completely indifferent universe, or before the bar of an absolute justice, or under the domination of an absolute and universal good, entitled to its free fulfillment and perfect maintenance. 138 Each is a form of the good; the essential content of each is good. 139 That any are not fulfilled, but repressed, is a fact to be recorded, not an appearance to be explained away. 140 And it may turn out that the existence of the fact may explain the effort to explain it away. 141 For where interests are in conflict with each other or with reality, and where the loser is not extirpated, its revenge may be just this self-fulfillment in unreality, in idea, which philosophies of absolute values offer it. 142 Dreams, some of the arts, religion, and

philosophy may indeed be considered as such fulfillment, 143 worlds of luxuriant self-realisation of all that part of our nature which the harsh conjunctions with the environment overthrow and suppress. 144 Sometimes abortive self-expressions of frustrated desires, sometimes ideal compensations for the shortcomings of existence, they are always equally ideal reconstructions of the surrounding evil of the world into forms of the good. 145 And because they are compensations in idea, they are substituted for existence, appraised as "true," and "good," and "beautiful," and "real," while the experiences which have suppressed the desires they realise are condemned as illusory and unreal. 146 In them humanity has its freest play and amplest expression.

III

147 This has been, and still to a very great extent remains, most specifically true of philosophy. 148 The environment with which philosophy concerns itself is nothing less than the whole universe; its content is, within the history of its dominant tradition, absolutely general and abstract; 149 it is, of all great human enterprises, even religion, least constrained by the direction and march of events or the mandate of circumstance. 150 Like music, it expresses most truly the immediate and intrinsic interests of the mind, its native bias and its inward goal. 151 It has been constituted, for this reason, of the so-called "normative" sciences, envisaging the non-existent as real, forcing upon Nature pure values, forms of the spirit incident to the total life of this world, unmixed with baser matter. 152 To formulate ultimate standards, to be completely and utterly lyrical has been the prerogative of philosophy alone. 153 Since these standards reappear in all other reconstructions of the environment and most clearly in art and in religion, it is pertinent to enumerate them, and to indicate briefly their bearing on existence.

154 The foremost outstanding is perhaps "the unity of the world." Confronted by the perplexing menace of the variation of

experience, 155 the dichotomies and oppositions of thoughts and things, the fusion and diversifications of many things into one and one into many, 156 humankind has, from the moment it became reflective, felt in the relation of the One and the Many the presence of a riddle that engendered and sustained uneasiness, a mystery that concealed a threat. 157 The mind's own preference, given the physiological processes that condition its existence, constitution, and operation, could hardly come to rest in a more fundamental normation than Unity. 158 A world which is 'one' is easier to live in and with; initial adjustment therein is final adjustment; in its substance there exists nothing sudden and in its character nothing uncontrollable. 159 It guarantees whatever vital equilibrium the organism has achieved in it, ill or good. It secures life in attainment and possession, insuring it repose, simplicity, and spaciousness. 160 A world which is many complicates existence: it demands watchful consideration of irreducible discrete individualities: 161 it necessitates the integration and humanisation in a common system of adjustment of entities which in the last analysis refuse all ordering and reject all subordination, 162 consequently keeping the mind on an everlasting jump, compelling it to pay with eternal vigilance the price of being. 163 The preference for unity, then, is almost inevitable, 164 and the history of philosophy, from the Vedas to the Brahma Somaj and from Thales to Bergson, is significantly unanimous in its attempts to prove that the world is, 165 somehow, through and through one. That the oneness requires 'proof' is 'prima facie' evidence that it is a value, a desiderate, not an existence. 166 And how valuable it is may be seen merely in the fact that it derealises the inner conflict of interests, 167 the incompatibilities between Nature and human, the uncertainties of knowledge, and the certainties of evil, and substitutes therefore the ultimate happy unison which "the identity of the different" compels.

168 Unity is the common desiderate of philosophic systems

of all metaphysical types-- neutral, materialistic, idealistic. 169 But the dominant tradition has tended to think this unity in terms of 'interest', of 'spirit', of 'mentality'. 170 It has tended, in a word, to assimilate Nature to human nature, to identify things with the 'values' of things, to envisage the world in the image of human. 171 To it, the world is all spirit, ego, or idea; and if not such through and through, then entirely subservient, in its unhumanised parts, to the purposes and interests of ego, idea, or spirit. 172 Why, is obvious. A world of which the One substance is such constitutes a totality of interest and purpose which faces no conflict and has no enemy. 173 It is fulfillment even before it is need, and need, indeed, is only illusion. 174 Even when its number is many, the world is a better world if the stuff of these many is the 'same' stuff as the spirit of human. 175 For mind is more at home with mind than with things; the pathetic fallacy is the most inevitable and most general. 176 Although the totality of spirit is conceived as good, that is, as actualising all our desiderates and ideals, 177 it would still be felt that, even if the totality were evil, and not God, but the Devil ruled the roost, the world so constituted must be better than one utterly non-spiritual. 178 We can understand and be at home with malevolence: it offers at least the benefits of similarity, of companionship, of intimateness, of consubstantiality with 'will'; 179 its behaviour may be foreseen and its intentions influenced; but no horror can be greater than that of utter aliency. 180 How much of religion turns with a persistent tropism to the consideration of the devil and his works, and how much it has fought his elimination from the cosmic scheme! 181 Yet never because it loved the devil. The deep-lying reason is the fact that the humanisation of Evil into Devil mitigates Evil and improves the world. 182 Philosophy has been least free from this corrective and spiritising bias. Though it has cared less for the devil, it has predominantly repudiated aliency, 183 has sought to prove spirit the cause and substance of the world, and in that degree, to transmute the aliency of Nature into sameness with human nature.

184 With unity and spirituality, 'eternity' makes a third. This norm is a fundamental attribute of the One God Himself, and interchangeable with His ineffable name: 185 the Lord is Eternal, and the Eternal, even more than the One, receives the eulogium of exclusive realness. 186 To the philosophical tradition it is the most real. Once more the reason should be obvious. 187 The underlying urge which pushes the mind to think the world as a unity pushes it even more inexorably to think the world as timeless. 188 For unity is asserted only against the perplexities of a manyness which may be static and unchanging, and hence comparatively simple. 189 But eternity is asserted and set against mutability: it is the negation of change, of time, of novelty, of the suddenness and slaughter of the flux of life itself, 190 which consumes what it generates, undermines what it builds and sweeps to destruction what it founds to endure. 191 Change is the arch-enemy of a life which struggles for self-'preservation', of an intellect which operates spontaneously by the logic of identity, of a will which seeks to convert others into sames. 192 It substitutes a different self for the old, it falsifies systems of thought and deteriorates systems of life. It makes unity impossible and manyness inevitable. It upsets every actual equilibrium that life attains. 193 It opens the doors and windows of every closed and comfortable cosmos to all transcosmic winds that blow, with whatever they carry of possible danger and possible ill. 194 It is the very soul of chaos in which the pleasant, ordered world is such a little helpless thing. 195 Of this change eternity is by primary intention the negation, as its philological form shows. 196 It is 'not-time', without positive intrinsic content, and in its secondary significances, i.e., in those significances which appear in metaphysical dialectic, without meaning; 197 since it is there a pure negation, intrinsically affirming nothing, of the same character as "not-human" or "not-donkey," standing for a nature altogether unspecific and indeterminable in the residual

universe. 198 By a sort of obverse implication it does, however, possess, in the philosophic tradition, a positive content which accrues to it by virtue of what it denies. 199 This content makes it a designation for the persistence and perdurability of desiderated quality-- from metaphysical unity and spirituality to the happy hunting-grounds or a woman's affection. 200 At bottom it means the assurance that the contents of value cannot and will not be altered or destroyed, that their natures and their relations to human do not undergo change. 201 There is no recorded attempt to prove that evil is eternal: eternity is 'eternity of the good alone'.

202 Unity, spirituality, and eternity, then, are the forms which contents of value receive under the shaping hands of the philosophic tradition, to which they owe their metaphysical designation 203 and of which the business has so largely and uniquely been to 'prove' them the foundations and ontological roots of universal nature. 204 But "the problem of evil" does not come to complete solution with these. Even in a single, metaphysically spiritual and unchanging world, 205 human may still be less than a metaphysical absolute and your proper individuality doomed to absorption, your wishes to obstruction and frustration. 206 Of human, therefore, the tradition posits 'immortality' and 'freedom', and even the materialistic systems have sought to keep somehow room for some form of these goods.

207 To turn first to immortality. Its source and matrix is less the love of life than the fear of death-- that fear which Lucretius, dour poet of disillusion, so nobly deplored. 208 That he had ever himself been possessed of it is not clear, but it is perfectly clear that his altogether sound arguments against it have not abolished its operation, nor its effect upon human character, society, and imagination. 209 Fear which made the gods, made also the immortality of human, the denial of death. 210 What the fear's unmistakable traits may be has never been articulately said, perhaps never can be said. 211 Most of us never may undergo the fear of death; we undergo comfort

and discomfort, joy and sorrow, intoxication and reaction, love and disgust; 212 we aim to preserve the one and to abolish the other, but we do not knowingly undergo the fear of death. 213 Indeed, it is logically impossible that we should, since to do so would be to acquire an experience of death such that we should be conscious of being unconscious, sensible of being insensible, aware of being unaware. 214 We should be required to be and not to be at the same instant, in view of which Lucretius both logically and wisely advises us to remember that when death is, we are not; and when we are, death is not.

215 Experience and feeling are, however, neither logical nor wise, and to these death is far from the mere non-being which the poet would have us think it. 216 To these it has a positive reality which makes the fear of it a genuine cause of conduct in individuals and in groups, 217 with a basis in knowledge such as is realised in the diminishing of consciousness under anæsthetic, in dreams of certain types, 218 and most generally in the nascent imitation of the 'rigour mortis' which makes looking upon the dead such a horror to most of us. 219 Even then, however, something is lacking toward the complete realisation of death, and children and primitive peoples never realise it at all. 220 Its full meaning comes out as 'an unsatisfied hunger in the living' rather than as a condition of the dead, who, alive, would have satisfied this hunger. 221 And the realisation of this meaning requires sophistication, requires a lengthy corporate memory and the disillusions which civilisation engenders. 222 Primitive peoples ask for no proof of immortality because they have no notion of mortality; 223 civilised thinking has largely concerned itself about the proof of immortality because its assurance of life has been shaken by the realisation of death through the gnawing of desire which only the dead could still. 224 The 'proof' which in the history of thought is offered again and again, be it noted, is not of the reality of life, but of the unreality and inefficacy of death. 225 Immortality is like eternity, a negative term; it is 'im'mortality.

INTELLIGENCE

226 The experienced fact is mortality; and the fear of it is only an inversion of the desire which it frustrates, just as frustrated love becomes hatred. 227 The doctrine of immortality, hence, springs from the fear of death, not from the love of life, and immortality is a value-form, not an existence. 228 Now, although fear of death and love of life are in constant play in character and conduct, neither constitutes the original, innocent urge of life within us. 229 "Will to live," "will to power," "struggle for existence," and other Germanic hypostases of experienced events which the great civil war in Europe is just now giving such an airing, 230 hardly deserve, as natural data, the high metaphysical status that Schopenhauer, Nietzsche, and company have given them. 231 They follow in fact upon a more primary type of living, acting form, a type to which the "pathetic fallacy" or any other manner of psychologising may not apply. 232 The most that can be said about this type is that its earlier stages are related to its later ones as potential is to kinetic energy. 233 If, since we are discussing a metaphysical issue, we must mythologise, we might call it the "will to self-expression." 234 Had this "will" chanced to happen in a world which was made for it, or had it itself been the substance of the world, "struggle for existence," "will to live," and "will to power," never could have supervened. 235 All three of these expressions designate data which require an opposite, a counter-will, to give them meaning. 236 There can be a struggle for existence only when there are obstacles thereto, a will to live only when there are obstructions to life, a will to power only when there is a resistance against which power may be exercised. 237 Expression alone is self-implying and self-sufficient, and in an altogether favourable environment we might have realised our instincts, impulses, interests, appetites and desires, expressed and actualised our potentialities, 238 and when our day is done, have ceased, as unconcerned about going on as about starting.

239 Metchnikoff speaks somewhere of an instinct toward death and the euphoria which

accompanies its realisation. He cites, I think, no more than two or three cases. 240 To most of us the mere notion of the existence and operation of such an instinct seems fanciful and uncanny. Yet from the standpoint of biology nothing should be more natural. 241 Each living thing has its span, which consists of a cycle from birth through maturation and senescence to dissolution, and the latter half of the process is as "fateful" and "inevitable" as the former! 242 Dying is itself the inexpugnable conclusion of that setting free of organic potentialities which we call life, 243 and if dying seems horrid and unnatural, it seems so because for most of us death is violent, because its occasion is a shock from without, not the realisation of a tendency from within. 244 In a completely favourable environment we should not struggle to exist, we should simply exist; we should not will to live, we should simply live, i.e., we should actualise our potentialities and die.

245 But, once more alas, our environment is not completely favourable, and there's the rub. 246 That disorderly constellation of instincts and appetites and interests which constitutes the personality of the best of us does not work itself out evenly. 247 At the most favourable, our self-realisations are lopsided and distorted. 248 For every capacity of ours in full play, there are a score at least mutilated, sometimes extirpated, always repressed. 249 They never attain the free fullness of expression which is consciousness, or when they do, they find themselves confronted with an opponent which neutralises their maturation at every point. 250 Hence, as I have already indicated, they remain in, or revert to, the subterranean regions of our lives, and govern the making of our biographies from their seats below. 251 What they fail to attain in fact they succeed in generating in imagination to compensate for the failure; they realise themselves vicariously. 252 The doctrine of immortality is the generic form of such vicarious self-realisation, as frequently by means of dead friends and relatives to whose absolute non-being the mind will

not assent, 253 as by means of the everlasting heaven in which the mind may forever disport itself amid those delights it had to forego on earth. 254 Much of the underlying motive of the doctrine is a 'sehnsucht' and nostalgia after the absent dead; little a concern for the continuity of the visible living. 255 And often this passion is so intense that system after system in the philosophic tradition is constructed to satisfy it, 256 and even the most disillusioned of systems-- for example, Spinoza's-- will preserve its form if not its substance.

257 That the "freedom of the will" shall be a particularised compensatory desiderate like the immortality of the soul, 258 the unity, the spirituality, and the eternity of the world is a perversion worked upon this ideal by the historic accident we call Christianity. 259 The assumptions of that theory concerning the nature of the universe and the destiny of human, being through and through compensatory, changed freedom from the possible fact and actual hope of Hellenic systems into the "problem" of the Christian ones. 260 The consequent controversy over "free-will," the casuistic entanglement of this ideal with the notion of responsibility, its theological development in the problem of the relation of an omnipotent God to a recalcitrant creature, have completely obscured its primal significance. 261 For the ancients, the free person and the "wise person" were identical, and the wise person was one who all in all had so mastered the secrets of the universe that there was no desire of own self that was not actually realised, no wish the satisfaction of which was obstructed. 262 Your way in the world was a way without let or hindrance. Now freedom and wisdom in this sense is never a fact and ever a value. 263 Its attainment ensues upon created distinctions between appearance and reality, upon the postulation of the metaphysical existence of the value-forms of the unity, spirituality, and the eternity of the world, 264 in the realisation of which the wise person founded own wisdom and gained own freedom. 265 Freedom, then, is an

ideal that could have arisen only in the face of 'obstruction to action directed toward the fulfilling and satisfying of interests'. 266 It is the assurance of the smooth and uninterrupted flow of behaviour; the flow of desire into fulfillment, of thought into deed, of act into fact. 267 It is perhaps the most pervasive and fundamental of all desiderates, and in a definite way the others may be said to derive from it and to realise it. 268 For the soul's immortality, the world's unity and spirituality and eternity, are but conditions which facilitate and assure the flow of life without obstruction. 269 They define a world in which danger, evil, and frustration are non-existent; they so reconstitute our actual environment that the obstructions it offers to the course of life are abolished. 270 They make the world "rational," and in the great philosophic tradition the freedom of human is held to be a function of the rationality of the world. 271 Thus, even deterministic solutions of the "problem of freedom" are at bottom no more than the rationalisation of natural existence by the dialectical removal of obstructions to human existence. 272 Once more, Spinoza's solution is typical, and its form is that of all idealisms as well. It ensues by way of identification of the obstruction's interest with those of the obstructee: 273 the world becomes ego or the ego the world, with nothing outside to hinder or to interfere. 274 In the absolute, existence is declared to be value 'de facto'; in fact, 'de jure'. And by virtue of this compensating reciprocity the course of life runs free.

275 Is any proof necessary that these value-forms are not the contents of the daily life? 276 If there be, why this unvarying succession of attempts to 'prove' that they are the contents of daily life that goes by the name of history of philosophy? 277 In fact, experience as it comes from moment to moment is not one, harmonious and orderly, but multi-fold, discordant, and chaotic. 278 Its stuff is not spirit, but stones and railway wrecks and volcanoes and Mexico and submarines, and trenches, and frightfulness, and Germany, and disease, and waters, and trees, and stars, and mud.

279 It is not eternal, but changes from instant to instant and from season to season. 280 Actually, humans do not live forever; death is a fact, 281 and immortality is literally as well as in philosophic discourse not so much an aspiration for the continuity of life as an aspiration for the elimination of death, purely 'im'mortality. 282 Actually the will is not free, each interest encounters obstruction, no interest is completely satisfied, all are ultimately cut off by death.

283 Such are the general features of all human experience, by age unwithered, and with infinite variety forever unstaled. 284 The traditional philosophic treatment of them is to deny their reality, and to call them appearance, 285 and to satisfy the generic human interest which they oppose and repress by means of the historical reconstruction in imaginative dialectic of a world constituted by these most generalised value-forms and then to eulogise the reconstruction with the epithet "reality." 286 When, in the course of human events, such reconstruction becomes limited to the biography of particular individuals, is an expression of their concrete and unique interest, is lived and acted on, it is called paranoia. 287 The difference is not one of kind, but of concreteness, application, and individuality. Such a philosophy applied universally in the daily life is a madness, like Christian Science: 288 kept in its proper sphere, it is a fine art, the finest and most human of the arts, a reconstruction in discourse of the whole universe, in the image of the free human spirit. 289 Philosophy has been reasonable because it is so unpersonal, abstract, and general, like music; 290 because, in spite of its labels, its reconstructions remain pure desiderates and value-forms, never to be confused with and substituted for existence. 291 But philosophers even to this day often have the delusion that the substitutions are actually made.

IV

292 It is the purity of the value-forms imagined in philosophy that makes philosophy "normative." 293 The arts, which it judges, have an identical origin and an indistinguishable intent, but they

are properly its subordinates because they have not its purity. 294 They, too, aim at remodeling discordant Nature into harmony with human nature. 295 They, too, are dominated by value-forms which shall satisfy as nearly as possible all interests, shall liberate and fulfill all repressions, 296 and shall supply to our lives that unity, eternity, spirituality, and freedom which are the exfoliations of our central desire-- the desire to live.

297 But where philosophy has merely negated the concrete stuff of experience and defined its reality in terms of desire alone, the arts acknowledge the reality of immediate experience, 298 accept it as it comes, eliminating, adding, molding, until the values desiderated become existent in the concrete immediacies of experience as such. 299 Art does not substitute values for existence by changing their rôles and calling one appearance and the other reality: 300 art converts values into existences, it realises values, injecting them into Nature as far as may be. 301 It creates truth and beauty and goodness. But it does not claim for its results greater reality than Nature's. 302 It claims for its results greater immediate harmony with human interests than Nature. 303 The propitious reality of the philosopher is the unseen: the harmonious reality of the artist must be sensible. 304 Philosophy says that apparent actual evil is merely apparent: art compels potential apparent good actually to appear. 305 Philosophy realises fundamental values transcendentally beyond experience: art realises them within experience. 306 Thus, humans cherish no illusions concerning the contents of a novel, a picture, a play, a musical composition. They are taken for what they are, and are enjoyed for what they are. 307 The shopgirl, organising her life on the basis of eight dollars a week, wears flimsy for broadcloth and the tail feather of a rooster for an ostrich plume. 308 She is as capable of wearing and enjoying broadcloth and ostrich plume as My Lady, whose income is eight dollars a minute. But she has not them, and in all likelihood, without a social revolution she never will have them. 309 In the novels of Mr.

Robert Chambers, however, or of Miss Jean Libbey, which she religiously reads in the street-car on her way to the shop; 310 in the motion picture theater which she visits for ten cents after her supper of corned beef, cabbage, and cream puffs, she comes into possession of them forthwith, vicariously, 311 and of all My Lady's proper perquisites-- the Prince Charming, the motor-car, the Chinese pug, the flowers, and the costly bonbons. 312 For the time being her life is liberated, new avenues of experience are actually opened to her, all sorts of unsatisfied desires are satisfied, all sorts of potentialities realised. 313 All that she might have been and is not, she becomes through art, here and now, and 'continuously with' the drab workaday life which is her lot, 314 and she becomes this without any compensatory derealisation of that life, without any transcendentalism, without any loss of grip on the necessities of her experience: strengthened, on the contrary, and emboldened, to meet them as they are.

315 I might multiply examples: for every object of fine art has the same intention, and if adequate, accomplishes the same end-- from the sculptures of Phidias and the dramas of Euripides, to the sky-scrapers of Sullivan and the dances of Pavlowa. 316 But there is need only to consider the multitude of abstract descriptions of the æsthetic encounter. The artist's business is to create the other object in the encounter, 317 and this object, in Miss Puffer's words, which are completely representative and typical, is such that "the organism is in a condition of repose and of the highest possible tone, functional efficiency, enhanced life. The personality is brought into a state of unity and self-completeness." 318 The object, when apprehended, awakens the active functioning of the whole organism directly and harmoniously with itself, 319 cuts it off from the surrounding world, shuts that world out for the time being, and forms a complete, harmonious, and self-sufficient system, 320 peculiar and unique in the fact that there is no passing from this deed into further adaptation with the object. 321 Struggle and aliency are at end,

and whatever activity now goes on feels self-conserving, spontaneous, free. 322 The need of readjustment has disappeared, and with it the feeling of strain, obstruction, and resistance, which is its sign.

323 There is nothing but the object, and that is possessed completely, satisfying, and as if forever. 324 Art, in a word, supplies an environment from which strife, foreignness, obstruction, and death are eliminated. 325 It actualises unity, spirituality, and eternity in the environment; it frees and enhances the life of the self. 326 To the environment which art successfully creates, the mind finds itself completely and harmoniously adapted by the initial act of perception.

327 In the world of art, value and existence are one.

V

328 If art may be said to create values, religion has been said to conserve them. 329 But the values conserved are not those created: they are the values postulated by philosophy as metaphysical reality. 330 Whereas, however, philosophy substitutes these values for the world of experience, religion makes them continuous with the world of experience. 331 For religion value and existence are on the same level, but value is more potent and environs existence, directing it for its own ends. 332 The unique content of religion, hence, is a specific imaginative extension of the environment with value-forms: 333 the visible world is extended at either end by heaven and hell; the world of minds, by God, Satan, angels, demons, saints, and so on. 334 But where philosophy imaginatively abolishes existence in behalf of value, where art realises value in existence, religion tends to control and to escape the environment which exists by means of the environment which is postulated. 335 The aim of religion is salvation from sin. Salvation is the escape from experience to heaven and the bosom of God; 336 while hell is the compensatory readjustment of inner quality to outer condition for the alien and the enemy, without the knowledge of whose existence life in heaven could not be complete.

337 In religion, hence, the conversion of the repressed array of interests into ideal value-forms is less radical and abstract than in philosophy, and less checked by fusion with existence than in art. 338 Religion is, therefore, at one and the same time more carnal and less reasonable than philosophy and art. Its history and protagonists exhibit a closer kinship to what is called insanity-- 339 that being, in essence, the substitution in actual life of the creatures of the imagination which satisfy repressed needs for those of reality which repress them. 340 It is a somnambulism which intensifies rather than abolishes the contrast between what is desired and what must be accepted. 341 It offers itself ultimately rather as a refuge from reality than a control of it, and its development as an institution has turned on the creation and use of devices to make this escape feasible. 342 For religion, therefore, the perception that the actual world, whatever its history, is now 'not' adapted to human nature, is the true point of departure. 343 Thus religion takes more account of experience than compensatory philosophy; it does not de-realise existent evil. 344 The outer conflict between human nature and Nature, primitively articulated in consciousness and conduct by the distress engendered 345 through the fact that the food supply depends upon the march of the seasons, becomes later assimilated to the inner conflict between opposing interests, wishes, and desires. 346 Finally, the whole so constituted gets expressed in the idea of sin. That idea makes outward prosperity dependent upon inward purity, although it often transfers the locus of the prosperity to another world. 347 Through its operation fortune becomes a function of conscience and the one desire of religious thinking and religious practice becomes to bring the two to a happy outcome, to abolish the conflicts. 348 This desiderated abolition is salvation. It is expressed in the ideas of a fall, or a separation from heaven and reunion therewith. 349 The machinery of this reunion of the divided, the reconversion of the differentiated into the same,

consists of the furniture of religious symbols and ceremonials-- 350 myths, baptisms, sacraments, prayers, and sacrifices: and all these are at the same time instruments and expressions of desires. 351 God is literally "the conservation of values." "God's life in eternity," 352 writes Aristotle, who here dominates the earlier tradition, "is that which we enjoy in our best moments, but are unable to possess permanently: its very being is delight. 353 And as actual being is delight, so the various functions of waking, perceiving, thinking, are to us the pleasantest parts of our life. 354 Perfect and absolute thought is just this absolute vision of perfection."

355 Even the least somnambulistic of the transcendental philosophies has repeated, not improved upon Aristotle. 356 "The highest conceptions that I get from experience of what goodness and beauty are," Royce declares, "the noblest life that I can imagine, the completest blessedness that I can think, 357 all these are but faint suggestions of a truth that is infinitely realised in the Divine, that knows all truth. 358 Whatever perfection there is suggested in these things, that you must fully know and experience."

359 But this æsthetic excellence, this maximum of ideality is in and by itself inadequate. 360 God, to be God, must 'work'. He is first of all the invisible socius, the ever-living witness, in whose eyes the disharmonies and injustices of this life are enregistered, and who in the life everlasting redresses the balances and adjusts the account.

361 Even His grace is not unconditional; it requires a return, in deed or faith; a payment by which the fact of your salvation is made visible. 362 But this payment is made identical by the great religions of disillusion with nothing other than the concrete condition from which the faithful are to be saved. 363 If the self is not impoverished, unkempt, and hungry, in fact, it is made so. Cleanliness may be next to godliness, but self-defilement is godliness; 364 sainthood, if we are to trust the lives of saints, whether in Asia or in Europe, is coincident with insanitation; 365 saintly virtues are depressed virtues,--

humility, hope, meekness, pity; and such conditions of life which define the holy ones are unwholesome-- poverty, asceticism, squalor, filth. 366 Hence, by an ironic inversion, religions of disillusion, being other-worldly, identify escape from an actual unpropitious environment with submergence in it; 367 that being the visible and indispensable sign of an operative grace. So the beatitudes: the blessed are the poor, the mourners, the meek. 368 Beginning as a correction of the evils of existence, religion ends by offering an infallible avenue of escape from them through postulating a desiderated type of existence which operates to gather the spirit to itself. 369 For this reason the value-forms of the spirituality or spiritual control of the universe and of the immortality of the soul have been very largely the practical concern of religion alone, 370 since these are the instruments indispensable to the attainment of salvation. 371 In so far forth religion has been an art and its institutional association with the arts has been made one of its conspicuous justifications. 372 So far, however, as it has declared values to be operative without making them actually existent it has been only a black art, a magic. 373 It has ignored the actual causes in the nature and history of things, and has substituted for them non-existent desirable causes, ultimately reducible to a single, eternal, beneficent spirit, omnipotent and free. 374 To convert these into existence, an operation which is the obvious intent of much contemporary thinking in religion, it must, however, give up the assumption that they already exist 'qua' spirit. 375 But when religion gives up this assumption, religion gives up the ghost.

376 What it demands of the ghost, and of all hypostatised or anthropomorphised ultimate value-forms, is that they shall work, and its life as an institution depends upon making them work. 377 Christian Science becomes a refuge from the failure of science, magic from mechanism, and by means of them and their kind, blissful immortality, complete self-fulfillment is to be attained--

after death. 378 There is a "beautiful land of somewhere," a happy life beyond, but it is beyond life. 379 In fact, although religion confuses value and existence, it localises the great value-forms outside of existence. 380 Its history has been an epic of the retreat and decimation of the gods from the world, a movement from animism and pluralism to transcendentalism and monism; 381 and concomitantly, of an elabouration and extension of institutional devices by which the saving value-forms are to be made and kept operative in the world.

VI

382 Let us consider this history a little. Consciousness of feeling, psychologists are agreed, is prior to consciousness of the objects of feeling. 383 The will's inward strain, intense throbs of sensation, pangs and pulses of pleasure and pain make up the bulk of the undifferentiated primal sum of sentience. 384 The soul is aware of herself before she is aware of her world. 385 A childish or primeval mind, face to face with an environment actual, dreamt, or remembered, does not distinguish from its privacy the objective or the common. 386 All is shot through with the pathos and triumph which come unaccountably as desired good or evaded evil; all has the same tensions and effects ends in the same manner as the labouring, straining, volitional life within. 387 These feelings, residuary qualities, the last floating, unattached sediment of a world organised by association and classified by activity, 388 these subtlest of all its beings, finally termed mind and self, at first suffuse and dominate the whole. 389 Even when objects are distinguished and their places determined these are not absent; and the so-called pre-animistic faiths are not the less suffused with spirit because the spiritual has not yet received a local habitation and name. 390 They differ from animism in this only, not in that their objects are characterised by lack of animation and vital tonality. And this is necessary. 391 For religion must be anthropopathic before it becomes anthropomorphic; since feeling, eloquent of good and evil, is the

first and deepest essence of consciousness, 392 and only by its wandering from home are forms distinguished and human's nature separated from that of things and beasts.

393 When practice has coördinated activity, and reflection distinguished places, animism proper arises. 394 First the environment is felt as the soul's kindred; then its operations are fancied in terms dramatic and personal. 395 The world becomes almost instinctively defined as a hegemony of spirits similar to human, with powers and passions like yours, and directed for your destruction or conservation, but chiefly for their own glory and self-maintenance. 396 The vast "pathetic fallacy" makes religion of the whole of life. It is at this point indistinguishable from science or ethics. 397 It is, in fact, the pregnant matrix of all subsequent discourse about the universe. 398 Its character is such that it becomes the determinating factor of human adaptations to the conditions imposed by the environment, by envisaging the enduring and efficacious elements among these conditions as persons. 399 The satisfaction of felt needs is rendered thereby inevitably social; and in a like manner fear of their frustration cannot be unsocial. 400 Life is conceived and acted out as a miraculous traffic with the universe; 401 and the universe as a band of spirits who monopolise the good and make free gifts of evil, who can be feared, threatened, worshiped, scolded, wheedled, coaxed, bribed, deceived, enslaved, held in awe, 402 and above all, used for the prosecution of desiderated ends and the fulfillment of instinctive desires. 403 The first recorded cognised order is a moral order in which fragmentary feelings, instinctive impulsions, and spontaneous imaginings are hyostatised, 404 ideas are identified with their causes, all the contents of the immature, sudden, primitive, blundering consciousness receive a vital figure and a proper name. 405 So human makes own self more at home in the world without,-- that world which enslaves the spirit so fearfully and with such strangeness, 406 and which just as

miraculously yields such ecstasy, such power, such unaccountable good! 407 In this immediate sense the soul controls the world by becoming symbolic of it; it is the world's first language. 408 It is, however, an inarticulate, blundering, incoherent thing and the cues which it furnishes to the nature of the environment are as often as not dangerous and misleading. 409 When bows and arrows, crystals and caves, clouds and waters, dung and dew, mountains and trees, beasts and visions, are treated as chiefs and humans must be treated, 410 then the moral regimen initiated, taking little account of the barest real qualities manifested by these things, and attributing the maximum importance to the characters postulated and foreign, 411 is successful neither in allaying evil nor in extending good. Its benefits are adventitious and its malfeasance constant. 412 Food buried with the dead was food lost; blood smeared upon the bow to make it shoot better served only to make the hands unskillful by impeding their activity. 413 Initiation, ceremony, sacrificial ritual, fasting, and isolation involved privations for which no adequate return was recovered, 414 even by the medicine-human whose absolute and ephemeral power needed only the betrayal of circumstances for its own destruction, taking one along with it, oftener than not, to disgrace or death.

415 As the cumulus of experience on experience grew greater, chance violations of tradition, or custom, or ritual, or formula achieving for the violator a mastery or stability which performance and obedience failed to achieve, 416 the new heresy became the later orthodoxy, for in religion, as in all other matters human, nothing succeeds like success. 417 An impotent god has no divinity; a disused potency means a dying life among the immortals as on the earth. 418 And as the gods themselves seemed often to give their worshipers the lie, the futility of the personal and dramatic definitions of the immediate environment became slowly recognised, the recognition varying in extent, and clearer in practice than in discourse.

419 Accordingly the most primitive of the animisms underwent a necessary modification. 420 The plasticity of objects under destructive treatment, the impotence of 'taboo' before elementary needs, the adequate satisfactions which violations of the divine law brought,-- these killed many gods and drove others from their homes in the hearts of things. 421 The objects so purged became matters of accurate knowledge. 422 Where animation is denied the 'whole' environment, wisdom begins to distinguish between spirit-haunted matter and the purely material; 423 knowledge of person and knowledge of things differentiate, and science, the impersonal and more potent knowledge of the environment, properly begins. 424 Familiarity leads to control, control to contempt, and for the unreflective mind, personality is not, as for the sophisticated, an attribute of the contemptible. 425 The incalculable appearance of thunder, the magic greed of fire, the malice, the spontaneity, the thresh and pulse as of life which seems to characterise whatever is capricious or impenetrable or uncontrollable are too much like the felt throbs of consciousness to become dehumanised. 426 To the variable alone, therefore, is transcendent animation attributed. Not the seasonal variation of the sun's heat, but the joy and the sorrow of which its heat is the occasion made it divine. 427 When the gods appear, to take the place of the immanent spirits immediately present in things, they appear, therefore, as already transcendent, 428 with habitations just beyond the well-known: on high mountains, in the skies, in dark forests, in caves, in all regions feared or unexplored. 429 But chiefly the gods inhabit those spaces whence issue the power of darkness and destruction, particularly the heaven, a word whose meaning is now, as it was primitively, identical with divinity. 430 The savage becomes a pagan by giving concrete personality to the dreadful unknown. Thence it is that the ancient poet assigns the gods a lineage of fear; 431 and fear may truly be said to have made the gods, in so far as the gods

personify the fear which made them.

432 The moral level of these figments alters with the level of their habitation; their power varies with their remoteness; 433 Zeus lives in the highest heaven and is arbiter of the destiny of both gods and human. To him and to his like there cannot be the relation of equality which is sustained between humans and spirits of the lower order. 434 His very love is blasting; interchange of commodities, good for good and evil for evil is not possible where he is concerned. 435 Gods of the higher order he exemplifies, even all the gods of Olympus, of the Himalayas, of Valhalla, are literally beings invoked and implored, as well as dwellers in heaven. 436 To them human pays a toll on all excellence you gains or finds; libations and burnt-offerings, the fat and the first fruits: he exists by their sufferance and serves their caprice. 437 He is their toy, born for their pleasure, and living by their need.

438 But just because humans conceive themselves to be play-things of the gods, they define in the gods the ideals of humankind. 439 For the divine power is power to live forever, and the sum of human desire is just the desire to maintain its humanity in freedom and happiness endlessly. 440 And exactly those capacities and instruments of self-maintenance,-- all that is beauty, or truth, or goodness, the very essence of value in any of its forms,-- 441 the gods are conceived to possess and to control: these they may grant, withhold, destroy. 442 They are as eternal as their habitations, the mountains; as ruthless as their element, the sea; as omnipresent as the heavens, their home. 443 To become like the gods, therefore, the masters and fathers of humans, is to remain eternally and absolutely human: so that who is most like them on earth takes own place beside them in heaven. 444 Hercules and Elias and Krishna, Çaka-Muni and Ishvara, Jesus and Baha Ullah. Nay, they are the very gods themselves, manifest as humans! 445 The history of the gods thus presents a double aspect: it is first a characterisation of the important objects and processes of Nature and their survival-values,--

446 the sun, thunder, rain, and earthquakes; dissolution, rebirth, and love; and again it is the narration of activities native and delightful to humankind. 447 Zeus is a promiscuous lover as well as a wielder of thunderbolts; Apollo not only drives the chariot of the sun; he plays and dances, discourses melody and herds sheep.

448 But while the portrait of the heart's desire in fictitious adventures of divinity endears the gods to the spirit, 449 the exploration of the elements in the environment whose natures they dramatically express, destroys their force, reduces their number, and drives them still further into the unknown. 450 Olympus is surrendered for the planets and the fixed stars. With remoteness of location comes transmutation of character. 451 The forces of the environment which were the divinity are now conceived as instrumental to its uses. Its power is more subtly described; its nature becomes a more purely ideal expression of human aspiration. 452 Physical remoteness and metaphysical ultimacy are akin. God among the stars is better than God on Olympus. 453 If, as with the Parsees, the unfavourable character of the environment is expressed in another and equal being,-- the devil, then the god of good must, in the symbolic struggle, become the ultimate victor and remain the more potent director of human's destiny. 454 In religion, therefore, when the mind grows at all by experience, monism develops spontaneously. 455 For the character of the god becomes increasingly more relevant to hope than to the conditions of hope's satisfaction. 456 And what human first of all and beyond all aspires to, is that single, undivided good,-- the free flow of your unitary life, stable, complete, eternal. 457 There is hence always to be found a chief and father among the gods who, as humankind gain in wisdom and in material power, consumes own mates and own children like Kronos or Jahweh, inherits their attributes and performs their functions. 458 The chief divinity becomes the only divinity; a god becomes God. But divinity, in becoming one and unique,

becomes also transcendent. 459 Monotheism pushes God altogether beyond the sensible environment. Personality, instead of being the nature of the world, has become its ground and cause, 460 and all that humankind loves is conserved, in order that human, whom God loves, may have own desire and live forever. Life is eternal and happiness necessary, beyond Nature,-- in heaven. 461 Finally, in transcendental idealism, the poles meet; what has been put eternally apart is eternally united; 462 the immaterial, impalpable, transcendent heaven is made one and continuous with the gross and unhappy natural world. 463 One 'is' the other; the other the one. God 'is' the world and transcends it; 'is' the evil and the good which conquers and consumes that evil. 464 The environment becomes thus described as a single, eternal, conscious unity, in which all the actual but transitory values of the actual but transitory life are conserved and eternalised. 465 In a description of God such as Royce's or Aristotle's the environment is the eternity of all its constituents that are dearest to human. 466 Religion, which began as a definition of the environment as it moved and controlled humankind, ends by describing it as humankind desires it to be. 467 The environment is now the aforementioned ideal socius or self which satisfies perfectly all human requirements. Pluralistic and quarrelsome animism has become monistic and harmonious spiritism. 468 Forces have turned to excellences and needs to satisfactions. 469 Necessity has been transmuted to Providence, sin has been identified with salvation, value with existence, and existence with impotence and illusion before Providence, salvation, and value.

VII

470 With this is completed the reply to the question: Why do humans contradict their own experience? 471 Experience is, as Spinoza says, passion and action, both inextricably mingled and coincident, with the good and evil of them as interwoven as they. 472 That piecemeal conquest of the evil which we call civilisation has not even the promise of finality. It is a Penelope's web, always

needing to be woven anew. 473 Now, in experience desire anticipates and outleaps action and fact rebuffs desire. 474 Desire realises itself, consequently, in ideas objectified by the power of speech into independent and autonomous subjects of discourse, 475 whereby experience is One, Eternal, a Spirit or Spiritually Controlled, wherein human has Freedom and Immortality. 476 These, the constantly desiderated traits of a perfect universe, are in fact the limits of what adequacy environmental satisfactions can attain, ideas hyostatised, normative of existence, but not constituting it. 477 With them, in philosophy and religion, the mind confronts the experiences of death and obstruction, of manifoldness, change and materiality, and denies them, as Peter denied Jesus. 478 The visible world, being not as we want it, we imagine an unseen one that satisfies our want, declaring the visible one an illusion by its side. 479 So we work a radical substitution of desiderates for actualities, of ideals for facts, of values for existences. Art alone acknowledges the actual relations between these contrasting pairs. 480 Art alone so operates as in fact to convert their oppugnance into identity. 481 Intrinsically, its whole purpose and technique consists of transmutation of values into existences, in the incarnation the realisation of values. 482 The philosophy and religion of tradition, on the contrary, consists intrinsically in the flat denial of reality, or at least, co-reality, to existence, and the transfer of that eulogium to value-forms as such. 483 Metaphysics, theology, ethics, logic, æsthetics, dialectic developments as they are of "norms" or "realities" which themselves can have no meaning without the "apparent," changing world they measure and belie, 484 assume consequently a detachment and self-sufficiency they do not actually possess. 485 Their historians have treated them as if they had no context, as if the elabouration of the ideal tendencies of the successive systems explained their origin, character, and significance. 486 But in fact they are unendowed with this pure intrinsicality, and their development is not to be

accounted for as exteriorisation of innate motive or an unfoldment of inward implications. 487 They have a context; they are crossed and interpenetrated by outer interests and extraneous considerations. 488 Their meaning, in so far as it is not merely æsthetic, is 'nil' apart from these interests and considerations of which they are sometimes expressions, sometimes reconstructions, and from which they are persistently refuges.

489 Philosophy and religion are, in a word, no less than art, social facts. They are responses to group situations without which they cannot be understood. 490 Although analysis has shown them to be rooted in certain persistent motives and conditions of human nature by whose virtue they issue in definite contours and significances, 491 they acquire individuality and specific importance only through interaction with the constantly varying social situations in which they arise, on which they operate, and by which they are in turn operated on. 492 Philosophy has perhaps suffered most of all from nescience of those and from devoting itself, 493 at a minimum, to the satisfaction of that passion for oneness, for "logical consistency" without which philosophic "systems" would never arise, nor the metaphysical distinction between "appearance" and "reality"; 494 and with which the same systems have made up a historic aggregate of strikingly repugnant and quarrelsome units. 495 It is this pursuit of consistency as against correctness which has resulted in the irrelevance of philosophy 496 that the philosopher, unconscious of own motives and roots, or naïvely identifying, through the instrumentality of an elabourate dialectic, own instinctive and responsive valuations of existence with its categoric essences, confuses with inward autonomy and the vision of the "real." 497 Consequently, the systems of tradition begin as attempts to trans-value social situations whose existence is troublesome 498 and end as utterances of which the specific bearing, save to the system of an opponent, is undiscoverable. 499 The attempt to

correct the environment in fact concludes as an abolition of it in words. The philosophic system becomes a solipsism, a pure lyric expression of the appetites of human nature.

500 For this perversity of the philosophic tradition Plato is perhaps, more than any one else, answerable. 501 He is the first explicitly to have reduplicated the world, to have set existences over against values, to have made them dependent upon values, to have assigned absolute reality to the compensatory ideals, and to have identified philosophy with preoccupation with these ideals. 502 Behind his theory of life lay far from agreeable personal experience of the attitude of political power toward philosophic ideas. Its ripening was coincident with the most distressing period of the history of his country. 503 The Peloponnesian War was the confrontation of two social systems, radically opposed in form, method, and outlook. 504 Democracy, in Athens, had become synonymous with demagoguery, corruption, inefficiency, injustice and unscrupulousness in every aspect of public affairs. 505 The government had no consistent policy and no centralised responsibility; divided counsel led to continual disaster without, and party politics rotted the strength within. 506 Beside Athens, Sparta, a communistic oligarchy, was a tower of strength and effectiveness. 507 The Spartans made mistakes; they were slow, inept, rude, and tyrannical, but they were a unit on the war, their policy was consistent, responsibilities were adequately centered, good order and loyalty designated the aims and habits of life. 508 The Republic is the response to the confrontation of Spartan and Athenian; the attempt to find an adequate solution of the great social problem this confrontation expressed. 509 The successful state becomes in it the model for the metaphysical one, and the difference between fact and ideal is amended by dialectically forcing the implications of existence in the direction of desire. 510 Neither Athens nor Sparta presented a completely satisfactory social

organisation. There must therefore exist a type of social organisation which is so satisfying. 511 It must have existed from eternity, and must be in essence identical with eternal good, identical with that oneness and spirituality, lacking which, nothing is important. 512 This archetypal social organisation whose essence is excellence, it is the congenital vocation of the philosopher to contemplate and to realise. 513 Philosophers are hence the paragons among animals, lovers of truth, haters of falsehood and of multiplicity, spectators of all time and all existence. 514 In them the power to govern should be vested. Their nature is of the same stuff as the Highest Good with which it concerns itself, 515 but being such, it appears, merely "appears" alas! irrelevant to the actual situations of the daily life. The philosopher is hence opposed and expelled by that arch-sophist, Public Opinion: 516 the person on the street, failing to understand you, dubs you prater, star-gazer, good-for-nothing. You becomes an ineffectual stranger, an outlaw, in a world in which you should be master.

517 Plato's description of the philosopher and philosophy is, it will be seen, at once an apology and a program. But it is a program which has been petrified into a compensatory ideal. 518 The confession of impotence, the abandonment of the programmatic intent is due to identification of the ideal with metaphysical fact, to the hypostasis of the ideal. 519 With Christianism, that being a philosophy operating as a religion, 520 world-weariness made the apology unnecessary and converted the hypostasis into the basis of that program of complete surrender of the attempt to master the problems of existence upon which ensued the arrest of science and civilisation for a thousand years. 521 The Greeks were not world-weary, and consequently, their joy in life and existence contributed a minimum of relevance to their other-worldly dreams. 522 Need it be reasserted that the whole Platonic system, at its richest and best in the Republic, is both an expression of and a compensation for a concrete social situation? 523 Once it was formulated it became a part of that

situation, altered it, served as another among the actual causes which determined the subsequent history of philosophy. 524 Its historic and efficacious significance is defined by that situation, but philosophers ignore the situation and accept the system as painters accept a landscape-- as the thing in itself.

525 Now, the æsthetic aspect of the philosophic system, its autonomy, and consequent irrelevancy, are undeniable. 526 Once it comes to be, its intrinsic excellence may constitute its infallible justification for existence, with no more to be said; 527 and if its defenders or proponents claimed nothing more for it than this immediate satisfactoriness, there would be no quarrel with them. 528 There is, however, present in their minds a sense of the other bearings of their systems. They claim them, in any event, to be 'true', 529 that is, to be relevant to a situation regarded as more important because more lastingly determinative of conduct, more "real" than the situation of which they are born. 530 Their systems are offered, hence, as maps of life, as guides to the everlasting. 531 That they intend to define some method for the conservation of life eternally, is clear enough from their initial motivation and formal issue: 532 all the Socratics, with their minds fixed on happiness or salvation according to the prevalence of disillusionment among them; 533 the Christian systems, still Socratic, but as resolutely other-worldly as disillusioned Buddhists; 534 the systems of Spinoza, of Kant, the whole subsequent horde of idealisms, up to the contemporary Germanoid and German idealistic soliloquies,-- 535 they all declare that the vanity and multiplicity of life as it is leads them to seek for the permanent and the meaningful, and they each find it according to the idiosyncrasies of the particular impulses and terms they start with. 536 That their Snark turns out in every case to be a Boojum is another story.

537 Yet this story is what gives philosophy, like religion, its social significance. If its roots, as its actual biography shows, did not reach deep in the soil of events, 538 if its issues had no fruitage in

events made over by its being, it would never have been so closely identified with intelligence and its systematic hypostasis would never have ensued. 539 The fact is that philosophy, like all forms of creative intelligence, is a tool before it is a perfection. Its autonomy supervenes on its efficaciousness; it does not precede its efficaciousness. 540 Humans philosophise in order to live before they live in order to philosophise. 541 Aristotle's description of the self-sufficiency of theory is possible only for a life wherein theory had already earned this self-sufficiency as practice, in a life, 542 that is, which is itself an art, organised by the application of value-forms to its existent psycho-physical processes in such a way that its existence incarnates the values it desiderates and the values perfect the existence that embodies them.

543 The biography of philosophy, hence, reveals it to have the same possibilities and the same fate that all other ideas have. 544 Today ideas are the patent of our humanity, the stuff and form of intelligence, the differentiæ between us and the beasts. 545 In so far forth, they express the surplusage of vitality over need, the creative freedom of life at play. 546 This is the thing we see in the imaginings and fantasies of childhood, whose environment is by social intent formed to favour and sustain its being. 547 The capacity for spontaneity of idea appears to decrease with maturity, and the few favoured healthy mortals with whom it remains are called people of genius. 548 William James was such a man, and there are a few still among the philosophers. 549 But in the mass and in the long run, ideas are not a primary confirmation of our humanity; in the mass and long they are warnings of menace to it, a sign of its disintegration. 550 Even so radical an intellectualist as Mr. Santayana cherishes this observation to the degree of almost suggesting it as the dogma that all ideas have their origin in inner or outer maladjustment. 551 However this may be, that the dominant philosophic ideas arise out of radical disharmonies between Nature and human nature need not be here reiterated, 552 while the

provocative character of minor maladjustments is to be inferred from the fertility of ideas in unstable minds, of whatever type, from the neurasthenic to the mad. 553 Ideas represent in these cases the limits of vital elasticity, the attempt of the organism to maintain its organic balance; it is as if a balloon, compressed on one side, bulged on the other.

554 Ideas, then, bear three types of relations to organic life, relations socially incarnated in traditional art, religion, and philosophy. 555 First of all they may be an expression of innate capacities, the very essence of the freedom of life. In certain arts, such as music, they are just this. 556 In the opposite case they may be the effect of the compression of innate capacities, an outcome of obstruction to the free low of life. 557 They are then compensatory. Where expressive ideas are confluent with existence, compensatory ideas diverge from existence; 558 they become pure value-forms whose paramount realisation is traditional philosophy. Their rise and motivation in both these forms is unconscious. They are ideas, but not yet intelligence. 559 The third instance falls between these original two. The idea is neither merely a free expression of innate capacities, nor a compensation for their obstruction or compression. 560 Arising as the effect of a disharmony, it develops as an enchannelment of organic powers directed to the conversion of the disharmony into an adjustment. 561 It does not 'use up' vital energies like the expressive idea, it is not an abortion of them, like the compensatory idea. 562 It uses them, and is aware that it uses them-- that is, it is a program of action upon the environment, of conversion of values into existences. 563 Such an idea has the differentia of intelligence. It is creative; it actually converts Nature into forms appropriate to human nature. 564 It abolishes the Other world of the compensatory tradition in philosophy by incarnating it in this world; 565 it abolishes the Other world of the religionist, rendered important by belittling the actual one, by restoring the working relationships between thoughts and things.

566 This restoration develops as reconstruction of the world in fact. It consists specifically of the art and science which compose the efficacious enterprises of history and of which the actual web of our civilisation is spun.

567 Manifest in its purity in art, it attends unconsciously both religion and philosophy, for the strands of life keep interweaving, 568 and whatever is, in our collective being, changes and is changed by whatever else may be, that is in reach. 569 The life of reason is initially unconscious because it can learn only by living to seek a reason for life. 570 Once it discovers that it can become self-maintaining alone through relevance to its ground and conditions, 571 the control which this relevance yields makes it so infectious that it tends to permeate every human institution, even religion and philosophy. 572 Philosophy, it is true, has lagged behind even religion in relevancy, but the lagging has been due not to the intention of the philosopher but to the inherent character of the task they assumed. 573 Both art and religion, we have seen, possess an immediacy and concreteness which philosophy lacks. 574 Art reconstructs correlative portions of the environment for the eye, the ear, the hopes and fears of the daily life. 575 Religion extends this reconstruction beyond the actual environment, but applies its saving technique at the critical points in the career of the group or the individual; to control the food-supply, to protect in birth, pubescence, marriage, and death. 576 All its motives are grounded in specific instincts and needs, all its reconstructions and compensations culminate with reference to these. 577 Philosophy, on the other hand, deals with the 'whole' nature of human and your 'whole' environment. It seeks primaries and ultimates. 578 Its traditional task is so to define the universe as to articulate thereby a theory of life and eternal salvation. 579 It establishes contact with reality at no individual, specific point: its reals are "real in general." It aims, in a word, to be relevant to all nature, and to express the whole soul of human. 580 The consequence is inevitable: it

forfeits relevance to everything natural; touching nothing actual, it reconstructs nothing actual. 581 Its concretest incarnation is a dialectic design woven of words. The systems of tradition, hence, are works of art, to be contemplated, enjoyed, and believed in, but not to be acted on. 582 For, since action is always concrete and specific, always determined to time, place, and occasion, we cannot in fact adapt ourselves to the aggregate infinitude of the environment, or that to ourselves. 583 Something always stands out, recalcitrant, invincible, defiant. But it is just such an adaptation that philosophy intends, 584 and the futility of the intention is evinced by the fact that the systems of tradition continue side by side with the realities they deny, 585 and live unmixed in one and the same mind, as a picture of the ocean on the wall of a dining room in an inland town. 586 Our operative relations to them tend always to be essentially æsthetic. We may and do believe in them in spite of life and experience, because belief in them, involving no action, involves no practical risk. 587 Where action is a consequence of a philosophic system, the system seems to dichotomise into art and religion. 588 It becomes particularised into a technique of living or the dogma of a sect, and so particularised it becomes radically self-conscious and an aspect of creative intelligence.

589 So particularised, it is, however, no longer philosophy, and philosophy has (I hope I may say this without professional bias) an inalienable place in the life of reason. 590 This place is rationally defined for it by the discovery of its ground and function in the making of civilisation; and by the perfection of its possibilities through the definition of its natural relationships. 591 Thus, it is, in its essential historic character at least, as fine an art as music, the most inward and human of all arts. 592 It may be, and human nature being what it is, undoubtedly will continue to be, an added item to the creations wherewith human makes own world a better place to live in, 593 precious in that it envisages and projects the excellences and perfections your

heart desires and your imagination therefore defines. 594 So taken, it is not a substitution for the world, but an addition to it, a refraction of it through the medium of human nature, 595 as a landscape painting by Whistler or Turner is not a substitution for the actual landscape, but an interpretation and imaginative perfection of it, more suitable to the eye of human. 596 A system like Bergson's is such a work, and its æsthetic adequacy, its beauty, may be measured by the acknowledgment it receives and the influence it exercises. 597 Choosing one of the items of experience as its medium, and this item the most precious in the mind's eye which the history of philosophy reveals, 598 it proceeds to fabricate a dialectical image of experience in which all the compensatory desiderates are expressed and realised. 599 It entices minds of all orders, and they are happy to dwell in it, for the nonce realising in the perception of the system the values it utters. 600 By abandoning all pretense to be true, philosophic systems of the traditional sort may attain the simple but supreme excellence of beauty, and rest content therewith.

601 The philosophic ideal, however, is traditionally not beauty but truth: the function of a philosophic system is not presentative, but 're'presentative and causal, 602 and that the systems of tradition have had and still have consequences as well as character, is obvious enough. 603 It is, however, to be noted that these consequences have issued out of the fact that the systems have been specific items of existence among other equally and even more specific items, thought by particular people, at particular times and in particular places. 604 As such they have been programs for meeting events and incarnating values; operative ideals aiming to recreate the world according to determined standards. 605 They have looked forward rather than backward, have tacitly acknowledged the reality of change, the irreducible pluralism of Nature, 606 and the genuineness of the activities, oppugnant or harmonising, between the items of the Cosmic. 607 Many they ostensibly negate. The truth, in a

word, has been experimental and prospective; the desiderates they uttered operated actually as such and not as already existing. 608 Historians of philosophy, treating it as if it had no context, have denied or ignored this rôle of philosophy in human events, but historians of the events themselves could not avoid observing and enregistering it.

609 Only within very recent years, as an effect of the concept of evolution in the field of the sciences, have philosophers as such envisaged this non-æsthetic aspect of philosophy's ground and function in the making of civilisation 610 and have made it the basis for a sober vision which may or may not have beauty, but which cannot have finality. 611 Such a vision is again nothing more than traditional philosophy become conscious of its character and limitations and shorn of its pretense. 612 It is a program to execute rather than a metaphysic to rest in. Its procedure is the procedure of all the arts and sciences. 613 It frankly acknowledges the realities of immediate experience, the turbulence and complexity of the flux, the inter-penetrative confusion of orders, the inward self-diversification of even the simplest thing, which "change" means, 614 and the continual emergence of novel entities, unforeseen and unprevisible, from the reciprocal action of the older aggregate. 615 This perceptual reality it aims to remould according to the heart's desire. 616 Accordingly it drops the pretense of envisaging the universe and devotes itself to its more modest task of applying its standards to a particular item that needs to be remade. 617 It is believed in, but no longer without risk, for, without becoming a dogma, it still subjects itself to the tests of action. 618 So it acknowledges that it must and will itself undergo constant modification through the process of action, 619 in which it uses events, in their meanings rather than in their natures, to map out the future and to make it amenable to human nature. 620 Philosophy so used is, as John Dewey somewhere says, a mode and organ of experience among many others. 621 In a world the very core

of which is change, it is directed upon that which is not yet, to previse and to form its character and to map out the way of life within it. 622 Its aim is the liberation and enlargement of human capacities, the enfranchisement of human by the actual realisation of values. 623 In its integrate character therefore, it envisages the life of reason and realises it as the art of life. 624 Where it is successful, beauty and use are confluent and identical in it. It converts sight into insight. It infuses existence with value, making them one. 625 It is the concrete incarnation of Creative Intelligence.

The Book of Divine Panagogue called

SUPERSTITION

ORIGIN AND CONSEQUENCES OF SUPERSTITION

Benedict of Spinoza

1 Humans would never be superstitious, if they could govern all their circumstances by set rules, or if they were always favoured by fortune: 2 but being frequently driven into straits where rules are useless, and being often kept fluctuating pitiably between hope and fear by the uncertainty of fortune's greedily coveted favours, 3 they are consequently, for the most part, very prone to credulity. 4 The human mind is readily swayed this way or that in times of doubt, 5 especially when hope and fear are struggling for the mastery, though usually it is boastful, over-confident, and vain. 6 This as a general fact I suppose everyone knows, though few, I believe, know their own nature; 7 no one can have lived in the world without observing that most people, when in prosperity, are so over-brimming with wisdom (however inexperienced they may be), 8 that they take every offer of advice as a personal insult, whereas in adversity they know not where to turn, but beg and pray for counsel from every passer-by. 9 No plan is then too futile, too absurd, or too fatuous for their adoption; the most frivolous causes will raise them to hope, or plunge them into despair-- 10 if anything happens during their fright which reminds them of some past good or ill, they think it portends a happy or unhappy issue, 11 and therefore (though it may have proved abortive a hundred times before) style it a lucky or unlucky omen. 12 Anything which excites their astonishment they believe to be a portent signifying the anger of the gods or of the Supreme Being, 13 and, mistaking superstition for religion, account it impious not to avert the evil with prayer and sacrifice. 14 Signs and wonders of this sort they conjure up perpetually, till one might think Nature as mad as themselves, they interpret Her so fantastically. 15 Thus it is brought prominently before us, that superstition's chief victims are those persons who

greedily covet temporal advantages; 16 they it is, who (especially when they are in danger, and cannot help themselves) are wont with Prayers and womanish tears to implore help from God: 17 upbraiding Reason as blind, because it cannot show a sure path to the shadows they pursue, and rejecting human wisdom as vain; 18 but believing the phantoms of imagination, dreams, and other childish absurdities, to be the very oracles of Heaven. 19 As though God had turned away from the wise, and written His decrees, not in the mind of human but in the entrails of beasts, or left them to be proclaimed by the inspiration and instinct of fools, mad people, and birds. 20 Such is the unreason to which terror can drive humankind 21 Superstition, then, is engendered, preserved, and fostered by fear. 22 If anyone desire an example, let you take Alexander, who only began superstitiously to seek guidance from seers, when he first learnt to fear fortune in the passes of Sysis; 23 whereas after he had conquered Darius he consulted prophets no more, till a second time frightened by reverses. 24 When the Scythians were provoking a battle, the Bactrians had deserted, and he himself was lying sick of his wounds, 25 "he once more turned to superstition, the mockery of human wisdom, and bade Aristander, to whom he confided his credulity, inquire the issue of affairs with sacrificed victims." 26 Very numerous examples of a like nature might be cited, clearly showing the fact, that only while under the dominion of fear do humans fall a prey to superstition; 27 that all the portents ever invested with the reverence of misguided religion are mere phantoms of dejected and fearful minds; 28 and lastly, that prophets have most power among the people, and are most formidable to rulers, precisely at those times when the state is in most peril. 29 I think this is sufficiently plain to all, and will therefore say no more on the subject. 30 The origin of superstition above given affords us a clear reason for the fact, that it comes to all humans naturally, 31 though some refer the rise of superstition to a dim notion of

God, universal to humankind, and also tends to show, that it is no less inconsistent and variable than other mental hallucinations and emotional impulses, 32 and further that it can only be maintained by hope, hatred, anger, and deceit; since it springs, not from reason, but solely from the more powerful phases of emotion. 33 Furthermore, we may readily understand how difficult it is, to maintain in the same course humans prone to every form of credulity. 34 For, as the mass of humankind remains always at about the same pitch of misery, it never assents long to any one remedy, but is always best pleased by a novelty which has not yet proved illusive. 35 This element of inconsistency has been the cause of many terrible wars and revolutions; 36 for, as Curtius well says: "The mob has no ruler more potent than superstition," and is easily led, on the plea of religion, 37 at one moment to adore its kings as gods, and anon to execrate and abjure them as humanity's common bane. 38 Immense pains have therefore been taken to counteract this evil by investing religion, whether true or false, with such pomp and ceremony, 39 that it may rise superior to every shock, and be always observed with studious reverence by the whole people-- a system which has been brought to great perfection by the Turks, 40 for they consider even controversy impious, and so clog humans' minds with dogmatic formulas, that they leave no room for sound reason, not even enough to doubt with. 41 But if, in despotic statecraft, the supreme and essential mystery be to hoodwink the subjects, and to mask the fear, which keeps them clown, with the specious garb of religion, 42 so that people may fight as bravely for slavery as for safety, and count it not shame but highest honour to risk their blood and their lives for the vainglory of a tyrant; 43 yet in a free state no more mischievous expedient could be planned or attempted. 44 Wholly repugnant to the general freedom are such devices as enthralling humans' minds with prejudices, forcing their judgment, or employing any of the weapons of quasi-religious sedition; 45 indeed, such seditions

only spring up, when law enters the domain of speculative thought, and opinions are put on trial and condemned on the same footing as crimes, 46 while those who defend and follow them are sacrificed, not to public safety, but to their opponents' hatred and cruelty. 47 If deeds only could be made the grounds of criminal charges, and words were always allowed to pass free, such seditions would be divested of every semblance of justification, and would be separated from mere controversies by a hard and fast line. 48 Now, seeing that we have the rare happiness of living in a republic, where everyone's judgment is free and unshackled, where each may worship God as own conscience dictates, and where freedom is esteemed before all things dear and precious, 49 I have believed that I should be undertaking no ungrateful or unprofitable task, in demonstrating that not only can such freedom be granted without prejudice to the public peace, but also, that without such freedom, piety cannot flourish nor the public peace be secure. 50 Such is the chief conclusion I seek to establish in this treatise; but, in order to reach it, I must first point out the misconceptions which, like scars of our former bondage, still disfigure our notion of religion, 51 and must expose the false views about the civil authority which many have most impudently advocated, endeavouring to turn the mind of the people, still prone to heathen superstition, away from its legitimate rulers, and so bring us again into slavery. 52 As to the order of my treatise I will speak presently, but first I will recount the causes which led me to write. 53 I have often wondered, that persons who make a boast of professing the Christian religion, namely, love, joy, peace, temperance, and charity to all people, should quarrel with such rancorous animosity, 54 and display daily towards one another such bitter hatred, that this, rather than the virtues they claim, is the readiest criterion of their faith. 55 Matters have long since come to such a pass, that one can only pronounce a person Christian, Turk, Jew, or Heathen, by own general appearance and attire, 56 by own frequenting this or that

place of worship, or employing the phraseology of a particular sect-- as for manner of life, it is in all cases the same. 57 Inquiry into the cause of this anomaly leads me unhesitatingly to ascribe it to the fact, that the ministries of the Church are regarded by the masses merely as dignities, its offices as posts of emolument-- 58 in short, popular religion may be summed up as respect for ecclesiastics. 59 The spread of this misconception inflamed every worthless fellow with an intense desire to enter holy orders, and thus the love of diffusing God's religion degenerated into sordid avarice and ambition. 60 Every church became a theatre, where orators, instead of church teachers, harangued, caring not to instruct the people, but striving to attract admiration, to bring opponents to public scorn, and to preach only novelties and paradoxes, such as would tickle the ears of their congregation. 61 This state of things necessarily stirred up an amount of controversy, envy, and hatred, which no lapse of time could appease; 62 so that we can scarcely wonder that of the old religion nothing survives but its outward forms (even these, in the mouth of the multitude, seem rather adulation than adoration of the Deity), 63 and that faith has become a mere compound of credulity and prejudices-- 64 aye, prejudices too, which degrade human from rational being to beast, which completely stifle the power of judgment between true and false, 65 which seem, in fact, carefully fostered for the purpose of extinguishing the last spark of reason! 66 Piety, great God! and religion are become a tissue of ridiculous mysteries; 67 people, who flatly despise reason, who reject and turn away from understanding as naturally corrupt, 68 these, I say, these of all humans, are thought, O lie most horrible! to possess light from on High. 69 Verily, if they had but one spark of light from on High, they would not insolently rave, but would learn to worship God more wisely, and would be as marked among their fellows for mercy as they now are for malice; 70 if they were concerned for their opponents' souls, instead of for their own reputations, they would no longer

fiercely persecute, but rather be filled with pity and compassion. 71 Furthermore, if any Divine light were in them, it would appear from their doctrine. 72 I grant that they are never tired of professing their wonder at the profound mysteries of Holy Writ; 73 still I cannot discover that they teach anything but speculations of Platonists and Aristotelians, to which (in order to save their credit for Christianity) they have made Holy Writ conform; 74 not content to rave with the Greeks themselves, they want to make the prophets rave also; showing conclusively, that never even in sleep have they caught a glimpse of Scripture's Divine nature. 75 The very vehemence of their admiration for the mysteries plainly attests, that their belief in the Bible is a formal assent rather than a living faith: 76 and the fact is made still more apparent by their laying down beforehand, as a foundation for the study and true interpretation of Scripture, the principle that it is in every passage true and divine. 77 Such a doctrine should be reached only after strict scrutiny and thorough comprehension of the Sacred Books 78 (which would teach it much better, for they stand in need no human factions), and not be set up on the threshold, as it were, of inquiry. 79 As I pondered over the facts that the light of reason is not only despised, but by many even execrated as a source of impiety, that human commentaries are accepted as divine records, and that credulity is extolled as faith; 80 as I marked the fierce controversies of philosophers raging in Church and State, the source of bitter hatred and dissension, the ready instruments of sedition and other ills innumerable, 81 I determined to examine the Bible afresh in a careful, impartial, and unfettered spirit, making no assumptions concerning it, and attributing to it no doctrines, which I do not find clearly therein set down. 82 With these precautions I constructed a method of Scriptural interpretation, and thus equipped proceeded to inquire-- what is prophecy? 83 In what sense did God reveal Himself to the prophets, and why were these particular people-- chosen by

Him? 84 Was it on account of the sublimity of their thoughts about the Deity and Nature, or was it solely on account of their piety? 85 These questions being answered, I was easily able to conclude, that the authority of the prophets has weight only in matters of morality, and that their speculative doctrines affect us little. 86 Next I inquired, why the Hebrews were called God's chosen people, and discovering that it was only because God had chosen for them a certain strip of territory, where they might live peaceably and at ease, 87 I learnt that the Law revealed by God to Moses was merely the law of the individual Hebrew state, therefore that it was binding on none but Hebrews, and not even on Hebrews after the downfall of their nation. 88 Further, in order to ascertain, whether it could be concluded from Scripture, that the human understanding is naturally corrupt, 89 I inquired whether the Universal Religion, the Divine Law revealed through the Prophets and Apostles to the whole human race, differs from that which is taught by the light of natural reason, 90 whether miracles can take place in violation of the laws of Nature, and if so, whether they imply the existence of God more surely and clearly than events, which we understand plainly and distinctly through their immediate natural causes. 91 Now, as in the whole course of my investigation I found nothing taught expressly by Scripture, which does not agree with our understanding, or which is repugnant thereto, 92 and as I saw that the prophets taught nothing, which is not very simple and easily to be grasped by all, 93 and further, that they clothed their teaching in the style, and confirmed it with the reasons, which would most deeply move the mind of the masses to devotion towards God, 94 I became thoroughly convinced, that the Bible leaves reason absolutely free, that it has nothing in common with philosophy, in fact, that Revelation and Philosophy stand on different footings. 95 In order to set this forth categorically and exhaust the whole question, I point out the way in which the Bible should be interpreted, 96 and show that all of spiritual questions

should be sought from it alone, and not from the objects of ordinary knowledge. 97 Thence I pass on to indicate the false notions, which have from the fact that the multitude-- ever prone to superstition, and caring more for the shreds of antiquity for eternal truths-- pays homage to the Books of the Bible, rather than to the Word of God. 98 I show that the Word of God has not been revealed as a certain number of books, was displayed to the prophets as a simple idea of the mind, namely, obedience to God in singleness of heart, and in the practice of justice and charity; 99 and I further point out, that this doctrine is set forth in Scripture in accordance with the opinions and understandings of those, among whom the Apostles and Prophets preached, 100 to the end that people might receive it willingly, and with their whole heart. 101 Having thus laid bare the bases of belief, I draw the conclusion that Revelation has obedience for its sole object, 102 therefore, in purpose no less than in foundation and method, stands entirely aloof from ordinary knowledge; each has its separate province, neither can be called the handmaid of the other. 103 Furthermore, as humans' habits of mind differ, so that some more readily embrace one form of faith, some another, for what moves one to pray may move another only to scoff, 104 I conclude, in accordance with what has gone before, that everyone should be free to choose for yourself the foundations of your creed, 105 and that faith should be judged only by its fruits; each would then obey God freely with own whole heart, while nothing would be publicly honoured save justice and charity. 106 Having thus drawn attention to the liberty conceded to everyone by the revealed law of God, 107 I pass on to another part of my subject, and prove that this same liberty can and should be accorded with safety to the state and the magisterial authority-- 108 in fact, that it cannot be withheld without great danger to peace and detriment to the community. 109 In order to establish my point, I start from the natural rights of the individual, which are co-extensive with own desires and power, 110 and from

the fact that no one is bound to live as another pleases, but is the guardian of your own liberty. 111 I show that these rights can only be transferred to those whom we depute to defend us, who acquire with the duties of defence the power of ordering our lives, 112 and I thence infer that rulers possess rights only limited by their power, that they are the sole guardians of justice and liberty, and that their subjects should act in all things as they dictate: 113 nevertheless, since no one can so utterly abdicate own power of self-defence as to cease to be a human, I conclude that no one can be deprived of own natural rights absolutely, 114 but that subjects, either by tacit agreement, or by social contract, retain a certain number, which cannot be taken from them without great danger to the state. 115 From these considerations I pass on to the Hebrew State, which I describe at some length, in order to trace the manner in which Religion acquired the force of law, and to touch on other noteworthy points. 116 I then prove, that the holders of sovereign power are the depositories and interpreters of religious no less than of civil ordinances, and that they alone have the right to decide what is just or unjust, pious or impious; 117 lastly, I conclude by showing, that they best retain this right and secure safety to their state by allowing every person to think what you likes, and say what you thinks. 118 Such, Philosophical Reader, are the questions I submit to your notice, counting on your approval, for the subject matter of the whole book and of the several chapters is important and profitable. 119 I would say more, but I do not want my preface to extend to a volume, especially as I know that its leading propositions are to Philosophers but common places. 120 To the rest of humankind I care not to commend my treatise, for I cannot expect that it contains anything to please them: 121 I know how deeply rooted are the prejudices embraced under the name of religion; I am aware that in the mind of the masses superstition is no less deeply rooted than fear; 122 I recognise that their constancy is mere obstinacy, and that they are

led to praise or blame by impulse rather than reason. 123 Therefore the multitude, and those of like passions with the multitude, I ask not to read my book; nay, I would rather that they should utterly neglect it, than that they should misinterpret it after their wont. 124 They would gain no good themselves, and might prove a stumbling-block to others, whose philosophy is hampered by the belief that Reason is a mere handmaid to Theology, and whom I seek in this work especially to benefit. 125 But as there will be many who have neither the leisure, nor, perhaps, the inclination to read through all I have written, I feel bound here, as at the end of my treatise, to declare that I have written nothing, which I do not most willingly submit to the examination and judgment of my country's rulers, 126 and that I am ready to retract anything, which they shall decide to be repugnant to the laws or prejudicial to the public good. 127 I know that I am a human and, as a human, liable to error, 128 but against error I have taken scrupulous care, and striven to keep in entire accordance with the laws of my country, with loyalty, and with morality.

The Book of Divine Panagogue called

THE STATE

OF THE FOUNDATIONS OF A STATE; OF THE NATURAL AND CIVIL RIGHTS OF INDIVIDUALS; AND OF THE RIGHTS OF THE SOVEREIGN POWER

Benedict of Spinoza

1 Hitherto our care has been to separate philosophy from theology, and to show the freedom of thought which such separation insures to both. 2 It is now time to determine the limits to which such freedom of thought and discussion may extend itself in the ideal State. 3 For the due consideration of this question we must examine the foundations of a State, first turning our attention to the natural rights of individuals, and afterwards to religion and the State as a whole.

4 By the right and ordinance of Nature, I merely mean those natural laws wherewith we conceive every individual to be conditioned by Nature, so as to live and act in a given way. 5 For instance, fishes are naturally conditioned for swimming, and the greater for devouring the less; therefore fishes enjoy the water, and the greater devour the less by sovereign natural right. 6 For it is certain that Nature, taken in the abstract, has sovereign right to do anything She can; in other words, Her right is co-extensive with Her power. 7 The power of Nature is the power of God, which has sovereign right over all things; 8 and, inasmuch as the power of Nature is simply the aggregate of the powers of all Her individual components, it follows that every individual has sovereign right to do all that you can; 9 in other words, the rights of an individual extend to the utmost limits of your power as it has been conditioned. 10 Now it is the sovereign law and right of Nature that each individual should endeavour to preserve yourself as it is, without regard to anything but yourself; 11 therefore this sovereign law and right belongs to every individual, namely, to exist and act according to its natural conditions. 12 We do not here acknowledge any difference between humankind and other individual natural entities, nor between people endowed with reason and those to whom reason is unknown; nor between fools, mad people, and sane people. 13 Whatsoever an individual does by the laws of your nature you have a sovereign right to do, inasmuch as you acts as it was conditioned by Nature, and cannot act otherwise. 14 Wherefore among humans, so long as they are considered as living under the sway of Nature, you who does not yet know reason, or who has not yet acquired the habit of virtue, acts

solely according to the laws of your desire with as sovereign a right as you who orders your life entirely by the laws of reason.
15 That is, as the wise person has sovereign right to do all that reason dictates, or to live according to the laws of reason, so also the ignorant and foolish person has sovereign right to do all that desire dictates, or to live according to the laws of desire. 16 This is identical with the teaching of Paul, who acknowledges that previous to the law-- that is, so long as humans are considered of as living under the sway of Nature, there is no sin.
17 The natural right of the individual human is thus determined, not by sound reason, but by desire and power. All are not naturally conditioned so as to act according to the laws and rules of reason; 18 nay, on the contrary, all humans are born ignorant, and before they can learn the right way of life and acquire the habit of virtue, the greater part of their life, even if they have been well brought up, has passed away. 19 Nevertheless, you are in the meanwhile bound to live and preserve yourselves as far as you can by the unaided impulses of desire. 20 Nature has given you no other guide, and has denied you the present power of living according to sound reason; 21 so that you are no more bound to live by the dictates of an enlightened mind, than a cat is bound to live by the laws of the nature of a lion.
22 Whatsoever, therefore, an individual (considered as under the sway of Nature) thinks useful for yourself, whether led by sound reason or impelled by the passions, 23 that you have a sovereign right to seek and to take for yourself as you best can, whether by force, cunning, entreaty, or any other means; 24 consequently you may regard as an enemy anyone who hinders the accomplishment of your purpose.
25 It follows from what we have said that the right and ordinance of Nature, under which all humans are born, and under which they mostly live, only prohibits such things as no one desires, and no one can attain: 26 Nature does not forbid strife, nor hatred, nor anger, nor deceit, nor, indeed, any of the means suggested by desire.
27 This we need not wonder at, for Nature is not bounded by the laws of human reason, which aims only at human's true benefit and preservation; 28 Her limits are infinitely wider, and have reference to the eternal order of Nature, wherein human is but a speck; 29 it is by the necessity of this alone that all individuals are conditioned for living and acting in a particular way. 30 If anything, therefore, in Nature seems to us ridiculous, absurd, or evil, it is because we only know in part, and are almost entirely ignorant of the

order and interdependence of Nature as a whole, 31 and also because we want everything to be arranged according to the dictates of our human reason; 32 in reality that which reason considers evil, is not evil in respect to the order and laws-of-Nature as a whole, but only in respect to the laws of our reason.

33 Nevertheless, no one can doubt that it is much better for us to live according to the laws and assured dictates of reason, for, as we said, they have humans' true good for their object. 34 Moreover, everyone wishes to live as far as possible securely beyond the reach of fear, and this would be quite impossible so long as everyone did everything one liked, and reason's claim was lowered to a par with those of hatred and anger; 35 there is no one who is not ill at ease in the midst of enmity, hatred, anger, and deceit, and who does not seek to avoid them as much as you can. 36 When we reflect that people without mutual help, or the aid of reason, must needs live most miserably, as we clearly proved in the Book of LAW, chapter-2, 37 we shall plainly see that humans must necessarily come to an agreement to live together as securely and well as possible if they are to enjoy as a whole the rights which naturally belong to them as individuals, 38 and their life should be no more conditioned by the force and desire of individuals, but by the power and will of the whole body. 39 This end they will be unable to attain if desire be their only guide (for by the laws of desire each human is drawn in a different direction); 40 they must, therefore, most firmly decree and establish that they will be guided in everything by reason (which nobody will dare openly to repudiate lest you should be taken for a mad-person), 41 and will restrain any desire which is injurious to a person's fellows, that they will do to all as they would be done by, and that they will defend their neighbour's rights as their own.

42 How such a compact as this should be entered into, how ratified and established, we will now inquire.

43 Now it is a universal law of human nature that no one ever neglects anything which you judges to be good, except with the hope of gaining a greater good, or from the fear of a greater evil; 44 nor does anyone endure an evil except for the sake of avoiding a greater evil, or gaining a greater good. 45 That is, everyone will, of two goods, choose that which one thinks the greatest; and, of two evils, that which one thinks the least. 46 I say advisedly that which you thinks the greatest or the least, for it does not necessarily follow that you judges right. 47 This law is so deeply implanted in the human mind that it ought to be

counted among eternal truths and axioms.
48 As a necessary consequence of the principle just enunciated, no one can honestly promise to forego the right which you have over all things, 49 and in general no one will abide by own promises, unless under the fear of a greater evil, or the hope of a greater good. 50 An example will make the matter clearer. Suppose that a robber forces me to promise that I will give him my goods at his will and pleasure. 51 It is plain (inasmuch as my natural right is, as I have shown, co-extensive with my power) that if I can free myself from this robber by stratagem, by assenting to his demands, I have the natural right to do so, and to pretend to accept his conditions. 52 Or again, suppose I have genuinely promised someone that for the space of twenty days I will not taste food or any nourishment; and suppose I afterwards find that was foolish, and cannot be kept without very great injury to myself; 53 as I am bound by natural law and right to choose the least of two evils, I have complete right to break my compact, and act as if my promise had never been uttered. 54 I say that I should have perfect natural right to do so, whether I was actuated by true and evident reason, or whether I was actuated by mere opinion in thinking I had promised rashly; 55 whether my reasons were true or false, I should be in fear of a greater evil, which, by the ordinance of Nature, I should strive to avoid by every means in my power.
56 We may, therefore, conclude that a compact is only made valid by its utility, without which it becomes null and void. 57 It is, therefore, foolish to ask a person to keep own faith with us for ever, unless we also endeavour that the violation of the compact we enter into shall involve for the violator more harm than good. 58 This consideration should have very great weight in forming a State. 59 However, if all humans could be easily led by reason alone, and could recognise what is best and most useful for a State, there would be no one who would not forswear deceit, 60 for everyone would keep most religiously to their compact in their desire for the chief good, namely, the shield and buckler of the commonwealth. 61 However, it is far from being the case that all humans can always be easily led by reason alone; everyone is drawn away by own pleasure, 62 while avarice, ambition, envy, hatred, and the like so engross the mind that, reason has no place therein. 63 Hence, though humans make promises with all the appearances of good faith, and agree that they will keep to their engagement, no one can absolutely rely on another human's promise unless there is

something behind it. 64 Everyone has by nature a right to act deceitfully, and to break own compacts, unless you be restrained by the hope of some greater good, or the fear of some greater evil.

65 However, as we have shown that the natural right of the individual is only limited by your own power, 66 it is clear that by transferring, either willingly or under compulsion, this power into the hands of another, you in so doing necessarily cedes also a part of your right; 67 and further, that the Sovereign right over all people belongs to you who has sovereign power, wherewith you can compel people by force, or restrain them by threats of the universally feared punishment of death; 68 such sovereign right you will retain only so long as you can maintain your power of enforcing your will; otherwise you will totter on your throne, and no one who is stronger than you will be bound unwillingly to obey you.

69 In this manner a society can be formed without any violation of natural right, and the covenant can always be strictly kept-- 70 that is, if each individual hands over the whole of your power to the body politic, the latter will then possess sovereign natural right over all things; 71 that is, it will have sole and unquestioned dominion, and everyone will be bound to obey, under pain of the severest punishment. 72 A body politic of this kind is called a Democracy, which may be defined as a society which wields all its power as a whole. 73 The sovereign power is not restrained by any laws, but everyone is bound to obey it in all things; 74 such is the State of things implied when people either tacitly or expressly handed over to it all their power of self-defence, or in other words, all their right. 75 For if they had wished to retain any right for themselves, they ought to have taken precautions for its defence and preservation; 76 as they have not done so, and indeed could not have done so without dividing and consequently ruining the State, they placed themselves absolutely at the mercy of the sovereign power; 77 and, therefore, having acted (as we have shown) as reason and necessity demanded, they are obliged to fulfil the commands of the sovereign power, 78 however absurd these may be, else they will be public enemies, and will act against reason, which urges the preservation of the State as a primary duty. 79 For reason bids us choose the least of two evils.

80 Furthermore, this danger of submitting absolutely to the dominion and will of another, is one which may be incurred with a light heart: 81 for we have shown that sovereigns only possess this right of imposing their will, so long as they have the full power to enforce it: 82 if such power be lost

their right to command is lost also, or lapses to those who have assumed it and can keep it. 83 Thus it is very rare for sovereigns to impose thoroughly irrational commands, for they are bound to consult their own interests, 84 and retain their power by consulting the public good and acting according to the dictates of reason, as Seneca says, "violenta imperia nemo continuit diu." 85 No one can long retain a tyrant's sway.

86 In a democracy, irrational commands are still less to be feared: for it is almost impossible that the majority of a people, especially if it be a large one, should agree in an irrational design: 87 and, moreover, the basis and aim of a democracy is to avoid the desires as irrational, and to bring people as far as possible under the control of reason, so that they may live in peace and harmony: if this basis be removed the whole fabric falls to ruin.

88 Such being the ends in view for the sovereign power, the duty of subjects is, as I have said, to obey its commands, and to recognise no right save that which it sanctions.

89 It will, perhaps, be thought that we are turning subjects into slaves: for slaves obey commands and free people live as they like; 90 but this idea is based on a misconception, for the true slave is one who is led away by own pleasures and can neither see what is good for own self nor act accordingly: 91 you alone is free who lives with free consent under the entire guidance of reason.

92 Action in obedience to orders does take away freedom in a certain sense, but it does not, therefore, make a person a slave, all depends on the object of the action. 93 If the object of the action be the good of the State, and not the good of the agent, the latter is a slave and does own self no good: 94 but in a State or kingdom where the weal of the whole people, and not that of the ruler, is the supreme law, obedience to the sovereign power does not make a person a slave, of no use to yourself, but a subject. 95 Therefore, that State is the freest whose laws are founded on sound reason, so that every member of it may, if you will, be free; that is, live with full consent under the entire guidance of reason.

96 Children, though they are bound to obey all the commands of their parents, are yet not slaves: for the commands of parents look generally to the children's benefit.

97 We must, therefore, acknowledge a great difference between a slave, an offspring, and a subject; their positions may be thus defined. 98 A slave is one who is bound to obey own master's orders, though they are given solely in the master's interest: 99 an offspring is one who obeys own parent's orders, given in own interest; 100 a subject obeys the

orders of the sovereign power, given for the common interest, wherein one is included.

101 I think I have now shown sufficiently clearly the basis of a democracy: I have especially desired to do so, for I believe it to be of all forms of government the most natural, and the most consonant with individual liberty. 102 In it no one transfers own natural right so absolutely that you have no further voice in affairs, you only hands it over to the majority of a society, whereof you are a unit. 103 Thus all humans remain as they were in the State of Nature, equals.

104 This is the only form of government which I have treated of at length, for it is the one most akin to my purpose of showing the benefits of freedom in a State.

105 I may pass over the fundamental principles of other forms of government, for we may gather from what has been said whence their right arises without going into its origin. 106 The possessor of sovereign power, whether you be one, or many, or the whole body politic, has the sovereign right of imposing any commands you pleases: 107 and you who has either voluntarily, or under compulsion, transferred the right to defend you to another, has, in so doing, renounced your natural right and is therefore bound to obey, in all things, the commands of the sovereign power; 108 and will be bound so to do so long as the king, or nobles, or the people preserve the sovereign power which formed the basis of the original transfer. I need add no more.

109 The bases and rights of dominion being thus displayed, we shall readily be able to define private civil right, wrong, justice, and injustice, with their relations to the State; 110 and also to determine what constitutes an ally, or an enemy, or the crime of treason.

111 By private civil right we can only mean the liberty every human possesses to preserve own existence, a liberty limited by the edicts of the sovereign power, and preserved only by its authority: 112 for when a person has transferred to another own right of living as one likes, which was only limited by your power, that is, has transferred your liberty and power of self-defence, you are bound to live as that other dictates, and to trust to others entirely for your defence. 113 Wrong takes place when a citizen, or subject, is forced by another to undergo some loss or pain in contradiction to the authority of the law, or the edict of the sovereign power.

114 Wrong is conceivable only in an organised community: nor can it ever accrue to subjects from any act of the sovereign, who has the right to do what one likes. 115 It can only arise, therefore, between

private persons, who are bound by law and right not to injure one another. 116 Justice consists in the habitual rendering to every person your lawful due: injustice consists in depriving a person, under the pretence of legality, of what the laws, rightly interpreted, would allow you. 117 These last are also called equity and iniquity, because those who administer the laws are bound to show no respect of persons, but to account all people equal, and to defend every person's right equally, neither envying the rich nor despising the poor.

118 The people of two States become allies, when for the sake of avoiding war, or for some other advantage, they covenant to do each other no hurt, but on the contrary, to assist each other if necessity arises, each retaining own independence. 119 Such a covenant is valid so long as its basis of danger or advantage is in force: 120 no one enters into an engagement, or is bound to stand by own compacts unless there be a hope of some accruing good, or the fear of some evil: 121 if this basis be removed the compact thereby becomes void: this has been abundantly shown by experience. 122 For although different States make treaties not to harm one another, they always take every possible precaution against such treaties being broken by the stronger party, 123 and do not rely on the compact, unless there is a sufficiently obvious object and advantage to both parties in observing it. Otherwise they would fear a breach of faith, nor would there be any wrong done thereby: 124 for who in own proper senses, and aware of the right of the sovereign power, would trust in the promises of one who has the will and the power to do what they likes, and who aims solely at the safety and advantage of their dominion? 125 Moreover, if we consult loyalty and religion, we shall see that no one in possession of power ought to abide by own promises to the injury of own dominion; 126 for you cannot keep such promises without breaking the engagement you made with your subjects, by which both you and they are most solemnly bound. 127 An enemy is one who lives apart from the State, and does not recognise its authority either as a subject or as an ally. 128 It is not hatred which makes a person an enemy, but the rights of the State. 129 The rights of the State are the same in regard to you who does not recognise by any compact the State authority, as they are against you who has done the State an injury: it has the right to force you as best it can, either to submit, or to contract an alliance.

130 Lastly, treason can only be committed by subjects, who by compact, either tacit or expressed, have transferred all their rights to the State: 131 a subject is said to

have committed this crime when you have attempted, for whatever reason, to seize the sovereign power, or to place it in different hands. 132 I say, has attempted, for if punishment were not to overtake you till you had succeeded, it would often come too late, the sovereign rights would have been acquired or transferred already.

133 I also say, has attempted, for whatever reason, to seize the sovereign power, and I recognise no difference whether such an attempt should be followed by public loss or public gain. 134 Whatever be your reason for acting, the crime is treason, and you are rightly condemned: in war, everyone would admit the justice of your sentence. 135 If a person does not keep to own post, but approaches the enemy without the knowledge of own commander, 136 whatever may be your motive, so long as you acts on your own motion, even if you advances with the design of defeating the enemy, you are rightly put to death, because you have violated your oath, and infringed the rights of your commander. 137 That all citizens are equally bound by these rights in time of peace, is not so generally recognised, but the reasons for obedience are in both cases identical. 138 The State must be preserved and directed by the sole authority of the sovereign, and such authority and right have been accorded by universal consent to you alone: 139 if, therefore, anyone else attempts, without own consent, to execute any public enterprise, even though the State might (as we said) reap benefit therefrom, such person has none the less infringed the sovereign's right, and would be rightly punished for treason.

140 In order that every scruple may be removed, we may now answer the inquiry, whether our former assertion that everyone who has not the practice of reason, may, in the State of Nature, live by sovereign natural right, according to the laws of own desires, is not in direct opposition to the law and right of God as revealed. 141 For as all people absolutely (whether they be less endowed with reason or more) are equally bound by the Divine command to love their neighbour as themselves, it may be said that they cannot, without wrong, do injury to anyone, or live according to their desires.

142 This objection, so far as the State of Nature is concerned, can be easily answered, for the State of Nature is, both in Nature and in time, prior to religion. 143 No one knows by nature that you owes any obedience to God, nor can you attain thereto by any exercise of your reason, but solely by revelation confirmed by signs. 144 Therefore, previous to revelation, no one is bound by a Divine law and right of which you are necessarily in ignorance. 145 The

State of Nature must by no means be confounded with a State of religion, but must be conceived as without either religion or law, and consequently without sin or wrong: 146 this is how we have described it, and we are confirmed by the authority of Paul. 147 It is not only in respect of ignorance that we conceive the State of Nature as prior to, and lacking the Divine revealed law and right; but in respect of freedom also, wherewith all humans are born endowed.

148 If humans were naturally bound by the Divine law and right, or if the Divine law and right were a natural necessity, there would have been no need for God to make a covenant with humankind, and to bind them thereto with an oath and agreement.

149 We must, then, fully grant that the Divine law and right originated at the time when humans by express covenant agreed to obey God in all things, 150 and ceded, as it were, their natural freedom, transferring their rights to God in the manner described in speaking of the formation of a State.

151 However, I will treat of these matters more at length presently.

152 It may be insisted that sovereigns are as much bound by the Divine law as subjects: whereas we have asserted that they retain their natural rights, and may do whatever they like.

153 In order to clear up the whole difficulty, which arises rather concerning the natural right than the natural State, I maintain that everyone is bound, in the State of Nature, to live according to Divine law, 154 in the same way as you are bound to live according to the dictates of sound reason; namely, inasmuch as it is to your advantage, and necessary for your salvation; but, if you will not so live, you may do otherwise at your own risk. 155 You are thus bound to live according to your own laws, not according to anyone else's, and to recognise no human as a judge, or as a superior in religion. 156 Such, in my opinion, is the position of a sovereign, for you may take advice from your fellow-people, but you are not bound to recognise any as a judge, 157 nor anyone besides yourself as an arbitrator on any question of right, unless it be a prophet sent expressly by God and attesting own mission by indisputable signs. 158 Even then you does not recognise a human, but God Himself as His judge.

159 If a sovereign refuses to obey God as revealed in His law, you does so at your own risk and loss, but without violating any civil or natural right. 160 For the civil right is dependent on your own decree; and natural right is dependent on the laws-of-Nature, 161 which latter are not adapted to religion, whose sole aim is the good of

humanity, but to the order of Nature-- that is, to God's eternal decree unknown to us.
162 This truth seems to be adumbrated in a somewhat obscurer form by those who maintain that people can sin against God's revelation, but not against the eternal decree by which He has ordained all things.
163 We may be asked, what should we do if the sovereign commands anything contrary to religion, and the obedience which we have expressly vowed to God? 164 Should we obey the Divine law or the human law? 165 I shall treat of this question at length hereafter, and will therefore merely say now, that God should be obeyed before all else, when we have a certain and indisputable revelation of His will: 166 but humans are very prone to error on religious subjects, and, according to the diversity of their dispositions, are wont with considerable stir to put forward their own inventions, as experience more than sufficiently attests, 167 so that if no one were bound to obey the State in matters which, in one own opinion concern religion, the rights of the State would be dependent on every human's judgment and passions. 168 No one would consider own self bound to obey laws framed against own faith or superstition; and on this pretext you might assume unbounded license. 169 In this way, the rights of the civil authorities would be utterly set at nought, 170 so that we must conclude that the sovereign power, which alone is bound both by Divine and natural right to preserve and guard the laws of the State, should have supreme authority for making any laws about religion which it thinks fit; 171 all are bound to obey its behests on the subject in accordance with their promise which God bids them to keep.
172 However, if the sovereign power be heathen, we should either enter into no engagements therewith, and yield up our lives sooner than transfer to it any of our rights; 173 or, if the engagement be made, and our rights transferred, we should (inasmuch as we should have ourselves transferred the right of defending ourselves and our religion) be bound to obey them, and to keep our word: 174 we might even rightly be bound so to do, except in those cases where God, by indisputable revelation, has promised His special aid against tyranny, or given us special exemption from obedience. 175 Thus we see that, of all the Jews in Babylon, there were only three youths who were certain of the help of God, and, therefore, refused to obey Nebuchadnezzar. 176 All the rest, with the sole exception of Daniel, who was beloved by the king, were doubtless compelled by right to

obey, 177 perhaps thinking that they had been delivered up by God into the hands of the king, and that the king had obtained and preserved his dominion by God's design. 178 On the other hand, Eleazar, before his country had utterly fallen, wished to give a proof of his constancy to his compatriots, in order that they might follow in his footsteps, 179 and go to any lengths, rather than allow their right and power to be transferred to the Greeks, or brave any torture rather than swear allegiance to the heathen. 180 Instances are occurring every day in confirmation of what I here advance. 181 The rulers of Christian kingdoms do not hesitate, with a view to strengthening their dominion, to make treaties with Turks and heathen, and to give orders to their subjects who settle among such peoples not to assume more freedom, either in things secular or religious, than is set down in the treaty, or allowed by the foreign government. 182 We may see this exemplified in the Dutch treaty with the Japanese, which I have already mentioned.

IT IS SHOWN THAT NO ONE CAN, OR NEED, TRANSFER ALL YOUR RIGHTS TO THE SOVEREIGN POWER. OF THE HEBREW REPUBLIC, AS IT WAS DURING THE LIFETIME OF MOSES, AND AFTER HIS DEATH, TILL THE FOUNDATION OF THE MONARCHY; AND OF ITS EXCELLENCE. LASTLY, OF THE CAUSES WHY THE THEOCRATIC REPUBLIC FELL, AND WHY IT COULD HARDLY HAVE CONTINUED WITHOUT DISSENSION

Benedict of Spinoza

2 The theory put forward in the last chapter, of the universal rights of the sovereign power, and of the natural rights of the individual transferred thereto, 2 though it corresponds in many respects with actual practice, and though practice may be so arranged as to conform to it more and more, must nevertheless always remain in many respects purely ideal. 3 No one can ever so utterly transfer to another own power and, consequently, own rights, as to cease to be a human; nor can there ever be a power so sovereign that it can carry out every possible wish. 4 It will always be vain to order a subject to hate what you believes brings you advantage, or to love what brings you loss, or not to be offended at insults, 5 or not to wish to be free from fear, or a hundred other things of the sort, which necessarily follow from the laws of human nature. 6 So much, I think, is abundantly shown by experience: for people have never so far ceded their power as to cease to be an object of fear to the rulers who received such power and right; 7 and dominions have always been in as much danger from their own subjects as from external enemies. 8 If it were

really the case, that people could be deprived of their natural rights so utterly as never to have any further influence on affairs, except with the permission of the holders of sovereign right, 9 it would then be possible to maintain with impunity the most violent tyranny, which, I suppose, no one would for an instant admit.

10 We must, therefore, grant that every person retains some part of own right, in dependence on your own decision, and no one else's.

11 However, in order correctly to understand the extent of the sovereign's right and power, we must take notice that it does not cover only those actions to which it can compel humans by fear, but absolutely every action which it can induce humans to perform: 12 for it is the fact of obedience, not the motive for obedience, which makes a person a subject.

13 Whatever be the cause which leads a person to obey the commands of the sovereign, whether it be fear or hope, or love of your country, or any other emotion-- the fact remains that the person takes counsel with own self, and nevertheless acts as own sovereign orders. 14 We must not, therefore, assert that all actions resulting from a person's deliberation with own self are done in obedience to the rights of the individual rather than the sovereign: 15 as a matter of fact, all actions spring from a human's deliberation with own self, whether the determining motive be love or fear of punishment; 16 therefore, either dominion does not exist, and has no rights over its subjects, or else it extends over every instance in which it can prevail on people to decide to obey it. 17 Consequently, every action which a subject performs in accordance with the commands of the sovereign, whether such action springs from love, or fear, or (as is more frequently the case) from hope and fear together, or from reverence, compounded of fear and admiration, 18 or, indeed, any motive whatever, is performed in virtue of your submission to the sovereign, and not in virtue of your own authority.

19 This point is made still more clear by the fact that obedience does not consist so much in the outward act as in the mental State of the person obeying; 20 so that you are most under the dominion of another who with your whole heart determines to obey another's commands; 21 and consequently the firmest dominion belongs to the sovereign who has most influence over the minds of own subjects; 22 if those who are most feared possessed the firmest dominion, the firmest dominion would belong to the subjects of a tyrant, for they are always greatly feared by their ruler. 23 Furthermore, though it is impossible to govern the mind as

completely as the tongue, nevertheless minds are, to a certain extent, under the control of the sovereign, 24 for you can in many ways bring about that the greatest part of your subjects should follow your wishes in their beliefs, their loves, and their hates. 25 Though such emotions do not arise at the express command of the sovereign they often result (as experience shows) from the authority of own power, and from own direction; in other words, in virtue of own right; 26 we may, therefore, without doing violence to our understanding, conceive people who follow the instigation of their sovereign in their beliefs, their loves, their hates, their contempt, and all other emotions whatsoever. 27 Though the powers of government, as thus conceived, are sufficiently ample, they can never become large enough to execute every possible wish of their possessors. This, I think, I have already shown clearly enough. 28 The method of forming a dominion which should prove lasting I do not, as I have said, intend to discuss, 29 but in order to arrive at the object I have in view, I will touch on the teaching of Divine revelation to Moses in this respect, 30 and we will consider the history and the success of the Jews, gathering therefrom what should be the chief concessions made by sovereigns to their subjects with a view to the security and increase of their dominion.

31 That the preservation of a State chiefly depends on the subjects' fidelity and constancy in carrying out the orders they receive, is most clearly taught both by reason and experience; 32 how subjects ought to be guided so as best to preserve their fidelity and virtue is not so obvious. 33 All, both rulers and ruled, are humans, and prone to follow after their lusts. 34 The fickle disposition of the multitude almost reduces those who have experience of it to despair, for it is governed solely by emotions, not by reason: 35 it rushes headlong into every enterprise, and is easily corrupted either by avarice or luxury: 36 everyone thinks own self omniscient and wishes to fashion all things to own liking, judging a thing to be just or unjust, lawful or unlawful, according as you thinks it will bring you profit or loss: 37 vanity leads you to despise your equals, and refuse their guidance: 38 envy of superior fame or fortune (for such gifts are never equally distributed) leads you to desire and rejoice in your neighbour's downfall. 39 I need not go through the whole list, everyone knows already how much crime results from disgust at the present-- 40 desire for change, headlong anger, and contempt for poverty-- and how humans' minds are engrossed and kept in turmoil thereby.

41 To guard against all these evils, and form a dominion where no room is left for deceit; to frame our institutions so that every person, whatever your disposition, may prefer public right to private advantage, this is the task and this the toil. 42 Necessity is often the mother of invention, but it has never yet succeeded in framing a dominion that was in less danger from its own citizens than from open enemies, or whose rulers did not fear the latter less than the former. 43 Witness the State of Rome, invincible by her enemies, but many times conquered and sorely oppressed by her own citizens, especially in the war between Vespasian and Vitellius.

44 Alexander thought prestige abroad more easy to acquire than prestige at home, and believed that his greatness could be destroyed by his own followers. 45 Fearing such a disaster, he thus addressed his friends: "Keep me safe from internal treachery and domestic plots, and I will front without fear the dangers of battle and of war. 46 Philip was more secure in the battle array than in the theatre: he often escaped from the hands of the enemy, he could not escape from his own subjects. 47 If you think over the deaths of kings, you will count up more who have died by the assassin than by the open foe."

48 For the sake of making themselves secure, kings who seized the throne in ancient times used to try to spread the idea that they were descended from the immortal gods, 49 thinking that if their subjects and the rest of humankind did not look on them as equals, but believed them to be gods, they would willingly submit to their rule, and obey their commands. 50 Thus Augustus persuaded the Romans that he was descended from Æneas, who was the son of Venus, and numbered among the gods. 51 "He wished himself to be worshipped in temples, like the gods, with flamens and priests."

52 Alexander wished to be saluted as the son of Jupiter, not from motives of pride but of policy, as he showed by his answer to the invective of Hermolaus: 53 "It is almost laughable," said he, "that Hermolaus asked me to contradict Jupiter, by whose oracle I am recognised. Am I responsible for the answers of the gods? 54 It offered me the name of son; acquiescence was by no means foreign to my present designs. 55 Would that the Indians also would believe me to be a god! 56 Wars are carried through by prestige, falsehoods that are believed often gain the force of truth." 57 In these few words he cleverly contrives to palm off a fiction on the ignorant, and at the same time hints at the motive for the deception.

58 Cleon, in his speech persuading the Macedonians to obey their

king, adopted a similar device: for after going through the praises of Alexander with admiration, and recalling his merits, 59 he proceeds, "the Persians are not only pious, but prudent in worshipping their kings as gods: for kingship is the shield of public safety," 60 and he ends thus, "I, myself, when the king enters a banquet hall, should prostrate my body on the ground; other people should do the like, especially those who are wise" 61 However, the Macedonians were more prudent--indeed, it is only complete barbarians who can be so openly cajoled, and can suffer themselves to be turned from subjects into slaves without interests of their own. 62 Others, notwithstanding, have been able more easily to spread the belief that kingship is sacred, and plays the part of God on the earth, 63 that it has been instituted by God, not by the suffrage and consent of humans; and that it is preserved and guarded by Divine special providence and aid. 64 Similar fictions have been promulgated by monarchs, with the object of strengthening their dominion, but these I will pass over, 65 and in order to arrive at my main purpose, will merely recall and discuss the teaching on the subject of Divine revelation to Moses in ancient times.

66 We have said in the Book of LAW, chapter-2. that after the Hebrews came up out of Egypt they were not bound by the law and right of any other nation, but were at liberty to institute any new rites at their pleasure, and to occupy whatever territory they chose. 67 After their liberation from the intolerable bondage of the Egyptians, they were bound by no covenant to any human; and, therefore, every person entered into own natural right, and was free to retain it or to give it up, and transfer it to another. 68 Being, then, in the State of Nature, they followed the advice of Moses, in whom they chiefly trusted, and decided to transfer their right to no human being, but only to God; 69 without further delay they all, with one voice, promised to obey all the commands of the Deity, and to acknowledge no right that He did not proclaim as such by prophetic revelation. 70 This promise, or transference of right to God, was effected in the same manner as we have conceived it to have been in ordinary societies, when people agree to divest themselves of their natural rights. 71 It is, in fact, in virtue of a set covenant, and an oath, that the Jews freely, and not under compulsion or threats, surrendered their rights and transferred them to God. 72 Moreover, in order that this covenant might be ratified and settled, and might be free from all suspicion of deceit, God did not enter into it till the Jews had had

experience of His wonderful power by which alone they had been, or could be, preserved in a State of prosperity 73 It is because they believed that nothing but God's power could preserve them that they surrendered to God the natural power of self-preservation, 74 which they formerly, perhaps, thought they possessed, and consequently they surrendered at the same time all their natural right.

75 God alone, therefore, held dominion over the Hebrews, whose State was in virtue of the covenant called God's kingdom, and God was said to be their king; 76 consequently the enemies of the Jews were said to be the enemies of God, and the citizens who tried to seize the dominion were guilty of treason against God; 77 and, lastly, the laws of the State were called the laws and commandments of God. 78 Thus in the Hebrew State the civil and religious authority, each consisting solely of obedience to God, were one and the same. 79 The dogmas of religion were not precepts, but laws and ordinances; piety was regarded as the same as loyalty, impiety as the same as disaffection. 80 Everyone who fell away from religion ceased to be a citizen, and was, on that ground alone, accounted an enemy: 81 those who died for the sake of religion, were held to have died for their country; in fact, between civil and religious law and right there was no distinction whatever. 82 For this reason the government could be called a Theocracy, inasmuch as the citizens were not bound by anything save the revelations of God.

83 However, this State of things existed rather in theory than in practice, for it will appear from what we are about to say, that the Hebrews, as a matter of fact, retained absolutely in their own hands the right of sovereignty: 84 this is shown by the method and plan by which the government was carried on, as I will now explain.

85 Inasmuch as the Hebrews did not transfer their rights to any other person but, as in a democracy, all surrendered their rights equally, 86 and cried out with one voice, "Whatsoever God shall speak (no mediator or mouthpiece being named) that will we do," 87 it follows that all were equally bound by the covenant, and that all had an equal right to consult the Deity, to accept and to interpret His laws, so that all had an exactly equal share in the government. 88 Thus at first they all approached God together, so that they might learn His commands, but in this first salutation, they were so thoroughly terrified and so astounded to hear God speaking, that they thought their last hour was at hand: 89 full of fear, therefore, they went afresh to

Moses, and said, "Lo, we have heard God speaking in the fire, and there is no cause why we should wish to die: 90 surely this great fire will consume us: if we hear again the voice of God, we shall surely die. 91 Thou, therefore, go near, and hear all the words of our God, and thou (not God) shalt speak with us: all that God shall tell us, that will we hearken to and perform."

92 They thus clearly abrogated their former covenant, and absolutely transferred to Moses their right to consult God and interpret His commands: 93 for they do not here promise obedience to all that God shall tell them, but to all that God shall tell Moses. 94 Moses, therefore, remained the sole promulgator and interpreter of the Divine laws, and consequently also the sovereign judge, who could not be arraigned himself, and who acted among the Hebrews the part of God; in other words, held the sovereign kingship: 95 he alone had the right to consult God, to give the Divine answers to the people, and to see that they were carried out. 96 I say he alone, for if anyone during the life of Moses was desirous of preaching anything in the name of the Lord, he was, even if a true prophet, considered guilty and a usurper of the sovereign right. 97 We may here notice, that though the people had elected Moses, they could not rightfully elect Moses's successor; 98 for having transferred to Moses their right of consulting God, and absolutely promised to regard him as a Divine oracle, they had plainly forfeited the whole of their right, and were bound to accept as chosen by God anyone proclaimed by Moses as his successor. 99 If Moses had so chosen his successor, who like him should wield the sole right of government, possessing the sole right of consulting God, and consequently of making and abrogating laws, 100 of deciding on peace or war, of sending ambassadors, appointing judges-- in fact, discharging all the functions of a sovereign, 101 the State would have become simply a monarchy, only differing from other monarchies in the fact, that the latter are, or should be, carried on in accordance with God's decree, 102 unknown even to the monarch, whereas the Hebrew monarch would have been the only person to whom the decree was revealed. 103 A difference which increases, rather than diminishes the monarch's authority. 104 As far as the people in both cases are concerned, each would be equally subject, and equally ignorant of the Divine decree, 105 for each would be dependent on the monarch's words, and would learn from him alone, what was lawful or unlawful: 106 nor would the fact that the people believed that the monarch was only issuing

commands in accordance with God's decree revealed to him, make it less in subjection, but rather more. 107 However, Moses elected no such successor, but left the dominion to those who came after him in a condition which could not be called a popular government, nor an aristocracy, nor a monarchy, but a Theocracy. 108 For the right of interpreting laws was vested in one person, while the right and power of administering the State according to the laws thus interpreted, was vested in another person.

109 In order that the question may be thoroughly understood, I will duly set forth the administration of the whole State.

110 First, the people were commanded to build a tabernacle, which should be, as it were, the dwelling of God-- that is, of the sovereign authority of the State. 111 This tabernacle was to be erected at the cost of the whole people, not of one person, in order that the place where God was consulted might be public property. 112 The Levites were chosen as courtiers and administrators of this royal abode; while Aaron, the brother of Moses, was chosen to be their chief and second, as it were, to God their King, being succeeded in the office by his legitimate sons.

113 He, as the nearest to God, was the sovereign interpreter of the Divine laws; he communicated the answers of the Divine oracle to the people, and entreated God's favour for them. 114 If, in addition to these privileges, he had possessed the right of ruling, he would have been neither more nor less than an absolute monarch; but, in respect to government, he was only a private citizen: 115 the whole tribe of Levi was so completely divested of governing rights that it did not even take its share with the others in the partition of territory. 116 Moses provided for its support by inspiring the common people with great reverence for it, as the only tribe dedicated to God.

117 Further, the army, formed from the remaining twelve tribes, was commanded to invade the land of Canaan, to divide it into twelve portions, and to distribute it among the tribes by lot. 118 For this task twelve captains were chosen, one from every tribe, and were, together with Joshua and Eleazar, the high priest, empowered to divide the land into twelve equal parts, and distribute it by lot. 119 Joshua was chosen for the chief command of the army, inasmuch as none but he had the right to consult God in emergencies, 120 not like Moses, alone in his tent, or in the tabernacle, but through the high priest, to whom only the answers of God were revealed. 121 Furthermore, he was empowered to execute, and cause the people to obey God's commands, transmitted through the high priests; to find,

and to make use of, means for carrying them out; 122 to choose as many army captains as he liked; to make whatever choice he thought best; to send ambassadors in his own name; and, in short, to have the entire control of the war. 123 To his office there was no rightful successor-- indeed, the post was only filled by the direct order of the Deity, on occasions of public emergency. 124 In ordinary times, all the management of peace and war was vested in the captains of the tribes, as I will shortly point out. 125 Lastly, all people between the ages of twenty and sixty were ordered to bear arms, and form a citizen army, owing allegiance, not to its general-in-chief, nor to the high priest, but to Religion and to God. 126 The army, or the hosts, were called the army of God, or the hosts of God. 127 For this reason God was called by the Hebrews the God of Armies; and the ark of the covenant was borne in the midst of the army in important battles, 128 when the safety or destruction of the whole people hung upon the issue, so that the people might, as it were, see their King among them, and put forth all their strength.

129 From these directions, left by Moses to his successors, we plainly see that he chose administrators, rather than despots, to come after him; 130 for he invested no one with the power of consulting God, where he liked and alone, 131 consequently, no one had the power possessed by himself of ordaining and abrogating laws, of deciding on war or peace, of choosing people to fill offices both religious and secular: all these are the prerogatives of a sovereign. 132 The high priest, indeed, had the right of interpreting laws, and communicating the answers of God, but he could not do so when he liked, as Moses could, but only when he was asked by the general-in-chief of the army, the council, or some similar authority. 133 The general-in-chief and the council could consult God when they liked, but could only receive His answers through the high priest; 134 so that the utterances of God, as reported by the high priest, were not decrees, as they were when reported by Moses, but only answers; 135 they were accepted by Joshua and the council, and only then had the force of commands and decrees.

136 The high priest, both in the case of Aaron and of his son Eleazar, was chosen by Moses; nor had anyone, after Moses' death, a right to elect to the office, which became hereditary. 137 The general-in-chief of the army was also chosen by Moses, and assumed his functions in virtue of the commands, not of the high priest, but of Moses: 138 indeed, after the death of Joshua, the high priest did not appoint anyone in

his place, and the captains did not consult God afresh about a general-in-chief, 139 but each retained Joshua's power in respect to the contingent of own tribe, and all retained it collectively, in respect to the whole army. 140 There seems to have been no need of a general-in-chief, except when they were obliged to unite their forces against a common enemy. 141 This occurred most frequently during the time of Joshua, when they had no fixed dwelling. place, and possessed all things in common. 142 After all the tribes had gained their territories by right of conquest, and had divided their allotted gains, they, became separated, having no longer their possessions in common, 143 so that the need for a single commander ceased, for the different tribes should be considered rather in the light of confederated States than of bodies of fellow-citizens. 144 In respect to their God and their religion, they, were fellow-citizens; but, in respect to the rights which one possessed with regard to another, they were only confederated: 145 they, were, in fact, in much the same position (if one excepts the Temple common to all) as the United States of the Netherlands {or United States of America}. 146 The division of property held in common is only another phrase for the possession of your share by each of the owners singly, and the surrender by the others of their rights over such share. 147 This is why Moses elected captains of the tribes--namely, that when the dominion was divided, each might take care of own part; 148 consulting God through the high priest on the affairs of own tribe, ruling over own army, building and fortifying cities, appointing judges, attacking the enemies of own dominion, and having complete control over all civil and military affairs. 149 One was not bound to acknowledge any superior judge save God, or a prophet whom God should expressly send. 150 If you departed from the worship of God, the rest of the tribes did not arraign you as a subject, but attacked you as an enemy. 151 Of this we have examples in Scripture. When Joshua was dead, the children of Israel (not a fresh general-in-chief) consulted God; 152 it being decided that the tribe of Judah should be the first to attack its enemies, the tribe in question contracted a single alliance with the tribe of Simeon, 153 for uniting their forces, and attacking their common enemy, the rest of the tribes not being included in the alliance. 154 Each tribe separately made war against its own enemies, and, according to its pleasure, received them as subjects or allies, 155 though it had been commanded not to spare them on any conditions, but to destroy them utterly. 156 Such disobedience met

with reproof from the rest of the tribes, but did not cause the offending tribe to be arraigned: it was not considered a sufficient reason for proclaiming a civil war, or interfering in one another's affairs. 157 But when the tribe of Benjamin offended against the others, and so loosened the bonds of peace that none of the confederated tribes could find refuge within its borders, they attacked it as an enemy, 158 and gaining the victory over it after three battles, put to death both guilty and innocent, according to the laws of war: an act which they subsequently bewailed with tardy repentance.

159 These examples plainly confirm what we have said concerning the rights of each tribe. 160 Perhaps we shall be asked who elected the successors to the captains of each tribe; on this point I can gather no positive information in Scripture, 161 but I conjecture that as the tribes were divided into families, each headed by its senior member, the senior of all these heads of families succeeded by right to the office of captain, 162 for Moses chose from among these seniors his seventy coadjutors, who formed with himself the supreme council. 163 Those who administered the government after the death of Joshua were called elders, and elder is a very common Hebrew expression in the sense of judge, as I suppose everyone knows; 164 however, it is not very important for us to make up our minds on this point. It is enough to have shown that after the death of Moses no one person wielded all the power of a sovereign; 165 as affairs were not all managed by one person, nor by a single council, nor by the popular vote, but partly by one tribe, partly by the rest in equal shares, 166 it is most evident that the government, after the death of Moses, was neither monarchic, nor aristocratic, nor popular, but, as we have said, Theocratic. 167 The reasons for applying this name are:

(I.) Because the royal seat of government was the Temple, and in respect to it alone, as we have shown, all the tribes were fellow-citizens.

168 (II.) Because all the people owed allegiance to God, their supreme Judge, to whom only they had promised implicit obedience in all things.

169 (III.) Because the general-in-chief or dictator, when there was need of such, was elected by none save God alone. 170 This was expressly commanded by Moses in the name of God (Deuteronomy. Chapter-19, verse:15), and witnessed by the actual choice of Gideon, of Samson, and of Samuel; 171 wherefrom we may conclude that the other faithful leaders were chosen in the same manner, though it is not expressly told us.

172 These preliminaries being Stated, it is now time to inquire the effects of forming a dominion on this plan, and to see whether it so effectually kept within bounds both rulers and ruled, that the former were never tyrannical and the latter never rebellious.

173 Those who administer or possess governing power, always try to surround their high-handed actions with a cloak of legality, and to persuade the people that they act from good motives; 174 this they are easily able to effect when they are the sole interpreters of the law; 175 for it is evident that they are thus able to assume a far greater freedom to carry out their wishes and desires than if the interpretation of the law is vested in someone else, or if the laws were so self-evident that no one could be in doubt as to their meaning. 176 We thus see that the power of evil-doing was greatly curtailed for the Hebrew captains by the fact that the whole interpretation of the law was vested in the Levites (Deuteronomy, chapter-21, verse:5), 177 who, on their part, had no share in the government, and depended for all their support and consideration on a correct interpretation of the laws entrusted to them. 178 Moreover, the whole people was commanded to come together at a certain place every seven years and be instructed in the law by the high-priest; 179 further, each individual was bidden to read the book of the law through and through continually with scrupulous care.

180 The captains were thus for their own sakes bound to take great care to administer everything according to the laws laid down, and well known to all, 181 if they wished to be held in high honour by the people, who would regard them as the administrators of God's dominion, and as God's vicegerents; otherwise they could not have escaped all the virulence of theological hatred. 182 There was another very important check on the unbridled license of the captains, in the fact, that the army was formed from the whole body, of the citizens, between the ages of twenty and sixty, without exception, and that the captains were not able to hire any foreign soldiery. 183 This I say was very important, for it is well known that princes can oppress their peoples with the single aid of the soldiery in their pay; 184 while there is nothing more formidable to them than the freedom of citizen soldiers, who have established the freedom and glory of their country, by their valour, their toil, and their blood. 185 Thus Alexander, when he was about to make wax on Darius, a second time, after hearing the advice of Parmenio, did not chide him who gave the advice, but Polysperchon, who was standing by. 186 For, as Curtius says, he did not venture to

reproach Parmenio again after having shortly before reproved him too sharply. 187 This freedom of the Macedonians, which he so dreaded, he was not able to subdue till after the number of captives enlisted in the army surpassed that of his own people: 188 then, but not till then, he gave rein to his anger so long checked by the independence of his chief fellow-country people.

189 If this independence of citizen soldiers can restrain the princes of ordinary States who are wont to usurp the whole glory of victories, it must have been still more effectual against the Hebrew captains, 190 whose soldiers were fighting, not for the glory of a prince, but for the glory of God, and who did not go forth to battle till the Divine assent had been given.

191 We must also remember that the Hebrew captains were associated only by the bonds of religion: 192 therefore, if any one of them had transgressed, and begun to violate the Divine right, he might have been treated by the rest as an enemy and lawfully subdued.

193 An additional check may be found in the fear of a new prophet arising, for if a person of unblemished life could show by certain signs that you was really a prophet, you ipso facto obtained the sovereign right to rule, which was given to you, 194 as to Moses formerly, in the name of God, as revealed to himself alone; not merely through the high priest, as in the case of the captains. 195 There is no doubt that such an one would easily be able to enlist an oppressed people in own cause, and by trifling signs persuade them of anything one wished: 196 on the other hand, if affairs were well ordered, the captain would be able to make provision in time; 197 that the prophet should be submitted to own approval, and be examined whether one were really of unblemished life, and possessed indisputable signs of own mission: 198 also, whether the teaching one proposed to set forth in the name of the Lord agreed with received doctrines, and the general laws of the country; 199 if your credentials were insufficient, or your doctrines new, you could lawfully be put to death, or else received on the captain's sole responsibility and authority.

200 Again, the captains were not superior to the others in nobility or birth, but only administered the government in virtue of their age and personal qualities. 201 Lastly, neither captains nor army had any reason for preferring war to peace. 202 The army, as we have Stated, consisted entirely of citizens, so that affairs were managed by the same persons both in peace and war. 203 The person who was a soldier in the camp was a citizen in the market-place, one who was

a leader in the camp was a judge in the law courts, one who was a general in the camp was a ruler in the State. 204 Thus no one could desire war for its own sake, but only for the sake of preserving peace and liberty; 205 possibly the captains avoided change as far as possible, so as not to be obliged to consult the high priest and submit to the indignity of standing in own presence.

206 So much for the precautions for keeping the captains within bounds. 207 We must now look for the restraints upon the people: these, however, are very clearly indicated in the very groundwork of the social fabric.

208 Anyone who gives the subject the slightest attention, will see that the State was so ordered as to inspire the most ardent patriotism in the hearts of the citizens, 209 so that the latter would be very hard to persuade to betray their country, and be ready to endure anything rather than submit to a foreign yoke. 210 After they had transferred their right to God, they thought that their kingdom belonged to God, and that they themselves were God's children. 211 Other nations they looked upon as God's enemies, and regarded with intense hatred (which they took to be piety, see Psalm, chapter-139, verses:21 and 22): 212 nothing would have been more abhorrent to them than swearing allegiance to a foreigner, and promising them obedience: 213 nor could they conceive any greater or more execrable crime than the betrayal of their country, the kingdom of the God whom they adored.

214 It was considered wicked for anyone to settle outside of the country, inasmuch as the worship of God by which they were bound could not be carried on elsewhere: their own land alone was considered holy, the rest of the earth unclean and profane.

215 David, who was forced to live in exile, complained before Saul as follows: "But if they be the children of people who have stirred thee up against me, cursed be they before the Lord; 216 for they have driven me out this day from abiding in the inheritance of the Lord, saying, Go, serve other gods." 217 For the same reason no citizen, as we should especially remark, was ever sent into exile: you who sinned was liable to punishment, but not to disgrace.

218 Thus the love of the Hebrews for their country was not only patriotism, but also piety, and was cherished and nurtured by daily rites till, like their hatred of other nations, it must have passed into their nature. 219 Their daily worship was not only different from that of other nations (as it might well be, considering that they were a peculiar people and entirely apart from the rest), it was absolutely contrary. 220 Such daily reprobation naturally gave rise to a

lasting hatred, deeply implanted in the heart: 221 for of all hatreds none is more deep and tenacious than that which springs from extreme devoutness or piety, and is itself cherished as pious. 222 Nor was a general cause lacking for inflaming such hatred more and more, inasmuch as it was reciprocated; 223 the surrounding nations regarding the Jews with a hatred just as intense.

224 How great was the effect of all these causes, namely, freedom from human's dominion; devotion to their country; absolute rights over all other people; a hatred not only permitted but pious; a contempt for their fellow-people; the singularity of their customs and religious rites; 225 the effect, I repeat, of all these causes in strengthening the hearts of the Jews to bear all things for their country, with extraordinary constancy and valour, will at once be discerned by reason and attested by experience. 226 Never, so long as the city was standing, could they endure to remain under foreign dominion; and therefore they called Jerusalem "a rebellious city" (Ezra, chapter-4. verse:12). 227 Their State after its re-establishment (which was a mere shadow of the first, for the high priests had usurped the rights of the tribal captains) was, with great difficulty, destroyed by the Romans, as Tacitus bears witness:- 228 "Vespasian had closed the war against the Jews, abandoning the siege of Jerusalem as an enterprise difficult and arduous rather from the character of the people and the obstinacy of their superstition, than from the strength left to the besieged for meeting their necessities." 229 But besides these characteristics, which are merely ascribed by an individual opinion, there was one feature peculiar to this State and of great importance in retaining the affections of the citizens, 230 and checking all thoughts of desertion, or abandonment of the country: namely, self-interest, the strength and life of all human action. 231 This was peculiarly engaged in the Hebrew State, for nowhere else did citizens possess their goods so securely, as did the subjects of this community, 232 for the latter possessed as large a share in the land and the fields as did their chiefs, and were owners of their plots of ground in perpetuity; 233 for if any person was compelled by poverty to sell own farm or own pasture, you received it back again intact at the year of jubilee: there were other similar enactments against the possibility of alienating real property.

234 Again, poverty was nowhere more endurable than in a country where duty towards one's neighbour, that is, one's fellow-citizen, was practised with the utmost piety, as a means of gaining the favour of God the

King. 235 Thus the Hebrew citizens would nowhere be so well off as in their own country; outside its limits they met with nothing but loss and disgrace.

236 The following considerations were of weight, not only in keeping them at home, but also in preventing civil war and removing causes of strife; 237 no one was bound to serve own equal, but only to serve God, while charity and love towards fellow-citizens was accounted the highest piety; 238 this last feeling was not a little fostered by the general hatred with which they regarded foreign nations and were regarded by them. 239 Furthermore, the strict discipline of obedience in which they were brought up, was a very important factor; for they were bound to carry on all their actions according to the set rules of the law: 240 a person might not plough when you liked, but only at certain times, in certain years, and with one sort of beast at a time; so, too, you might only sow and reap in a certain method and season-- 241 in fact, your whole life was one long school of obedience (see the Book of LAW, chapter-2); 242 such a habit was thus engendered, that conformity seemed freedom instead of servitude, and people desired what was commanded rather than what was forbidden. 243 This result was not a little aided by the fact that the people were bound, at certain seasons of the year, to give themselves up to rest and rejoicing, not for their own pleasure, but in order that they might worship God cheerfully.

244 Three times in the year they feasted before the Lord; on the seventh day of every week they were bidden to abstain from all work and to rest; 245 besides these, there were other occasions when innocent rejoicing and feasting were not only allowed but enjoined. 246 I do not think any better means of influencing humans' minds could be devised; for there is no more powerful attraction than joy springing from devotion, a mixture of admiration and love. 247 It was not easy to be wearied by constant repetition, for the rites on the various festivals were varied and recurred seldom. 248 We may add the deep reverence for the Temple which all most religiously fostered, on account of the peculiar rites and duties that they were obliged to perform before approaching thither. 249 Even now, Jews cannot read without horror of the crime of Manasseh, who dared to place an idol in the Temple. 250 The laws, scrupulously preserved in the inmost sanctuary, were objects of equal reverence to the people. 251 Popular reports and misconceptions were, therefore, very little to be feared in this quarter, for no one dared decide on sacred matters, 252 but all felt

bound to obey, without consulting their reason, all the commands given by the answers of God received in the Temple, and all the laws which God had ordained.

253 I think I have now explained clearly, though briefly, the main features of the Hebrew commonwealth. 254 I must now inquire into the causes which led the people so often to fall away from the law, which brought about their frequent subjection, and, finally, the complete destruction of their dominion. 255 Perhaps I shall be told that it sprang from their hardness of heart; but this is childish, for why should this people be more hard of heart than others; was it by their nature?

256 But Nature forms individuals, not peoples; the latter are only distinguishable by the difference of their language, their customs, and their laws; 257 while from the two last - i.e., customs and laws,-- it may arise that they have a peculiar disposition, a peculiar manner of life, and peculiar prejudices. 258 If, then, the Hebrews were harder of heart than other nations, the fault lay with their laws or customs.

259 This is certainly true, in the sense that, if God had wished their dominion to be more lasting, He would have given them other rites and laws, and would have instituted a different form of government. 260 We can, therefore, only say that their God was angry with them, not only, as Jeremiah says, from the building of the city, but even from the founding of their laws.

261 This is borne witness to by Ezekiel, chaptter-20, verse:25: "Wherefore I gave them also statutes that were not good, and judgments whereby they should not live; 262 and I polluted them in their own gifts, in that they caused to pass through the fire all that openeth the womb; that I might make them desolate, to the end that they might know that I am the Lord."

263 In order that we may understand these words, and the destruction of the Hebrew commonwealth, we must bear in mind that it had at first been intended to entrust the whole duties of the priesthood to the firstborn, and not to the Levites (see Numbers, chapter-8, verse:17). 264 It was only when all the tribes, except the Levites, worshipped the golden calf, that the firstborn were rejected and defiled, and the Levites chosen in their stead (Deuteronomy, chapter-10, verse:8). 265 When I reflect on this change, I feel disposed to break forth with the words of Tacitus. 266 God's object at that time was not the safety of the Jews, but vengeance. 267 I am greatly astonished that the celestial mind was so inflamed with anger that it ordained laws, which always are supposed to promote the honour, well-being,

and security of a people, with the purpose of vengeance, for the sake of punishment; 268 so that the laws do not seem so much laws-- that is, the safeguard of the people-- as pains and penalties.

269 The gifts which the people were obliged to bestow on the Levites and priests-- the redemption of the firstborn, the poll-tax due to the Levites, the privilege possessed by the latter of the sole performance of sacred rites-- 270 all these, I say, were a continual reproach to the people, a continual reminder of their defilement and rejection. 271 Moreover, we may be sure that the Levites were for ever heaping reproaches upon them: for among so many thousands there must have been many importunate dabblers in theology. 272 Hence the people got into the way of watching the acts of the Levites, who were but human; of accusing the whole body of the faults of one member, and continually murmuring.

273 Besides this, there was the obligation to keep in idleness people hateful to them, and connected by no ties of blood. Especially would this seem grievous when provisions were dear. 274 What wonder, then, if in times of peace, when striking miracles had ceased, and no people of paramount authority were forthcoming, 275 the irritable and greedy temper of the people began to wax cold, and at length to fall away from a worship, which, though Divine, was also humiliating, and even hostile, and to seek after something fresh; 276 or can we be surprised that the captains, who always adopt the popular course, in order to gain the sovereign power for themselves by enlisting the sympathies of the people, and alienating the high priest, should have yielded to their demands, and introduced a new worship? 277 If the State had been formed according to the original intention, the rights and honour of all the tribes would have been equal, and everything would have rested on a firm basis. 278 Who is there who would willingly violate the religious rights of own kindred? 279 What could a person desire more than to support own brothers and parents, thus fulfilling the duties of religion? 280 Who would not rejoice in being taught by them the interpretation of the laws, and receiving through them the answers of God?

281 The tribes would thus have been united by a far closer bond, if all alike had possessed the right to the priesthood. 282 All danger would have been obviated, if the choice of the Levites had not been dictated by anger and revenge. 283 But, as we have said, the Hebrews had offended their God, Who, as Ezekiel says, polluted them in their own gifts by rejecting all that

openeth the womb, so that He might destroy them.

284 This passage is also confirmed by their history. As soon as the people in the wilderness began to live in ease and plenty, certain people of no mean birth began to rebel against the choice of the Levites, 285 and to make it a cause for believing that Moses had not acted by the commands of God, but for his own good pleasure, 286 inasmuch as he had chosen his own tribe before all the rest, and had bestowed the high priesthood in perpetuity on his own brother. 287 They, therefore, stirred up a tumult, and came to him, crying out that all humans were equally sacred, and that he had exalted himself above his fellows wrongfully. 288 Moses was not able to pacify them with reasons; but by the intervention of a miracle in proof of the faith, they all perished. 289 A fresh sedition then arose among the whole people, who believed that their champions had not been put to death by the judgment of God, but by the device of Moses. 290 After a great slaughter, or pestilence, the rising subsided from inanition, but in such a manner that all preferred death to life under such conditions. 291 We should rather say that sedition ceased than that harmony was re-established. 292 This is witnessed by Scripture (Deuteronomy, chapter-31, verse:21), where God, after predicting to Moses that the people after his death will fall away from the Divine worship, speaks thus: 293 "For I know their imagination which they go about, even now before I have brought them into the land which I sware;" 294 and, a little while after (chapter-31, verse:27), Moses says: "For I know thy rebellion and thy stiff neck: behold while I am yet alive with you this day, ye have been rebellious against the Lord; and how much more after my death!"

295 Indeed, it happened according to his words, as we all know. Great changes, extreme license, luxury, and hardness of heart grew up; 296 things went from bad to worse, till at last the people, after being frequently conquered, came to an open rupture with the Divine right, and wished for a mortal king, 297 so that the seat of government might be the Court, instead of the Temple, and that the tribes might remain fellow-citizens in respect to their king, instead of in respect to Divine right and the high priesthood.

298 A vast material for new seditions was thus produced, eventually resulting in the ruin of the entire State. 299 Kings are above all things jealous of a precarious rule, and can in nowise brook a dominion within their own. 300 The first monarchs, being chosen from the ranks of private citizens, were content with the amount of dignity to which they

had risen; 301 but their sons, who obtained the throne by right of inheritance, began gradually to introduce changes, so as to get all the sovereign rights into their own hands. 302 This they were generally unable to accomplish, so long as the right of legislation did not rest with them, but with the high priest, who kept the laws in the sanctuary, and interpreted them to the people. 303 The kings were thus bound to obey the laws as much as were the subjects, and were unable to abrogate them, or to ordain new laws of equal authority; 304 moreover, they were prevented by the Levites from administering the affairs of religion, king and subject being alike unclean. 305 Lastly, the whole safety of their dominion depended on the will of one person, if that person appeared to be a prophet; 306 and of this they had seen an example, namely, how completely Samuel had been able to command Saul, and how easily, because of a single disobedience, he had been able to transfer the right of sovereignty to David. 307 Thus the kings found a dominion within their own, and wielded a precarious sovereignty.

308 In order to surmount these difficulties, they allowed other temples to be dedicated to the gods, so that there might be no further need of consulting the Levites; 309 they also sought out many who prophesied in the name of God, so that they might have creatures of their own to oppose to the true prophets. 310 However, in spite of all their attempts, they never attained their end. 311 For the prophets, prepared against every emergency, waited for a favourable opportunity, such as the beginning of a new reign, which is always precarious, while the memory of the previous reign remains green. 312 At these times they could easily pronounce by Divine authority that the king was tyrannical, and could produce a champion of distinguished virtue to vindicate the Divine right, and lawfully to claim dominion, or a share in it. 313 Still, not even so could the prophets effect much. They could, indeed, remove a tyrant; but there were reasons which prevented them from doing more than setting up, at great cost of civil bloodshed, another tyrant in own stead. 314 Of discords and civil wars there was no end, for the causes for the violation of Divine right remained always the same, and could only be removed by a complete remodelling of the State.

315 We have now seen how religion was introduced into the Hebrew commonwealth, and how the dominion might have lasted for ever, if the just wrath of the Lawgiver had allowed it. 316 As this was impossible, it was bound in time to perish. 317 I am now speaking only of the first commonwealth, for the second

was a mere shadow of the first, inasmuch as the people were bound by the rights of the Persians to whom they were subject. 318 After the restoration of freedom, the high priests usurped the rights of the secular chiefs, and thus obtained absolute dominion. 319 The priests were inflamed with an intense desire to wield the powers of the sovereignty and the high priesthood at the same time. 320 I have, therefore, no need to speak further of the second commonwealth. Whether the first, in so far as we deem it to have been durable, is capable of imitation, and whether it would be pious to copy it as far as possible, will appear from what fellows. 321 I wish only to draw attention, as a crowning conclusion, to the principle indicated already-- 322 namely, that it is evident, from what we have Stated in this chapter, that the Divine right, or the right of religion, originates in a compact: without such compact, none but natural rights exist. 323 The Hebrews were not bound by their religion to evince any pious care for other nations not included in the compact, but only for their own fellow-citizens.

FROM THE COMMONWEALTH OF THE HEBREWS, AND THEIR HISTORY, CERTAIN POLITICAL DOCTRINES ARE DEDUCED

Benedict of Spinoza

3 Although the commonwealth of the Hebrews, as we have conceived it, might have lasted for ever, it would be impossible to imitate it at the present day, nor would it be advisable so to do. 2 If a people wished to transfer their rights to God it would be necessary to make an express covenant with Him, 3 and for this would be needed not only the consent of those transferring their rights, but also the consent of God. 4 God, however, has revealed through his Apostles that the covenant of God is no longer written in ink, or on tables of stone, but with the Spirit of God in the fleshy tables of the heart.

5 Furthermore, such a form of government would only be available for those who desire to have no foreign relations, but to shut themselves up within their own frontiers, and to live apart from the rest of the world; 6 it would be useless to people who must have dealings with other nations; so that the cases where it could be adopted are very few indeed.

7 Nevertheless, though it could not be copied in its entirety, it possessed many excellent features which might be brought to our

notice, and perhaps imitated with advantage. 8 My intention, however, is not to write a treatise on forms of government, so I will pass over most of such points in silence, and will only touch on those which bear upon my purpose.

9 God's kingdom is not infringed upon by the choice of an earthly ruler endowed with sovereign rights; 10 for after the Hebrews had transferred their rights to God, they conferred the sovereign right of ruling on Moses, 11 investing him with the sole power of instituting and abrogating laws in the name of God, of choosing priests, of judging, of teaching, of punishing-- in fact, all the prerogatives of an absolute monarch.

12 Again, though the priests were the interpreters of the laws, they had no power to judge the citizens, or to excommunicate anyone: this could only be done by the judges and chiefs chosen from among the people. 13 A consideration of the successes and the histories of the Hebrews will bring to light other considerations worthy of note. To wit:

14 (I.) That there were no religious sects, till after the high priests, in the second commonwealth, possessed the authority to make decrees, and transact the business of government. 15 In order that such authority might last for ever, the high priests usurped the rights of secular rulers, and at last wished to be styled kings. 16 The reason for this is ready to hand; in the first commonwealth no decrees could bear the name of the high priest, for he had no right to ordain laws, but only to give the answers of God to questions asked by the captains or the councils: 17 he had, therefore, no motive for making changes in the law, but took care, on the contrary, to administer and guard what had already been received and accepted. 18 His only means of preserving his freedom in safety against the will of the captains lay in cherishing the law intact. 19 After the high priests had assumed the power of carrying on the government, and added the rights of secular rulers to those they already possessed, each one began both in things religious and in things secular, 20 to seek for the glorification of own name, settling everything by sacerdotal authority, and issuing every day, concerning ceremonies, faith, and all else, new decrees which they sought to make as sacred and authoritative as the laws of Moses. 21 Religion thus sank into a degrading superstition, while the true meaning and interpretation of the laws became corrupted. 22 Furthermore, while the high priests were paving their way to the secular rule just after the restoration, they attempted to gain popular favour by assenting to every demand; 23 approving whatever the people did, however

impious, and accommodating Scripture to the very depraved current morals. 24 Malachi bears witness to this in no measured terms: he chides the priests of his time as despisers of the name of God, and then goes on with his invective as follows (Malachi, chapter-2, verse:7 and 8): 25 "For the priest's lips should keep knowledge, and they should seek the law at own mouth: for you are the messenger of the Lord of hosts. 26 But ye are departed out of the way; ye have caused many to stumble at the law, ye have corrupted the covenant of Levi, saith the Lord of hosts." 27 He further accuses them of interpreting the laws according to their own pleasure, and paying no respect to God but only to persons. 28 It is certain that the high priests were never so cautious in their conduct as to escape the remark of the more shrewd among the people, 29 for the latter were at length emboldened to assert that no laws ought to be kept save those that were written, 30 and that the decrees which the Pharisees (consisting, as Josephus says in his "Antiquities," chiefly of the common people), were deceived into calling the traditions of the fathers, should not be observed at all. 31 However this may be, we can in nowise doubt that flattery of the high priest, the corruption of religion and the laws, and the enormous increase of the extent of the last-named, gave very great and frequent occasion for disputes and altercations impossible to allay. 32 When people begin to quarrel with all the ardour of superstition, and the magistracy to back up one side or the other, they can never come to a compromise, but are bound to split into sects.

33 (II.) It is worthy of remark that the prophets, who were in a private station of life, rather irritated than reformed humankind by their freedom of warning, rebuke, and censure; 34 whereas the kings, by their reproofs and punishments, could always produce an effect. 35 The prophets were often intolerable even to pious kings, on account of the authority they assumed for judging whether an action was right or wrong, 36 or for reproving the kings themselves if they dared to transact any business, whether public or private, without prophetic sanction. 37 King Asa who, according to the testimony of Scripture, reigned piously, put the prophet Hanani into a prison-house because he had ventured freely to chide and reprove him for entering into a covenant with the king of Armenia.

38 Other examples might be cited, tending to prove that religion gained more harm than good by such freedom, not to speak of the further consequence, that if the prophets had retained their rights,

great civil wars would have resulted.

39 (III.) It is remarkable that during all the period, during which the people held the reins of power, there was only one civil war, and that one was completely extinguished, 40 the conquerors taking such pity on the conquered, that they endeavoured in every way to re-inState them in their former dignity and power. 41 But after that the people, little accustomed to kings, changed its first form of government into a monarchy, civil war raged almost continuously; and battles were so fierce as to exceed all others recorded; 42 in one engagement (taxing our faith to the utmost) five hundred thousand Israelites were slaughtered by the people of Judah, and in another the Israelites slew great numbers of the people of Judah (the figures are not given in Scripture), 43 almost razed to the ground the walls of Jerusalem, and sacked the Temple in their unbridled fury. 44 At length, laden with the spoils of their brethren, satiated with blood, they took hostages, and leaving the king in his well-nigh devastated kingdom, laid down their arms, relying on the weakness rather than the good faith of their foes. 45 A few years after, the people of Judah, with recruited strength, again took the field, but were a second time beaten by the Israelites, 46 and slain to the number of a hundred and twenty thousand, two hundred thousand of their wives and children were led into captivity, and a great booty again seized. 47 Worn out with these and similar battles set forth at length in their histories, the Jews at length fell a prey to their enemies.

48 Furthermore, if we reckon up the times during which peace prevailed under each form of government, we shall find a great discrepancy. 49 Before the monarchy forty years and more often passed, and once eighty years (an almost unparalleled period), without any war, foreign or civil. 50 After the kings acquired sovereign power, the fighting was no longer for peace and liberty, but for glory; 51 accordingly we find that they all, with the exception of Solomon (whose virtue and wisdom would be better displayed in peace than in war) waged war, 52 and finally a fatal desire for power gained ground, which, in many cases, made the path to the throne a bloody one.

53 Lastly, the laws, during the rule of the people, remained uncorrupted and were studiously observed. 54 Before the monarchy there were very few prophets to admonish the people, but after the establishment of kings there were a great number at the same time. 55 Obadiah saved a hundred from death and hid them away, lest they should be slain with the rest. 56 The people, so far as we can see,

were never deceived by false prophets till after the power had been vested in kings, whose creatures many of the prophets were. 57 Again, the people, whose heart was generally proud or humble according to its circumstances, easily corrected itself under misfortune, turned again to God, restored His laws, and so freed itself from all peril; 58 but the kings, whose hearts were always equally puffed up, and who could not be corrected without humiliation, clung pertinaciously to their vices, even till the last overthrow of the city.

59 We may now clearly see from what I have said:-

(I.) How hurtful to religion and the State is the concession to ministers of religion of any power of issuing decrees or transacting the business of government: 60 how, on the contrary, far greater stability is afforded, if the said ministers are only allowed to give answers to questions duly put to them, and are, as a rule, obliged to preach and practise the received and accepted doctrines.

61 (II.) How dangerous it is to refer to Divine right matters merely speculative and subject or liable to dispute. 62 The most tyrannical governments are those which make crimes of opinions, for everyone has an inalienable right over own thoughts-- nay, such a State of things leads to the rule of popular passion.

63 Pontius Pilate made concession to the passion of the Pharisees in consenting to the crucifixion of Christ, whom he knew to be innocent. 64 Again, the Pharisees, in order to shake the position of people richer than themselves, began to set on foot questions of religion, and accused the Sadducees of impiety, 65 and, following their example, the vilest hypocrites, stirred, as they pretended, by the same holy wrath which they called zeal for the Lord, 66 persecuted people whose unblemished character and distinguished virtue had excited the popular hatred, publicly denounced their opinions, and inflamed the fierce passions of the people against them.

67 This wanton licence being cloaked with the specious garb of religion could not easily be repressed, especially when the sovereign authorities introduced a sect of which they were not the head; 68 they were then regarded not as interpreters of Divine right, but as sectarians-- that is, as persons recognising the right of Divine interpretation assumed by the leaders of the sect. 69 The authority of the magistrates thus became of little account in such matters in comparison with the authority of sectarian leaders before whose interpretations kings were obliged to bow.

70 To avoid such evils in a State, there is no safer way, than to make

piety and religion to consist in acts only-- 71 that is, in the practice of justice and charity, leaving everyone's judgment in other respects free. But I will speak of this more at length presently.

72 (III.) We see how necessary it is, both in the interests of the State and in the interests of religion, to confer on the sovereign power the right of deciding what is lawful or the reverse. 73 If this right of judging actions could not be given to the very prophets of God without great injury to the State and religion, how much less should it be entrusted to those who can neither foretell the future nor work miracles! But this again I will treat of more fully hereafter.

74 (IV.) Lastly, we see how disastrous it is for a people unaccustomed to kings, and possessing a complete code of laws, to set up a monarchy. 75 Neither can the subjects brook such a sway, nor the royal authority submit to laws and popular rights set up by anyone inferior to itself. 76 Still less can a king be expected to defend such laws, for they were not framed to support own dominion, but the dominion of the people, or some council which formerly ruled, so that in guarding the popular rights the king would seem to be a slave rather than a master. 77 The representative of a new monarchy will employ all own zeal in attempting to frame new laws, so as to wrest the rights of dominion to own use, and to reduce the people till they find it easier to increase than to curtail the royal prerogative. 78 I must not, however, omit to State that it is no less dangerous to remove a monarch, though are on all hands admitted to be a tyrant. 79 For own people are accustomed to royal authority and will obey no other, despising and mocking at any less august control.

80 It is therefore necessary, as the prophets discovered of old, if one king be removed, that he should be replaced by another, who will be a tyrant from necessity rather than choice. 81 For how will he be able to endure the sight of the hands of the citizens reeking with royal blood, and to rejoice in their regicide as a glorious exploit? 82 Was not the deed perpetrated as an example and warning for himself? 83 If he really wishes to be king, and not to acknowledge the people as the judge of kings and the master of himself, or to wield a precarious sway, he must avenge the death of his predecessor, making an example for his own sake, lest the people should venture to repeat a similar crime. 84 He will not, however, be able easily to avenge the death of the tyrant by the slaughter of citizens unless he defends the cause of tyranny and approves the deeds of his predecessor, thus following in his footsteps.

85 Hence it comes to pass that peoples have often changed their tyrants, but never removed them or changed the monarchical form of government into any other.

86 The English people furnish us with a terrible example of this fact. They sought how to depose their monarch under the forms of law, 87 but when he had been removed, they were utterly unable to change the form of government, and after much bloodshed only brought it about, that a new monarch should be hailed under a different name (as though it had been a mere question of names); 88 this new monarch could only consolidate own power by completely destroying the royal stock, putting to death the king's friends, real or supposed, 89 and disturbing with war the peace which might encourage discontent, in order that the populace might be engrossed with novelties and divert its mind from brooding over the slaughter of the king. 90 At last, however, the people reflected that it had accomplished nothing for the good of the country beyond violating the rights of the lawful king and changing everything for the worse. 91 It therefore decided to retrace its steps as soon as possible, and never rested till it had seen a complete restoration of the original state of affairs.

92 It may perhaps be objected that the Roman people was easily able to remove its tyrants, but I gather from its history a strong confirmation of my contention. 93 Though the Roman people was much more than ordinarily capable of removing their tyrants and changing their form of government, 94 inasmuch as it held in its own hands the power of electing its king and his successor, and being composed of rebels and criminals had not long been used to the royal yoke (out of its six kings it had put to death three), 95 nevertheless it could accomplish nothing beyond electing several tyrants in place of one, who kept it groaning under a continual State of war, both foreign and civil, 96 till at last it changed its government again to a form differing from monarchy, as in England, only in name.

97 As for the United States of the Netherlands, they have never, as we know, had a king, but only counts, who never attained the full rights of dominion. 98 The States of the Netherlands evidently acted as principals in the settlement made by them at the time of the Earl of Leicester's mission: 99 they always reserved for themselves the authority to keep the counts up to their duties, and the power to preserve this authority and the liberty of the citizens. 100 They had ample means of vindicating their rights if their rulers should prove tyrannical, and could impose such restraints that nothing

could be done without their consent and approval.
101 Thus the rights of sovereign power have always been vested in the States, though the last count endeavoured to usurp them. 102 It is therefore little likely that the States should give them up, especially as they have just restored their original dominion, lately almost lost.
103 These examples, then, confirm us in our belief, that every dominion should retain its original form, and, indeed, cannot change it without danger of the utter ruin of the whole State. 104 Such are the points I have here thought worthy of remark.

IT IS SHOWN THAT THE RIGHT OVER MATTERS SPIRITUAL LIES WHOLLY WITH THE SOVEREIGN, AND THAT THE OUTWARD FORMS OF RELIGION SHOULD BE IN ACCORDANCE WITH PUBLIC PEACE, IF WE WOULD OBEY GOD ARIGHT

Benedict of Spinoza

4 When I said that the possessors of sovereign power have rights over everything, and that all rights are dependent on their decree, I did not merely mean temporal rights, but also spiritual rights; 2 of the latter, no less than the former, they ought to be the interpreters and the champions. 3 I wish to draw special attention to this point, and to discuss it fully in this chapter, 4 because many persons deny that the right of deciding religious questions belongs to the sovereign power, and refuse to acknowledge it as the interpreter of Divine right. 5 They accordingly assume full licence to accuse and arraign it, nay, even to excommunicate it from the Church, as Ambrosius treated the Emperor Theodosius in old time. 6 However, I will show later on in this chapter that they take this means of dividing the government, and paving the way to their own ascendancy. 7 I wish, however, first to point out that religion acquires its force as law solely from the decrees of the sovereign. 8 God has no special kingdom among humans except in so far as He reigns through temporal rulers. 9 Moreover, the rites of religion and the outward observances of piety should be in accordance with the public peace and well-being, and should therefore be determined by the sovereign power alone. 10 I speak here only of the outward observances of piety and the external rites of religion, not of piety, itself, nor of the inward worship of God, 11 nor the means by which the mind is inwardly led to do homage to God in singleness of heart.
12 Inward worship of God and piety in itself are within the sphere of everyone's private rights, and cannot be alienated (as I showed at the end of the Book of

INTERPRETATION). 13 What I here mean by the kingdom of God is, I think, sufficiently clear from what has been said in the Book of FAITH. 14 I there showed that a person best fulfils God's law who worships Him, according to His command, through acts of justice and charity; 15 it follows, therefore, that wherever justice and charity have the force of law and ordinance, there is God's kingdom.

16 I recognise no difference between the cases where God teaches and commands the practice of justice and charity through our natural faculties, and those where He makes special revelations; 17 nor is the form of the revelation of importance so long as such practice is revealed and becomes a sovereign and supreme law to humans. 18 If, therefore, I show that justice and charity can only acquire the force of right and law through the rights of rulers, I shall be able readily to arrive at the conclusion (seeing that the rights of rulers are in the possession of the sovereign), 19 that religion can only acquire the force of right by means of those who have the right to command, and that God only rules among humans through the instrumentality of earthly potentates. 20 It follows from what has been said, that the practice of justice and charity only acquires the force of law through the rights of the sovereign authority; 21 for we showed in chapter-1 of this Book of THE STATE. that in the State of Nature reason has no more rights than desire, 22 but that people living either by the laws of the former or the laws of the latter, possess rights co-extensive with their powers.

23 For this reason we could not conceive sin to exist in the State of Nature, nor imagine God as a judge punishing human's transgressions; 24 but we supposed all things to happen according to the general laws of universal Nature, 25 there being no difference between pious and impious, between one that was pure (as Solomon says) and one that was impure, because there was no possibility either of justice or charity.

26 In order that the true doctrines of reason, that is (as we showed in the Book of MIRACLES), the true Divine doctrines might obtain absolutely the force of law and right, 27 it was necessary that each individual should cede your own natural right, and transfer it either to society as a whole, or to a certain body of people, or to one person. 28 Then, and not till then, does it first dawn upon us what is justice and what is injustice, what is equity and what is iniquity.

29 Justice, therefore, and absolutely all the precepts of reason, including love towards one's neighbour, receive the force

of laws and ordinances solely through the rights of dominion, 30 that is (as we showed in the same chapter) solely on the decree of those who possess the right to rule. 31 Inasmuch as the kingdom of God consists entirely in rights applied to justice and charity or to true religion, it follows that (as we asserted) the kingdom of God can only exist among humans through the means of the sovereign powers; 32 nor does it make any difference whether religion be apprehended by our natural faculties or by revelation: 33 the argument is sound in both cases, inasmuch as religion is one and the same, and is equally revealed by God, whatever be the manner in which it becomes known to humans.

34 Thus, in order that the religion revealed by the prophets might have the force of law among the Jews, it was necessary that every person of them should yield up own natural right, 35 and that all should, with one accord, agree that they would only obey such commands as God should reveal to them through the prophets. 36 Just as we have shown to take place in a democracy, where people with one consent agree to live according to the dictates of reason. 37 Although the Hebrews furthermore transferred their right to God, they were able to do so rather in theory than in practice, 38 for, as a matter of fact (as we pointed out above) they absolutely retained the right of dominion till they transferred it to Moses, who in his turn became absolute king, so that it was only through him that God reigned over the Hebrews. 39 For this reason (namely, that religion only acquires the force of law by means of the sovereign power) 40 Moses was not able to punish those who, before the covenant, and consequently while still in possession of their rights, violated the Sabbath (Exodus, chapter-16, verse:27), 41 but was able to do so after the covenant (Numbers, chapter-15, verse:36), because everyone had then yielded up own natural rights, and the ordinance of the Sabbath had received the force of law.

42 Lastly, for the same reason, after the destruction of the Hebrew dominion, revealed religion ceased to have the force of law; 43 for we cannot doubt that as soon as the Jews transferred their right to the king of Babylon, the kingdom of God and the Divine right forthwith ceased. 44 For the covenant wherewith they promised to obey all the utterances of God was abrogated; God's kingdom, which was based thereupon, also ceased. 45 The Hebrews could no longer abide thereby, inasmuch as their rights no longer belonged to them but to the king of Babylon, whom (as we showed in chapter-1 of this Book of THE STATE.) they were

bound to obey in all things. 46 Jeremiah (chapter-29, verse:7) expressly admonishes them of this fact: "And seek the peace of the city, whither I have caused you to be carried away captives, and pray unto the Lord for it; for in the peace thereof shall ye have peace." 47 Now, they could not seek the peace of the City as having a share in its government, but only as slaves, being, as they were, captives; 48 by obedience in all things, with a view to avoiding seditions, and by observing all the laws of the country, however different from their own. 49 It is thus abundantly evident that religion among the Hebrews only acquired the form of law through the right of the sovereign rule; 50 when that rule was destroyed, it could no longer be received as the law of a particular kingdom, but only as the universal precept of reason. 51 I say of reason, for the universal religion had not yet become known by revelation. 52 We may therefore draw the general conclusion that religion, whether revealed through our natural faculties or through prophets, receives the force of a command solely through the decrees of the holders of sovereign power; 53 and, further, that God has no special kingdom among humans, except in so far as He reigns through earthly potentates.

54 We may now see in a clearer light what was Stated in the Book of LAW, chapter-1, namely, that all the decrees of God involve eternal truth and necessity, so that we cannot conceive God as a prince or legislator giving laws to humankind. 55 For this reason the Divine precepts, whether revealed through our natural faculties, or through prophets, do not receive immediately from God the force of a command, but only from those, or through the mediation of those, who possess the right of ruling and legislating. 56 It is only through these latter means that God rules among humans, and directs human affairs with justice and equity.

57 This conclusion is supported by experience, for we find traces of Divine justice only in places where just people bear sway; 58 elsewhere the same lot (to repeat, again Solomon's words) befalls the just and the unjust, the pure and the impure: a State of things which causes Divine Providence to be doubted by many who think that God immediately reigns among humans, and directs all nature for their benefit.

59 As, then, both reason and experience tell us that the Divine right is entirely dependent on the decrees of secular rulers, it follows that secular rulers are its proper interpreters. 60 How this is so we shall now see, for it is time to show that the outward observances of religion, and all the external practices of piety should be brought into accordance with the

public peace and well-being if we would obey God rightly. 61 When this has been shown we shall easily understand how the sovereign rulers are the proper interpreters of religion and piety.

62 It is certain that duties towards one's country are the highest that people can fulfil; for, if government be taken away, no good thing can last, all falls into dispute, anger and anarchy reign unchecked amid universal fear. 63 Consequently there can be no duty towards our neighbour which would not become an offence if it involved injury to the whole State, 64 nor can there be any offence against our duty towards our neighbour, or anything but loyalty in what we do for the sake of preserving the State. 65 For instance: it is in the abstract my duty when my neighbour quarrels with me and wishes to take my cloak, to give you my coat also; 66 but if it be thought that such conduct is hurtful to the maintenance of the State, I ought to bring you to trial, even at the risk of your being condemned to death.

67 For this reason Manlius Torquatus is held up to honour, inasmuch as the public welfare outweighed with him his duty towards his children. 68 This being so, it follows that the public welfare is the sovereign law to which all others, Divine and human, should be made to conform. 69 Now, it is the function of the sovereign only to decide what is necessary for the public welfare and the safety of the State, and to give orders accordingly; 70 therefore it is also the function of the sovereign only to decide the limits of our duty towards our neighbour-- in other words, to determine how we should obey God. 71 We can now clearly understand how the sovereign is the interpreter of religion, and further, that no one can obey God rightly, if the practices of one’s piety do not conform to the public welfare; or, consequently, if one does not implicitly obey all the commands of the sovereign. 72 For as by God's command we are bound to do our duty to all people without exception, and to do no person an injury, we are also bound not to help one person at another's loss or disadvantage, still less at a loss or disadvantage to the whole State. 73 Now, no private citizen can know what is good for the State, except you learn it through the sovereign power, who alone has the right to transact public business: 74 therefore no one can rightly practise piety or obedience to God, unless you obey the sovereign power's commands in all things. 75 This proposition is confirmed by the facts of experience. For if the sovereign adjudge a person to be worthy of death or an enemy, whether you be a citizen or a foreigner, a private

individual or a separate ruler, no subject is allowed to give you assistance. 76 So also though the Jews were bidden to love their fellow-citizens as themselves (Leviticus. Chapter-19, verse:17 and 18), 77 they were nevertheless bound, if a person offended against the law, to point you out to the judge (Leviticus, chapter-5, verse:1, and Deuteronomy, chapter-13, verse:8 and 9), 78 and, if you should be condemned to death, to slay you (Deuteronomy, chapter-17, verse:7).

79 Further, in order that the Hebrews might preserve the liberty they had gained, and might retain absolute sway over the territory they had conquered, it was necessary, as we showed in this Book of THE STATE, chapter-2, that their religion should be adapted to their particular government, 80 and that they should separate themselves from the rest of the nations: wherefore it was commanded to them, "Love thy neighbour and hate thine enemy" (Matthew, chapter-5, verse:43), 81 but after they had lost their dominion and had gone into captivity in Babylon, Jeremiah bid them take thought for the safety of the State into which they had been led captive; 82 and Christ when He saw that they would be spread over the whole world, told them to do their duty by all people without exception; all of which instances show that religion has always been made to conform to the public welfare. 83 Perhaps someone will ask: By what right, then, did the disciples of Christ, being private citizens, preach a new religion? 84 I answer that they did so by the right of the power which they had received from Christ against unclean spirits (see Matthew, chapter-10, verse:1). 85 I have already Stated in chapter-1 of this Book of THE STATE. that all are bound to obey a tyrant, unless they have received from God through undoubted revelation a promise of aid against him; 86 so let no one take example from the Apostles unless you too has the power of working miracles. 87 The point is brought out more clearly by Christ's command to His disciples, "Fear not those who kill the body" (Matthew. Chapter-10. verse:28). 88 If this command were imposed on everyone, governments would be founded in vain, and Solomon's words (Proverbs, chapter-24, verse:21), "My son, fear God and the king," would be impious, which they certainly are not; 89 we must therefore admit that the authority which Christ gave to His disciples was given to them only, and must not be taken as an example for others.

90 I do not pause to consider the arguments of those who wish to separate secular rights from spiritual rights, placing the former under the control of the sovereign, and the latter under the control of the universal Church; such

pretensions are too frivolous to merit refutation. 91 I cannot however, pass over in silence the fact that such persons are woefully deceived when they seek to support their seditious opinions by the example of the Jewish high priest, who, in ancient times, had the right of administering the sacred offices. 92 Did not the high priests receive their right by the decree of Moses (who, as I have shown, retained the sole right to rule), and could they not by the same means be deprived of it? 93 Moses himself chose not only Aaron, but also his son Eleazar, and his grandson Phineas, and bestowed on them the right of administering the office of high priest. 94 This right was retained by the high priests afterwards, but none the less were they delegates of Moses-- that is, of the sovereign power. 95 Moses, as we have shown, left no successor to his dominion, but so distributed his prerogatives, that those who came after him seemed, as it were, regents who administer the government when a king is absent but not dead.

96 In the second commonwealth the high priests held their right absolutely, after they had obtained the rights of principality in addition 97 Wherefore the rights of the high priesthood always depended on the edict of the sovereign, and the high priests did not possess them till they became sovereigns also. 98 Rights in matters spiritual always remained under the control of the kings absolutely (as I will show at the end of this chapter), except in the single particular that they were not allowed to administer in person the sacred duties in the Temple, 99 inasmuch as they were not of the family of Aaron, and were therefore considered unclean, a reservation which would have no force in a Christian community.

100 We cannot, therefore, doubt that the daily sacred rites (whose performance does not require a particular genealogy but only a special mode of life, and from which the holders of sovereign power are not excluded as unclean) are under the sole control of the sovereign power; 101 no one, save by the authority or concession of such sovereign, has the right or power of administering them, of choosing others to administer them, of defining or strengthening the foundations of the Church and its doctrines; 102 of judging on questions of morality or acts of piety; of receiving anyone into the Church or excommunicating them therefrom, or, lastly, of providing for the poor. 103 These doctrines are proved to be not only true (as we have already pointed out), but also of primary necessity for the preservation of religion and the State. 104 We all know what weight spiritual right and authority

carries in the popular mind: how everyone hangs on the lips, as it were, of those who possess it. 105 We may even say that those who wield such authority have the most complete sway over the popular mind.

106 Whosoever, therefore, wishes to take this right away from the sovereign power, is desirous of dividing the dominion; 107 from such division, contentions, and strife will necessarily spring up, as they did of old between the Jewish kings and high priests, and will defy all attempts to allay them. 108 Nay, further, you who strives to deprive the sovereign power of such authority, is aiming (as we have said), at gaining dominion for yourself. 109 What is left for the sovereign power to decide on, if this right be denied? 110 Certainly nothing concerning either war or peace, if you have to ask another human's opinion as to whether what they believes to be beneficial would be pious or impious. 111 Everything would depend on the verdict of you who had the right of deciding and judging what was pious or impious, right or wrong.

112 When such a right was bestowed on the Pope of Rome absolutely, he gradually acquired complete control over the kings, till at last he himself mounted to the summits of dominion; 113 however much monarchs, and especially the German emperors, strove to curtail his authority, were it only by a hairsbreadth, they effected nothing, but on the contrary by their very endeavours largely increased it. 114 That which no monarch could accomplish with fire and sword, ecclesiastics could bring about with a stroke of the pen; 115 whereby we may easily see the force and power at the command of the Church, and also how necessary it is for sovereigns to reserve such prerogatives for themselves.

116 If we reflect on what was said in the last chapter we shall see that such reservation conduced not a little to the increase of religion and piety; 117 for we observed that the prophets themselves, though gifted with Divine efficacy, being merely private citizens, rather irritated than reformed the people by their freedom of warning, reproof, and denunciation, 118 whereas the kings by warnings and punishments easily bent people to their will. 119 Furthermore, the kings themselves, not possessing the right in question absolutely, very often fell away from religion and took with them nearly the whole people. The same thing has often happened from the same cause in Christian States.

120 Perhaps I shall be asked, "But if the holders of sovereign power choose to be wicked, who will be the rightful champion of piety? Should the sovereigns still be its interpreters?" 121 I meet them with the counter-question, "But if

ecclesiastics (who are also human, and private citizens, and who ought to mind only their own affairs), 122 or if others whom it is proposed to entrust with spiritual authority, choose to be wicked, should they still be considered as piety's rightful interpreters?" 123 It is quite certain that when sovereigns wish to follow their own pleasure, whether they have control over spiritual matters or not, the whole State, spiritual and secular, will go to ruin, 124 and the State will go to ruin much faster if private citizens seditiously assume the championship of the Divine rights.

125 Thus we see that not only is nothing gained by denying such rights to sovereigns, but on the contrary, great evil ensues. 126 For (as happened with the Jewish kings who did not possess such rights absolutely) rulers are thus driven into wickedness, and the injury and loss to the State become certain and inevitable, instead of uncertain and possible. 127 Whether we look to the abstract truth, or the security of States, or the increase of piety, we are compelled to maintain that the Divine right, or the right of control over spiritual matters, depends absolutely on the decree of the sovereign, who is its legitimate interpreter and champion. 128 Therefore the true ministers of God's word are those who teach piety to the people in obedience to the authority of the sovereign rulers by whose decree it has been brought into conformity with the public welfare.

129 There remains for me to point out the cause for the frequent disputes on the subject of these spiritual rights in Christian States; whereas the Hebrews, so far as I know, never, had any doubts about the matter. 130 It seems monstrous that a question so plain and vitally important should thus have remained undecided, and that the secular rulers could never obtain the prerogative without controversy, nay, nor without great danger of sedition and injury to religion. 131 If no cause for this state of things were forthcoming, I could easily persuade myself that all I have said in this chapter is mere theorising, or a kind of speculative reasoning which can never be of any practical use. 132 However, when we reflect on the beginnings of Christianity the cause at once becomes manifest. The Christian religion was not taught at first by kings, but by private persons, 133 who, against the wishes of those in power, whose subjects they were, were for a long time accustomed to hold meetings in secret churches, to institute and perform sacred rites, and on their own authority to settle and decide on their affairs without regard to the State, 134 When, after the lapse of many years, the religion was taken up by the

authorities, the ecclesiastics were obliged to teach it to the emperors themselves as they had defined it: 135 wherefore they easily gained recognition as its teachers and interpreters, and the church pastors were looked upon as vicars of God. 136 The ecclesiastics took good care that the Christian kings should not assume their authority, by prohibiting marriage to the chief ministers of religion and to its highest interpreter. 137 They furthermore elected their purpose by multiplying the dogmas of religion to such an extent and so blending them with philosophy 138 that their chief interpreter was bound to be a skilled philosopher and theologian, and to have leisure for a host of idle speculations: conditions which could only be fulfilled by a private individual with much time on your hands.

139 Among the Hebrews things were very differently arranged: for their Church began at the same time as their dominion, 140 and Moses, their absolute ruler, taught religion to the people, arranged their sacred rites, and chose their spiritual ministers. 141 Thus the royal authority carried very great weight with the people, and the kings kept a firm hold on their spiritual prerogatives.

142 Although, after the death of Moses, no one held absolute sway, yet the power of deciding both in matters spiritual and matters temporal was in the hands of the secular chief, as I have already pointed out. 143 Further, in order that it might be taught religion and piety, the people was bound to consult the supreme judge no less than the high priest (Deuteronomy, chapter-17, verses:9 and 11). 144 Lastly, though the kings had not as much power as Moses, nearly the whole arrangement and choice of the sacred ministry depended on their decision. 145 Thus David arranged the whole service of the Temple (see 1 Chronicles, chapter-28, verses:11, 12); 146 from all the Levites he chose twenty-four thousand for the sacred psalms; six thousand of these formed the body from which were chosen the judges and proctors, four thousand were porters, and four thousand to play on instruments (see 1 Chronicles, chapter-23, verses:4, 5). 147 He further divided them into companies (of whom he chose the chiefs), so that each in rotation, at the allotted time, might perform the sacred rites. 148 The priests he also divided into as many companies; I will not go through the whole catalogue, but refer the reader to 2 Chronicles, chapter-8, verse:13, 149 where it is Stated, "Then Solomon offered burnt offerings to the Lord . . . . . after a certain rate every day, offering according to the commandments of Moses;" 150 and in verse:14, "And he appointed, according to the order of David his father, the courses of the priests to their

service . . . . . for so had David the man of God commanded." 151 Lastly, the historian bears witness in verse:15: "And they departed not from the commandment of the king unto the priests and Levites concerning any matter, or concerning the treasuries."
152 From these and other histories of the kings it is abundantly evident, that the whole practice of religion and the sacred ministry depended entirely on the commands of the king.
153 When I said above that the kings had not the same right as Moses to elect the high priest, to consult God without intermediaries, and to condemn the prophets who prophesied during their reign; 154 I said so simply because the prophets could, in virtue of their mission, choose a new king and give absolution for regicide, not because they could call a king who offended against the law to judgment, or could rightly act against him.
155 Wherefore if there had been no prophets who, in virtue of a special revelation, could give absolution for regicide, the kings would have possessed absolute rights over all matters both spiritual and temporal. 156 Consequently the rulers of modern times, who have no prophets and would not rightly be bound in any case to receive them (for they are not subject to Jewish law), have absolute possession of the spiritual prerogative, 157 although they are not celibates, and they will always retain it, if they will refuse to allow religious dogmas to be unduly multiplied or confounded with philosophy.

THAT IN A FREE State EVERY PERSON MAY THINK WHAT YOU LIKES, AND SAY WHAT YOU THINKS

Benedict of Spinoza

5 If humans' minds were as easily controlled as their tongues, every king would sit safely on his throne, and government by compulsion would cease; 2 for every subject would shape own life according to the intentions of their rulers, and would esteem a thing true or false, good or evil, just or unjust, in obedience to their dictates. 3 However, we have shown already in this Book of THE STATE, chapter-2 that no human's mind can possibly lie wholly at the disposition of another, for no one can willingly transfer own natural right of free reason and judgment, or be compelled so to do. 4 For this reason government which attempts to control minds is accounted tyrannical, 5 and it is considered an abuse of sovereignty and a usurpation of the rights of subjects, to seek to prescribe what shall be accepted as true, or rejected as false, or what opinions should actuate people in their

worship of God. 6 All these questions fall within a human's natural right, which you cannot abdicate even with your own consent.

7 I admit that the judgment can be biassed in many ways, and to an almost incredible degree, so that while exempt from direct external control it may be so dependent on another person's words, that it may fitly be said to be ruled by that person; 8 but although this influence is carried to great lengths, it has never gone so far as to invalidate the Statement, that every human's understanding is your own, and that brains are as diverse as palates.

9 Moses, not by fraud, but by Divine virtue, gained such a hold over the popular judgment that he was accounted superhuman, and believed to speak and act through the inspiration of the Deity; 10 nevertheless, even he could not escape murmurs and evil interpretations. How much less then can other monarchs avoid them! 11 Yet such unlimited power, if it exists at all, must belong to a monarch, and least of all to a democracy, where the whole or a great part of the people wield authority collectively. 12 This is a fact which I think everyone can explain for yourself.

13 However unlimited, therefore, the power of a sovereign may be, however implicitly it is trusted as the exponent of law and religion, it can never prevent humans from forming judgments according to their intellect, or being influenced by any given emotion. 14 It is true that it has the right to treat as enemies all people whose opinions do not, on all subjects, entirely coincide with its own; but we are not discussing its strict rights, but its proper course of action. 15 I grant that it has the right to rule in the most violent manner, and to put citizens to death for very trivial causes, but no one supposes it can do this with the approval of sound judgment. 16 Nay, inasmuch as such things cannot be done without extreme peril to itself, we may even deny that it has the absolute power to do them, or, consequently, the absolute right; for the rights of the sovereign are limited by own power.

17 Since, therefore, no one can abdicate own freedom of judgment and feeling; since every person is by indefeasible natural right the master of your own thoughts, 18 it follows that humans thinking in diverse and contradictory fashions, cannot, without disastrous results, be compelled to speak only according to the dictates of the supreme power. 19 Not even the most experienced, to say nothing of the multitude, know how to keep silence. 20 Humans' common failing is to confide their plans to others, 21 though there be need for secrecy, so that a government would be most harsh which

deprived the individual of own freedom of saying and teaching what you thought; and would be moderate if such freedom were granted. 22 Still we cannot deny that authority may be as much injured by words as by actions; hence, although the freedom we are discussing cannot be entirely denied to subjects, its unlimited concession would be most baneful; 23 we must, therefore, now inquire, how far such freedom can and ought to be conceded without danger to the peace of the State, or the power of the rulers; 24 and this, as I said at the beginning of this book of THE STATE, chapter-1, is my principal object. 25 It follows, plainly, from the explanation given above, of the foundations of a State, that the ultimate aim of government is not to rule, or restrain, by fear, nor to exact obedience, 26 but contrariwise, to free every human from fear, that you may live in all possible security; in other words, to strengthen your natural right to exist and work without injury to yourself or others.

27 No, the object of government is not to change people from rational beings into beasts or puppets, but to enable them to develop their minds and bodies in security, 28 and to employ their reason unshackled; neither showing hatred, anger, or deceit, nor watched with the eyes of jealousy and injustice. 29 In fact, the true aim of government is liberty.

30 Now we have seen that in forming a State the power of making laws must either be vested in the body of the citizens, or in a portion of them, or in one person. 31 For, although humans' free judgments are very diverse, each one thinking that one alone knows everything, and although complete unanimity of feeling and speech is out of the question, 32 it is impossible to preserve peace, unless individuals abdicate their right of acting entirely on their own judgment. 33 Therefore, the individual justly cedes the right of free action, though not of free reason and judgment; 34 no one can act against the authorities without danger to the State, though your feelings and judgment may be at variance therewith; 35 you may even speak against them, provided that you does so from rational conviction, not from fraud, anger, or hatred, and provided that you does not attempt to introduce any change on your private authority.

36 For instance, supposing a person shows that a law is repugnant to sound reason, and should therefore be repealed; if you submits your opinion to the judgment of the authorities (who, alone, have the right of making and repealing laws), 37 and meanwhile acts in nowise contrary to that law, you have deserved well

of the State, and has behaved as a good citizen should; 38 but if you accuses the authorities of injustice, and stirs up the people against them, or if you seditiously strives to abrogate the law without their consent, you are a mere agitator and rebel.

39 Thus we see how an individual may declare and teach what one believes, without injury to the authority of your rulers, or to the public peace; 40 namely, by leaving in their hands the entire power of legislation as it affects action, and by doing nothing against their laws, though you be compelled often to act in contradiction to what you believes, and openly feels, to be best.

41 Such a course can be taken without detriment to justice and dutifulness, nay, it is the one which a just and dutiful person would adopt. 42 We have shown that justice is dependent on the laws of the authorities, so that no one who contravenes their accepted decrees can be just, 43 while the highest regard for duty, as we have pointed out in the preceding chapter, is exercised in maintaining public peace and tranquillity; 44 these could not be preserved if every person were to live as you pleased; therefore it is no less than undutiful for a person to act contrary to own country's laws, for if the practice became universal the ruin of States would necessarily follow.

45 Hence, so long as a person acts in obedience to the laws of own rulers, you in nowise contravenes your reason, for in obedience to reason you transferred the right of controlling your actions from your own hands to theirs. 46 This doctrine we can confirm from actual custom, for in a conference of great and small powers, schemes are seldom carried unanimously, yet all unite in carrying out what is decided on, whether they voted for or against. 47 But I return to my proposition.

From the fundamental notions of a State, we have discovered how a person may exercise free judgment without detriment to the supreme power: 48 from the same premises we can no less easily determine what opinions would be seditious. Evidently those which by their very nature nullify the compact by which the right of free action was ceded. 49 For instance, a man who holds that the supreme power has no rights over him, or that promises ought not to be kept, or that everyone should live as you pleases, or other doctrines of this nature in direct opposition to the above-mentioned contract, is seditious, 50 not so much from his actual opinions and judgment, as from the deeds which they involve; for you who maintains such theories abrogates the contract which tacitly, or openly, you made with your rulers. 51 Other opinions which do not

involve acts violating the contract, such as revenge, anger, and the like, are not seditious, 52 unless it be in some corrupt State, where superstitious and ambitious persons, unable to endure people of learning, are so popular with the multitude that their word is more valued than the law.

53 However, I do not deny that there are some doctrines which, while they are apparently only concerned with abstract truths and falsehoods, are yet propounded and published with unworthy motives. 54 This question we have discussed in the Book of THEOSOPHY, chapter-7, and shown that reason should nevertheless remain unshackled. 55 If we hold to the principle that a person's loyalty to the State should be judged, like your loyalty to God, from your actions only--namely, from your charity towards your neighbours; 56 we cannot doubt that the best government will allow freedom of philosophical speculation no less than of religious belief. 57 I confess that from such freedom inconveniences may sometimes arise, but what question was ever settled so wisely that no abuses could possibly spring therefrom? 58 You who seeks to regulate everything by law, is more likely to arouse vices than to reform them. 59 It is best to grant what cannot be abolished, even though it be in itself harmful. 60 How many evils spring from luxury, envy, avarice, drunkenness, and the like, yet these are tolerated--vices as they are-- because they cannot be prevented by legal enactments. 61 How much more then should free thought be granted, seeing that it is in itself a virtue and that it cannot be crushed! 62 Besides, the evil results can easily be checked, as I will show, by the secular authorities, not to mention that such freedom is absolutely necessary for progress in science and the liberal arts: 63 for no person follows such pursuits to advantage unless your judgment be entirely free and unhampered.

64 But let it be granted that freedom may be crushed, and people be so bound down, that they do not dare to utter a whisper, save at the bidding of their rulers; 65 nevertheless this can never be carried to the pitch of making them think according to authority, so that the necessary consequences would be that people would daily be thinking one thing and saying another, to the corruption of good faith, 66 that mainstay of government, and to the fostering of hateful flattery and perfidy, whence spring stratagems, and the corruption of every good art.

67 It is far from possible to impose uniformity of speech, for the more rulers strive to curtail freedom of speech, the more obstinately are they resisted; 68 not indeed by the

avaricious, the flatterers, and other numskulls, who think supreme salvation consists in filling their stomachs and gloating over their money-bags, but by those whom good education, sound morality, and virtue have rendered more free. 69 Humans, as generally constituted, are most prone to resent the branding as criminal of opinions which they believe to be true, and the proscription as wicked of that which inspires them with piety towards God and human; 70 hence they are ready to forswear the laws and conspire against the authorities, thinking it not shameful but honourable to stir up seditions and perpetuate any sort of crime with this end in view. 71 Such being the constitution of human nature, we see that laws directed against opinions affect the generous minded rather than the wicked, 72 and are adapted less for coercing criminals than for irritating the upright; so that they cannot be maintained without great peril to the State.

73 Moreover, such laws are almost always useless, for those who hold that the opinions proscribed are sound, cannot possibly obey the law; 74 whereas those who already reject them as false, accept the law as a kind of privilege, and make such boast of it, that authority is powerless to repeal it, even if such a course be subsequently desired.

75 To these considerations may be added what we said in this Book of THE STATE, chapter-3. in treating of the history of the Hebrews. 76 And, lastly, how many schisms have arisen in the Church from the attempt of the authorities to decide by law the intricacies of theological controversy! 77 If people were not allured by the hope of getting the law and the authorities on their side, of triumphing over their adversaries in the sight of an applauding multitude, and of acquiring honourable distinctions, they would not strive so maliciously, nor would such fury sway their minds. 78 This is taught not only by reason but by daily examples, 79 for laws of this kind prescribing what every person shall believe and forbidding anyone to speak or write to the contrary, have often been passed, as sops 80 or concessions to the anger of those who cannot tolerate people of enlightenment, and who, by such harsh and crooked enactments, can easily turn the devotion of the masses into fury and direct it against whom they will. 81 How much better would it be to restrain popular anger and fury, instead of passing useless laws, which can only be broken by those who love virtue and the liberal arts, thus paring down the State till it is too small to harbour people of talent. 82 What greater misfortune for a State can be conceived then that honourable people should be sent like

criminals into exile, because they hold diverse opinions which they cannot disguise? 83 What, I say, can be more hurtful than that people who have committed no crime or wickedness should, simply because they are enlightened, be treated as enemies and put to death, 84 and that the scaffold, the terror of evil-doers, should become the arena where the highest examples of tolerance and virtue are displayed to the people with all the marks of ignominy that authority can devise?

85 You that knows yourself to be upright does not fear the death of a criminal, and shrinks from no punishment; your mind is not wrung with remorse for any disgraceful deed: 86 you holds that death in a good cause is no punishment, but an honour, and that death for freedom is glory.

87 What purpose then is served by the death of such people, what example in proclaimed? 88 The cause for which they die is unknown to the idle and the foolish, hateful to the turbulent, loved by the upright. 89 The only lesson we can draw from such scenes is to flatter the persecutor, or else to imitate the victim.

90 If formal assent is not to be esteemed above conviction, and if governments are to retain a firm hold of authority and not be compelled to yield to agitators, it is imperative that freedom of judgment should be granted, 91 so that people may live together in harmony, however diverse, or even openly contradictory their opinions may be. 92 We cannot doubt that such is the best system of government and open to the fewest objections, since it is the one most in harmony with human nature. 93 In a democracy (the most natural form of government, as we have shown in this Book of THE STATE, chapter-1, everyone submits to the control of authority over own actions, but not over own judgment and reason; 94 that is, seeing that all cannot think alike, the voice of the majority has the force of law, subject to repeal if circumstances bring about a change of opinion. 95 In proportion as the power of free judgment is withheld we depart from the natural condition of humankind, and consequently the government becomes more tyrannical.

96 In order to prove that from such freedom no inconvenience arises, which cannot easily be checked by the exercise of the sovereign power, and that humans' actions can easily be kept in bounds, though their opinions be at open variance, 97 it will be well to cite an example. Such an one is not very, far to seek. 98 The city of Amsterdam reaps the fruit of this freedom in its own great prosperity and in the admiration of all other people. 99 For in this

most flourishing State, and most splendid city, people of every nation and religion live together in the greatest harmony, 100 and ask no questions before trusting their goods to a fellow-citizen, save whether you be rich or poor, and whether you generally acts honestly, or the reverse. 101 Your religion and sect is considered of no importance: for it has no effect before the judges in gaining or losing a cause, 102 and there is no sect so despised that its followers, provided that they harm no one, pay every person own due, and live uprightly, are deprived of the protection of the magisterial authority.

103 On the other hand, when the religious controversy between Remonstrants and Counter-Remonstrants began to be taken up by politicians and the States, it grew into a schism, 104 and abundantly showed that laws dealing with religion and seeking to settle its controversies are much more calculated to irritate than to reform, and that they give rise to extreme licence: 105 further, it was seen that schisms do not originate in a love of truth, which is a source of courtesy and gentleness, but rather in an inordinate desire for supremacy, 106 From all these considerations it is clearer than the sun at noonday, that the true schismatics are those who condemn other people's writings, 107 and seditiously stir up the quarrelsome masses against their authors, rather than those authors themselves, who generally write only for the learned, and appeal solely to reason. 108 In fact, the real disturbers of the peace are those who, in a free State, seek to curtail the liberty of judgment which they are unable to tyrannise over.

109 I have thus shown:-

(I.) That it is impossible to deprive humans of the liberty of saying what they think.

110 (II.) That such liberty can be conceded to every person without injury to the rights and authority of the sovereign power, 111 and that every person may retain it without injury to such rights, provided that you does not presume upon it to the extent of introducing any new rights into the State, or acting in any way contrary, to the existing laws.

112 (III.) That every person may enjoy this liberty without detriment to the public peace, and that no inconveniences arise therefrom which cannot easily be checked.

113 (IV.) That every person may enjoy it without injury to own allegiance.

114 (V.) That laws dealing with speculative problems are entirely useless.

115 (VI.) Lastly, that not only may such liberty be granted without prejudice to the public peace, to loyalty, and to the rights of rulers,

but that it is even necessary, for their preservation. 116 For when people try to take it away, and bring to trial, not only the acts which alone are capable of offending, but also the opinions of humankind, they only succeed in surrounding their victims with an appearance of martyrdom, 117 and raise feelings of pity and revenge rather than of terror. 118 Uprightness and good faith are thus corrupted, flatterers and traitors are encouraged, and sectarians triumph, inasmuch as concessions have been made to their animosity, and they have gained the State sanction for the doctrines of which they are the interpreters. 119 Hence they arrogate to themselves the State authority and rights, and do not scruple to assert that they have been directly chosen by God, and that their laws are Divine, 120 whereas the laws of the State are human, and should therefore yield obedience to the laws of God-- in other words, to their own laws. 121 Everyone must see that this is not a State of affairs conducive to public welfare. 122 Wherefore, as we have shown in this Book of THE STATE, chapter-3, the safest way for a State is to lay down the rule that religion is comprised solely in the exercise of charity and justice, 123 and that the rights of rulers in sacred, no less than in secular matters, should merely have to do with actions, but that every person should think what you likes and say what you thinks. 124 I have thus fulfilled the task I set myself in this treatise. It remains only to call attention to the fact that I have written nothing which I do not most willingly submit to the examination and approval of my country's rulers; 125 and that I am willing to retract anything which they shall decide to be repugnant to the laws, or prejudicial to the public good. 126 I know that I am a human, and as a human liable to error, but against error I have taken scrupulous care, and have striven to keep in entire accordance with the laws of my country, with loyalty, and with morality.

The Book of Divine Panagogue called

REFLECTION

LIFE AND CHARACTER
Johann Wolfgang von Goethe

1 There is nothing worth thinking but it has been thought before; we must only try to think it again.

2 How can a person come to know own self? Never by thinking, but by doing. Try to do your duty, and you will know at once what you are worth.

3 But what is your duty? The claims of the day.

4 The world of reason is to be regarded as a great and immortal being, who ceaselessly works out what is necessary, and so makes own self lord also over what is accidental.

5 The longer I live, the more it grieves me to see human, you occupies your own supreme place for the very purpose of imposing your will upon Nature, and freeing yourself and yourself from an outrageous necessity,-- 6 to see you taken up with some false notion, and doing just the opposite of what you wants to do; and then, because the whole bent of your mind is spoilt, bungling miserably over everything.

7 Be genuine and strenuous; earn for yourself, and look for, grace from those in high places; from the powerful, favour; from the active and the good, advancement; from the many, affection; from the individual, love.

8 Tell me with whom you associate, and I will tell you who you are. If I know what your business is, I know what can be made of you.

9 Every person must think after own fashion; for on your own path you finds a truth, or a kind of truth, which helps you through life. 10 But you must not give yourself the rein; you must control yourself; mere naked instinct does not become you.

11 Unqualified activity, of whatever kind, leads at last to bankruptcy.

12 In the works of humankind, as in those of Nature, it is really the motive which is chiefly worth attention.

13 People get out of countenance with themselves and others because they treat the means as the

end, and so, from sheer doing, do nothing, or, perhaps, just what they would have avoided.

14 Our plans and designs should be so perfect in truth and beauty, that in touching them the world could only mar. 15 We should thus have the advantage of setting right what is wrong, and restoring what is destroyed.

16 It is a very hard and troublesome thing to dispose of whole, half-, and quarter-mistakes; to sift them and assign the portion of truth to its proper place.

17 It is not always needful for truth to take a definite shape; it is enough if it hovers about us like a spirit and produces harmony; if it is wafted through the air like the sound of a bell, grave and kindly.

18 General ideas and great conceit are always in a fair way to bring about terrible misfortune.

19 You cannot play the flute by blowing alone: you must use your fingers.

20 In Botany there is a species of plants called *Incompletæ*; and just in the same way it can be said that there are humans who are incomplete and imperfect. 21 They are those whose desires and struggles are out of proportion to their actions and achievements.

22 The most insignificant person can be complete if you works within the limits of your capacities, innate or acquired; 23 but even fine talents can be obscured, neutralised, and destroyed by lack of this indispensable requirement of symmetry. 24 This is a mischief which will often occur in modern times; for who will be able to come up to the claims of an age so full and intense as this, and one too that moves so rapidly?

25 It is only people of practical ability, knowing their powers and using them with moderation and prudence, who will be successful in worldly affairs.

26 It is a great error to take oneself for more than one is, or for less than one is worth.

27 From time to time I meet with a youth in whom I can wish for no alteration or improvement, only I am sorry to see how often their nature makes them quite ready to swim with the stream of the time; 28 and it is on this that I would always insist, that human in your fragile boat has the rudder placed

in your hand, just that you may not be at the mercy of the waves, but follow the direction of your own insight.

29 But how is a young person to come of yourself to see blame in things which every one is busy with, which every one approves and promotes? 30 Why should you not follow your natural bent and go in the same direction as they?

31 I must hold it for the greatest calamity of our time, which lets nothing come to maturity, that one moment is consumed by the next, and the day spent in the day; 32 so that a person is always living from hand to mouth, without having anything to show for it. 33 Have we not already newspapers for every hour of the day! A good head could assuredly intercalate one or other of them. 34 They publish abroad everything that every one does, or is busy with or meditating; nay, your very designs are thereby dragged into publicity. 35 No one can rejoice or be sorry, but as a pastime for others; and so it goes on from house to house, from city to city, from kingdom to kingdom, and at last from one hemisphere to the other,-- all in post haste.

36 As little as you can stifle a steam-engine, so little can you do this in the moral sphere either. 37 The activity of commerce, the rush and rustle of paper-money, the swelling-up of debts to pay debts-- all these are the monstrous elements to which in these days a young person is exposed. 38 Well is it for you if you are gifted by nature with a sober, quiet temperament; neither to make claims on the world out of all proportion to your position, nor yet let the world determine it.

39 But on all sides you are threatened by the spirit of the day, and nothing is more needful than to make you see early enough the direction in which your will has to steer.

40 The significance of the most harmless words and actions grows with the years, 41 and if I see any one about me for any length of time, I always try to show them the difference there is between sincerity, confidence, and indiscretion; 42 nay, that in truth there is no difference at all, but a gentle transition from what is most

innocent to what is most hurtful; a transition which must be perceived or rather felt.

43 Herein we must exercise our tact; otherwise in the very way in which we have won the favour of humankind, we run the risk of trifling it away again unawares. 44 This is a lesson which a person learns quite well for yourself in the course of life, but only after having paid a dear price for it; nor can you, unhappily, spare your posterity a like expenditure.

45 Love of truth shows itself in this, that a person knows how to find and value the good in everything.

46 Character calls forth character.

47 If I am to listen to another person's opinion, it must be expressed positively. Of things problematical I have enough in myself.

48 Superstition is a part of the very being of humanity; and when we fancy that we are banishing it altogether, it takes refuge in the strangest nooks and corners, and then suddenly comes forth again, as soon as it believes itself at all safe.

49 I keep silence about many things, for I do not want to put people out of countenance; and I am well content if they are pleased with things that annoy me.

50 Everything that frees our spirit without giving us control of ourselves is ruinous.

51 A human is really alive only when you delights in the good-will of others.

52 Piety is not an end, but a means: a means of attaining the highest culture by the purest tranquillity of soul.

53 Hence it may be observed that those who set up piety as an end and object are mostly hypocrites.

54 When a person is old you must do more than when you was young.

55 To fulfill a duty is still always to feel it as a debt, for it is never quite satisfying to oneself.

56 Defects are perceived only by one who has no love; therefore, to see them, a person must become uncharitable, but not more so than is necessary for the purpose.

57 The greatest piece of good fortune is that which corrects our deficiencies and redeems our mistakes.

REFLECTION

58 Reading ought to mean understanding; writing ought to mean knowing something; believing ought to mean comprehending; 59 when you desire a thing, you will have to take it; when you demand it, you will not get it; and when you are experienced, you ought to be useful to others.

60 The stream is friendly to the miller whom it serves; it likes to pour over the mill wheels; what is the good of it stealing through the valley in apathy?

61 Whoso is content with pure experience and acts upon it has enough of truth. The growing child is wise in this sense.

62 Theory is in itself of no use, except in so far as it makes us believe in the connection of phenomena.

63 When a person asks too much and delights in complication, you are exposed to perplexity.

64 Thinking by means of analogies is not to be condemned. Analogy has this advantage, that it comes to no conclusion, and does not, in truth, aim at finality at all. 65 Induction, on the contrary, is fatal, for it sets up an object and keeps it in view, and, working on towards it, drags false and true with it in its train.

66 The absent works upon us by tradition. The usual form of it may be called historical; a higher form, akin to the imaginative faculty, is the mythical. 67 If some third form of it is to be sought behind this last, and it has any meaning, it is transformed into the mystical. 68 It also easily becomes sentimental, so that we appropriate to our use only what suits us.

69 In contemplation as in action, we must distinguish between what may be attained and what is unattainable. Without this, little can be achieved, either in life or in knowledge.

70 'Common sense is the genius of humanity.' 71 Common-sense, which is here put forward as the genius of humanity, must be examined first of all in the way it shows itself. 72 If we inquire the purpose to which humanity puts it, we find as follows: Humanity is conditioned by needs. If they are not satisfied, humans become impatient; and if they are, it seems not to affect them. 73 The normal person moves between these two

states, and you applies your understanding-- your so-called common-sense-- to the satisfaction of your needs. 74 When your needs are satisfied, your task is to fill up the waste spaces of indifference. 75 Here, too, you are successful, if your needs are confined to what is nearest and most necessary. 76 But if they rise and pass beyond the sphere of ordinary wants, common-sense is no longer sufficient; it is a genius no more, and humanity enters on the region of error.

77 There is no piece of foolishness but it can be corrected by intelligence or accident; no piece of wisdom but it can miscarry by lack of intelligence or by accident.

78 Every great idea is a tyrant when it first appears; hence the advantages which it produces change all too quickly into disadvantages. 79 It is possible, then, to defend and praise any institution that exists, if its beginnings are brought to remembrance, and it is shown that everything which was true of it at the beginning is true of it still.

80 Lessing, who chafed under the sense of various limitations, makes one of own characters say: No one *must* do anything. 81 A clever pious man said: If a man *wills* something, he must do it. A third, who was, it is true, an educated man, added: *Will* follows upon *insight*. 82 The whole circle of *knowledge, will*, and *necessity* was thus believed to have been completed. But, as a rule, a person's knowledge, of whatever kind it may be, determines what you shall do and what you shall leave undone, 83 and so it is that there is no more terrible sight than ignorance in action.

84 There are two powers that make for peace: what is right, and what is fitting.

85 Justice insists on obligation, law on decorum. Justice weighs and decides, law superintends and orders. Justice refers to the individual, law to society.

86 The history of knowledge is a great fugue in which the voices of the nations one after the other emerge.

II

87 If a person is to achieve all that is asked of you, you must take yourself for more than you are,

and as long as you does not carry it to an absurd length, we willingly put up with it.

88 Work makes companionship.

89 People whip curds to see if they cannot make cream of them.

90 It is much easier to put yourself in the position of a mind taken up with the most absolute error, than of one which mirrors to itself half-truths.

91 Wisdom lies only in truth.

92 When I err, every one can see it; but not when I lie.

93 Is not the world full enough of riddles already, without our making riddles too out of the simplest phenomena?

94 'The finest hair throws a shadow.' *Erasmus*.

95 What I have tried to do in my life through false tendencies, I have at last learned to understand.

96 Generosity wins favour for every one, especially when it is accompanied by modesty.

97 Before the storm breaks, the dust rises violently for the last time-- the dust that is soon to be laid forever.

98 People do not come to know one another easily, even with the best will and the best purpose. And then ill-will comes in and distorts everything.

99 We should know one another better if one person were not so anxious to put yourself on an equality with another.

100 Eminent people are therefore in a worse plight than others; for, as we cannot compare ourselves with them, we are on the watch for them.

101 In the world the point is, not to know human, but at any given moment to be cleverer than the people who stands before you. You can prove this at every fair and from every charlatan.

102 Not everywhere where there is water, are there frogs; but where you have frogs, there you will find water.

103 Error is quite right as long as we are young, but we must not carry it on with us into our old age.

104 Whims and eccentricities that grow stale are all useless, rank nonsense.

105 In the formation of species Nature gets, as it were, into a *cul-de-sac*; She cannot make Her way through, and is disinclined to turn back. Hence the stubbornness of national character.

REFLECTION

106 Every one has something in own nature which, if you were to express it openly, would of necessity give offence.

107 If a person thinks about own physical or moral condition, you generally finds that you are ill.

108 Nature asks that a person should sometimes be stupefied without going to sleep; hence the pleasure in the smoking of tobacco, the drinking of brandy, the use of opiates.

109 The person who is up and doing should see to it that what you does is right. Whether or not right is done, is a matter which should not trouble you.

110 Many a person knocks about on the wall with own hammer, and believes that you hits the right nail on the head every time.

111 Painting and tattooing of the body is a return to animalism.

112 History-writing is a way of getting rid of the past.

113 What a person does not understand, you does not possess.

114 Not every one who has a pregnant thought delivered to you becomes productive; it probably makes you think of something with which you are quite familiar.

115 Favour, as a symbol of sovereignty, is exercised by weak people.

116 Every person has enough power left to carry out that of which you are convinced.

117 Memory may vanish so long as at the moment judgment does not fail you.

118 No nation gains the power of judgment except it can pass judgment on itself. But to attain this great privilege takes a very long time.

119 Instead of contradicting my words, people ought to act in my spirit.

120 Those who oppose intellectual truths do but stir up the fire, and the cinders fly about and burn what they had else not touched.

121 Human would not be the finest creature in the world if you were not too fine for it.

122 What a long time people were vainly disputing about the Antipodes!

123 Certain minds must be allowed their peculiarities.

124 Snow is false purity.

125 Whoso shrinks from ideas ends by having nothing but sensations.

REFLECTION

126 Those from whom we are always learning are rightly called our masters; but not every one who teaches us deserves this title.

127 It is with you as with the sea: the most varied names are given to what is in the end only salt water.

128 It is said that vain self-praise stinks in the nostrils. That may be so; but for the kind of smell which comes from unjust blame by others the public has no nose at all.

129 There are problematical natures which are equal to no position in which they find themselves, and which no position satisfies. 130 This it is that causes that hideous conflict which wastes life and deprives it of all pleasure.

131 If we do any real good, it is mostly *clam, vi, et precario*.

132 Dirt glitters as long as the sun shines.

133 It is difficult to be just to the passing moment. We are bored by it if it is neither good nor bad; but the good moment lays a task upon us, and the bad moment a burden.

134 You are the happiest person who can set the end of your life in connection with the beginning.

135 So obstinately contradictory is human that you cannot compel you to your advantage, yet you yields before everything that forces you to your hurt.

136 Forethought is simple, afterthought manifold.

137 A state of things in which every day brings some new trouble is not the right one.

138 When people suffer by failing to look before them, nothing is commoner than trying to look out for some possible remedy.

139 The Hindoos of the Desert make a solemn vow to eat no fish.

140 To venture an opinion is like moving a piece at chess: it may be taken, but it forms the beginning of a game that is won.

141 It is as certain as it is strange that truth and error come from one and the same source. Thus it is that we are often not at liberty to do violence to error, because at the same time we do violence to truth.

142 Truth belongs to the person, error to your age. This is why it has been said that, while the misfortune of the age caused your error, the force of your soul made you emerge from the error with glory.

143 Every one has own peculiarities and cannot get rid of

them; and yet many a one is destroyed by own peculiarities, and those too of the most innocent kind.

144 If a person does think too much of yourself, you are more than you believes yourself to be.

145 In art and knowledge, as also in deed and action, everything depends on a pure apprehension of the object and a treatment of it according to its nature.

146 When intelligent and sensible people despise knowledge in their old age, it is only because they have asked too much of it and of themselves.

147 I pity those who make much ado about the transitory nature of all things and are lost in the contemplation of earthly vanity: are we not here to make the transitory permanent? This we can do only if we know how to value both.

148 A rainbow which lasts a quarter of an hour is looked at no more.

149 It used to happen, and still happens, to me to take no pleasure in a work of art at the first sight of it, because it is too much for me; but if I suspect any merit in it, I try to get at it; 150 and then I never fail to make the most gratifying discoveries,-- to find new qualities in the work itself and new faculties in myself.

151 Faith is private capital, kept in one's own house. There are public savings-banks and loan-offices, which supply individuals in their day of need; but here the creditor quietly takes own interest for own self.

152 Real obscurantism is not to hinder the spread of what is true, clear, and useful, but to bring into vogue what is false.

153 During a prolonged study of the lives of various people both great and small, I came upon this thought: 154 In the web of the world the one may well be regarded as the warp, the other as the woof. 155 It is the little people, after all, who give breadth to the web, and the great people firmness and solidity; perhaps, also, the addition of some sort of pattern. 156 But the scissors of the Fates determine its length, and to that all the rest must join in submitting itself.

157 Truth is a torch, but a huge one, and so it is only with blinking

eyes that we all of us try to get past it, in actual terror of being burnt.

158 'The wise have much in common with one another.' *Æschylus*.

159 The really foolish thing in people who are otherwise intelligent is that they fail to understand what another person says, when you does not exactly hit upon the right way of saying it.

160 Because a man speaks, he thinks he is able to speak about language.

161 One need only grow old to become gentler in one's judgments. I see no fault committed which I could not have committed myself.

162 The person who acts never has any conscience; no one has any conscience but the person who thinks.

163 Why should those who are happy expect one who is miserable to die before them in a graceful attitude, like the gladiator before the Roman mob?

164 Some one asked Timon about the education of his children. 'Let them,' he said, 'be instructed in that which they will never understand.'

165 There are people whom I wish well, and would that I could wish better.

166 By force of habit we look at a clock that has run down as if it were still going, and we gaze at the face of a beauty as though she still loved.

167 Hatred is active displeasure, envy passive. We need not wonder that envy turns so soon to hatred.

168 There is something magical in rhythm; it even makes us believe that we possess the sublime.

169 Dilettantism treated seriously, and knowledge pursued mechanically, end by becoming pedantry.

170 No one but the master can promote the cause of Art. Patrons help the master,-- that is right and proper; but that does not always mean that Art is helped.

171 The most foolish of all errors is for clever young people to believe that they forfeit their originality in recognising a truth which has already been recognised by others.

172 Scholars are generally malignant when they are refuting others; and if they think a person is making a mistake, they

straightway look upon you as their mortal enemy.

173 Beauty can never really understand itself.

III

174 It is much easier to recognise error than to find truth; for error lies on the surface and may be overcome; but truth lies in the depths, and to search for it is not given to every one.

175 We all live on the past, and through the past are destroyed.

176 We are no sooner about to learn some great lesson than we take refuge in our own innate poverty of soul, and yet for all that the lesson has not been quite in vain.

177 The world of empirical morality consists for the most part of nothing but ill-will and envy.

178 Life seems so vulgar, so easily content with the commonplace things of every day, and yet it always nurses and cherishes certain higher claims in secret, and looks about for the means of satisfying them.

179 Confidences are strange things. If you listen only to one person, it is possible that you are deceived or mistaken; if you listen to many, they are in a like case; and, generally, you cannot get at the truth at all.

180 No one should desire to live in irregular circumstances; but if by chance a person falls into them, they test your character and show of how much determination you are capable.

181 An honourable person with limited ideas often sees through the rascality of the most cunning jobber.

182 If a person feels no love, you must learn how to flatter; otherwise you will not succeed.

183 Against criticism a person can neither protest nor defend yourself; you must act in spite of it, and then criticism will gradually yield to you.

184 The masses cannot dispense with people of ability, and such people are always a burden to them.

185 If a person spreads my failings abroad, you are my master, even though you were my servant.

186 Whether memoirs are written by masters of servants, or by servants of masters, the processes always meet.

REFLECTION

187 If you lay duties upon people and give them no rights, you must pay them well.

188 I can promise to be sincere, but not to be impartial.

189 Ingratitude is always a kind of weakness. I have never known people of ability to be ungrateful.

190 We are all so limited that we always think we are right; and so we may conceive of an extraordinary mind which not only errs but has a positive delight in error.

191 It is very rare to find pure and steady activity in the accomplishment of what is good and right. We usually see pedantry trying to keep back, and audacity trying to go on too fast.

192 Word and picture are correlatives which are continually in quest of each other, as is sufficiently evident in the case of metaphors and similes. 193 So from all time what was said or sung inwardly to the ear had to be presented equally to the eye. 194 And so in childish days we see word and picture in continual balance; in the book of the law and in the way of salvation, in the Bible and in the spelling-book. 195 When something was spoken which could not be pictured, and something pictured which could not be spoken, all went well; 196 but mistakes were often made, and a word was used instead of a picture; and thence arose those monsters of symbolical mysticism, which are doubly an evil.

197 For the person of the world a collection of anecdotes and maxims is of the greatest value, if you knows how to intersperse the one in your conversation at fitting moments, and remember the other when a case arises for their application.

198 When you lose interest in anything, you also lose the memory for it.

199 The world is a bell with a crack in it; it rattles, but does not ring.

200 The importunity of young dilettanti must be borne with good-will; for as they grow old they become the truest worshippers of Art and the Master.

201 People have to become really bad before they care for nothing but mischief, and delight in it.

202 Clever people are the best encyclopædia.

REFLECTION

203 There are people who make no mistakes because they never wish to do anything worth doing.

204 If I know my relation to myself and the outer world, I call it truth. Every person can have your own peculiar truth; and yet it is always the same.

205 No one is the master of any truly productive energy; and all people must let it work on by itself.

206 A human never understands how anthropomorphic you are.

207 A difference which offers nothing to the understanding is no difference at all.

208 A person cannot live for every one; least of all for those with whom you would not care to live.

209 If a person sets out to study all the laws, you will have no time left to transgress them.

210 Things that are mysterious are not yet miracles.

211 'Converts are not in my good books.'

212 A frivolous impulsive encouragement of problematical talents was a mistake of my early years; and I have never been able to abandon it altogether.

213 I should like to be honest with you, without our falling out; but it will not do. You act wrongly, and fall between two stools; you win no adherents and lose your friends. What is to be the end of it?

214 It is all one whether you are of high or of humble origin. You will always have to pay for your humanity.

215 When I hear people speak of liberal ideas, it is always a wonder to me that people are so readily put off with empty verbiage. 216 An idea cannot be liberal; but it may be potent, vigorous, exclusive, in order to fulfill its mission of being productive. 217 Still less can a concept be liberal; for a concept has quite another mission. 218 Where, however, we must look for liberality, is in the sentiments; and the sentiments are the inner human as you lives and moves. 219 A person's sentiments, however, are rarely liberal, because they proceed directly from you personally, and from your immediate relations and requirements. 220 Further we will not write, and let us apply this test to what we hear every day.

REFLECTION

221 If a clever person commits a folly, it is not a small one.

222 There is a poetry without figures of speech, which is a single figure of speech.

223 I went on troubling myself about general ideas until I learnt to understand the particular achievements of the best people.

224 It is only when a person knows little, that you knows anything at all. With knowledge grows doubt.

225 The errors of a person are what make you really lovable.

226 There are people who love their like and seek it; others love their opposite and follow after it.

227 If a person has always let yourself think the world as bad as the adversary represents it to be, you must have become a miserable person.

228 Ill-favour and hatred limit the spectator to the surface, even when keen perception is added unto them; 229 but when keen perception unites with good-will and love, it gets at the heart of human and the world; nay, it may hope to reach the highest goal of all.

230 Raw matter is seen by every one; the contents are found only by you who have your eyes about you; and the form is a secret to the majority.

231 We may learn to know the world as we please: it will always retain a bright and a dark side.

232 Error is continually repeating itself in action, and we must unweariedly repeat the truth in word.

233 As in Rome there is, apart from the Romans, a population of statues, so apart from this real world there is a world of illusion, almost more potent, in which most people live.

234 Humankind is like the Red Sea: the staff has scarcely parted the waves asunder, before they flow together again.

235 Thoughts come back; beliefs persist; facts pass by never to return.

236 Of all peoples, the Greeks have dreamt the dream of life the best.

237 We readily bow to antiquity, but not to posterity. It is only a father that does not grudge talent to his son.

238 There is no virtue in subordinating oneself; but there is virtue in descending, and in

recognising anything as above us, which is beneath us.

239 The whole art of living consists in giving up existence in order to exist.

240 All our pursuits and actions are a wearying process. Well is it for you who wearies not.

241 Hope is the second soul of the unhappy.

242 Love is a true renovator.

243 Humankind is not without a wish to serve; hence the chivalry of the French is a servitude.

244 In the theatre the pleasure of what we see and hear restrains our reflections.

245 There is no limit to the increase of experience, but theories cannot become clearer and more complete in just the same sense. 246 The field of experience is the whole universe in all directions. 247 Theory remains shut up within the limits of the human faculties. Hence there is no way of looking at the world, 248 but it recurs, and the curious thing happens, that with increased experience a limited theory may again come into favour.

249 It is always the same world which stands open to observation, which is continually being contemplated or guessed at; 250 and it is always the same people who live in the true or in the false; more at their ease in the latter than in the former.

251 Truth is at variance with our natures, but not so error; and for a very simple reason. Truth requires us to recognise ourselves as limited, but error flatters us with the belief that in one way or another we are subject to no bounds at all.

252 That some people think they can still do what they have been able to do, is natural enough; that others think they can do what they have never been able to do, is singular, but not rare.

253 At all times it has not been the age, but individuals alone, who have worked for knowledge. 254 It was the age which put Socrates to death by poison, the age which burnt Huss. The ages have always remained alike.

255 That is true Symbolism, where the more particular represents the more general, not as a dream or shade, but as a vivid, instantaneous revelation of the Inscrutable.

REFLECTION

256 Everything of an abstract or symbolic nature, as soon as it is challenged by realities, ends by consuming them and itself. So credit consumes both money and itself.

257 Mastery often passes for egoism.

258 With Protestants, as soon as good works cease and their merit is denied, sentimentality takes their place.

259 If a person knows where to get good advice, it is as though you could supply it yourself.

260 The use of mottoes is to indicate something we have not attained, but strive to attain. It is right to keep them always before our eyes.

261 'If a person cannot lift a stone yourself, let you leave it, even though you have some one to help you.'

262 Despotism promotes general self-government, because from top to bottom it makes the individual responsible, and so produces the highest degree of activity.

263 A person must pay dear for own errors if you wishes to get rid of them, and even then you are lucky.

264 Enthusiasm is of the greatest value, so long as we are not carried away by it.

265 School itself is the only true preparation for it.

266 Error is related to truth as sleep to waking. I have observed that on awakening from error a person turns again to truth as with new vigour.

267 Every one suffers who does not work for own self. A person works for others to have them share in your joy.

268 Humans' prejudices rest upon their character for the time being and cannot be overcome, as being part and parcel of themselves. Neither evidence nor common-sense nor reason has the slightest influence upon them.

269 Characters often make a law of their failings. People who know the world have said that when prudence is only fear in disguise, its scruples cannot be conquered.

270 The weak often have revolutionary sentiments; they think they would be well off if they were not ruled, and fail to perceive that they can rule neither themselves nor others.

REFLECTION

271 Common-sense is born pure in the healthy human, is self-developed, and is revealed by a resolute perception and recognition of what is necessary and useful. 272 Practical men and women avail themselves of it with confidence. Where it is absent, both sexes find anything necessary when they desire it, and useful when it gives them pleasure.

273 All people, as they attain freedom, give play to their errors. The strong do too much, and the weak too little.

274 The conflict of the old, the existing, the continuing, with development, improvement, and reform, is always the same. 275 Order of every kind turns at last to pedantry, and to get rid of the one, people destroy the other; and so it goes on for a while, until people perceive that order must be established anew. 276 Classicism and Romanticism; close corporations and freedom of trade; the maintenance of large estates and the division of the land,-- it is always the same conflict which ends by producing a new one. 277 The best policy of those in power would be so to moderate this conflict as to let it right itself without the destruction of either element. 278 But this has not been granted to people, and it seems not to be the will of God.

279 A great work limits us for the moment, because we feel it above our powers; and only in so far as we afterwards incorporate it with our culture, and make it part of our mind and heart, does it become a dear and worthy object.

280 It is no wonder that we all more or less delight in the mediocre, because it leaves us in peace: it gives us the comfortable feeling of intercourse with what is like ourselves.

281 There is no use in reproving vulgarity, for it never changes.

282 We cannot escape a contradiction in ourselves; we must try to resolve it. If the contradiction comes from others, it does not affect us: it is their affair.

283 There are many things in the world that are at once good and excellent, but they do not come into contact.

284 Which is the best government? That which teaches us to govern ourselves.

REFLECTION

285 When people have to do with women, they get spun off like a distaff.

286 It may well be that a person is at times horribly threshed by misfortunes, public and private: but the reckless flail of Fate, when it beats the rich sheaves, crushes only the straw; 287 and the corn feels nothing of it and dances merrily on the floor, careless whether its way is to the mill or the furrow.

288 However probable it is that a desire may be fulfilled, there is always a doubt; and so when the desire is realised, it is always surprising.

289 Absurdities presented with good taste rouse disgust and admiration.

290 Of the best society it used to be said: their speech instructs the mind, and their silence the feelings.

291 Nothing is more terrible than ignorance in action.

292 Beauty and Genius must be kept afar if one would avoid becoming their slave.

293 We treat the aged with consideration, as we treat children.

294 An old person loses one of the greatest of human privileges: you are no more judged by your peers.

295 In the matter of knowledge, it has happened to me as to one who rises early, and in the dark impatiently awaits the dawn, and then the sun; but is blinded when it appears.

296 Great primeval powers, evolved in time or in eternity, work on unceasingly: whether to weal or to woe, is a matter of chance.

IV

297 People often say to themselves in life that they should avoid a variety of occupation, and, more particularly, be the less willing to enter upon new work the older they grow. 298 But it is easy to talk, easy to give advice to oneself and others. To grow old is itself to enter upon a new business; all the circumstances change, and a person must either cease acting altogether, or willingly and consciously take over the new rôle.

299 Of the Absolute in the theoretical sense, I do not venture to speak; but this I maintain: that if

a person recognises it in its manifestation, and always keeps your gaze fixed upon it, you will experience very great reward.

300 To live in a great idea means to treat the impossible as though it were possible. 301 It is just the same with a strong character; and when an idea and a character meet, things arise which fill the world with wonder for thousands of years.

302 Napoleon lived wholly in a great idea, but he was unable to take conscious hold of it. After utterly disavowing all ideals and denying them any reality, he zealously strove to realise them. 303 His clear, incorruptible intellect could not, however, tolerate such a perpetual conflict within; and there is much value in the thoughts which he was compelled, as it were, to utter, and which are expressed very peculiarly and with much charm.

304 He considered the idea as a thing of the mind, that had, it is true, no reality, but still, on passing away, left a residuum-- a *caput mortuum*-- to which some reality could not be altogether refused. 305 We may think this a very perverse and material notion; but when he entertained his friends with the never ending consequences of his life and actions, in full belief and confidence in them, he expressed himself quite differently. 306 Then, indeed, he was ready to admit that life produces life; that a fruitful act has effects to all time. 307 He took pleasure in confessing that he had given a great impulse, a new direction, to the course of the world's affairs.

308 It always remains a very remarkable fact that people whose whole personality is almost all idea, are so extremely shy of all phantasy. 309 In this case was Hamann, who could not bear the mention of "things of another world." 310 He took occasion to express himself on this point in a certain paragraph, which he wrote in fourteen different ways; and still, apparently, he was never quite satisfied with it.

311 Two of these attempts have been preserved to us; a third we have ourselves attempted, which we are induced to print here by the preceding observations.

REFLECTION

312 Human is placed as a real being in the midst of a real world, and endowed with such organs that you can perceive and produce the real and also the possible.

313 All healthy people have the conviction of their own existence and of an existence around them. 314 However, even the brain contains a hollow spot, that is to say, a place in which no object is mirrored; just as in the eye itself there is a little spot that does not see. 315 If a person pays particular attention to this spot and is absorbed in it, you falls into a state of mental sickness, has presentiments of "things of another world," which are, in reality, no things at all; 316 possessing neither form nor limit, but alarming you like dark, empty tracts of night, and pursuing you as something more than phantoms, if you does not tear yourself free from them.

317 To the several perversities of the day a person should always oppose only the great masses of universal history.

318 No one can live much with children without finding that they always react to any outward influence upon them.

319 With any specially childish nature the reaction is even passionate, while its action is energetic.

320 That is why children's lives are a series of refined judgments, not to say prejudices; and to efface a rapid but partial perception in order to make way for a more general one, time is necessary. 321 To bear this in mind is one of the teacher's greatest duties.

322 Friendship can only be bred in practice and be maintained by practice. Affection, nay, love itself, is no help at all to friendship. 323 True, active, productive friendship consists in keeping equal pace in life: in my friend approving my aims, while I approve you, and in thus moving forwards together steadfastly, however much our way of thought and life may vary.

V

324 In the world people take a person at your own estimate; but you must estimate yourself at something. 325 Disagreeableness is more easily tolerated than insignificance.

REFLECTION

326 You can force anything on society so long as it has no sequel.

327 We do not learn to know people if they come to us; we must go to them to find out what they are.

328 That we have many criticisms to make on those who visit us, and that, as soon as they depart, we pass no very amiable judgment upon them, seems to me almost natural; 329 for we have, so to speak, a right to measure them by our own standard. Even intelligent and fair-minded people hardly refrain from sharp censure on such occasions.

330 But if, on the contrary, we have been in their homes, and have seen them in their surroundings and habits and the circumstances which are necessary and inevitable for them; 331 if we have seen the kind of influence they exert on those around them, or how they behave, it is only ignorance and ill-will that can find food for ridicule in what must appear to us in more than one sense worthy of respect.

332 What we call conduct and good manners obtains for us that which otherwise is to be obtained only by force, or not even by force.

333 Women's society is the element of good manners.

334 How can the character, the peculiar nature of a person, be compatible with good manners?

335 It is through his good manners that a person's peculiar nature should be made all the more conspicuous. 336 Every one likes distinction, but it should not be disagreeable.

337 The most privileged position, in life as in society, is that of an educated soldier. 338 Rough warriors, at any rate, remain true to their character, and as great strength is usually the cover for good nature, we get on with them at need.

339 No one is more troublesome than an awkward civilian. As your business is not with anything brutal or coarse, you might be expected to show delicacy of feeling.

340 When we live with people who have a delicate sense of what is fitting, we get quite anxious about them if anything happens to disturb this sense.

REFLECTION

341 No one would come into a room with spectacles on his nose, if you knew that women at once lose any inclination to look at or talk to you.

342 A familiar in the place of a respectful demeanour is always ridiculous.

343 There is no outward sign of politeness that will be found to lack some deep moral foundation. The right kind of education would be that which conveyed the sign and the foundation at the same time.

344 A person's manners are the mirror in which you shows your portrait.

345 There is a politeness of the heart, and it is allied to love. It produces the most agreeable politeness of outward demeanour.

346 Voluntary dependence is the best state, and how should that be possible without love?

347 We are never further from our wishes than when we fancy we possess the object of them.

348 No one is more of a slave than you who thinks yourself free without being so.

349 A person has only to declare yourself free to feel at the same moment that you are limited. Should you venture to declare yourself limited, you feels yourself free.

350 Against the great superiority of another there is no remedy but love.

351 It is a terrible thing for an eminent person to be gloried in by fools.

352 It is said that no person is a hero to your valet. That is only because a hero can be recognised only by a hero. The valet will probably know how to appreciate your like,-- your fellow-valet.

353 There is no greater consolation for mediocrity than that the genius is not immortal.

354 The greatest people are linked to their age by some weak point.

355 We generally take people to be more dangerous than they are.

356 Fools and wise folk are alike harmless. It is the half-wise, and the half-foolish, who are the most dangerous.

357 To see a difficult thing lightly handled gives us the impression of the impossible.

358 Difficulties increase the nearer we come to our aim.

REFLECTION

359 Sowing is not so painful as reaping.

360 We are fond of looking to the future, because our secret wishes make us apt to turn in our favour the uncertainties which move about in it hither and thither.

361 It is not easy to be in any great assembly without thinking that the chance which brings so many people together will also make us meet our friends.

362 A person may live never so retired a life but you becomes a debtor or a creditor before you are aware of it.

363 If anyone meets us who owes us a debt of gratitude, it immediately crosses our mind. How often can we meet some one to whom we owe gratitude, without thinking of it!

364 To communicate oneself is *nature*; to receive a communication as it is given is *culture*.

365 No one would speak much in society if you were aware how often we misunderstand others.

366 It is only because we have not understood a thing that we cannot repeat it without alteration.

367 To make a long speech in the presence of others without flattering your audience, is to rouse dislike.

368 Every word that we utter rouses its contrary.

369 Contradiction and flattery make, both of them, bad conversation.

370 The pleasantest society is that in which there exists a genial deference amongst the members one towards another.

371 By nothing do people show their character more than by the things they laugh at.

372 The ridiculous springs from a moral contrast innocently presented to the senses.

373 The sensual person often laughs when there is nothing to laugh at. Whatever it is that moves you, you shows that you are pleased with yourself.

374 An intelligent person finds almost everything ridiculous, a wise person hardly anything.

375 A man well on in years was reproved for still troubling himself about young women. 'It is the only means,' he replied, 'of regaining one's youth; and that is something every one wishes to do.'

REFLECTION

376 A person does not mind being blamed for your faults, and being punished for them, and you patiently suffers much for the sake of them; but you becomes impatient if you are required to give them up.

377 Certain faults are necessary to the individual if you are to exist. We should not like old friends to give up certain peculiarities.

378 It is said of a person that you will soon die, when you acts in any way unlike yourself.

379 What kind of faults in ourselves should we retain, nay, even cultivate? Those which rather flatter other people than offend them.

380 The passions are good or bad qualities, only intensified.

381 Our passions are, in truth, like the phoenix. When the old one burns away, the new one rises out of its ashes at once.

382 Great passions are hopeless diseases. That which could cure them is the first thing to make them really dangerous.

383 Passion is enhanced and tempered by avowal. In nothing, perhaps, is the middle course more desirable than in confidence and reticence towards those we love.

384 To sit in judgment on the departed is never likely to be equitable. We all suffer from life; who except God can call us to account? 385 Let not their faults and sufferings, but what they have accomplished and done, occupy the survivors.

386 It is failings that show human nature, and merits that distinguish the individual; faults and misfortunes we all have in common; virtues belong to each one separately.

VI

387 The secret places in the way of life may not and cannot be revealed: there are rocks of offence on which every traveller must stumble. But the poet points to where they are.

388 It would not be worthwhile to see seventy years if all the wisdom of this world were foolishness with God.

389 The true is Godlike: we do not see it itself; we must guess at it through its manifestations.

REFLECTION

390 The real scholar learns how to evolve the unknown from the known, and draws near the master.

391 In the smithy the iron is softened by blowing up the fire, and taking the dross from the bar. As soon as it is purified, it is beaten and pressed, and becomes firm again by the addition of fresh water. The same thing happens to a person at the hands of your teacher.

392 What belongs to a person, you cannot get rid of, even though you throws it away.

393 Of true religions there are only two: one of them recognises and worships the Holy that without form or shape dwells in and around us; and the other recognises and worships it in its fairest form. Everything that lies between these two is idolatry.

394 It is undeniable that in the Reformation the human mind tried to free itself; 395 and the renaissance of Greek and Roman antiquity brought about the wish and longing for a freer, more seemly, and elegant life. 396 The movement was favoured in no small degree by the fact that people's hearts aimed at returning to a certain simple state of nature, while the imagination sought to concentrate itself.

397 The Saints were all at once driven from heaven; and senses, thought, and heart were turned from a divine mother with a tender child, to the grown human doing good and suffering evil, 398 who was later transfigured into a being half-divine in its nature, and then recognised and honoured as God himself. 399 He stood against a background where the Creator had opened out the universe; a spiritual influence went out from him; his sufferings were adopted as an example, and his transfiguration was the pledge of everlastingness.

400 As a coal is revived by incense, so prayer revives the hopes of the heart.

401 From a strict point of view we must have a reformation of ourselves every day, and protest against others, even though it be in no religious sense.

402 It should be our earnest endeavour to use words coinciding as closely as possible with what we feel, see, think, experience, imagine, and reason. It is an

endeavour which we cannot evade, and which is daily to be renewed.

403 Let every person examine yourself, and you will find this a much harder task than you might suppose; for, unhappily, a person usually takes words as mere make-shifts; your knowledge and your thought are in most cases better than your method of expression.

404 False, irrelevant, and futile ideas may arise in ourselves and others, or find their way into us from without. 405 Let us persist in the effort to remove them as far as we can, by plain and honest purpose.

406 As we grow older, the ordeals grow greater.

407 Where I cannot be moral, my power is gone.

408 A person is not deceived by others, you deceives yourself.

409 Laws are all made by old people and by men. Youths and women want the exceptions, old people the rules.

410 It is not the intelligent person who rules, but intelligence; not the wise person, but wisdom.

411 To praise a person is to put oneself on their level.

412 It is not enough to know, we must also apply; it is not enough to will, we must also do.

413 Chinese, Indian, and Egyptian antiquities are never more than curiosities; it is well to make acquaintance with them; but in point of moral and æsthetic culture they can help us little.

414 The German runs no greater danger than to advance with and by the example of their neighbours. 415 There is perhaps no nation that is fitter for the process of self-development; so that it has proved of the greatest advantage to Germany to have obtained the notice of the world so late.

416 Even people of insight do not see that they try to explain things which lie at the foundation of our experience, and in which we must simply acquiesce.

417 Yet still the attempt may have its advantage, as otherwise we should break off our researches too soon.

418 From this time forward, if a person does not apply yourself to some art or handiwork, you will be in a bad way. 419 In the rapid changes of the world, knowledge

is no longer a furtherance; by the time a person has taken note of everything, you have lost yourself.

420 Besides, in these days the world forces universal culture upon us, and so we need not trouble ourselves further about it; we must appropriate some particular culture.

421 The greatest difficulties lie where we do not look for them.

422 Our interest in public events is mostly the merest philistinism.

423 Nothing is more highly to be prized than the value of each day.

424 *Let them perish who said our things before us!* This is so strange an utterance, that it could only have come from one who fancied oneself autochthonous. 425 The person who looks upon it as an honour to be descended from wise ancestors, will allow them at least as much common-sense as you allows yourself.

426 Strictly speaking, everything depends upon a person's intentions; where these exist, thoughts appear; and as the intentions are, so are the thoughts.

427 If a person lives long in a high position, you does not, it is true, experience all that a human can experience; but you experiences things like them, and perhaps some things that have no parallel elsewhere.

VII

428 The first and last thing that is required of genius is love of truth.

429 To be and remain true to oneself and others, is to possess the noblest attribute of the greatest talents.

430 Great talents are the best means of conciliation.

431 The action of genius is in a way ubiquitous: towards general truths before experience, and towards particular truths after it.

432 An active scepticism is one which constantly aims at overcoming itself, and arriving by means of regulated experience at a kind of conditioned certainty.

433 The general nature of the sceptical mind is its tendency to inquire whether any particular predicate really attaches to any particular object; 434 and the purpose of the inquiry is safely to apply in practice what has thus been discovered and proved.

435 The mind endowed with active powers and keeping with a

practical object to the task that lies nearest, is the worthiest there is on earth.

436 Perfection is the measure of heaven, and the wish to be perfect the measure of human.

437 Not only what is born with you, but also what you acquires, makes the human.

438 A person is well equipped for all the real necessities of life if you trusts your senses, and so cultivates them that they remain worthy of being trusted.

439 The senses do not deceive; it is the judgment that deceives.

440 The lower animal is taught by its organs; human teaches own organs, and dominates them.

441 All direct invitation to live up to ideals is of doubtful value, particularly if addressed to women. 442 Whatever the reason of it may be, a man of any importance collects round him a seraglio of a more or less religious, moral, and æsthetic character.

443 When a great idea enters the world as a Gospel, it becomes an offence to the multitude, which stagnates in pedantry; and to those who have much learning but little depth, it is folly.

444 Every idea appears at first as a strange visitor, and when it begins to be realised, it is hardly distinguishable from phantasy and phantastery.

445 This it is that has been called, in a good and in a bad sense, ideology; and this is why the ideologist is so repugnant to the hard-working, practical person of every day.

446 You may recognise the utility of an idea, and yet not quite understand how to make a perfect use of it.

447 *I believe in God!* That is a fine, a worthy thing to say; but to recognise God where and as He reveals Himself, is the only true bliss on earth.

448 Kepler said: 'My wish is that I may perceive the God whom I find everywhere in the external world, in like manner also within and inside me.' 449 The good person was not aware that in that very moment the divine in youself stood in the closest connection with the divine in the Universe.

450 What is predestination? It is this: God is mightier and wiser than we are, and so He does with us as He pleases.

REFLECTION

451 Toleration should, strictly speaking, be only a passing mood; it ought to lead to acknowledgment and appreciation. To tolerate other people is to affront them.

452 Faith, Love, and Hope once felt, in a quiet sociable hour, a plastic impulse in their nature; they worked together and created a lovely image, a Pandora in the higher sense, Patience.

453 'I stumbled over the roots of the tree which I planted.' It must have been an old forester who said that.

454 A leaf blown by the wind often looks like a bird.

455 Does the sparrow know how the stork feels?

456 Lamps make oil-spots, and candles want snuffing; it is only the light of heaven that shines pure and leaves no stain.

457 If you miss the first button-hole, you will not succeed in buttoning up your coat.

458 A burnt child dreads the fire; an old person who has often been singed is afraid of warming own self.

459 It is not worthwhile to do anything for the world that we have with us, as the existing order may in a moment pass away. 460 It is for the past and the future that we must work: for the past, to acknowledge its merits; for the future, to try to increase its value.

461 Let every person ask yourself with which of your faculties you can and will somehow influence your age.

462 Let no one think that people have waited for you as for the Saviour.

463 Character in matters great and small consists in a person steadily pursuing the things of which you feels yourself capable.

464 The person who wants to be active and has to be so, need only think of what is fitting at the moment, and you will make your way without difficulty. This is where women have the advantage, if they understand it.

465 The moment is a kind of public; a person must deceive it into believing that you are doing something; then it leaves us alone to go our way in secret; whereat its grandchildren cannot fail to be astonished.

466 There are people who put their knowledge in the place of insight.

REFLECTION

467 In some states, as a consequence of the violent movements experienced in almost all directions, there has come about a certain overpressure in the system of education, 468 the harm of which will be more generally felt hereafter; though even now it is perfectly well recognised by capable and honest authorities. 469 Capable people live in a sort of despair over the fact that they are bound by the rules of their office to teach and communicate things which they look upon as useless and hurtful.

470 There is no sadder sight than the direct striving after the unconditioned in this thoroughly conditioned world.

471 Before the Revolution it was all *effort*; afterwards it all changed to *demand*.

472 Can a nation become ripe? That is a strange question. I would answer, Yes! if all the people could be born thirty years of age. 473 But as youth will always be too forward and old age too backward, the really mature person is always hemmed in between them, and has to resort to strange devices to make your way through.

474 It does not look well for monarchs to speak through the press, for power should act and not talk. 475 The projects of the liberal party always bear being read: the person who is overpowered may at least express own views in speech, because you cannot act. 476 When Mazarin was shown some satirical songs on a new tax, 'Let them sing,' said he, 'as long as they pay.'

477 Vanity is a desire of personal glory, the wish to be appreciated, honoured, and run after, not because of one's personal qualities, merits, and achievements, but because of one's individual existence. 478 At best, therefore, it is a frivolous beauty whom it befits.

479 The most important matters of feeling as of reason, of experience as of reflection, should be treated of only by word of mouth. 480 The spoken word at once dies if it is not kept alive by some other word following on it and suited to the hearer. 481 Observe what happens in social converse. If the word is not dead when it reaches the hearer, you murders it at once by a contradiction, a stipulation, a condition, a digression, an

interruption, and all the thousand tricks of conversation. 482 With the written word the case is still worse. No one cares to read anything to which you are not already to some extent accustomed: you demands the known and the familiar under an altered form. 483 Still the written word has this advantage, that it lasts and can await the time when it is allowed to take effect.

484 Both what is reasonable and what is unreasonable have to undergo the like contradiction.

485 Dialectic is the culture of the spirit of contradiction, which is given to human that you may learn to perceive the differences between things.

486 With those who are really of like disposition with yourself, a person cannot long be at variance; you will always come to an agreement again. 487 With those who are really of adverse disposition, you may in vain try to preserve harmony; you will always come to a separation again.

488 Opponents fancy they refute us when they repeat their own opinion and pay no attention to ours.

489 People who contradict and dispute should now and then remember that not every mode of speech is intelligible to every one.

490 Every human hears only what own self understands.

491 I am quite prepared to find that many a reader will disagree with me; but when you have a thing before you in black and white, you must let it stand. Another reader may perhaps take up the very same copy and agree with me.

492 The truest liberality is appreciation.

493 For the strenuous person the difficulty is to recognise the merits of elder contemporaries and not let yourself be hindered by their defects.

494 Some people think about the defects of their friends, and there is nothing to be gained by it. 495 I have always paid attention to the merits of my enemies, and found it an advantage.

496 There are many people who fancy they understand whatever they experience.

497 The public must be treated like women: they must be told absolutely nothing but what they like to hear.

REFLECTION

498 Every age of human has a certain philosophy answering to it. The child comes out as a realist: you finds yourself as convinced that pears and apples exist as that you yourself exists. 499 The youth in a storm of inner passion is forced to turn own gaze within, and feel in advance what one is going to be: you are changed into an idealist. 500 But the person has every reason to become a sceptic: you does well to doubt whether the means you have chosen to your end are the right ones. 501 Before and during action you have every reason for keeping your understanding mobile, that you may not afterwards have to grieve over a false choice. 502 Yet when you grows old you will always confess yourself a mystic: you sees that so much seems to depend on chance; that folly succeeds and wisdom fails; that good and evil fortune are brought unexpectedly to the same level; 503 so it is and so it has been, and old age acquiesces in that which is and was and will be.

504 When a person grows old you must consciously remain at a certain stage.

505 It does not become an old person to run after the fashion, either in thought or in dress. But you must know where you are, and what the others are aiming at.

506 What is called fashion is the tradition of the moment. All tradition carries with it a certain necessity for people to put themselves on a level with it.

507 We have long been busy with the critique of reason. I should like to see a critique of common-sense.

508 It would be a real benefit to humankind if we could convincingly prove to the ordinary intelligence how far it can go; and that is just as much as it fully requires for life on this earth.

509 The thinker makes a great mistake when you asks after cause and effect: they both together make up the indivisible phenomenon.

510 All practical people try to bring the world under their hands; all thinkers, under their heads. How far each succeeds, they may both see for themselves.

511 Shall we say that a person thinks only when you cannot think out that of which you are thinking?

512 What is invention or

discovery? It is the conclusion of what we were looking for.

513 It is with history as with Nature and with everything of any depth, it may be past, present, or future: the further we seriously pursue it, the more difficult are the problems that appear. 514 The person who is not afraid of them, but attacks them bravely, has a feeling of higher culture and greater ease the further you progresses.

515 Every phenomenon is within our reach if we treat it as an inclined plane, which is of easy ascent, though the thick end of the wedge may be steep and inaccessible.

516 If a person would enter upon some course of knowledge, you must either be deceived or deceive yourself, unless external necessity irresistibly determines you. 517 Who would become a physician if, at one and the same time, you saw before you all the horrible sights that await you?

518 How many years must a person do nothing before you can at all know what is to be done and how to do it!

519 Duty: where a person loves what you commands yourself to do.

LITERATURE AND ART
Johann Wolfgang von Goethe

2 When Madame Roland was on the scaffold, she asked for pen and paper, to note the peculiar thoughts that hovered about her on the last journey. It is a pity they were refused, 2 for in a tranquil mind thoughts rise up at the close of life hitherto unthinkable; like blessed inward voices, alighting in glory on the summits of the past.

3 Literature is a fragment of fragments: the least of what happened and was spoken, has been written; and of the things that have been written, very few have been preserved.

4 And yet, with all the fragmentary nature of literature, we find thousand fold repetition; which shows how limited is human's mind and destiny.

5 Excellent work is unfathomable, approach it as you will.

6 It is not language in itself which is correct or forcible or elegant,

but the mind that is embodied in it; 7 and so it is not for a person to determine whether you will give your calculations or speeches or poems the desired qualities: the question is whether Nature has given you the intellectual and moral qualities which fit you for the work,-- 8 the intellectual power of observation and insight, the moral power of repelling the evil spirits that might hinder you from paying respect to truth.

9 The appeal to posterity springs from the pure, strong feeling of the existence of something imperishable; 10 something that, even though it be not at once recognised, will in the end be gratified by finding the minority turn into a majority.

11 When a new literature succeeds, it obscures the effect of an earlier one, and its own effect predominates; so that it is well, from time to time, to look back. 12 What is original in us is best preserved and quickened if we do not lose sight of those who have gone before us.

13 The most original authors of modern times are so, not because they produce what is new, but only because they are able to say things the like of which seem never to have been said before.

14 Thus the best sign of originality lies in taking up a subject and then developing it so fully as to make every one confess that you would hardly have found so much in it.

15 There are many thoughts that come only from general culture, like buds from green branches. When roses bloom, you see them blooming everywhere.

16 Lucidity is a due distribution of light and shade.' *Hamann*.

17 A person who has no acquaintance with foreign languages knows nothing of own language.

18 We must remember that there are many people who, without being productive, are anxious to say something important, and the results are most curious.

19 Deep and earnest thinkers are in a difficult position with regard to the public.

20 Some books seem to have been written, not to teach us anything, but to let us know that the author has known something.

21 An author can show no greater respect for own public than by

never bringing it what it expects, but what you yourself thinks right and proper in that stage of your own and others' culture in which for the time you finds yourself.

22 The so-called Nature-poets are people of active talent, with a fresh stimulus and reaction from an over-cultured, stagnant, mannered epoch of art. They cannot avoid commonplace.

23 Productions are now possible which, without being bad, have no value. They have no value, because they contain nothing; and they are not bad, because a general form of good-workmanship is present to the author's mind.

24 All lyrical work must, as a whole, be perfectly intelligible, but in some particulars a little unintelligible.

25 A romance is a subjective epic in which the author begs leave to treat the world after your own ideas. The only question is, whether you have any ideas; the rest will follow of itself.

26 Subjective or so-called sentimental poetry has now been admitted to an equality with objective and descriptive. This was inevitable; because otherwise the whole of modern poetry would have to be discarded. 27 It is now obvious that when people of truly poetical genius appear, they will describe more of the particular feelings of the inner life than of the general facts of the great life of the world. 28 This has already taken place to such a degree that we have a poetry without figures of speech, which can by no means be refused all praise.

29 Superstition is the poetry of life, and so it does not hurt the poet to be superstitious.

30 That glorious hymn, *Veni Creator Spiritus*, is really an appeal to genius. That is why it speaks so powerfully to people of intellect and power.

31 Translators are like busy match-makers: they sing the praises of some half-veiled beauty, and extol her charms, and arouse an irresistible longing for the original.

32 A Spinoza in poetry becomes a Machiavelli in philosophy.

33 Against the three unities there is nothing to be said, if the subject is very simple; but there are times when thrice three unities, skillfully interwoven, produce a very pleasant effect.

REFLECTION

34 The sentimentality of the English is humorous and tender; of the French, popular and pathetic; of the Germans, naïve and realistic.

35 Mysticism is the scholastic of the heart, the dialectic of the feelings.

36 If a person sets out to reproach an author with obscurity, you should first of all examine your own mind, to see if you are yourself all clearness within. Twilight makes even plain writing illegible.

37 It is with books as with new acquaintances. At first we are highly delighted, if we find a general agreement,-- if we are pleasantly moved on any of the chief sides of our existence. 38 With a closer acquaintance differences come to light; and then reasonable conduct mainly consists in not shrinking back at once, as may happen in youth, 39 but in keeping firm hold of the things in which we agree, and being quite clear about the things in which we differ, without on that account desiring any union.

40 In psychological reflection the greatest difficulty is this: that inner and outer must always be viewed in parallel lines, or, rather, interwoven. 41 It is a continual systole and diastole, an inspiration and an expiration of the living soul. If this cannot be put into words, it should be carefully marked and noted.

42 My relations with Schiller rested on the decided tendency of both of us towards a single aim, and our common activity rested on the diversity of the means by which we endeavoured to attain that aim.

43 Once when a slight difference was mentioned between us, of which I was reminded by a passage in a letter of his, I made the following reflections: 44 There is a great difference between a poet seeking the particular for the universal, and seeing the universal in the particular. 45 The one gives rise to Allegory, where the particular serves only as instance or example of the general; 46 but the other is the true nature of Poetry, namely, the expression of the particular without any thought of, or reference to, the general. 47 If a person grasps the particular vividly, you also grasps the

general, without being aware of it at the time; or you may make the discovery long afterwards.

48 There may be eclectic philosophers, but not an eclectic philosophy.

49 But every one is an eclectic who, out of the things that surround and take place about you, appropriates what is suited to your nature; and this is what is meant by culture and progress, in matters of theory or practice.

50 Various maxims of the ancients, which we are wont to repeat again and again, had a meaning quite different from that which is apt to attach to them in later times.

51 The saying that no one who is unacquainted with or a stranger to geometry should enter the philosopher's school, does not mean that a person must become a mathematician to attain the wisdom of the world.

52 Geometry is here taken in its primary elements, such as are contained in Euclid and laid before every beginner; and then it is the most perfect propædeutic and introduction to philosophy.

53 When a child begins to understand that an invisible point must always come before a visible one, and that the shortest way between two points is a straight line, before you can draw it on your paper with a pencil, you experiences a certain pride and pleasure. 54 And you are not wrong; for you have the source of all thought opened to you; idea and reality, *potentia et actu*, are become clear; 55 the philosopher has no new discovery to bring you; as a mathematician, you have found the basis of all thought for yourself.

56 And if we turn to that significant utterance, *Know thyself*, we must not explain it in an ascetic sense. It is in nowise the self-knowledge of our modern hypochondrists, humorists, and self-tormentors. 57 It simply means: pay some attention to yourself; take note of yourself; so that you may know how you come to stand towards those like you and towards the world. 58 This involves no psychological torture; every capable person knows and feels what it means. It is a piece of good advice which every one will find of the greatest advantage in practice.

REFLECTION

59 Let us remember how great the ancients were; and especially how the Socratic school holds up to us the source and standard of all life and action, and bids us not indulge in empty speculation, but live and do.

60 So long as our scholastic education takes us back to antiquity and furthers the study of the Greek and Latin languages, we may congratulate ourselves that these studies, so necessary for the higher culture, will never disappear.

61 If we set our gaze on antiquity and earnestly study it, in the desire to form ourselves thereon, we get the feeling as if it were only then that we really became humans.

62 The pedagogue, in trying to write and speak Latin, has a higher and grander idea of own self than would be permissible in ordinary life.

63 In the presence of antiquity, the mind that is susceptible to poetry and art feels itself placed in the most pleasing ideal state of Nature; 64 and even to this day the Homeric hymns have the power of freeing us, at any rate, for moments, from the frightful burden which the tradition of several thousand years has rolled upon us.

65 There is no such thing as patriotic art and patriotic science. Both art and science belong, like all things great and good, to the whole world, 66 and can be furthered only by a free and general interchange of ideas among contemporaries, with continual reference to the heritage of the past as it is known to us.

67 Poetical talent is given to peasant as well as to knight; all that is required is that each shall grasp own position and treat it worthily.

68 An historic sense means a sense so cultured that, in valuing the deserts and merits of its own time, it takes account also of the past.

69 The best that history gives us is the enthusiasm it arouses.

70 The historian's duty is twofold: first towards yourself, then towards your readers. 71 As regards yourself, you must carefully examine into the things that could have happened; and, for the reader's sake, you must determine what actually did happen. 72 Your action towards

yourself is a matter between yourself and your colleagues; but the public must not see into the secret that there is little in history which can be said to be positively determined.

73 The historian's duty is to separate the true from the false, the certain from the uncertain, and the doubtful from that which cannot be accepted.

74 It is seldom that any one of great age becomes historical to own self, and finds own contemporaries become historical to you, so that you neither cares nor is able to argue with any one.

75 On a closer examination of the matter, it will be found that the historian does not easily grasp history as something historical. 76 In whatever age you may live, the historian always writes as though you yourself had been present at the time of which you treats, instead of simply narrating the facts and movements of that time. 77 Even the mere chronicler only points more or less to your own limitations, or the peculiarities of your town or monastery or age.

78 We really learn only from those books which we cannot criticise. The author of a book which we could criticise would have to learn from us.

79 That is the reason why the Bible will never lose its power; because, as long as the world lasts, no one can stand up and say: I grasp it as a whole and understand all the parts of it. 80 But we say humbly: as a whole it is worthy of respect, and in all its parts it is applicable.

81 There is and will be much discussion as to the use and harm of circulating the Bible. 82 One thing is clear to me: mischief will result, as heretofore, by using it phantastically as a system of dogma; benefit, as heretofore, by a loving acceptance of its teachings.

83 I am convinced that the Bible will always be more beautiful the more it is understood; 84 the more, that is, we see and observe that every word which we take in a general sense and apply specially to ourselves, had, under certain circumstances of time and place, a peculiar, special, and directly individual reference.

85 The incurable evil of religious controversy is that while one party

wants to connect the highest interest of humanity with fables and phrases, the other tries to rest it on things that satisfy no one.

86 If one has not read the newspapers for some months and then reads them all together, one sees, as one never saw before, how much time is wasted with this kind of literature.

87 The classical is health; and the romantic, disease.

88 Ovid remained classical even in exile: it is not in himself that he sees misfortune, but in his banishment from the metropolis of the world.

89 The romantic is already fallen into its own abysm. It is hard to imagine anything more degraded than the worst of the new productions.

90 Bodies which rot while they are still alive, and are edified by the detailed contemplation of their own decay; dead people who remain in the world for the ruin of others, and feed their death on the living,-- to this have come our makers of literature.

91 When the same thing happened in antiquity, it was only as a strange token of some rare disease; but with the moderns the disease has become endemic and epidemic.

92 Literature decays only as humans become more and more corrupt.

93 What a day it is when we must envy the people in their graves!

94 The things that are true, good, excellent, are simple and always alike, whatever their appearance may be. 95 But the error that we blame is extremely manifold and varying; it is in conflict not only with the good and the true, but also with itself; it is self-contradictory. 96 Thus it is that the words of blame in our literature must necessarily outnumber the words of praise.

97 The Greeks, whose poetry and rhetoric was of a simple and positive character, express approval more often than disapproval. 98 With the Latin writers it is the contrary; and the more poetry and the arts of speech decay, the more will blame swell and praise shrink.

99 'What are tragedies but the versified passions of people who make Heaven knows what out of the external world?'

REFLECTION

100 There are certain empirical enthusiasts who are quite right in showing their enthusiasm over new productions that are good; but they are as ecstatic as if there were no other good work in the world at all.

101 In *Sakontala* the poet appears in his highest function. 102 As the representative of the most natural condition of things, the finest mode of life, the purest moral endeavour, the worthiest majesty, and the most solemn worship, he ventures on common and ridiculous contrasts.

103 Shakespeare's *Henry IV*. If everything were lost that has ever been preserved to us of this kind of writing, the arts of poetry and rhetoric could be completely restored out of this one play.

104 Shakespeare's finest dramas are wanting here and there in facility: they are something more than they should be, and for that very reason indicate the great poet.

105 Shakespeare is dangerous reading for budding talents: he compels them to reproduce him, and they fancy they are producing themselves.

106 Yorick Sterne was the finest spirit that ever worked. To read him is to attain a fine feeling of freedom; his humour is inimitable, and it is not every kind of humour that frees the soul.

107 The peculiar value of so-called popular ballads is that their motives are drawn direct from Nature. This, however, is an advantage of which the poet of culture could also avail yourself, if you knew how to do it.

108 But in popular ballads there is always this advantage, that in the art of saying things shortly uneducated people are always better skilled than those who are in the strict sense of the word educated.

109 *Gemüth = Heart*. The translator must proceed until you reaches the untranslatable; and then only will you have an idea of the foreign nation and the foreign tongue.

110 When we say of a landscape that it has a romantic character, it is the secret feeling of the sublime taking the form of the past, or, what is the same thing, of solitude, absence, or seclusion.

REFLECTION

111 The Beautiful is a manifestation of secret laws-of-Nature, which, without its presence, would never have been revealed.

112 It is said: Artist, study Nature! But it is no trifle to develop the noble out of the commonplace, or beauty out of uniformity.

113 When Nature begins to reveal Her open secret to a human, you feels an irresistible longing for Her worthiest interpreter, Art.

114 For all other Arts we must make some allowance; but to Greek Art alone we are always debtors.

115 There is no surer way of evading the world than by Art; and no surer way of uniting with it than by Art.

116 Even in the moments of highest happiness and deepest misery we need the Artist.

117 False tendencies of the senses are a kind of desire after realism, always better than that false tendency which expresses itself as idealistic longing.

118 The dignity of Art appears perhaps most conspicuously in Music; for in Music there is no material to be deducted. It is wholly form and intrinsic value, and it raises and ennobles all that it expresses.

119 It is only by Art, and especially by Poetry, that the imagination is regulated. Nothing is more frightful than imagination without taste.

120 If we were to despise Art on the ground that it is an imitation of Nature, it might be answered that Nature also imitates much else; 121 further, that Art does not exactly imitate that which can be seen by the eyes, but goes back to that element of reason of which Nature consists and according to which Nature acts.

122 Further, the Arts also produce much out of themselves, and, on the other hand, add much where Nature fails in perfection, in that they possess beauty in themselves.

123 So it was that Pheidias could sculpture a god although he had nothing that could be seen by the eye to imitate, but grasped the appearance which Zeus himself would have if he were to come before our eyes.

124 Art rests upon a kind of religious sense: it is deeply and ineradicably in earnest. Thus it is

that Art so willingly goes hand in hand with Religion.

125 A noble philosopher spoke of architecture as *frozen music*; and it was inevitable that many people should shake their heads over his remark. 126 We believe that no better repetition of this fine thought can be given than by calling architecture a *speechless music*.

127 Art is essentially noble; therefore the artist has nothing to fear from a low or common subject. 128 Nay, by taking it up, you ennobles it; and so it is that we see the greatest artists boldly exercising their sovereign rights.

129 In every artist there is a germ of daring, without which no talent is conceivable.

130 All the artists who are already known to me from so many sides, I propose to consider exclusively from the ethical side; 131 to explain from the subject-matter and method of their work the part played therein by time and place, nation and master, and their own indestructible personality; to mould them to what they became and to preserve them in what they were.

132 Art is a medium of what no tongue can utter; and thus it seems a piece of folly to try to convey its meaning afresh by means of words. 133 But, by trying to do so, the understanding gains; and this, again, benefits the faculty in practice.

134 An artist who produces valuable work is not always able to give an account of own or others' performances.

135 We know of no world except in relation to humankind; and we wish for no Art that does not bear the mark of this relation.

136 Higher aims are in themselves more valuable, even if unfulfilled, than lower ones quite attained.

137 Blunt naïvety, stubborn vigour, scrupulous observance of rule, and any other epithets which may apply to older German Art, are a part of every earlier and simpler artistic method. The older Venetians, Florentines, and others had it all too.

138 Because Albrecht Dürer, with his incomparable talent, could never rise to the idea of the symmetry of beauty, or even to the thought of a fitting conformity to

the object in view, are we never to spurn the ground!

139 Albrecht Dürer had the advantage of a very profound realistic perception, an affectionate human sympathy with all present conditions. He was kept back by a gloomy phantasy, devoid both of form and foundation.

140 It would be interesting to show how Martin Schön stands near him, and how the merits of German Art were restricted to these two; and useful also to show that it was not evening every day.

141 In every Italian school the butterfly breaks loose from the chrysalis.

142 After Klopstock released us from rhyme, and Voss gave us models of prose, are we to make doggerel again like Hans Sachs?

143 Let us be many-sided! Turnips are good, but they are best mixed with chestnuts. And these two noble products of the earth grow far apart.

144 In every kind of Art there is a degree of excellence which may be reached, so to speak, by the mere use of one's own natural talents.

145 But at the same time it is impossible to go beyond that point, unless Art comes to one's aid.

146 In the presence of Nature even moderate talent is always possessed of insight; hence drawings from Nature that are at all carefully done always give pleasure.

147 To make many sketches issue at last in a complete work is something that not even the best artists always achieve.

148 In the sphere of true Art there is no preparatory school, but there is a way of preparation; 149 and the best preparation is the interest of the most insignificant pupil in the work of the master. Colour-grinders have often made excellent painters.

150 If an artist grasps Nature aright and contrives to give its form a nobler, freer grace, no one will understand the source of your inspiration, and every one will swear that you have taken it from the antique.

151 In studying the human form, let the painter reject what is exaggerated, false, and mechanical; but let you learn to grasp of what infinite grace the human body is capable.

REFLECTION

152 Kant taught us the critique of the reason. We must have a critique of the senses if Art in general, and especially German Art, is ever to regain its tone and move forward on the path of life and happiness.

SCIENCE
Johann Wolfgang von Goethe

3 In the sphere of natural science let us remember that we have always to deal with an insoluble problem. 2 Let us prove keen and honest in attending to anything which is in any way brought to our notice, most of all when it does not fit in with our previous ideas. 3 For it is only thereby that we perceive the problem, which does indeed lie in Nature, but still more in human.

4 A person cannot well stand by yourself, and so you are glad to join a party; because if you does not find rest there, you at any rate finds quiet and safety.

5 It is a misfortune to pass at once from observation to conclusion, and to regard both as of equal value; but it befalls many a student.

6 In the history of science and throughout the whole course of its progress we see certain epochs following one another more or less rapidly. 7 Some important view is expressed, it may be original or only revived; sooner or later it receives recognition; 8 fellow workers spring up; the outcome of it finds its way into the schools; it is taught and handed down; and we observe, unhappily, that it does not in the least matter whether the view be true or false. 9 In either case its course is the same; in either case it comes in the end to be a mere phrase, a lifeless word stamped on the memory.

10 First let a person teach own self, and then you will be taught by others.

11 Theories are usually the over-hasty efforts of an impatient understanding that would gladly be rid of phenomena, and so puts in their place pictures, notions, nay, often mere words. 12 We may surmise, or even see quite well, that such theories are make-shifts; but do not passion and party-spirit love a make-shift at all times? And rightly, too, because they stand in so much need of it.

REFLECTION

13 It is difficult to know how to treat the errors of the age. If a person oppose them, you stands alone; if you surrender to them, they bring you neither joy nor credit.

14 There are some hundred Christian sects, every one of them acknowledging God and the Lord in its own way, without troubling themselves further about one another. 15 In the study of Nature, nay, in every study, things must of necessity come to the same pass. 16 For what is the meaning of every one speaking of toleration, and trying to prevent others from thinking and expressing themselves after their own fashion?

17 To communicate knowledge by means of analogy appears to me a process equally useful and pleasant. 18 The analogous case is not there to force itself on the attention or prove anything; it offers a comparison with some other case, but is not in union with it. 19 Several analogous cases do not join to form a seried row: they are like good society, which always suggests more than it grants.

20 To err is to be as though truth did not exist. To lay bare the error to oneself and others is retrospective discovery.

21 With the growth of knowledge our ideas must from time to time be organised afresh. 22 The change takes place usually in accordance with new maxims as they arise, but it always remains provisional.

23 When we find facts within our knowledge exhibited by some new method, or even, it may be, described in a foreign language, they receive a peculiar charm of novelty and wear a fresh air.

24 If two masters of the same art differ in their statement of it, in all likelihood the insoluble problem lies midway between them.

25 The orbits of certainties touch one another; but in the interstices there is room enough for error to go forth and prevail.

26 We more readily confess to errors, mistakes, and shortcomings in our conduct than in our thought. 27 And the reason of it is that the conscience is humble and even takes a pleasure in being ashamed. But the intellect is proud, and if forced to recant is driven to despair.

REFLECTION

28 This also explains how it is that truths which have been recognised are at first tacitly admitted, and then gradually spread, so that the very thing which was obstinately denied appears at last as something quite natural.

29 Ignorant people raise questions which were answered by the wise thousands of years ago.

30 When a person sees a phenomenon before you, your thoughts often range beyond it; when you hears it only talked about, you have no thoughts at all.

31 Authority. Human cannot exist without it, and yet it brings in its train just as much of error as of truth. 32 It perpetuates one by one things which should pass away one by one; it rejects that which should be preserved and allows it to pass away; and it is chiefly to blame for humankind's want of progress.

33 Authority-- the fact, namely, that something has already happened or been said or decided, is of great value; but it is only a pedant who demands authority for everything.

34 An old foundation is worthy of all respect, but it must not take from us the right to build afresh wherever we will.

35 Our advice is that every person should remain in the path you have struck out for yourself, and refuse to be overawed by authority, hampered by prevalent opinion, or carried away by fashion.

36 The various branches of knowledge always tend as a whole to stray away from life, and return thither only by a roundabout way.

37 For they are, in truth, text-books of life: they gather outer and inner experiences into a general and connected whole.

38 An important fact, an ingenious *aperçu*, occupies a very great number of people, at first only to make acquaintance with it; then to understand it; and afterwards to work it out and carry it further.

39 On the appearance of anything new the mass of people ask: What is the use of it? And they are not wrong. For it is only through the use of anything that they can perceive its value.

40 The truly wise ask what the thing is in itself and in relation to other things, and do not trouble themselves about the use of it,-- 41 in other words, about the way in

which it may be applied to the necessities of existence and what is already known. 42 This will soon be discovered by minds of a very different order-- minds that feel the joy of living, and are keen, adroit, and practical.

43 Every investigator must before all things look upon own self as one who is summoned to serve on a jury. 44 You have only to consider how far the statement of the case is complete and clearly set forth by the evidence. Then you draws your conclusion and gives your vote, whether it be that your opinion coincides with that of the foreman or not.

45 And in acting thus you remains equally at ease whether the majority agree with you or you finds yourself in a minority. 46 For you have done what you could: you have expressed your convictions; and you are not master of the minds or hearts of others.

47 In the world of science, however, these sentiments have never been of much account. There everything depends on making opinion prevail and dominate; 48 few people are really independent; the majority draws the individual after it.

49 The history of philosophy, of science, of religion, all shows that opinions spread in masses, but that that always comes to the front which is more easily grasped, that is to say, is most suited and agreeable to the human mind in its ordinary condition. 50 Nay, you who have practised self-culture in the higher sense may always reckon upon meeting an adverse majority.

51 There is much that is true which does not admit of being calculated; just as there are a great many things that cannot be brought to the test of a decisive experiment.

52 It is just for this that human stands so high, that what could not otherwise be brought to light should be brought to light in you.

53 What is a musical string, and all its mechanical division, in comparison with the musician's ear? 54 May we not also say, what are the elementary phenomena of Nature itself compared with human, who must control and modify them all before you can in any way assimilate them to yourself?

REFLECTION

55 To a new truth there is nothing more hurtful than an old error.

56 The ultimate origin of things is completely beyond our faculties; hence when we see anything come into being, we look upon it as having been already there. 57 This is why we find the theory of *emboîtement* intelligible.

58 There are many problems in natural science on which we cannot fittingly speak unless we call metaphysics to our aid; 59 but not the wisdom of the schools, which consists in mere verbiage. It is that which was before physics, exists with it, and will be after it.

60 Since humans are really interested in nothing but their own opinions, every one who puts forward an opinion looks about own self right and left for means of strengthening own self and others in it. 61 A person avails own self of the truth so long as it is serviceable; but you seizes on what is false with a passionate eloquence as soon as you can make a momentary use of it; 62 whether it be to dazzle others with it as a kind of half-truth, or to employ it as a stopgap for effecting an apparent union between things that have been disjointed. 63 This experience at first caused me annoyance, and then sorrow; and now it is a source of mischievous satisfaction. 64 I have pledged myself never again to expose a proceeding of this kind.

65 Everything that we call Invention or Discovery in the higher sense of the word is the serious exercise and activity of an original feeling for truth, 66 which, after a long course of silent cultivation, suddenly flashes out into fruitful knowledge. 67 It is a revelation working from within on the outer world, and lets a person feel that you are made in the image of God. 68 It is a synthesis of World and Mind, giving the most blessed assurance of the eternal harmony of things.

69 A person must cling to the belief that the incomprehensible is comprehensible; otherwise you would not try to fathom it.

70 There are pedants who are also rascals, and they are the worst of all.

71 A person does not need to have seen or experienced everything yourself. But if you are to commit

yourself to another's experiences and your way of putting them, let you consider that you have to do with three things-- the object in question and two subjects.

72 The supreme achievement would be to see that stating a fact is starting a theory.

73 If I acquiesce at last in some ultimate fact of Nature, it is, no doubt, only resignation; 74 but it makes a great difference whether the resignation takes place at the limits of human faculty, or within the hypothetical boundaries of my own narrow individuality.

75 If we look at the problems raised by Aristotle, we are astonished at his gift of observation. 76 What wonderful eyes the Greeks had for many things! 77 Only they committed the mistake of being over-hasty, of passing straightway from the phenomenon to the explanation of it, and thereby produced certain theories that are quite inadequate. 78 But this is the mistake of all times, and still made in our own day.

79 Hypotheses are cradle-songs by which the teacher lulls own scholars to sleep. 80 The thoughtful and honest observer is always learning more and more of own limitations; you sees that the further knowledge spreads, the more numerous are the problems that make their appearance.

81 Our mistake is that we doubt what is certain and want to establish what is uncertain. 82 My maxim in the study of Nature is this: hold fast what is certain and keep a watch on what is uncertain.

83 What a master a person would be in your own subject if you taught nothing useless!

84 The greatest piece of folly is that every person thinks your individual self compelled to hand down what people think they have known.

85 If many a person did not feel obliged to repeat what is untrue, because you have said it once, the world would have been quite different.

86 Every person looks at the world lying ready before you, ordered and fashioned into a complete whole, as after all but an element out of which your endeavour is to create a special world suited to yourself. 87 Capable people lay hold of the world without

hesitation and try to shape their course as best they can; others dally over it, and some doubt even of their own existence.

88 The person who felt the full force of this fundamental truth would dispute with no one, but look upon another's mode of thought equally with your own, as merely a phenomenon. 89 For we find almost daily that one person can think with ease what another cannot possibly think at all; 90 and that, too, not in matters which might have some sort of effect upon their common weal or woe, but in things which cannot touch them at all.

91 There is nothing more odious than the majority; it consists of a few powerful people to lead the way; of accommodating rascals and submissive weaklings; and of a mass of people who trot after them, without in the least knowing their own mind.

92 When I observe the luminous progress and expansion of natural science in modern times, I seem to myself like a traveller going eastwards at dawn, and gazing at the growing light with joy, but also with impatience; 93 looking forward with longing to the advent of the full and final light, but, nevertheless, having to turn away your eyes when the sun appeared, unable to bear the splendour you had awaited with so much desire.

94 We praise the 18th-century for concerning itself chiefly with analysis. The task remaining to the 19th-century is to discover the false syntheses which prevail, and to analyse their contents anew.

95 A school may be regarded as a single individual who talks to the self for a hundred years, and takes an extraordinary pleasure in own being, however foolish and silly it may be.

96 In science it is a service of the highest merit to seek out those fragmentary truths attained by the ancients, and to develop them further.

97 If a person devotes own self to the promotion of science, you are firstly opposed, and then you are informed that your ground is already occupied. 98 At first people will allow no value to what we tell them, and then they behave as if they knew it all themselves.

99 Nature fills all space with Her limitless productivity. If we

observe merely our own earth, everything that we call evil and unfortunate is so because Nature cannot provide room for everything that comes into existence, and still less endow it with permanence.

100 Everything that comes into being seeks room for itself and desires duration: hence it drives something else from its place and shortens its duration.

101 There is so much of cryptogamy in phanerogamy that centuries will not decipher it.

102 What a true saying it is that you who wants to deceive humankind must before all things make absurdity plausible.

103 The further knowledge advances, the nearer we come to the unfathomable: the more we know how to use our knowledge, the better we see that the unfathomable is of no practical use.

104 The finest achievement for a person of thought is to have fathomed what may be fathomed, and quietly to revere the unfathomable.

105 The discerning person who acknowledges own limitations is not far off perfection.

106 There are two things of which a person cannot be careful enough: of obstinacy if you confines yourself to your own line of thought; of incompetency, if you goes beyond it.

107 Incompetency is a greater obstacle to perfection than one would think.

108 The century advances; but every individual begins anew.

109 What friends do with us and for us is a real part of our life; for it strengthens and advances our personality. 110 The assault of our enemies is not part of our life; it is only part of our experience; we throw it off and guard ourselves against it as against frost, storm, rain, hail, or any other of the external evils which may be expected to happen.

111 A person cannot live with every one, and therefore you cannot live for every one. 112 To see this truth aright is to place a high value upon one's friends, and not to hate or persecute one's enemies. 113 Nay, there is hardly any greater advantage for a person

to gain than to find out, if you can, the merits of your opponents: it gives you a decided ascendency over them.

114 Every one knows how to value what you have attained in life; most of all the person who thinks and reflects in own old age. You have a comfortable feeling that it is something of which no one can rob you of.

115 The best metempsychosis is for us to appear again in others.

116 It is very seldom that we satisfy ourselves; all the more consoling is it to have satisfied others.

117 We look back upon our life only as on a thing of broken pieces, because our misses and failures are always the first to strike us, and outweigh in our imagination what we have done, and attained.

118 The sympathetic youth sees nothing of this; you reads, enjoys, and uses the youth of one who has gone before you, and rejoices in it with all your heart, as though you had once been what you now is.

119 Science helps us before all things in this, that it somewhat lightens the feeling of wonder with which Nature fills us; 120 then, however, as life becomes more and more complex, it creates new facilities for the avoidance of what would do us harm and the promotion of what will do us good.

121 It is always our eyes alone, our way of looking at things. Nature alone knows what She means now, and what She had meant in the past.

NATURE: APHORISMS

Johann Wolfgang von Goethe

4 Nature! We are surrounded by Her and locked in Her clasp: powerless to leave Her, and powerless to come closer to Her.

2 Unasked and unwarned she takes us up into the whirl of Her dance, and hurries on with us till we are weary and fall from Her arms.

3 Nature creates new forms without end: what exists now, never was before; what was, comes not again; all is new and yet always the old.

4 We live in the midst of Her and are strangers. She speaks to us unceasingly and betrays not Her

secret. We are always influencing Her and yet can do Her no violence.

5 Individuality seems to be all Her aim, and She cares nought for individuals. Nature is always building and always destroying, and Her workshop is not to be approached.

6 Nature lives in Her children only, and the mother, where is She? She is the sole artist,-- out of the simplest materials the greatest diversity; 7 attaining, with no trace of effort, the finest perfection, the closest precision, always softly veiled. 8 Each of Nature's works has an essence of its own; every shape that She takes is in idea utterly isolated; and yet all forms one.

9 She plays a drama; whether She sees it Herself, we know not; and yet She plays it for us, who stand but a little way off.

10 There is constant life in Her, motion and development; and yet She remains where She was. 11 Nature is eternally changing, nor for a moment does She stand still. Of rest She knows nothing, and to all stagnation She has affixed Her curse. 12 She is steadfast; Her step is measured, Her exceptions rare, Her laws immutable.

13 Nature has thought, and She ponders unceasingly; not as a human, but as Nature. The meaning of the whole She keeps to Herself, and no one can learn it of Her.

14 Humans are all in Nature, and Nature in all humans. With all She plays a friendly game, and rejoices the more when a human wins from Her. 15 With many Her game is so secret, that She brings it to an end before they are aware of it.

16 Even what is most unnatural is Nature; even the coarsest Philistinism has something of Her genius. Who does not see Her everywhere, sees Her nowhere aright.

17 Nature loves Herself, and clings eternally to Herself with eyes and hearts innumerable. 18 She has divided Herself that She may be Her own delight. She is ever making new creatures spring up to delight in Her, and imparts Herself insatiably.

19 She rejoices in illusion. If a person destroys this in yourself and others, She punishes you like the hardest tyrant. If you follows

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Her in confidence, She presses you to Her heart as it were Her child.

20 Nature's children are numberless. To no one of them is She altogether niggardly; but She has Her favourites, on whom She lavishes much, and for whom She makes many a sacrifice. 21 Over the great Nature has spread the shield of Her protection.

22 Nature spurts forth Her creatures out of nothing, and tells them not whence they come and whither they go. They have only to go their way: She knows the path.

23 Her springs of action are few, but they never wear out: they are always working, always manifold.

24 The drama Nature plays is always new, because She is always bringing new spectators. 25 Life is Her fairest invention, and Death is Her device for having life in abundance.

26 Nature envelops human in darkness, and urges you constantly to the light. She makes you dependent on the earth, heavy and sluggish, and always rouses you up afresh.

27 Nature creates wants, because She loves movement. How marvellous that She gains it all so easily! 28 Every want is a benefit, soon satisfied, soon growing again. If She gives more, it is a new source of desire; but the balance quickly rights itself.

29 Every moment Nature starts on the longest journeys, and every moment reaches Her goal.

30 She amuses Herself with a vain show; but to us Her play is all-important.

31 Nature lets every child work at Her, every fool judge of Her, and thousands pass Her by and see nothing; and She has Her joy in them all, and in them all finds Her account.

32 Human obeys Her laws even in opposing them: you works with Nature even when you wants to work against Her.

33 Everything Nature gives is found to be good, for first of all She makes it indispensable. 34 She lingers, that we may long for presence; she hurries by, that we may not grow weary of Her.

35 Speech or language Nature has none; but She creates tongues and hearts through which She feels and speaks.

36 Nature's crown is Love. Only through Love can we come near

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Her. 37 She puts gulfs between all things, and all things strive to be interfused. She isolates everything, that She may draw everything together. 38 With a few draughts from the cup of Love She repays for a life full of trouble.

39 Nature is all things. She rewards Herself and punishes Herself; and in Herself rejoices and is distressed. 40 She is rough and gentle, loving and terrible, powerless and almighty. 41 In Nature everything is always present. Past or Future She knows not. The Present is Her Eternity. 42 Nature is kind. I praise Her with all Her works. 43 Nature is wise and still. No one can force Her to explain Herself, or frighten Her into a gift that She does not give willingly. 44 She is crafty, but for a good end; and it is best not to notice Her cunning.

45 Nature is whole and yet never finished. As She works now, so can She work for ever.

46 To every one Nature appears in a form of your own. She hides Herself in a thousand names and terms, and is always the same.

47 Nature has placed me in this world; She will also lead me out of it. 48 I trust myself to Nature. She may do with me as She pleases. She will not hate Her work. 49 I did not speak of Nature. No! what is true and what is false, She has spoken it all. 50 Everything is Nature's fault, everything is Nature's merit.

The Book of Divine Panagogue called

QUERY

THE QUERIST
George Berkley

THE QUERIST CONTAINING
SEVERAL QUERIES PROPOSED
TO THE CONSIDERATION
OF THE PUBLIC

Query-1

1 Whether there ever was, is, or will be, an industrious nation poor, or an idle rich?

2 *Question:* Whether a people can be called poor, where the common sort are well fed, clothed, and lodged?

3 *Question:* Whether the drift and aim of every wise State should not be, to encourage industry in its members? 4 And whether those who employ neither heads nor hands for the common benefit deserve not to be expelled like drones out of a well-governed State?

5 *Question:* Whether the four elements, and human's labour therein, be not the true source of wealth?

6 *Question:* Whether money be not only so far useful, as it stirreth up industry, enabling people mutually to participate the fruits of each other's labour?

7 *Question:* Whether any other means, equally conducing to excite and circulate the industry of humankind, may not be as useful as money.

8 *Question:* Whether the real end and aim of humans be not power? And whether you who could have everything else at your wish or will would value money?

9 *Question:* Whether the public aim in every well-govern'd State be not that each member, according to your just pretensions and industry, should have power?

10 *Question:* Whether power be not referred to action; and whether action doth not follow appetite or will?

11 *Question:* Whether fashion doth not create appetites; and whether the prevailing will of a nation is not the fashion?

12 *Question:* Whether the current of industry and commerce be not determined by this prevailing will?

13 *Question:* Whether it be not owing to custom that the fashions are agreeable?

QUERY

14 *Question:* Whether it may not concern the wisdom of the legislature to interpose in the making of fashions; and not leave an affair of so great influence to the management of women and fops, tailors and vintners?

15 *Question:* Whether reasonable fashions are a greater restraint on freedom than those which are unreasonable?

16 *Question:* Whether a general good taste in a people would not greatly conduce to their thriving? 17 And whether an uneducated gentry be not the greatest of national evils?

18 *Question:* Whether customs and fashions do not supply the place of reason in the vulgar of all ranks? Whether, therefore, it doth not very much import that they should be wisely framed?

19 *Question:* Whether the imitating those neighbours in our fashions, to whom we bear no likeness in our circumstances, be not one cause of distress to this nation?

20 *Question:* Whether frugal fashions in the upper rank, and comfortable living in the lower, be not the means to multiply inhabitants?

21 *Question:* Whether the bulk of our Irish natives are not kept from thriving, by that cynical content in dirt and beggary which they possess to a degree beyond any other people in Christendom?

22 *Question:* Whether the creating of wants be not the likeliest way to produce industry in a people? And whether, if our peasants were accustomed to eat beef and wear shoes, they would not be more industrious?

23 *Question:* Whether other things being given, as climate, soil, etc., the wealth be not proportioned to the industry, and this to the circulation of credit, be the credit circulated or transferred by what marks or tokens soever?

24 *Question:* Whether, therefore, less money swiftly circulating, be not, in effect, equivalent to more money slowly circulating? Or, whether, if the circulation be reciprocally as the quantity of coin, the nation can be a loser?

25 *Question:* Whether money is to be considered as having an intrinsic value, or as being a commodity, a standard, a measure, or a pledge, as is variously suggested by writers? 26 And

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whether the true idea of money, as such, be not altogether that of a ticket or counter?

27 *Question:* Whether the value or price of things be not a compounded proportion, directly as the demand, and reciprocally as the plenty?

28 *Question:* Whether the terms crown, livre, pound sterling, etc., are not to be considered as exponents or denominations of such proportion? 29 And whether gold, silver, and paper are not tickets or counters for reckoning, recording, and transferring thereof?

30 *Question:* Whether the denominations being retained, although the bullion were gone, things might not nevertheless be rated, bought, and sold, industry promoted, and a circulation of commerce maintained?

31 *Question:* Whether an equal raising of all sorts of gold, silver, and copper coin can have any effect in bringing money into the kingdom? 32 And whether altering the proportions between the kingdom several sorts can have any other effect but multiplying one kind and lessening another, without any increase of the sum total?

33 *Question:* Whether arbitrary changing the denomination of coin be not a public cheat?

34 *Question:* Whether, nevertheless, the damage would be very considerable, if by degrees our money were brought back to the English value there to rest for ever?

35 *Question:* Whether the English crown did not formerly pass with us for six shillings? And what inconvenience ensued to the public upon its reduction to the present value, and whether what hath been may not be?

36 *Question:* What makes a wealthy people? Whether mines of gold and silver are capable of doing this? And whether the negroes, amidst the gold sands of Africa, are not poor and destitute?

37 *Question:* Whether there be any virtue in gold or silver, other than as they set people at work, or create industry?

38 *Question:* Whether it be not the opinion or will of the people, exciting them to industry, that truly enricheth a nation? 39 And whether this doth not principally

depend on the means for counting, transferring, and preserving power, that is, property of all kinds?

39 *Question:* Whether if there was no silver or gold in the kingdom, our trade might not, nevertheless, supply bills of exchange, sufficient to answer the demands of absentees in England or elsewhere?

40 *Question:* Whether current bank notes may not be deemed money? And whether they are not actually the greater part of the money of this kingdom?

41 *Question:* Provided the wheels move, whether it is not the same thing, as to the effect of the machine, be this done by the force of wind, or water, or animals?

42 *Question:* Whether power to command the industry of others be not real wealth? 43 And whether money be not in truth tickets or tokens for conveying and recording such power, and whether it be of great consequence what materials the tickets are made of?

44 *Question:* Whether trade, either foreign or domestic, be in truth any more than this commerce of industry?

45 *Question:* Whether to promote, transfer, and secure this commerce, and this property in human labour, or, in other words, this power, be not the sole means of enriching a people, and how far this may be done independently of gold and silver?

46 *Question:* Whether it were not wrong to suppose land itself to be wealth? 47 And whether the industry of the people is not first to be consider'd, as that which constitutes wealth, which makes even land and silver to be wealth, neither of which would have, any value but as means and motives to industry?

48 *Question:* Whether in the wastes of America a person might not possess twenty miles square of land, and yet want own dinner, or a coat to own back?

49 *Question:* Whether a fertile land, and the industry of its inhabitants, would not prove inexhaustible funds of real wealth, be the counters for conveying and recording thereof what you will, paper, gold, or silver?

50 *Question:* Whether a single hint be sufficient to overcome a prejudice? And whether even

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obvious truths will not sometimes bear repeating?

51 *Question:* Whether, if human labour be the true source of wealth, it doth not follow that idleness should of all things be discouraged in a wise State?

52 *Question:* Whether even gold or silver, if they should lessen the industry of its inhabitants, would not be ruinous to a country? And whether Spain be not an instance of this?

53 *Question:* Whether the opinion of people, and their industry consequent thereupon, be not the true wealth of Holland and not the silver supposed to be deposited in the bank at Amsterdam?

54 *Question:* Whether there is in truth any such treasure lying dead? And whether it be of great consequence to the public that it should be real rather than notional?

55 *Question:* Whether in order to understand the true nature of wealth and commerce, it would not be right to consider a ship's crew cast upon a desert island, and by degrees forming themselves to business and civil life, while industry begot credit, and credit moved to industry?

56 *Question:* Whether such people would not all set themselves to work? Whether they would not subsist by the mutual participation of each other's industry? 57 Whether, when one person had in your way procured more than you could consume, you would not exchange your superfluities to supply your wants? 58 Whether this must not produce credit? Whether, to facilitate these conveyances, to record and circulate this credit, they would not soon agree on certain tallies, tokens, tickets, or counters?

59 *Question:* Whether reflection in the better sort might not soon remedy our evils? And whether our real defect be not a wrong way of thinking?

60 *Question:* Whether it would not be an unhappy turn in our gentlemen, if they should take more thought to create an interest to themselves in this or that county, or borough, than to promote the real interest of their country?

61 *Question:* Whether it be not a bull to call that making an interest,

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whereby a person spendeth much and gaineth nothing?

62 *Question:* Whether if a person builds a house you doth not in the first place provide a plan which governs your work? And shall the pubic act without an end, a view, a plan?

63 *Question:* Whether by how much the less particular folk think for themselves, the public be not so much the more obliged to think for them?

64 *Question:* Whether cunning be not one thing and good sense another? And whether a cunning trades-person doth not stand in one's own light?

65 *Question:* Whether small gains be not the way to great profit? And if our trades-people are beggars, whether they may not thank themselves for it?

66 *Question:* Whether some way might not be found for making criminals useful in public works, instead of sending them either to America, or to the other world?

67 *Question:* Whether we may not, as well as other nations, contrive employment for them? 68 And whether servitude, chains, and hard labour, for a term of years, would not be a more discouraging as well as a more adequate punishment for felons than even death itself?

69 *Question:* Whether there are not such things in Holland as bettering houses for bringing young gentlemen to order? And whether such an institution would be useless among us?

70 *Question:* Whether it be true that the poor in Holland have no resource but their own labour, and yet there are no beggars in their streets?

71 *Question:* Whether you whose luxury consumeth foreign products, and whose industry produceth nothing domestic to exchange for them, is not so far forth injurious to your country?

72 *Question:* Whether, consequently, the fine people, whose employment is only to dress, drink, and play, be not a pubic nuisance?

73 *Question:* Whether necessity is not to be hearkened to before convenience, and convenience before luxury?

74 *Question:* Whether to provide plentifully for the poor be not feeding the root, the substance

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whereof will shoot upwards into the branches, and cause the top to flourish?

75 *Question:* Whether there be any instance of a State wherein the people, living neatly and plentifully, did not aspire to wealth?

76 *Question:* Whether nastiness and beggary do not, on the contrary, extinguish all such ambition, making people listless, hopeless, and slothful?

77 *Question:* Whether a country inhabited by people well fed, clothed and lodged would not become every day more populous? And whether a numerous stock of people in such circumstances would? 78 And how far the product of not constitute a flourishing nation; our own country may suffice for the compassing of this end?

79 *Question:* Whether a people who had provided themselves with the necessaries of life in good plenty would not soon extend their industry to new arts and new branches of commerce?

80 *Question:* Whether those same manufactures which England imports from other countries may not be admitted from Ireland? 81 And, if so, whether lace, carpets, and tapestry, three considerable articles of English importation, might not find encouragement in Ireland? 82 And whether an academy for design might not greatly conduce to the perfecting those manufactures among us?

83 *Question:* Whether France and Flanders could have drawn so much money from England for figured silks, lace, and tapestry, if they had not had academies for designing?

84 *Question:* Whether, when a room was once prepared, and models in plaster of Paris, the annual expense of such an academy need stand the pubic in above two hundred pounds a year?

85 *Question:* Whether our linen-manufacture would not find the benefit of this institution? 86 And whether there be anything that makes us fall short of the Dutch in damasks, diapers, and printed linen, but our ignorance in design?

87 *Question:* Whether those specimens of our own manufacture, hung up in a certain public place, do not sufficiently declare such our ignorance? And

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whether for the honour of the nation they ought not to be removed?

88 *Question:* Whether those who may slight this affair as notional have sufficiently considered the extensive use of the art of design, and its influence in most trades and manufactures, wherein the forms of things are often more regarded than the materials?

89 *Question:* Whether there be any art sooner learned than that of making carpets? 90 And whether our women, with little time and pains, may not make more beautiful carpets than those imported from Turkey? And whether this branch of the woollen manufacture be not open to us?

91 *Question:* Whether human industry can produce, from such cheap materials, a manufacture of so great value by any other art as by those of sculpture and painting?

92 *Question:* Whether pictures and statues are not in fact so much treasure? And whether Rome and Florence would not be poor towns without them?

93 *Question:* Whether they do not bring ready money as well as jewels? Whether in Italy debts are not paid, and children portioned with them, as with gold and silver?

94 *Question:* Whether it would not be more prudent, to strike out and exert ourselves in permitted branches of trade, than to fold our hands, and repine that we are not allowed the woollen?

95 *Question:* Whether it be true that two millions are yearly expended by England in foreign lace and linen?

96 *Question:* Whether immense sums are not drawn yearly into the Northern countries, for supplying the British navy with hempen manufactures?

97 *Question:* Whether there be anything more profitable than hemp? And whether there should not be great premiums for encouraging our hempen trade? 98 What advantages may not Great Britain make of a country where land and labour are so cheap?

99 *Question:* Whether Ireland alone might not raise hemp sufficient for the British navy? And whether it would not be vain to expect this from the British Colonies in America, where hands are so scarce, and labour so excessively dear?

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100 *Question:* Whether, if our own people want will or capacity for such an attempt, it might not be worthwhile for some undertaking spirits in England to make settlements, 101 and raise hemp in the counties of Clare and Limerick, than which, perhaps, there is not fitter land in the world for that purpose? And whether both nations would not find their advantage therein?

102 *Question:* Whether if all the idle hands in this kingdom were employed on hemp and flax, we might not find sufficient vent for these manufactures?

103 *Question:* How far it may be in our own power to better our affairs, without interfering with our neighbours?

104 *Question:* Whether the prohibition of our woollen trade ought not naturally to put us on other methods which give no jealousy?

105 *Question:* Whether paper be not a valuable article of commerce? And whether it be not true that one single bookseller in London yearly expended above four thousand pounds in that foreign commodity?

106 *Question:* How it comes to pass that the Venetians and Genoese, who wear so much less linen, and so much worse than we do, should yet make very good paper, and in great quantity, while we make very little?

107 *Question:* How long it will be before my countrymen find out that it is worthwhile to spend a penny in order to get a groat?

108 *Question:* If all the land were tilled that is fit for tillage, and all that sowed with hemp and flax that is fit for raising them, whether we should have much sheep-walk beyond what was sufficient to supply the necessities of the kingdom?

109 *Question:* Whether other countries have not flourished without the woollen trade?

110 *Question:* Whether it be not a sure sign or effect of a country's inhabitants? And, thriving, to see it well cultivated and full of; 111 if so, whether a great quantity of sheep-walk be not ruinous to a country, rendering it waste and thinly inhabited?

112 *Question:* Whether the employing so much of our land

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under sheep be not in fact an Irish blunder?

113 *Question:* Whether our hankering after our woollen trade be not the true and only reason which hath created a jealousy in England towards Ireland? And whether anything can hurt us more than such jealousy?

114 *Question:* Whether it be not the true interest of both nations to become one people? And whether either be sufficiently apprised of this?

115 *Question:* Whether the upper part of this people are not truly English, by blood, language, religion, manners, inclination, and interest?

116 *Question:* Whether we are not as much English people as the children of old Romans, born in Britain, were still Romans?

117 *Question:* Whether it be not our true interest not to interfere with them; and, in every other case, whether it be not their true interest to befriend us?

118 *Question:* Whether a mint in Ireland might not be of great convenience to the kingdom; and whether it could be attended with any possible inconvenience to Great Britain? 119 And whether there were not mints in Naples and Sicily, when those kingdoms were provinces to Spain or the house of Austria?

120 *Question:* Whether anything can be more ridiculous than for the north of Ireland to be jealous of a linen manufacturer in the south?

121 *Question:* Whether the county of Tipperary be not much better land than the county of Armagh; and yet whether the latter is not much better improved and inhabited than the former?

122 *Question:* Whether every landlord in the kingdom doth not know the cause of this? And yet how few are the better for such their knowledge?

123 *Question:* Whether large farms under few hands, or small ones under many, are likely to be made most of? 124 And whether flax and tillage do not naturally multiply hands, and divide land into small holdings, and well-improved?

125 *Question:* Whether, as our exports are lessened, we ought not to lessen our imports? And whether these will not be lessened as our demands, and these as our wants, and these as our customs or

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fashions? 126 Of how great consequence therefore are fashions to the public?

127 *Question:* Whether it would not be more reasonable to mend our state than to complain of it; and how far this may be in our own power?

128 *Question:* What the nation gains by those who live in Ireland upon the produce of foreign Countries?

129 *Question:* How far the vanity of our ladies in dressing, and of our gentlemen in drinking, contributes to the general misery of the people?

130 *Question:* Whether nations, as wise and opulent as ours, have not made sumptuary laws; and what hinders us from doing the same?

131 *Question:* Whether those who drink foreign liquors, and deck themselves and their families with foreign ornaments, are not so far forth to be reckoned absentees?

132 *Question:* Whether, as our trade is limited, we ought not to limit our expenses; and whether this be not the natural and obvious remedy?

133 *Question:* Whether the dirt, and famine, and nakedness of the bulk of our people might not be remedied, even although we had no foreign trade? 134 And whether this should not be our first care; and whether, if this were once provided for, the conveniences of the rich would not soon follow?

135 *Question:* Whether comfortable living doth not produce wants, and wants industry, and industry wealth?

136 *Question:* Whether there is not a great difference between Holland and Ireland? And whether foreign commerce, without which the one could not subsist, be so necessary for the other?

137 *Question:* Might we not put a hand to the plough, or the spade, although we had no foreign commerce?

138 *Question:* Whether the exigencies of Nature are not to be answered by industry on our own soil? 139 And how far the conveniences and comforts of life may be procured by a domestic commerce between the several parts of this kingdom?

140 *Question:* Whether the women may not sew, spin, weave, embroider sufficiently for the embellishment of their persons, and even enough to raise envy in

each other, without being beholden to foreign countries?

141 *Question:* Suppose the bulk of our inhabitants had shoes to their feet, clothes to their backs, and beef in their bellies, might not such a state be eligible for the public, even though the squires were condemned to drink ale and cider?

142 *Question:* Whether, if drunkenness be a necessary evil, people may not as well drink the growth of their own country?

143 *Question:* Whether a nation within itself might not have real wealth, sufficient to give its inhabitants power and distinction, without the help of gold and silver?

144 *Question:* Whether, if the arts of sculpture and painting were encouraged among us, we might not furnish our houses in a much nobler manner with our own manufactures?

145 *Question:* Whether we have not, or may not have, all the necessary materials for building at home?

146 *Question:* Whether tiles and plaster may not supply the place of Norway fir for flooring and wainscot?

147 *Question:* Whether plaster be not warmer, as well as more secure, than deal? 148 And whether a modern fashionable house, lined with fir, daubed over with oil and paint, be not like a fire-ship, ready to be lighted up by all accidents?

149 *Question:* Whether larger houses, better built and furnished, a greater train of servants, the difference with regard to equipage and table between finer and coarser, more and less elegant, may not be sufficient to feed a reasonable share of vanity, or support all proper distinctions? 150 And whether all these may not be procured by domestic industry out of the four elements, without ransacking the four quarters of the globe?

151 *Question:* Whether anything is a nobler ornament, in the eye of the world, than an Italian palace, 152 that is, stone and mortar skillfully put together, and adorned with sculpture and painting; and whether this may not be compassed without foreign trade?

153 *Question:* Whether an expense in gardens and plantations would

not be an elegant distinction for the rich, a domestic magnificence employing many hands within, and drawing nothing from abroad?

154 *Question:* Whether the apology which is made for foreign luxury in England, to wit, that they could not carry on their trade without imports as well as exports, will hold in Ireland?

155 *Question:* Whether one may not be allowed to conceive and suppose a society or nation of human creatures, clad in woollen cloths and stuffs, 156 eating good bread, beef and mutton, poultry and fish, in great plenty, drinking ale, mead, and cider, 157 inhabiting decent houses built of brick and marble, taking their pleasure in fair parks and gardens, depending on no foreign imports either for food or raiment? 158 And whether such people ought much to be pitied?

159 *Question:* Whether Ireland be not as well qualified for such a state as any nation under the sun?

160 *Question:* Whether in such a state the inhabitants may not contrive to pass the twenty-four hours with tolerable ease and cheerfulness? And whether any people upon earth can do more?

161 *Question:* Whether they may not eat, drink, play, dress, visit, sleep in good beds, sit by good fires, build, plant, raise a name, make estates, and spend them?

162 *Question:* Whether, upon the whole, a domestic trade may not suffice in such a country as Ireland, to nourish and clothe its inhabitants, and provide them with the reasonable conveniences and even comforts of life?

163 *Question:* Whether a general habit of living well would not produce numbers and industry' and whether, considering the tendency of human kind, the consequence thereof would not be foreign trade and riches, how unnecessary soever?

164 *Question:* Whether, nevertheless, it be a crime to inquire how far we may do without foreign trade, and what would follow on such a supposition?

165 *Question:* Whether the number and welfare of the subjects be not the true strength of the crown?

166 *Question:* Whether in all public institutions there should not be an

end proposed, which is to be the rule and limit of the means? 167 Whether this end should not be the well-being of the whole? And whether, in order to do this, the first step should not be to clothe and feed our people?

168 *Question:* Whether there be upon earth any Christian or civilised people so beggarly, wretched, and destitute as the common Irish?

169 *Question:* Whether, nevertheless, there is any other people whose wants may be more easily supplied from home?

170 *Question:* Whether, if there was a wall of brass a thousand cubits high round this kingdom, our natives might not nevertheless live cleanly and comfortably, till the land, and reap the fruits of it?

171 *Question:* What should hinder us from exerting ourselves, using our hands and brains, doing something or other, man, woman, and child, like the other inhabitants of God's earth?

172 *Question:* Be the restraining our trade well or ill advised in our neighbours, with respect to their own interest, yet whether it be not plainly ours to accommodate ourselves to it?

173 *Question:* Whether it be not vain to think of persuading other people to see their interest, while we continue blind to our own?

174 *Question:* Whether there be any other nation possess'd of so much good land, and so many able hands to work it, which yet is beholden for bread to foreign countries?

175 *Question:* Whether it be true that we import corn to the value of two hundred thousand pounds in some years?

176 *Question:* Whether we are not undone by fashions made for other people? And whether it be not madness in a poor nation to imitate a rich one?

177 *Question:* Whether a woman of fashion ought not to be declared a public enemy?

178 *Question:* Whether it be not certain that from the single town of Cork were exported, in one year, no less than one hundred and seven thousand one hundred and sixty-one barrels of beef; seven thousand three hundred and seventy-nine barrels of pork; 179 thirteen thousand four hundred and sixty-one casks, and eighty-five

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thousand seven hundred and twenty-seven firkins of butter? 180 And what hands were employed in this manufacture?

181 *Question:* Whether a foreigner could imagine that one half of the people were starving, in a country which sent out such plenty of provisions?

182 *Question:* Whether an Irish lady, set out with French silks and Flanders lace, may not be said to consume more beef and butter than a hundred of our labouring peasants?

183 *Question:* Whether nine-tenths of our foreign trade be not carried on singly to support the article of vanity?

184 *Question:* Whether it can be hoped that private persons will not indulge this folly, unless restrained by the public?

185 *Question:* How vanity is maintained in other countries? Whether in Hungary, for instance, a proud nobility are not subsisted with small imports from abroad?

186 *Question:* Whether there be a prouder people upon earth than the noble Venetians, although they all wear plain black clothes?

187 *Question:* Whether a people are to be pitied that will not sacrifice their little particular vanities to the public good? 188 And yet, whether each part would not except their own foible from this public sacrifice, the squire his bottle, the lady her lace?

189 *Question:* Whether claret be not often drank rather for vanity than for health, or pleasure?

190 *Question:* Whether it be true that people of nice palates have been imposed on, by elder wine for French claret, and by mead for palm sack?

191 *Question:* Do not English people abroad purchase beer and cider at ten times the price of wine?

192 *Question:* How many gentlemen are there in England of a thousand pounds per annum who never drink wine in their own houses? Whether the same may be said of any in Ireland who have even? one hundred pounds per annum.

193 *Question:* What reasons have our neighbours in England for discouraging French wines which may not hold with respect to us also?

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194 *Question:* How much of the necessary sustenance of our people is yearly exported for brandy?

195 *Question:* Whether, if people must poison themselves, they had not better do it with their own growth?

196 *Question:* If we imported neither claret from France, nor fir from Norway, what the nation would save by it?

197 *Question:* When the root yieldeth insufficient nourishment, whether people do not top the tree to make the lower branches thrive?

198 *Question:* Whether, if our ladies drank sage or balm tea out of Irish ware, it would be an insupportable national calamity?

199 *Question:* Whether it be really true that such wine is best as most encourages drinking, i.e., that must be given in the largest dose to produce its effect? And whether this holds with regard to any other medicine?

200 *Question:* Whether that trade should not be accounted most pernicious wherein the balance is most against us? And whether this be not the trade with France?

201 *Question:* Whether it be not even madness to encourage trade with a nation that takes nothing of our manufacture?

202 *Question:* Whether Ireland can hope to thrive if the major part of her patriots shall be found in the French interest?

203 *Question:* Why, if a bribe by the palate or the purse be in effect the same thing, they should not be alike infamous?

204 *Question:* Whether the vanity and luxury of a few ought to stand in competition with the interest of a nation?

205 *Question:* Whether national wants ought not to be the rule of trade? And whether the most pressing wants of the majority ought not to be first consider'd?

206 *Question:* Whether it is possible the country should be well improved, while our beef is exported, and our labourers live upon potatoes?

207 *Question:* If it be resolved that we cannot do without foreign trade, whether, at least, it may not be worthwhile to consider what branches thereof deserve to be entertained, and how far we may be able to carry it on under our present limitations?

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208 *Question:* What foreign imports may be necessary for clothing and feeding the families of persons not worth above one hundred pounds a year? 209 And how many wealthier there are in the kingdom, and what proportion they bear to the other inhabitants?

210 *Question:* Whether trade be not then on a right foot, when foreign commodities are imported in exchange only for domestic superfluities?

211 *Question:* Whether the quantities of beef, butter, wool, and leather, exported from this island, can be reckoned the superfluities of a country, where there are so many natives naked and famished?

212 *Question:* Whether it would not be wise so to order our trade as to export manufactures rather than provisions, and of those such as employ most hands?

213 *Question:* Whether she would not be a very vile matron, and justly thought either mad or foolish, that should give away the necessaries of life from her naked and famished children, in exchange for pearls to stick in her hair, and sweetmeats to please her own palate?

214 *Question:* Whether a nation might not be consider'd as a family?

215 *Question:* Whether other methods may not be found for supplying the funds, besides the custom on things imported?

216 *Question:* Whether any art or manufacture be so difficult as the making of good laws?

217 *Question:* Whether our peers and people are born legislators? Or, whether that faculty be acquired by study and reflection?

218 *Question:* Whether to comprehend the real interest of a people, and the means to procure it, doth not imply some fund of knowledge, historical, moral, and political, with a faculty of reason improved by learning?

219 *Question:* Whether every enemy to learning be not a Goth? And whether every such Goth among us be not an enemy to the country?

220 *Question:* Whether, therefore, it would not be an omen of ill presage, a dreadful phenomenon in the land, if our great people should

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take it in their heads to deride learning and education?

221 *Question:* Whether, on the contrary, it should not seem worthwhile to erect a mart of literature in this kingdom, under wiser regulations and better discipline than in any other part of Europe? 222 And whether this would not be an infallible means of drawing people and money into the kingdom?

223 *Question:* Whether the governed be not too numerous for the governing part of our college? And whether it might not be expedient to convert thirty natives-places into twenty fellowships?

224 *Question:* Whether, if we had two colleges, there might not spring a useful emulation between them? 225 And whether it might not be contrived so to divide the fellows, scholars, and revenues between both, as that no member should be a loser thereby?

226 *Question:* Whether ten thousand pounds well laid out might not build a decent college, fit to contain two hundred persons; and whether the purchase money of the chambers would not go a good way towards defraying the expense?

227 *Question:* Where this college should be situated?

228 *Question:* Whether it is possible a State should not thrive, whereof the lower part were industrious, and the upper wise?

229 *Question:* Whether the collected wisdom of ages and nations be not found in books, improved and applied by study?

230 *Question:* Whether it was not an Irish professor who first opened the public schools at Oxford? 231 Whether this island hath not been anciently famous for learning? And whether at this day it hath any better chance for being considerable?

232 *Question:* Whether we may not with better grace sit down and complain, when we have done all that lies in our power to help ourselves?

233 *Question:* Whether the people of estate hath a right to be idle; and whether you ought not to be the great promoter and director of industry among your tenants and neighbours?

234 *Question:* Whether the real foundation for wealth must not be

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laid in the numbers, the frugality, and the industry of the people? 235 And whether all attempts to enrich a nation by other means, as raising the coin, stock-jobbing, and such arts are not vain?

236 *Question:* Whether a door ought not to be shut against all other methods of growing rich, save only by industry and merit? And whether wealth got otherwise would not be ruinous to the public?

237 *Question:* Whether the abuse of banks and paper-money is a just objection against the use thereof? And whether such abuse might not easily be prevented?

238 *Question:* Whether national banks are not found useful in Venice, Holland, and Hamburg? And whether it is not possible to contrive one that may be useful also in Ireland?

239 *Question:* Whether any nation ever was in greater want of such an expedient than Ireland?

240 *Question:* Whether the banks of Venice and Amsterdam are not in the hands of the public?

241 *Question:* Whether it may not be worthwhile to inform ourselves in the nature of those banks? And what reason can be assigned why Ireland should not reap the benefit of such public banks as well as other countries?

242 *Question:* Whether a bank of national credit, supported by public funds and secured by Parliament, be a chimera or impossible thing? And if not, what would follow from the supposal of such a bank?

243 *Question:* Whether the currency of a credit so well secured would not be of great advantage to our trade and manufactures?

244 *Question:* Whether the notes of such public bank would not have a more general circulation than those of private banks, as being less subject to frauds and hazards?

245 *Question:* Whether it be not agreed that paper hath in many respects the advantage above coin, as being of more dispatch in payments, more easily transferred, preserved, and recovered when lost?

246 *Question:* Whether, besides these advantages, there be not an evident necessity for circulating credit by paper, from the defect of coin in this kingdom?

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247 *Question:* Whether the public may not as well save the interest which it now pays?

248 *Question:* What would happen if two of our banks should break at once? And whether it be wise to neglect providing against an event which experience hath shewn us not to be impossible?

249 *Question:* Whether such an accident would not particularly affect the bankers? And therefore whether a national bank would not be a security even to private bankers?

250 *Question:* Whether we may not easily avoid the inconveniencies attending the paper-money of New England, which were incurred by their issuing too great a quantity of notes, 251 by their having no silver in bank to exchange for notes, by their not insisting upon repayment of the loans at the time prefixed, and especially by their want of manufactures to answer their imports from Europe?

252 *Question:* Whether a combination of bankers might not do wonders, and whether bankers know their own strength?

253 *Question:* Whether a bank in private hands might not even overturn a government? And whether this was not the case of the Bank of St. George in Genoa?

254 *Question:* Whether we may not easily prevent the ill effects of such a bank as Mr Law proposed for Scotland, which was faulty in not limiting the quantum of bills, and permitting all persons to take out what bills they pleased, upon the mortgage of lands, whence by a glut of paper, the prices of things must rise? 255 Whence also the fortunes of people must increase in denomination, though not in value; whence pride, idleness, and beggary?

256 *Question:* Whether such banks as those of England and Scotland might not be attended with great inconveniences, as lodging too much power in the hands of private people, and giving handle for monopolies, stock-jobbing, and destructive schemes?

257 *Question:* Whether the national bank, projected by an anonymous writer in the latter end of Queen Anne's reign, might not on the other hand be attended with as great inconveniences by lodging too much power in the Government?

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258 *Question:* Whether the bank projected by Murray, though it partake, in many useful particulars, with that of Amsterdam, yet, as it placeth too great power in the hands of a private society, might not be dangerous to the public?

259 *Question:* Whether it be rightly remarked by some that, as banking brings no treasure into the kingdom like trade, private wealth must sink as the bank riseth? 260 And whether whatever causeth industry to flourish and circulate may not be said to increase our treasure?

261 *Question:* Whether the ruinous effects of Mississippi, South Sea, and such schemes were not owing to an abuse of paper money or credit, in making it a means for idleness and gaming, instead of a motive and help to industry?

262 *Question:* Whether those effects could have happened had there been no stock-jobbing? 263 And whether stock-jobbing could at first have been set on foot, without an imaginary foundation of some improvement to the stock by trade? 264 Whether, therefore, when there are no such prospects, or cheats, or private schemes proposed, the same effects can be justly feared?

265 *Question:* Whether by a national bank, be not properly understood a bank, not only established by public authority as the Bank of England, but a bank in the hands of the public, wherein there are no shares: whereof the public alone is proprietor, and reaps all the benefit?

266 *Question:* Whether, having considered the conveniences of banking and paper-credit in some countries, and the inconveniences thereof in others, we may not contrive to adopt the former, and avoid the latter?

267 *Question:* Whether great evils, to which other schemes are liable, may not be prevented, by excluding the managers of the bank from a share in the legislature?

268 *Question:* Whether the rise of the bank of Amsterdam was not purely casual, for the security and dispatch of payments? 269 And whether the good effects thereof, in supplying the place of coin, and promoting a ready circulation of industry and commerce may not be

QUERY

a lesson to us, to do that by design which others fell upon by chance?

270 *Question:* Whether the bank proposed to be established in Ireland, under the notion of a national bank, by the voluntary subscription of three hundred thousand pounds, to pay off the national debt, the interest of which sum to be paid the subscribers, 271 subject to certain terms of redemption, be not in reality a private bank, as those of England and Scotland, which are national only in name, being in the hands of particular persons, and making dividends on the money paid in by subscribers?

272 *Question:* Whether plenty of small cash be not absolutely necessary for keeping up a circulation among the people; that is, whether copper be not more necessary than gold?

273 *Question:* Whether it is not worthwhile to reflect on the expedients made use of by other nations, paper-money, bank-notes, public funds, and credit in all its shapes, 274 to examine what hath been done and devised to add to our own animadversions, and upon the whole offer such hints as seem not unworthy the attention of the public?

275 *Question:* Whether that, which increaseth the stock of a nation be not a means of increasing its trade? 276 And whether that which increaseth the current credit of a nation may not be said to increase its stock?

277 *Question:* Whether it may not be expedient to appoint certain funds or stock for a national bank, under direction of certain persons, one-third whereof to be named by the Government, and one-third by each House of Parliament?

278 *Question:* Whether the directors should not be excluded from sitting in either House, and whether they should not be subject to the audit and visitation of a standing committee of both Houses?

279 *Question:* Whether such committee of inspectors should not be changed every two years, one-half going out, and another coming in by ballot?

280 *Question:* Whether the notes ought not to be issued in lots, to be let at interest on mortgaged lands, the whole number of lots to be divided among the four provinces,

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rateably to the number of hearths in each?

281 *Question:* Whether it may not be expedient to appoint four counting-houses, one in each province, for converting notes into specie?

282 *Question:* Whether a limit should not be fixed, which no person might exceed, in taking out notes?

283 *Question:* Whether, the better to answer domestic circulation, it may not be right to issue notes as low as twenty shillings?

284 *Question:* Whether all the bills should be issued at once, or rather by degrees, that so people may be gradually accustomed and reconciled to the bank?

285 *Question:* Whether the keeping of the cash, and the direction of the bank, ought not to be in different hands, and both under public control?

286 *Question:* Whether the same rule should not always be observed, of lending out money or notes, only to half the value of the mortgaged land? 287 And whether this value should not always be rated at the same number of years' purchase as at first?

288 *Question:* Whether care should not be taken to prevent an undue rise of the value of land?

289 *Question:* Whether the increase of industry and people will not of course raise the value of land? And whether this rise may not be sufficient?

290 *Question:* Whether land may not be apt to rise on the issuing too great plenty of notes? 291 *Question:* Whether this may not be prevented by the gradual and slow issuing of notes, and by frequent sales of lands?

292 *Question:* Whether interest doth not measure the true value of land; for instance, where money is at five per cent, whether land is not worth twenty years' purchase?

293 *Question:* Whether too small a proportion of money would not hurt the landed person, and too great a proportion the monied person? 294 And whether the quantum of notes ought not to bear proportion to the pubic demand? And whether trial must not shew what this demand will be?

295 *Question:* Whether the exceeding this measure might not produce diverse bad effects, one

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whereof would be the loss of our silver?

296 *Question:* Whether interest paid into the bank ought not to go on augmenting its stock? 297 *Question:* Whether it would or would not be right to appoint that the said interest be paid in notes only?

298 *Question:* Whether the notes of this national bank should not be received in all payments into the exchequer?

299 *Question:* Whether on supposition that the specie should fail, the credit would not, nevertheless, still pass, being admitted in all payments of the public revenue?

300 *Question:* Whether the pubic can become bankrupt so long as the notes are issued on good security?

301 *Question:* Whether mismanagement, prodigal living, hazards by trade, which often affect private banks, are equally to be apprehended in a pubic one?

302 *Question:* Whether as credit became current, and this raised the value of land, the security must not of course rise?

303 *Question:* Whether, as our current domestic credit grew, industry would not grow likewise; and if industry, our manufactures; and if these, our foreign credit?

304 *Question:* Whether by degrees, as business and people multiplied, more bills may not be issued, without augmenting the capital stock, provided still, that they are issued on good security; which further issuing of new bills, not to be without consent of Parliament?

305 *Question:* Whether such bank would not be secure? Whether the profits accruing to the pubic would not be very considerable? And whether industry in private persons would not be supplied, and a general circulation encouraged?

306 *Question:* Whether such bank should, or should not, be allowed to issue notes for money deposited therein? And, if not, whether the bankers would have cause to complain?

307 *Question:* Whether, if the public thrives, all particular persons must not feel the benefit thereof, even the bankers themselves?

308 *Question:* Whether, beside the Bank-Company, there are not in England many private wealthy

bankers, and whether they were more before the erecting of that company?

309 *Question:* Whether as industry increased, our manufactures would not flourish; and as these flourished, whether better returns would not be made from estates to their landlords, both within and without the kingdom?

310 *Question:* Whether we have not paper-money circulating among, whether, therefore, we might not as well have that us already which is secured by the public, and whereof the pubic reaps the benefit?

311 *Question:* Whether there are not two general ways of circulating money, to wit, play and traffic? And whether stock-jobbing is not to be ranked under the former?

312 *Question:* Whether there are more than two things that might draw silver out of the bank, when its credit was once well established, to wit, foreign demands and small payments at home?

313 *Question:* Whether, if our trade with France were checked, the former of these causes could be supposed to operate at all? And whether the latter could operate to any great degree?

314 *Question:* Whether the sure way to supply people with tools and materials, and to set them at work, be not a free circulation of money, whether silver or paper?

315 *Question:* Whether in New England all trade and business is not as much at a stand, upon a scarcity of paper-money, as with us from the want of specie?

316 *Question:* Whether paper-money or notes may not be issued from the national bank, on the security of hemp, of linen, or other manufactures whereby the poor might be supported in their industry?

317 *Question:* Whether it be certain that the quantity of silver in the bank of Amsterdam be greater now than at first; 318 but whether it be not certain that there is a greater circulation of industry and extent of trade, more people, ships, houses, and commodities of all sorts, more power by sea and land?

319 *Question:* Whether money, lying dead in the bank of Amsterdam, would not be as useless as in the mine?

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320 *Question:* Whether our visible security in land could be doubted? And whether there be anything like this in the bank of Amsterdam?

321 *Question:* Whether it be just to apprehend danger from trusting a national bank with power to extend its credit, to circulate notes which it shall be felony to counterfeit, to receive goods on loans, to purchase lands, to sell also or alienate them, and to deal in bills of exchange; 322 when these powers are no other than have been trusted for many years with the bank of England, although in truth but a private bank?

323 *Question:* Whether the objection from monopolies and an overgrowth of power, which are made against private banks, can possibly hold against a national one?

324 *Question:* Whether banks raised by private subscription would be as advantageous to the public as to the subscribers? And whether risks and frauds might not be more justly apprehended from them?

325 *Question:* Whether the evil effects which of late years have attended paper-money and credit in Europe did not spring from subscriptions, shares, dividends, and stock-jobbing?

326 *Question:* Whether the great evils attending paper-money in the British Plantations of America have not sprung from the overrating their lands, and issuing paper without discretion, 327 and from the legislators breaking their own rules in favour of themselves, thus sacrificing the public to their private benefit? 328 And whether a little sense and honesty might not easily prevent all such inconveniences?

329 *Question:* Whether an argument from the abuse of things, against the use of them, be conclusive?

330 *Question:* Whether you who is bred to a part be fitted to judge of the whole?

331 *Question:* Whether interest be not apt to bias judgment? And whether traders only are to be consulted about trade, or bankers about money?

332 *Question:* Whether the subject of Free-thinking in religion be not exhausted? And whether it be not high time for our free-thinkers to

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turn their thoughts to the improvement of their country?

333 *Question:* Whether any person hath a right to judge, that will not be at the pains to distinguish?

334 *Question:* Whether there be not a wide difference between the profits going to augment the national stock, and being divided among private sharers? And whether, in the former case, there can possibly be any gaming or stock-jobbing?

335 *Question:* Whether it must not be ruinous for a nation to sit down to game, be it with silver or with paper?

336 *Question:* Whether, therefore, the circulating paper, in the late ruinous schemes of France and England, was the true evil, and not rather the circulating thereof without industry? 337 And whether the bank of Amsterdam, where industry had been for so many years subsisted and circulated by transfers on paper, doth not clearly decide this point?

338 *Question:* Whether there are not to be seen in America fair towns, wherein the people are well lodged, fed, and clothed, without a beggar in their streets, although there be not one grain of gold or silver current among them?

339 *Question:* Whether these people do not exercise all arts and trades, build ships and navigate them to all parts of the world, purchase lands, till and reap the fruits of them, buy and sell, educate and provide for their children? Whether they do not even indulge themselves in foreign vanities?

340 *Question:* Whether, whatever inconveniences those people may have incurred from not observing either rules or bounds in their paper money, 341 yet it be not certain that they are in a more flourishing condition, have larger and better built towns, more plenty, more industry, more arts and civility, and a more extensive commerce, than when they had gold and silver current among them?

342 *Question:* Whether a view of the ruinous effects of absurd schemes and credit mismanaged, so as to produce gaming and madness instead of industry, can be any just objection against a national bank calculated purely to promote industry?

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343 *Question:* Whether a scheme for the welfare of this nation should not take in the whole inhabitants? 344 And whether it be not a vain attempt, to project the flourishing of our Protestant gentry, exclusive of the bulk of the natives?

345 *Question:* Whether, therefore, it doth not greatly concern the State, that our Irish natives should be converted, and the whole nation united in the same religion, the same allegiance, and the same interest? And how this may most probably be effected?

346 *Question:* Whether an oath, testifying allegiance to the king, and disclaiming the pope's authority in temporals, may not be justly required of the Roman Catholics? 347 And whether, in common prudence or policy, any priest should be tolerated who refuseth to take it?

348 *Question:* Whether there have not been Popish recusants? And, if so, whether it would be right to object against the foregoing oath, that all would take it, and none think themselves bound by it?

349 *Question:* Whether those of the Church of Rome, in converting the Moors of Spain or the Protestants of France, have not set us an example which might justify a similar treatment of themselves, if the laws of Christianity allowed thereof?

350 *Question:* Whether compelling people to a profession of faith is not the worst thing in Popery, and, consequently, whether to copy after the Church of Rome therein, were not to become Papists ourselves in the worst sense?

351 *Question:* Whether, nevertheless, we may not imitate the Church of Rome, in certain places, where Jews are tolerated, by obliging our Irish Papists, at stated times, to hear Protestant sermons? And whether this would not make missionaries in the Irish tongue useful?

352 *Question:* Whether the mere act of hearing, without making any profession of faith, or joining in any part of worship, be a religious act; 353 and, consequently, whether their being obliged to hear, may not consist with the toleration of Roman Catholics?

354 *Question:* Whether, if penal laws should be thought oppressive, we may not at least be allowed to

give premiums? 355 And whether it would be wrong, if the public encouraged Popish families to become hearers, by paying their hearth-money for them?

356 *Question:* Whether in granting toleration, we ought not to distinguish between doctrines purely religious, and such as affect the State?

357 *Question:* Whether the case be not very different in regard to a person who only eats fish on Fridays, says your prayers in Latin, or believes transubstantiation, 358 and one who professeth in temporals a subjection to foreign powers, who holdeth yourself absolved from all obedience to your natural prince and the laws of your country? Who is even persuaded, it may be meritorious to destroy the powers that are?

359 *Question:* Whether, therefore, a distinction should not be made between mere Papists and recusants? And whether the latter can expect the same protection from the Government as the former?

360 *Question:* Whether our Papists in this kingdom can complain, if they are allowed to be as much Papists as the subjects of France or of the Empire?

361 *Question:* Whether there is any such thing as a body of inhabitants, in any Roman Catholic country under the sun, that profess an absolute submission to the pope's orders in matters of an indifferent nature, or that in such points do not think it their duty to obey the civil government?

362 *Question:* Whether since the peace of Utrecht, mass was not celebrated and the sacraments administered in diverse dioceses of Sicily, notwithstanding the Pope's interdict?

363 *Question:* Whether every plea of conscience is to be regarded? Whether, for instance, the German Anabaptists, Levellers, or Fifth Monarchy people would be tolerated on that pretence?

364 *Question:* Whether Popish children bred in charity schools, when bound out in apprenticeship to Protestant masters, do generally continue Protestants?

365 *Question:* Whether a Sum, which would go but a little way towards erecting hospitals for

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maintaining and educating the children of the native Irish, might not go far in binding them out apprentices to Protestant masters, for husbandry, useful trades, and the service of families?

366 *Question:* Whether if the parents are overlooked, there can be any great hopes of success in converting the children?

367 *Question:* Whether there be any instance, of a people's being converted in a Christian sense, otherwise than by preaching to them and instructing them in their own language?

368 *Question:* Whether catechists in the Irish tongue may not easily be procured and subsisted? And whether this would not be the most practicable means for converting the natives?

369 *Question:* Whether it be not of great advantage to the Church of Rome, that it hath clergy suited to all ranks of people, in gradual subordination from cardinals down to mendicants?

370 *Question:* Whether its numerous poor clergy are not very useful in missions, and of much influence with the people?

371 *Question:* Whether, in defect of able missionaries, persons conversant in low life, and speaking the Irish tongue, if well instructed in the first principles of religion, and in the popish controversy, 372 though for the rest on a level with the parish clerks, or the school-masters of charity-schools, may not be fit to mix with and bring over our poor illiterate natives to the Established Church? 373 Whether it is not to be wished that some parts of our liturgy and homilies were publicly read in the Irish language? 374 And whether, in these views, it may not be right to breed up some of the better sort of children in the charity-schools, and qualify them for missionaries, catechists, and readers?

375 *Question:* Whether there be any nation of people governed by reason? And yet, if there was not, whether this would be a good argument against the use of reason in pubic affairs?

376 *Question:* Whether, as others have supposed an Atlantis or Utopia, we also may not suppose an Hyperborean island inhabited by reasonable creatures?

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377 *Question:* Whether an indifferent person, who looks into all hands, may not be a better judge of the game than a party who sees only one's own?

378 *Question:* Whether one, whose end is to make your country people think, may not gain your end, even though they should not think as you doth?

379 *Question:* Whether you, who only asks, asserts? And whether any person can fairly confute the querist?

380 *Question:* Whether the interest of a part will not always be preferred to that of the whole?

ERRATA
George Berkley

Query-1

2 Whether there be any country in Christendom more capable of improvement than Ireland?

2 *Question:* Whether we are not as far before other nations with respect to natural advantages, as we are behind them with respect to arts and industry?

3 *Question:* Whether we do not live in a most fertile soil and temperate climate, and yet whether our people in general do not feel great want and misery?

4 *Question:* Whether my country people are not readier at finding excuses than remedies?

5 *Question:* Whether it can be reasonably hoped, that our state will mend, so long as property is insecure among us? 6 *Question:* Whether in that case the wisest government, or the best laws can avail us?

7 *Question:* Whether a few mishaps to particular persons may not throw this nation into the utmost confusion?

8 *Question:* Whether the public is not even on the brink of being undone by private accidents?

9 *Question:* Whether the wealth and prosperity of our country do not hang by a hair, the probity of one banker, the caution of another, and the lives of all?

10 *Question:* Whether we have not been sufficiently admonished of this by some late events?

11 *Question:* Whether therefore it be not high time to open our eyes?

12 *Question:* Whether a national bank would not at once secure our properties, put an end to usury,

facilitate commerce, supply the want of coin, and produce ready payments in all parts of the kingdom?

13 *Question:* Whether the use or nature of money, which all people so eagerly pursue, be yet sufficiently understood or considered by all?

14 *Question:* Whether humankind are not governed by Citation rather than by reason?

15 *Question:* Whether there be not a measure or limit, within which gold and silver are useful, and beyond which they may be hurtful?

16 *Question:* Whether that measure be not the circulating of industry?

17 *Question:* Whether a discovery of the richest gold mine that ever was, in the heart of this kingdom, would be a real advantage to us?

18 *Question:* Whether it would not tempt foreigners to prey upon us?

19 *Question:* Whether it would not render us a lazy, proud, and dastardly people?

20 *Question:* Whether every person who had money enough would not be a gentleman or a lady? And whether a nation of gentlemen and ladies would not be a wretched nation?

21 *Question:* Whether all things would not bear a high price? And whether people would not increase their fortunes without being the better for it?

22 *Question:* Whether the same evils would be apprehended from paper-money under an honest and thrifty regulation?

23 *Question:* Whether, therefore, a national bank would not be more beneficial than even a mine of gold?

24 *Question:* Whether private ends are not prosecuted with more attention and vigour than the public? And yet, whether all private ends are not included in the pubic?

25 *Question:* Whether banking be not absolutely necessary to the pubic weal?

26 *Question:* Whether even our private banks, though attended with such hazards as we all know them to be, are not of singular use in defect of a national bank? 27 *Question:* Whether without them what little business and industry there is would not stagnate? 28 But whether it be not a mighty

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privilege for a private person to be able to create a hundred pounds with a dash of own pen?

29 *Question:* Whether the mystery of banking did not derive its original from the Italians? Whether this acute people were not, upon a time, bankers over all Europe? 30 Whether that business was not practised by some of their noblest families who made immense profits by it, and whether to that the house of Medici did not originally owe its greatness?

31 *Question:* Whether the wise state of Venice was not the first that conceived the advantage of a national bank?

32 *Question:* Whether at Venice all payments of bills of exchange and merchants' contracts are not made in the national or pubic bank, the greatest affairs being transacted only by writing the names of the parties, one as debtor the other as creditor in the bank-book?

33 *Question:* Whether nevertheless it was not found expedient to provide a chest of ready cash for answering all demands that should happen to be made on account of payments in detail?

34 *Question:* Whether this offer of ready cash, instead of transfers in the bank, hath not been found to augment rather than diminish the stock thereof?

35 *Question:* Whether at Venice, the difference in the value of bank money above other money be not fixed at twenty per cent?

36 *Question:* Whether the bank of Venice be not shut up four times in the year twenty days each time?

37 *Question:* Whether by means of this bank the public be not mistress of a million and a half sterling?

38 *Question:* Whether the great exactness and integrity with which this bank is managed be not the chief support of that republic?

39 *Question:* Whether we may not hope for as much skill and honesty in a Protestant Irish Parliament as in a Popish Senate of Venice?

40 *Question:* Whether the bank of Amsterdam was not begun about one hundred and thirty years ago, and whether at this day its stock be not conceived to amount to three thousand tons of gold, or thirty millions sterling?

41 *Question:* Whether besides coined money, there be not also

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great quantities of ingots or bars of gold and silver lodged in this bank?

42 *Question:* Whether all payments of contracts for goods in gross, and letters of exchange, must not be made by transfers in the bank-books, provided the sum exceed three hundred florins?

43 *Question:* Whether it be not true, that the bank of Amsterdam never makes payments in cash?

44 *Question:* Whether, nevertheless, it be not also true, that no person who hath credit in the bank can want money from particular persons, who are willing to become creditors in own stead?

45 *Question:* Whether any person thinks yourself the poorer, because your money is in the bank?

46 *Question:* Whether the creditors of the bank of Amsterdam are not at liberty to withdraw their money when they please, and whether this liberty doth not make them less desirous to use it?

47 *Question:* Whether this bank be not shut up twice in the year for ten or fifteen days, during which time the accounts are balanced?

48 *Question:* Whether it be not owing to this bank that the city of Amsterdam, without the least confusion, hazard, or trouble, maintains and every day promotes so general and quick a circulation of industry?

49 *Question:* Whether it be not the greatest help and spur to commerce that property can be so readily conveyed and so well secured by a *compte en banc*, that is, by only writing one person's name for another's in the bank-book?

50 *Question:* Whether, at the beginning of the last century, those who had lent money to the public during the war with Spain were not satisfied by the sole expedient of placing their names in a *compte en banc*, with liberty to transfer their claims?

51 *Question:* Whether the example of those easy transfers in the *compte en banc*, thus casually erected, did not tempt other people to become creditors to the public, in order to profit by the same secure and expeditious method of keeping and transferring their wealth?

52 *Question:* Whether this *compte en banc* hath not proved better

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than a mine of gold to Amsterdam?

53 *Question:* Whether that city may not be said to owe its greatness to the unpromising accident of it having been in debt more than it was able to Pay?

54 *Question:* Whether it be known that any State from such small beginnings, in so short a time, ever grew to so great wealth and power as the province of Holland hath done; and whether the bank of Amsterdam hath not been the real cause of such extraordinary growth?

55 *Question:* Whether we are by nature a more stupid people? And yet whether these things are sufficiently considered by our patriots?

56 *Question:* Whether anything less than the utter subversion of those Republics can break the banks of Venice and Amsterdam?

57 *Question:* Whether at Hamburgh the citizens have not the management of the bank, without the meddling or inspection of the Senate?

58 *Question:* Whether the directors be not four principal burghers chosen by plurality of voices, whose business is to see the rules observed, and furnish the cashiers with money?

59 *Question:* Whether the book-keepers are not obliged to balance their accounts every week, and exhibit them to the controllers or directors?

60 *Question:* Whether any besides the citizens are admitted to have *compte en banc* at Hamburgh?

61 *Question:* Whether there be not a certain limit, under which no sum can be entered into the bank?

62 *Question:* Whether each particular person doth not pay a fee in order to be admitted to a *compte en banc* at Hamburgh and Amsterdam?

63 *Question:* Whether the effects lodged in the bank of Hamburgh are liable to be seized for debt or forfeiture?

64 *Question:* Whether this bank doth not lend money upon pawns at low interest and only for half a year, after which term, in default of payment, the pawns are punctually sold by auction?

65 *Question:* Whether the book-keepers of the bank of Hamburgh are not obliged upon oath never to reveal what sums of money are

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paid in or out of the bank, or what effects any particular person has therein?

66 *Question:* Whether, therefore, it be possible to know the state or stock of this bank; and yet whether it be not of the greatest reputation and most established credit throughout the North?

67 *Question:* Whether the success of those public banks in Venice, Amsterdam and Hamburg would not naturally produce in other States an inclination to the same methods?

68 *Question:* Whether an absolute monarchy be so apt to gain credit, and whether the vivacity of some humours could so well suit with the slow steps and discreet management which a bank requires?

69 *Question:* Whether the bank called the general bank of France, contrived by Mr Law, and established by letters patent in May, 1716, was not in truth a particular and not a national bank, being in the hands of a particular company privileged and protected by the Government?

70 *Question:* Whether the Government did not order that the notes of this bank should pass on a par with ready money in all payments of the revenue?

71 *Question:* Whether this bank was not obliged to issue only such notes as were payable at sight?

72 *Question:* Whether it was not made a capital crime to forge the notes of this bank?

73 *Question:* Whether this bank was not restrained from trading either by sea or land, and from taking up money upon interest?

74 *Question:* Whether the original stock thereof was not six millions of livres, divided into actions of a thousand crowns each?

75 *Question:* Whether the proprietors were not to hold general assemblies twice in the year, for the regulating of their affairs?

76 *Question:* Whether the accompts of this bank were not balanced twice every year?

77 *Question:* Whether there were not two chests belonging to this bank, the one called the general chest containing their specie, their bills and their copper plates for the printing of those bills, under the custody of three locks, 78 whereof the keys were kept by the director,

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the inspector and treasurer, also another called the ordinary chest, containing part of the stock not exceeding two hundred thousand crowns, under the key of the treasurer?

79 *Question:* Whether out of this last mentioned sum, each particular cashier was not to be entrusted with a share not exceeding the value of twenty thousand crowns at a time, and that under good security?

80 *Question:* Whether the Regent did not reserve to himself the power of calling this bank to account, so often as he should think good, and of appointing the inspector?

81 *Question:* Whether in the beginning of the year 1719 the French King did not convert the general bank of France into a Banque Royale, having himself purchased the stock of the company and taken it into his own hands, and appointed the Duke of Orleans chief manager thereof?

82 *Question:* Whether from that time, all matters relating to the bank were not transacted in the name, and by the sole authority, of the king?

83 *Question:* Whether his Majesty did not undertake to receive and keep the cash of all particular persons, subjects, or foreigners, in his said Royale Banque, without being paid for that trouble? 84 And whether it was not declared, that such cash should not be liable to seizure on any pretext, not even on the king's own account?

85 *Question:* Whether the treasurer alone did not sign all the bills, receive all the stock paid into the bank, and keep account of all the in-goings and out-goings?

86 *Question:* Whether there were not three registers for the en-registering of the bills kept in the Banque Royale, one by the inspector, another by the controller, and a third by the treasurer?

87 *Question:* Whether there was not also a fourth register, containing the profits of the bank, which was visited, at least once a week, by the inspector and controller?

88 *Question:* Whether, beside the general bureau or compter in the city of Paris, there were not also appointed five more in the towns of Lyons, Tours, Rochelle, Orleans, and Amiens, 89 each

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whereof was provided with two chests, one of specie for discharging bills at sight, and another of bank bills to be issued as there should be demand?

90 *Question:* Whether, in the above mentioned towns, it was not prohibited to make payments in silver, exceeding the sum of six hundred livres?

91 *Question:* Whether all creditors were not empowered to demand payment in bank bills instead of specie?

92 *Question:* Whether, in a short compass of time, this bank did not undergo many new changes and regulations by several successive acts of council?

93 *Question:* Whether the untimely, repeated, and boundless fabrication of bills did not precipitate the ruin of this bank?

94 *Question:* Whether it be not true, that before the end of July, 1719, they had fabricated four hundred millions of livres in bank-notes, 95 to which they added the sum of 120-millions more on the 12th of September following, also the same sum of 120-millions on the 24th of October, and again on the 29th of December, in the same year, 96 the farther sum of three hundred and sixty millions, making the whole, from an original stock of six millions, mount, within the compass of one year, to a thousand millions of livres?

97 *Question:* Whether on the 28th of February, 1720, the king did not make an union of the bank with the united company of the East and West Indies, which from that time had the administration and profits of the Banque Royale?

98 *Question:* Whether the king did not still profess himself responsible for the value of the bank bills, and whether the company were not responsible to his Majesty for their management?

99 *Question:* Whether sixteen hundred millions of livres, lent to his majesty by the company, was not a sufficient pledge to indemnify the king?

100 *Question:* Whether the new directors were not prohibited to make any more bills without an act of council?

101 *Question:* Whether the chests and books of the Banque were not subjected to the joint inspection of a Counsellor of State, and the Prevot des Marchands, assisted by

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two Echevins, a judge, and a consul, who had power to visit when they would and without warning?

102 *Question:* Whether in less than two years the actions or shares of the Indian Company (first established for Mississippi, and afterwards increased by the addition of other compares and further? And whether this privileges) did not rise to near 2000 per cent must be ascribed to real advantages of trade, or to mere frenzy?

103 *Question:* Whether, from first to last, there were not fabricated bank bills, of one kind or other, to the value of more than two thousand and six hundred millions of livres, or one hundred and thirty millions sterling?

104 *Question:* Whether the credit of the bank did not decline from its union with the Indian Company?

105 *Question:* Whether, notwithstanding all the above-mentioned extraordinary measures, the bank bills did not still pass at par with gold and silver to May, 1720, 106 when the French king thought fit, by a new act of council, to make a reduction of their value, which proved a fatal blow, the effects whereof, though soon retracted, no subsequent skill or management could ever repair?

107 *Question:* Whether, what no reason, reflexion, or foresight could do, this simple matter of fact (the most powerful argument with the multitude) did not do at once, to wit, open the eyes of the people?

108 *Question:* Whether the dealers in that sort of ware had ever troubled their heads with the nature of credit, or the true use and end of banks, but only considered their bills and actions as things, to which the general demand gave a price?

109 *Question:* Whether the Government was not in great perplexity to contrive expedients for the getting rid of those bank bills, which had been lately multiplied with such an unlimited passion?

110 *Question:* Whether notes to the value of about ninety millions were not sunk by being paid off in specie, with the cash of the Compagnie des Indes, with that of the bank, and that of the Hotels des Monnoyes? 111 Whether five

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hundred and thirty millions were not converted into annuities at the royal treasury? 112 Whether several hundred millions more in bank bills were not extinguished and replaced by annuities on the City of Paris, on taxes throughout the provinces?

113 *Question:* Whether, after all other shifts, the last and grand resource for exhausting that ocean, was not the erecting of a *compte en banc* in several towns of France?

114 *Question:* Whether, when the imagination of a people is thoroughly wrought upon and heated by their own example, and the arts of designing people, this doth not produce a sort of enthusiasm which takes place of reason, and is the most dangerous distemper in a State?

115 *Question:* Whether this epidemical madness should not be always before the eyes of a legislature, in the framing of a national bank?

116 *Question:* Whether, therefore, it may not be fatal to engraft trade on a national bank, or to propose dividends on the stock thereof?

117 *Question:* Whether it be possible for a national bank to subsist and maintain its credit under a French government?

118 *Question:* Whether it may not be as useful a lesson to consider the bad management of some as the good management of others?

119 *Question:* Whether the rapid and surprising success of the schemes of those who directed the French bank did not turn their brains?

120 *Question:* Whether the best institutions may not be made subservient to bad ends?

121 *Question:* Whether, as the aim of industry is power, and the aim of a bank is to circulate and secure this power to each individual, it doth not follow that absolute power in one hand is inconsistent with a lasting and a flourishing bank?

122 *Question:* Whether our natural appetites, as well as powers, are not limited to their respective ends and uses? But whether artificial appetites may not be infinite?

123 *Question:* Whether the simple getting of money, or passing it from hand to hand without

industry, be an object worthy of a wise government?

124 *Question:* Whether, if money be considered as an end, the appetite thereof be not infinite? But whether the ends of money itself be not bounded?

125 *Question:* Whether the mistaking of the means for the end was not a fundamental error in the French councils?

126 *Question:* Whether the total sum of all other powers, be it of enjoyment or action, which belong to human, or to all humankind together, is not in truth a very narrow and limited quantity? But whether fancy is not boundless?

127 *Question:* Whether this capricious tyrant, which usurps the place of reason, doth not most cruelly torment and delude those poor people, the usurers, stockjobbers, and projectors, of content to themselves from heaping up riches, 128 that is, from gathering counters, from multiplying figures, from enlarging denominations, without knowing what they would be at, and without having a proper regard to the use or end or nature of things?

129 *Question:* Whether the ignis fatuus of fancy doth not kindle immoderate desires, and lead people into endless pursuits and wild labyrinths?

130 *Question:* Whether counters be not referred to other things, which, so long as they keep pace and proportion with the counters, it must be owned the counters are useful; but whether beyond that to value or covet counters be not direct folly?

131 *Question:* Whether the public aim ought not to be, that people's industry should supply their present wants, and the overplus be converted into a stock of power?

132 *Question:* Whether the better this power is secured, and the more easily it is transferred, industry be not so much the more encouraged?

133 *Question:* Whether money, more than is expedient for those purposes, be not upon the whole hurtful rather than beneficial to a State?

134 *Question:* Whether there should not be a constant care to keep the bills at par?

135 *Question:* Whether, therefore, bank bills should at any time be

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multiplied but as trade and business were also multiplied?

136 *Question:* Whether it was not madness in France to mint bills and actions, merely to humour the people and rob them of their cash?

137 *Question:* Whether we may not profit by their mistakes, and as some things are to be avoided, whether there may not be others worthy of imitation in the conduct of our neighbours?

138 *Question:* Whether the way be not clear and open and easy, and whether anything but the will is wanting to our legislature?

139 *Question:* Whether jobs and tricks are not detested on all hands, but whether it be not the joint interest of prince and people to promote industry?

140 *Question:* Whether, all things considered, a national bank be not the most practicable, sure, and speedy method to mend our affairs, and cause industry to flourish among us?

141 *Question:* Whether a *compte en banc* or current bank bills would best answer our occasions?

142 *Question:* Whether a public *compte en banc*, where effects are received, and accounts kept with particular persons, be not an excellent expedient for a great city?

143 *Question:* What effect a general *compte en banc* would have in the metropolis of this kingdom with one in each province subordinate thereunto?

144 *Question:* Whether it may not be proper for a great kingdom to unite both expedients, to wit, bank notes and a *compte en banc*?

145 *Question:* Whether, nevertheless, it would be advisable to begin with both at once, or rather to proceed first with the bills, and afterwards, as business multiplied, and money or effects flowed in, to open the *compte en banc*?

146 *Question:* Whether, for greater security, double books of *compte en banc* should not be kept in different places and hands?

147 *Question:* Whether it would not be right to build the compters and public treasuries, where books and bank notes are kept, without wood, all arched and floored with brick or stone, having chests also and cabinets of iron?

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148 *Question:* Whether diverse registers of the bank notes should not be kept in different hands?

149 *Question:* Whether there should not be great discretion in the uttering of bank notes, and whether the attempting to do things per saltum be not often the way to undo them?

150 *Question:* Whether the main art be not by slow degrees and cautious measures to reconcile the bank to the public, to wind it insensibly into the affections of people, and interweave it with the constitution?

151 *Question:* Whether the promoting of industry should not be always in view, as the true and sole end, the rule and measure, of a national bank? And whether all deviations from that object should not be carefully avoided?

152 *Question:* Whether a national bank may not prevent the drawing of specie out of the country (where it circulates in small payments), to be shut up in the chests of particular persons?

153 *Question:* Whether it may not be useful, for supplying manufactures and trade with stock, for regulating exchange, for quickening commerce, for putting spirit into the people?

154 *Question:* Whether tenants or debtors could have cause to complain of our monies being reduced to the English value if it were withal multiplied in the same, or in a greater proportion? And whether this would not be the consequence of a nation al bank?

155 *Question:* If there be an open sure way to thrive, without hazard to ourselves or prejudice to our neighbours, what should hinder us from putting it in practice?

156 *Question:* Whether in so numerous a Senate, as that of this kingdom, it may not be easie to find people of pure hands and clear heads fit to contrive and model a public bank?

157 *Question:* Whether a view of the precipice be not sufficient, or whether we must tumble headlong before we are roused?

158 *Question:* Whether in this drooping and dispirited country, people are quite awake?

159 *Question:* Whether we are sufficiently sensible of the peculiar security there is in having a bank that consists of land and paper, one of which cannot be exported, and

the other is in no danger of being exported?

160 *Question:* Whether it be not delightful to complain? And whether there be not many who had rather utter their complaints than redress their evils?

161 *Question:* Whether, if 'the crown of the wise be their riches' (Proverb, chapter-14, verse:24), we are not the foolishest people in Christendom?

162 *Question:* Whether we have not all the while great civil as well as natural advantages?

163 *Question:* Whether there be any people who have more leisure to cultivate the arts of peace, and study the public weal?

164 *Question:* Whether other nations who enjoy any share of freedom, and have great objects in view, be not unavoidably embarrassed and distracted by factions? 165 But whether we do not divide upon trifles, and whether our parties are not a burlesque upon politics?

166 *Question:* Whether it be not an advantage that we are not embroiled in foreign affairs, that we hold not the balance of Europe, that we are protected by other fleets and armies, that it is the true interest of a powerful people, from whom we are descended, to guard us on all sides?

167 *Question:* Whether England doth not really love us and wish well to us, as bone of its bone, and flesh of its flesh? And whether it be not our part to cultivate this love and affection all manner of ways?

168 *Question:* Whether, if we do not reap the benefits that may be made of our country and government, want of will in the lower people, or want of wit in the upper, be most in fault?

169 *Question:* What sea-ports or foreign trade have the Swisses; and yet how warm are those people, and how well provided?

170 *Question:* Whether there may not be found a people who so contrive as to be impoverished by their trade? And whether we are not that people?

171 *Question:* Whether it would not be better for this island, if all our fine folk of both sexes were shipped off, to remain in foreign countries, rather than that they should spend their estates at home in foreign luxury, and spread the

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contagion thereof through their native land?

172 *Question:* Whether our gentry understand or have a notion of magnificence, and whether for want thereof they do not affect very wretched distinctions?

173 *Question:* Whether there be not an art or skill in governing human pride, so as to render it subservient to the pubic aim?

174 *Question:* Whether the great and general aim of the public should not be to employ the people?

175 *Question:* What right an eldest son hath to the worst education?

176 *Question:* Whether people's counsels are not the result of their knowledge and their principles?

177 *Question:* Whether an assembly of free-thinkers, petit maitres, and smart Fellows would not make an admirable Senate?

178 *Question:* Whether there be not labour of the brains as well as of the hands, and whether the former is beneath a gentleman?

179 *Question:* Whether the public be more interested to protect the property acquired by mere birth than that which is the Mediate fruit of learning and virtue?

180 *Question:* Whether it would not be a poor and ill-judged project to attempt to promote the good of the community, by invading the rights of one part thereof, or of one particular order of people?

181 *Question:* Whether the public happiness be not proposed by the legislature, and whether such happiness doth not contain that of the individuals?

182 *Question:* Whether, therefore, a legislator should be content with a vulgar share of knowledge? 183 Whether you should not be a person of reflexion and thought, who hath made it your study to understand the true nature and interest of humankind, 184 how to guide people's humours and passions, how to incite their active powers, how to make their several talents co-operate to the mutual benefit of each other, and the general good of the whole?

185 *Question:* Whether it doth not follow that above all things a gentleman's care should be to keep his own faculties sound and entire?

186 *Question:* Whether the natural phlegm of this island needs any additional stupefier?

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187 *Question:* Whether all spirituous liquors are not in truth opiates?

188 *Question:* Whether our people of business are not generally very grave by fifty?

189 *Question:* Whether there be really among us any parents so silly, as to encourage drinking in their children?

190 *Question:* Whence it is, that our ladies are more alive, and bear age so much better than our gentlemen?

191 *Question:* Whether all people have not faculties of mind or body which may be employed for the public benefit?

192 *Question:* Whether the main point be not to multiply and employ our people?

193 *Question:* Whether hearty food and warm clothing would not enable and encourage the lower sort to labour?

194 *Question:* Whether, in such a soil as ours, if there was industry, there could be want?

195 *Question:* Whether the way to make people industrious be not to let them taste the fruits of their industry? And whether the labouring ox should be muzzled?

196 *Question:* Whether our landlords are to be told that industry and numbers would raise the value of their lands, or that one acre about the Tholsel is worth ten thousand acres in Connaught?

197 *Question:* Whether our old native Irish are not the most indolent and supine people in Christendom?

198 *Question:* Whether they are yet civilised, and whether their habitations and furniture are not more sordid than those of the savage Americans?

199 *Question:* Whether this be altogether their own fault?

200 *Question:* Whether it be not a sad circumstance to live among lazy beggars? 201 And whether, on the other hand, it would not be delightful to live in a country swarming, like China, with busy people?

202 *Question:* Whether we should not cast about, by all manner of means, to excite industry, and to remove whatever hinders it? And whether every one should not lend a helping hand?

203 *Question:* Whether vanity itself should not be engaged in this good work? 204 And whether it is not to

QUERY

be wished that the finding of employment for themselves and others were a fashionable distinction among the ladies?

205 *Question:* Whether idleness be the mother or the daughter of spleen?

206 *Question:* Whether it may not be worthwhile to publish the conversation of Ischomachus and his wife in Xenophon, for the use of our ladies?

207 *Question:* Whether it is true that there have been, upon a time, one hundred millions of people employed in China, without the woollen trade, or any foreign commerce?

208 *Question:* Whether the natural inducements to sloth are not greater in the Mogul's country than in Ireland, and yet whether, in that suffocating and dispiriting climate, the Banyans are not all, men, women, and children, constantly employed?

209 *Question:* Whether it be not true that the great Mogul's subjects might undersell us even in our own markets, and clothe our people with their stuffs and calicoes, if they were imported duty free?

210 *Question:* Whether there can be a greater reproach on the leading people and the patriots of a country, than that the people should want employment? 211 And whether methods may not be found to employ even the lame and the blind, the dumb, the deaf, and the maimed, in some or other branch of our manufactures?

212 *Question:* Whether much may not be expected from a biennial consultation of so many wise people about the public good?

213 *Question:* Whether a tax upon dirt would not be one way of encouraging industry?

214 *Question:* Whether it may not be right to appoint censors in every parish to observe and make returns of the idle hands?

215 *Question:* Whether a register or history of the idleness and industry of a people would be an useless thing?

216 *Question:* Whether we are apprized, of all the uses that may be made of political arithmetic?

217 *Question:* Whether it would be a great hardship if every parish were obliged to find work for their poor?

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218 *Question:* Whether children especially should not be inured to labour betimes?

219 *Question:* Whether there should not be erected, in each province, an hospital for orphans and foundlings, at the expense of old bachelors?

220 *Question:* Whether it be true that in the Dutch workhouses things are so managed that a child four years old may earn its own livelihood?

221 *Question:* What a folly is it to build fine houses, or establish lucrative posts and large incomes, under the notion of providing for the poor?

222 *Question:* Whether the poor, grown up and in health, need any other provision but their own industry, under public inspection?

223 *Question:* Whether the poor-tax in England hath lessened or increased the number of the poor?

224 *Question:* Why the workhouse in Dublin, with so good an endowment, should yet be of so little use? And whether this may not be owing to that very endowment?

225 *Question:* Whether that income might not, by this time, have gone through the whole kingdom, and erected a dozen workhouses in every county?

226 *Question:* Whether workhouses should not be made at the least expense, with clay floors, and walls of rough stone, without plastering, ceiling, or glazing?

227 *Question:* Whether the tax on chairs or hackney coaches be not paid, rather by the country gentlemen, than the citizens of Dublin?

228 *Question:* Whether it be an impossible attempt to set our people at work, or whether industry be a habit which, like other habits, may by time and skill be introduced among any people?

229 *Question:* Whether all manner of means should not be employed to possess the nation in general with an aversion and contempt for idleness and all idle folk?

230 *Question:* Whether it would be a hardship on people destitute of all things, if the public furnished them with necessaries which they should be obliged to earn by their labour?

231 *Question:* Whether other nations have not found great benefit from the use of slaves in

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repairing high roads, making rivers navigable, draining bogs, erecting public buildings, bridges, and manufactures?

232 *Question:* Whether temporary servitude would not be the best cure for idleness and beggary?

233 *Question:* Whether the public hath not a right to employ those who cannot or who will not find employment for themselves?

234 *Question:* Whether all sturdy beggars should not be seized and made slaves to the public for a certain term of years?

235 *Question:* Whether you who is chained in a jail or dungeon hath not, for the time, lost your liberty? And if so, whether temporary slavery be not already admitted among us?

236 *Question:* Whether a state of servitude, wherein you should be well worked, fed, and clothed, would not be a preferment to such a fellow?

237 *Question:* Whether criminals in the freest country may not forfeit their liberty, and repair the damage they have done the public by hard labour?

238 *Question:* What the word 'servant' signifies in the New Testament?

239 *Question:* Whether the view of criminals chained in pairs and kept at hard labour would not be very edifying to the multitude?

240 *Question:* Whether the want of such an institution be not plainly seen in England, where the disbelief of a future state hardeneth rogues against the fear of death, and where, through the great growth of robbers and housebreakers, it becomes every day more necessary?

241 *Question:* Whether it be not easier to prevent than to remedy, and whether we should not profit by the example of others?

242 *Question:* Whether felons are not often spared, and therefore encouraged, by the compassion of those who should prosecute them?

243 *Question:* Whether many that would not take away the life of a thief may not nevertheless be willing to bring the offender to a more adequate punishment?

244 *Question:* Whether there should not be a difference between the treatment of criminals and that of other slaves?

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245 *Question:* Whether the most indolent would be fond of idleness, if they regarded it as the sure road to hard labour?

246 *Question:* Whether the industry of the lower part of our people doth not much depend on the expense of the upper?

247 *Question:* What would be the consequence if our gentry affected to distinguish themselves by fine houses rather than fine clothes?

248 *Question:* Whether any people in Europe are so meanly provided with houses and furniture, in proportion to their incomes, as the people of estates in Ireland?

249 *Question:* Whether building would not peculiarly encourage all other arts in this kingdom?

250 *Question:* Whether smiths, masons, bricklayers, plasterers, carpenters, joiners, tilers, plumbers, and glaziers would not all find employment if the humour of building prevailed?

251 *Question:* Whether the ornaments and furniture of a good house do not employ a number of all sorts of artificers, in iron, wood, marble, brass, pewter, copper, wool, flax, and divers other materials?

252 *Question:* Whether in buildings and gardens a great number of day-labourers do not find employment?

253 *Question:* Whether by these means much of that sustenance and wealth of this nation which now goes to foreigners would not be kept at home, and nourish and circulate among our own people?

254 *Question:* Whether, as industry produced good living, the number of hands and mouths would not be increased; and in proportion thereunto, whether there would not be every day more occasion for agriculture? And whether this article alone would not employ a world of people?

255 *Question:* Whether such management would not equally provide for the magnificence of the rich, and the necessities of the poor?

256 *Question:* Whether an expense in building and improvements doth not remain at home, pass to the heir, and adorn the public? And whether any of those things can be said of claret?

257 *Question:* Whether fools do not make fashions, and wise people follow them?

QUERY

258 *Question:* Whether, for one who hurts own fortune by improvements, twenty do not ruin themselves by foreign luxury?

259 *Question:* Whether in proportion as Ireland was improved and beautified by fine seats, the number of absentees would not decrease?

260 *Question:* Whether you who employs people in buildings and manufactures doth not put life in the country, and whether the neighbourhood round you be not observed to thrive?

261 *Question:* Whether money circulated on the landlord's own lands, and among your own tenants, doth not return into your own pocket?

262 *Question:* Whether every squire that made your domain swarm with busy hands, like a bee-hive or ant-hill, would not serve your own interest, as well as that of your country?

263 *Question:* Whether a gentleman who hath seen a little of the world, and observed how people live elsewhere, can contentedly sit down in a cold, damp, sordid habitation, in the midst of a bleak country, inhabited by thieves and beggars?

264 *Question:* Whether, on the other hand, a handsome seat amidst well-improved lands, fair villages, and a thriving neighbourhood may not invite a person to dwell on your own estate, and quit the life of an insignificant saunterer about town for that of a useful country-gentleman?

265 *Question:* Whether it would not be of use and ornament if the towns throughout this kingdom were provided with decent churches, townhouses, workhouses, market-places, and paved streets, with some order taken for cleanliness?

266 *Question:* Whether, if each of these towns were addicted to some peculiar manufacture, we should not find that the employing many hands together on the same work was the way to perfect our workmen? 267 And whether all these things might not soon be provided by a domestic industry, if money were not wanting?

268 *Question:* Whether money could ever be wanting to the demands of industry, if we had a national bank?

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269 *Question:* Whether when a motion was made once upon a time to establish a private bank in this kingdom by public authority, diverse gentlemen did not shew themselves forward to embark in that design?

270 *Question:* Whether it may not now be hoped, that our patriots will be as forward to examine and consider the proposal of a public bank calculated only for the public good?

271 *Question:* Whether any people upon earth shew a more early zeal for the service of their country, greater eagerness to bear a part in the legislature, or a more general parturiency with respect to politics and public counsels?

272 *Question:* Whether, nevertheless, a light and ludicrous vein be not the reigning humour; but whether there was ever greater cause to be serious?

ERRATUM
George Berkley

Query-1

3 Whether the fable of Hercules and the carter ever suited any nation like this nation of Ireland?

2 *Question:* Whether it be not a new spectacle under the sun, to behold, in such a climate and such a soil, and under such a gentle government, so many roads untrodden, fields untilled, houses desolate, and hands unemployed?

3 *Question:* Whether there is any country in Christendom, either kingdom or republic, depending or independent, free or enslaved, which may not afford us a useful lesson?

4 *Question:* Whether the frugal Swisses have any other commodities but their butter and cheese and a few cattle, for exportation; whether, nevertheless, the single canton of Berne hath not in its public treasury two millions sterling?

5 *Question:* Whether that small town of Berne, with its scanty barren territory, in a mountainous corner, without sea-ports, without

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manufactures, without mines, be not rich by mere dint of frugality?

6 *Question:* Whether the Swisses in general have not sumptuary laws, prohibiting the use of gold, jewels, silver, silk, and lace in their apparel, and indulging the women only to wear silk on festivals, weddings, and public solemnities?

7 *Question:* Whether there be not two ways of growing rich, sparing and getting? But whether the lazy spendthrift must not be doubly poor?

8 *Question:* Whether money circulating be not the life of industry; and whether the want thereof doth not render a State gouty and inactive?

9 *Question:* But whether, if we had a national bank, and our present cash (small as it is) were put into the most convenient shape, people should hear any public complaints for want of money?

10 *Question:* Whether all circulation be not alike a circulation of credit, whatsoever medium (metal or paper) is employed, and whether gold be any more than credit for so much power?

11 *Question:* Whether the wealth of the richest nations in Christendom doth not consist in paper vastly more than in gold and silver?

12 *Question:* Whether Lord Clarendon doth not aver of his own knowledge, that the Prince of Orange, with the best credit, and the assistance of the richest people in Amsterdam, was above ten days endeavouring to raise L20,000 in specie, without being able to raise half the sum in all that time?

13 *Question:* Whether the whole city of Amsterdam would not have been troubled to have brought together twenty thousand pounds in one room?

14 *Question:* Whether it be not absolutely necessary that there must be a bank and must be a trust? And, if so, whether it be not the most safe and prudent course to have a national bank and trust the legislature?

15 *Question:* Whether objections against trust in general avail, when it is allowed there must be a trust, and the only question is where to place this trust, whether in the legislature or in private hands?

16 *Question:* Whether it can be expected that private persons

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should have more regard to the public than the public itself?

17 *Question:* Whether, if there be hazards from mismanagement, those may not be provided against in the framing of a pubic bank; 18 but whether any provision can be made against the mismanagement of private banks that are under no check, control, or inspection?

19 *Question:* Whatever may be said for the sake of objecting, yet, whether it be not false in fact, that people would prefer a private security to a public security?

20 *Question:* Whether a national bank ought to be considered as a new experiment; and whether it be not a motive to try this scheme that it hath been already tried with success in other countries?

21 *Question:* If power followeth money, whether this can be anywhere more properly and securely placed, than in the same hands wherein the supreme power is already placed?

22 *Question:* Whether there be more danger of abuse in a private than in a public management?

23 *Question:* Whether the proper usual remedy for abuses of private banks be not to bring them before Parliament, and subject them to the inspection of a committee; and whether it be not more prudent to prevent than to redress an evil?

24 *Question:* Supposing there had been hitherto no such thing as a bank, and the question were now first proposed, whether it would be safer to circulate unlimited bills in a private credit, or bills to a limited value on the public credit of the community, what would people think?

25 *Question:* Whether experience and example be not the plainest proof; and whether any instance can be assigned where a national bank hath not been attended with great advantage to the public?

26 *Question:* Whether the evils apprehended from a national bank are not much more to be apprehended from private banks; 27 but whether people by custom are not familiarised and reconciled to common dangers, which are therefore thought less than they really are?

28 *Question:* Whether it would not be very hard to suppose all sense, honesty, and public spirit were in the keeping of only a few private

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people, and the public was not fit to be trusted?

29 *Question:* Whether it be not ridiculous to suppose a legislature should be afraid to trust itself?

30 *Question:* But, whether a private interest be not generally supported and pursued with more zeal than a public?

31 *Question:* Whether the maxim, 'What is everybody's business is nobody's,' prevails in any country under the sun more than in Ireland?

32 *Question:* Whether, nevertheless, the community of danger, which lulls private people asleep, ought not to awaken the public?

33 *Question:* Whether there be not less security where there are more temptations and fewer checks?

34 *Question:* If a person is to risk own fortune, whether it be more prudent to risk it on the credit of private people, or in that of the great assembly of the nation?

35 *Question:* Where is it most reasonable to expect wise and punctual dealing, whether in a secret impenetrable recess, where credit depends on secrecy, or in a public management regulated and inspected by Parliament?

36 *Question:* Whether a supine security be not catching, and whether numbers running the same risk, as they lessen the caution, may not increase the danger?

37 *Question:* What real objection lies against a national bank erected by the legislature, and in the management of public deputies, appointed and inspected by the legislature?

38 *Question:* What have we to fear from such a bank, which may not be as well feared without it?

39 *Question:* How, why, by what means, or for what end, should it become an instrument of oppression?

40 *Question:* Whether we can possibly be on a more precarious foot than we are already? 41 Whether it be not in the power of any particular person at once to disappear and convey yourself into foreign parts? 42 Or whether there can be any security in an estate of land when the demands upon it are unknown?

43 *Question:* Whether the establishing of a national bank, if we suppose a concurrence of the government, be not very practicable?

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44 *Question:* But, whether though a scheme be never so evidently practicable and useful to the pubic, yet, if conceived to interfere with a private interest, it be not forthwith in danger of appearing doubtful, difficult, and impracticable?

45 *Question:* Whether the legislative body hath not already sufficient power to hurt, if they may be supposed capable of it, and whether a bank would give them any new power?

46 *Question:* What should tempt the pubic to defraud itself?

47 *Question:* Whether, if the legislature destroyed the public, it would not be *felo de se*; and whether it be reasonable to suppose it bent on its own destruction?

48 *Question:* Whether the objection to a pubic national bank, from want of secrecy, be not in truth an argument for it?

49 *Question:* Whether the secrecy of private banks be not the very thing that renders them so hazardous? And whether, without that, there could have been of late so many sufferers?

50 *Question:* Whether when all objections are answered it be still incumbent to answer surmises?

51 *Question:* Whether it were just to insinuate that people would be against any proposal they could not turn into a job?

52 *Question:* Suppose the legislature passed their word for any private banker, and regularly visited your books, would not money lodged in your bank be therefore reckoned more secure?

53 *Question:* In a country where the legislative body is not fit to be trusted, what security can there be for trusting any one else?

54 *Question:* If it be not ridiculous to question whether the pubic can find cash to circulate bills of a limited value when private bankers are supposed to find enough to circulate them to an unlimited value?

55 *Question:* Whether the united stock of a nation be not the best security? And whether anything but the ruin of the State can produce a national bankruptcy?

56 *Question:* Whether the total sum of the public treasure, power, and wisdom, all co-operating, be not most likely to establish a bank of

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credit, sufficient to answer the ends, relieve the wants, and satisfy the scruples of all people?

57 *Question:* Whether those hazards that in a greater degree attend private banks can be admitted as objections against a public one?

58 *Question:* Whether that which is an objection to everything be an objection to anything; and whether the possibility of an abuse be not of that kind?

59 *Question:* Whether, in fact, all things are not more or less abused, and yet notwithstanding such abuse, whether many things are not upon the whole expedient and useful?

60 *Question:* Whether those things that are subject to the most general inspection are not the least subject to abuse?

61 *Question:* Whether, for private ends, it may not be sometimes expedient to object novelty to things that have been often tried, difficulty to the plainest things, and hazard to the safest?

62 *Question:* Whether some people will not be apt to argue as if the question was between money and credit, and not (as in fact it is) which ought to be preferred, private credit or public credit?

63 *Question:* Whether they will not prudently overlook the evils felt, or to be feared, on one side?

64 *Question:* Whether, therefore, those that would make an impartial judgment ought not to be on their guard, keeping both prospects always in view, balancing the inconveniences on each side and considering neither absolutely?

65 *Question:* Whether willful mistakes, examples without a likeness, and general addresses to the passions are not often more successful than arguments?

66 *Question:* Whether there be not an art to puzzle plain cases as well as to explain obscure ones?

67 *Question:* Whether private people are not often an over-match for the public; want of weight being made up for by activity?

68 *Question:* If we suppose neither sense nor honesty in our leaders or representatives, whether we are not already undone, and so have nothing further to fear?

69 *Question:* Suppose a power in the government to hurt the pubic by means of a national bank, yet what should give them the will to

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do this? 70 Or supposing a will to do mischief, yet how could a national bank, modelled and administered by Parliament, put it in their power?

71 *Question:* Whether even a wicked will entrusted with power can be supposed to abuse it for no end?

72 *Question:* Whether it be not much more probable that those who maketh such objections do not believe them?

73 *Question:* Whether it be not vain to object that our fellow-subjects of Great Britain would malign or obstruct our industry when it is exerted in a way which cannot interfere with their own?

74 *Question:* Whether it is to be supposed they should take delight in the dirt and nakedness and famine of our people, or envy them shoes for their feet and beef for their belies?

75 *Question:* What possible handle or inclination could our having a national bank give other people to distress us?

76 *Question:* Whether it be not ridiculous to conceive that a project for cloathing and feeding our natives should give any umbrage to England?

77 *Question:* Whether such unworthy surmises are not the pure effect of spleen?

78 *Question:* Whether London is not to be considered as the metropolis of Ireland? And whether our wealth (such as it is) doth not circulate through London and throughout all England, as freely as that of any part of the Majesty's dominions?

79 *Question:* Whether therefore it be not evidently the interest of the people of England to encourage rather than to oppose a national bank in this kingdom, as well as every other means for advancing our wealth which shall not impair their own?

80 *Question:* Whether it is not our interest to be useful to them rather than rival them; and whether in that case we may not be sure of their good offices?

81 *Question:* Whether we can propose to thrive so long as we entertain a wrongheaded distrust of England?

82 *Question:* Whether, as a national bank would increase our industry, and that our wealth, England may

not be a proportionable gainer; and whether we should not consider the gains of our mother-country as some accession to our own?

83 *Question:* Whether the Protestant colony in this kingdom can ever forget what they owe to England?

84 *Question:* Whether there ever was in any part of the world a country in such wretched circumstances, and which, at the same time, could be so easily remedied, and nevertheless the remedy not applied?

85 *Question:* What must become of a people that can neither see the plainest things nor do the easiest?

86 *Question:* Be the money lodged in the bank what it will, yet whether an Act to make good deficiencies would not remove all scruples?

87 *Question:* If it be objected that a national bank must lower interest, and therefore hurt the monied person, whether the same objection would not hold as strong against multiplying our gold and silver?

88 *Question:* But whether a bank that utters bills, with the sole view of promoting the public weal, may not so proportion their quantity as to avoid several inconveniences which might attend private banks?

89 *Question:* Whether there be any difficulty in comprehending that the whole wealth of the nation is in truth the stock of a national bank?

90 And whether any more than the right comprehension of this be necessary to make all people easy with regard to its credit?

91 *Question:* Whether any Thing be more reasonable than that the pubic, which makes the whole profit of the bank, should engage to make good its credit?

92 *Question:* Whether the prejudices about gold and silver are not strong, but whether they are not still prejudices?

93 *Question:* Whether paper doth not by its stamp and signature acquire a local value, and become as precious and as scarce as gold? And whether it be not much fitter to circulate large sums, and therefore preferable to gold?

94 *Question:* Whether, in order to make people see and feel, it be not often necessary to inculcate the same thing, and place it in different lights?

95 *Question:* Whether it doth not much import to have a right

conception of money? And whether its true and just idea be not that of a ticket, entitling to power, and fitted to record and transfer such power?

96 *Question:* Whether the managers and officers of a national bank ought to be considered otherwise than as the cashiers and clerks of private banks? 97 Whether they are not in effect as little trusted, have as little power, are as much limited by rules, and as liable to inspection?

98 *Question:* Whether the mistaking this point may not create some prejudice against a national bank, as if it depended on the credit, or wisdom, or honesty, of private people, rather than on the plubic, which is really the sole proprietor and director thereof, and as such obliged to support it?

99 *Question:* Though the bank of Amsterdam doth very rarely, if at all, pay out money, yet whether every person possess'd of specie be not ready to convert it into paper, and act as cashier to the bank? 100 And whether, from the same motive, every monied person throughout this kingdom would not be cashier to our national bank?

101 *Question:* Whether a national bank would not be the great means and motive for employing our poor in manufactures?

102 *Question:* Whether money, though lent out only to the rich, would not soon circulate among the poor? And whether any person borrows but with an intent to circulate?

103 *Question:* Whether both government and people would not in the event be gainers by a national bank? 104 And whether anything but wrong conceptions of its nature can make those that wish well to either averse from it?

105 *Question:* Whether it may not be right to think, and to have it thought, that England and Ireland, prince and people, have one and the same interest?

106 *Question:* Whether, if we had more means to set on foot such manufactures and such commerce as consists with the interest of England, there would not of course be less sheep-walk, and less wool exported to foreign countries? And whether a national bank would not supply such means?

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107 *Question:* Whether we may not obtain that as friends which it is in vain to hope for as rivals?

108 *Question:* Whether in every instance by which we prejudice England, we do not in a greater degree prejudice ourselves?

109 *Question:* Whether in the rude original of society the first step was not the exchanging of commodities; the next a substituting of metals by weight as the common medium of circulation; after this the making use of coin; 110 lastly, a further refinement by the use of paper with proper marks and signatures? And whether this, as it is the last, so it be not the greatest improvement?

111 *Question:* Whether we are not in fact the only people who may be said to starve in the midst of plenty?

112 *Question:* Whether business in general doth not languish among us? Whether our land is not untilled? Whether its inhabitants are not upon the wing?

113 *Question:* Whether there can be a worse sign than that people should quit their country for a livelihood? 114 Though people often leave their country for health, or pleasure, or riches, yet to leave it merely for a livelihood, whether this be not exceeding bad, and sheweth some peculiar mismanagement?

115 *Question:* Whether our circumstances do not call aloud for some present remedy? And whether that remedy be not in our power?

116 *Question:* Whether, in order to redress our evils, artificial helps are not most wanted in a land where industry is most against the natural grain of the people?

117 *Question:* Whether, of all the helps to industry that ever were invented, there be any more secure, more easy, and more effectual than a national bank?

118 *Question:* Whether medicines do not recommend themselves by experience, even though their reasons be obscure? But whether reason and fact are not equally clear in favour of this political medicine?

119 *Question:* Whether, although the prepossessions about gold and silver have taken deep root, yet the example of our Colonies in America doth not make it as plain

as day-light that they are not so necessary to the wealth of a nation as the vulgar of all ranks imagine?

120 *Question:* Whether it be not evident that we may maintain a much greater inward and outward commerce, and be five times richer than we are, nay, and our bills abroad be of far greater credit, though we had not one ounce of gold or silver in the whole island?

121 *Question:* Whether wrongheaded maxims, customs, and fashions are not sufficient to destroy any people which hath so few resources as the inhabitants of Ireland.

122 *Question:* Whether it would not be a horrible thing to see our matrons make dress and play their chief concern?

123 *Question:* Whether our ladies might not as well endow monasteries as wear Flanders lace?

124 And whether it be not true that Popish nuns are maintained by Protestant contributions?

125 *Question:* Whether England, which hath a free trade, whatever it remits for foreign luxury with one hand, doth not with the other receive much more from abroad?

126 Whether, nevertheless, this nation would not be a gainer, if our women would content themselves with the same moderation in point of expense as the English ladies?

127 *Question:* But whether it be not a notorious truth that our Irish ladies are on a foot, as to dress, with those of five times their fortune in England?

128 *Question:* Whether it be not even certain that the matrons of this forlorn country send out a greater proportion of its wealth, for fine apparel, than any other females on the whole surface of this terraqueous globe?

129 *Question:* Whether the expense, great as it is, be the greatest evil; but whether this folly may not produce many other follies, an entire derangement of domestic life, absurd manners, neglect of duties, bad mothers, a general corruption in both sexes?

130 *Question:* Whether therefore a tax on all gold and silver in apparel, on all foreign laces and silks, may not raise a fund for the bank, and at the same time have other salutary effects on the public?

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131 *Question:* But, if people had rather tax themselves in another way, whether an additional tax of ten shillings the hogshead on wines may not supply a sufficient fund for the national bank, all defects to be made good by Parliament?

132 *Question:* Whether upon the whole it may not be right to appoint a national bank?

133 *Question:* Whether the stock and security of such bank would not be, in truth, the national stock, or the total sum of the wealth of this kingdom?

134 *Question:* Whether, nevertheless, there should not be a particular fund for present use in answering bills and circulating credit?

135 *Question:* Whether for this end any fund may not suffice, provided an Act be passed for making good deficiencies?

136 *Question:* Whether the sole proprietor of such bank should not be the public, and the sole director the legislature?

137 *Question:* Whether the managers, officers, and cashiers should not be servants of the pubic, acting by orders and limited by rules of the legislature?

138 *Question:* Whether there should not be a standing number of inspectors, one-third people in great office, the rest members of both houses, half whereof to go out, and half to come in every session?

139 *Question:* Whether those inspectors should not, all in a body, visit twice a year, and three as often as they pleased?

140 *Question:* Whether the general bank should not be in Dublin, and subordinate banks or compters one in each province of Munster, Ulster, and Connaught?

141 *Question:* Whether there should not be such provisions of stamps, signatures, checks, strong boxes, and all other measures for securing the bank notes and cash, as are usual in other banks?

142 *Question:* Whether these ten or a dozen last queries may not easily be converted into heads of a bill?

143 *Question:* Whether any one concerns yourself about the security or funds of the banks of Venice or Amsterdam? And whether in a little time the case

would not be the same as to our bank?

144 *Question:* Whether the first beginning of expedients do not always meet with prejudices? 145 And whether even the prejudices of a people ought not to be respected?

146 *Question:* Whether a national bank be not the true philosopher's stone in a State?

147 *Question:* Whether it be not the most obvious remedy for all the inconveniencies we labour under with regard to our coin?

148 *Question:* Whether it be not agreed on all hands that our coin is on very bad foot, and calls for some present remedy?

149 *Question:* Whether the want of silver hath not introduced a sort of traffic for change, which is purchased at no inconsiderable discount to the great obstruction of our domestic commerce?

150 *Question:* Whether, though it be evident silver is wanted, it be yet so evident which is the best way of providing for this want? 151 Whether by lowering the gold, or raising the silver, or partly one, partly the other?

152 *Question:* Whether a partial raising of one species be not, in truth, wanting a premium to our bankers for importing such species? And what that species is which deserves most to be encouraged?

153 *Question:* Whether it be not just, that all gold should be alike rated according to its weight and fineness?

154 *Question:* Whether this may be best done, by lowering some certain species of gold, or by raising others, or by joining both methods together?

155 *Question:* Whether all regulations of coin should not be made with a view to encourage industry, and a circulation of commerce, throughout the kingdom?

156 *Question:* Whether the North and the South have not, in truth, one and the same interest in this matter?

157 *Question:* Whether to oil the wheels of commerce be not a common benefit? And whether this be not done by avoiding fractions and multiplying small silver?

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158 *Question:* But, whether a plubic benefit ought to be obtained by unjust methods, and therefore, whether any reduction of coin should be thought of which may hurt the properties of private people?

159 *Question:* Whether those parts of the kingdom where commerce doth most abound would not be the greatest gainers by having our coin placed on a right foot?

160 *Question:* Whether, in case a reduction of coin be thought expedient, the uttering of bank bills at the same time may not prevent the inconveniences of such a reduction?

161 *Question:* But, whether any pubic expediency could countervail a real pressure on those who are least able to bear it, tenants and debtors?

162 *Question:* Whether, nevertheless, the political body, as well as the natural, must not sometimes be worse in order to be better?

163 *Question:* Whether, all things considered, a general raising the value of gold and silver be not so far from bringing greater quantities thereof into the kingdom that it would produce a direct contrary effect, inasmuch as less, in that case, would serve, and therefore less be wanted? 164 And whether people do not import a commodity in proportion to the demand or want of it?

165 *Question:* Whether the lowering of our gold would not create a fever in the State? And whether a fever be not sometimes a cure, but whether it be not the last cure a person would choose?

166 *Question:* What if our other gold were raised to a par with Portugal gold, and the value of silver in general raised with regard to that of gold?

167 *Question:* Whether the plubic ends may or may not be better answered by such augmentation, than by a reduction of our coin?

168 *Question:* Provided silver is multiplied, be it by raising or diminishing the value of our coin, whether the great end is not answered?

169 *Question:* Whether raising the value of a particular species will not tend to multiply such species, and to lessen others in proportion thereunto? 170 And whether a much less quantity of cash in

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silver would not, in reality, enrich the nation more than a much greater in gold?

171 *Question:* Whether, if a reduction be thought necessary, the obvious means to prevent all hardships and injustice be not a national bank?

172 *Question:* Upon supposition that the cash of this kingdom was five hundred thousand pounds, and by lowering the various species each one-fifth of its value the whole sum was reduced to four hundred thousand pounds, 173 whether the difficulty of getting money, and consequently of paying rents, would not be increased in the proportion of five to four?

174 *Question:* Whether such difficulty would not be a great and unmerited distress on all the tenants in the nation? 175 But if at the same time with the aforesaid reduction there were uttered one hundred thousand pounds additional to the former current stock, whether such difficulty or inconvenience would then be felt?

176 *Question:* Whether, ceteris paribus, it be not true that the prices of things increase as the quantity of money increaseth, and are diminished as that is diminished? 177 And whether, by the quantity of money is not to be understood the amount of the denominations, all contracts being nominal for pounds, shillings, and pence, and not for weights of gold or silver?

178 *Question:* Whether in any foreign market, two-pence advance in a kilderkin of corn could greatly affect our trade?

179 *Question:* Whether in regard of the far greater changes and fluctuations of prices from the difference of seasons and other accidents, that small rise should seem considerable?

180 *Question:* Whether our exports do not consist of such necessaries as other countries cannot well be without?

181 *Question:* Whether upon the circulation of a national bank more land would not be tilled, more hands employed, and consequently more commodities exported?

182 *Question:* Whether, setting aside the assistance of a national bank, it will be easy to reduce or lower our coin without some hardship (at least for the present)

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on a great number of particular persons?

183 *Question:* Whether, nevertheless, the scheme of a national bank doth not entirely stand clear of this question; and whether such bank may not completely subsist and answer its ends, although there should be no alteration at all made in the value of our coin?

184 *Question:* Whether, if the ill state of our coin be not redressed, that scheme would not be still more necessary, inasmuch as a national bank, by putting new life and vigour into our commerce, may prevent our feeling the ill effects of the want of such redress?

185 *Question:* Whether people united by interest are not often divided by opinion; and whether such difference in opinion be not an effect of misapprehension?

186 *Question:* Whether two things are not manifest, first, that some alteration in the value of our coin is highly expedient, 187 secondly, that whatever alteration is made, the tenderest care should be had of the properties of the people, and even a regard paid to their prejudices?

188 *Question:* Whether our taking the coin of another nation for more than it is worth be not, in reality and in event, a cheat upon ourselves?

189 *Question:* Whether a particular coin over-rated will not be sure to flow in upon us from other countries beside that where it is coined?

190 *Question:* Whether, in case the wisdom of the nation shall think fit to alter our coin, without erecting a national bank, the rule for lessening or avoiding present inconvenience should not be so to order matters, by raising the silver and depressing the gold, 191 as that the total sum of coined cash within the kingdom shall, in denomination, remain the same, or amount to the same nominal value, after the change that it did before?

192 *Question:* Whether all inconvenience ought not to be lessened as much as may be; but after, whether it would be prudent, for the sake of a small inconvenience, to obstruct a much greater good? 193 And whether it may not sometimes happen that an

inconvenience which in fancy and general discourse seems great shall, when accurately inspected and cast up, appear inconsiderable?

194 *Question:* Whether in public councils the sum of things, here and there, present and future, ought not to be regarded?

195 *Question:* Whether silver and small money be not that which circulates the quickest, and passeth through all hands, on the road, in the market, at the shop?

196 *Question:* Whether, all things considered, it would not be better for a kingdom that its cash consisted of half a million in small silver, than of five times that sum in gold?

197 *Question:* Whether there be not every day five hundred lesser payments made for one that requires gold?

198 *Question:* Whether Spain, where gold bears the highest value, be not the laziest, and China, where it bears the lowest, be not the most industrious country in the known world?

199 *Question:* Money being a ticket which entitles to power and records the title, whether such power avails otherwise than as it is exerted into act?

200 *Question:* Whether it be not evidently the interest of every State, that its money should rather circulate than stagnate?

201 *Question:* Whether the principal use of cash be not its ready passing from hand-to-hand, to answer common occasions of the common people, and whether common occasions of all sorts of people are not small ones?

202 *Question:* Whether business at fairs and markets is not often at a stand and often hindered, even though the seller hath own commodities at hand and the purchaser own gold, yet for want of change?

203 *Question:* Whether beside that value of money which is rated by weight, there be not also another value consisting in its aptness to circulate?

204 *Question:* As wealth is really power, and coin a ticket conveying power, whether those tickets which are the fittest for that use ought not to be preferred?

205 *Question:* Whether those tickets which singly transfer small shares of power, and, being multiplied,

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large shares, are not fitter for common use than those which singly transfer large shares?

206 *Question:* Whether the public is not more benefited by a shilling that circulates than a pound that lies dead?

207 *Question:* Whether sixpence twice paid be not as good as a shilling once paid?

208 *Question:* Whether the same shilling circulating in a village may not supply one person with bread, another with stockings, a third with a knife, a fourth with paper, a fifth with nails, and so answer many wants which must otherwise have remained unsatisfied?

209 *Question:* Whether facilitating and quickening the circulation of power to supply wants be not the promoting of wealth and industry among the lower people? And whether upon this the wealth of the great doth not depend?

210 *Question:* Whether, without the proper means of circulation, it be not vain to hope for thriving manufacturers and a busy people?

211 *Question:* Whether four pounds in small cash may not circulate and enliven an Irish market, which many four-pound pieces would permit to stagnate?

212 *Question:* Whether a person that could move nothing less than a hundred-pound weight would not be much at a loss to supply own wants; and whether it would not be better for you to be less strong and more active?

213 *Question:* Whether the natural body can be in a state of health and vigour without a due circulation of the extremities, even? 214 And whether the political body, any in the fingers and toes more than the natural, can thrive without a proportionable circulation through the minutest and most inconsiderable parts thereof?

215 *Question:* If we had a mint for coining only shillings, sixpences, and copper-money, whether the nation would not soon feel the good effects thereof?

216 *Question:* Whether the greater waste by wearing of small coins would not be abundantly overbalanced by their usefulness?

217 *Question:* Whether it be not the industry of common people that feeds the State, and whether it be

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possible to keep this industry alive without small money?

218 *Question:* Whether the want of this be not a great bar to our employing the people in these manufactures which are open to us, and do not interfere with Great Britain?

219 *Question:* Whether therefore such want doth not drive people into the lazy way of employing land under sheep-walk?

220 *Question:* Whether the running of wool from Ireland can so effectually be prevented as by encouraging other business and manufactures among our people?

221 *Question:* Whatever commodities Great Britain importeth which we might supply, whether it be not its real interest to import them from us rather than from any other people?

222 *Question:* Whether the apprehension of many among us (who for that very reason stick to their wool), that England may hereafter prohibit, limit, or discourage our linen trade, 223 when it hath been once, with great pains and expense, thoroughly introduced and settled in this land, be not altogether groundless and unjust?

224 *Question:* Whether it is possible for this country, which hath neither mines of gold nor a free trade, to support for any time the sending out of specie?

225 *Question:* Whether in fact our payments are not made by bills? And whether our foreign credit doth not depend on our domestic industry, and our bills on that credit?

226 *Question:* Whether, in order to mend it, we ought not first to know the peculiar wretchedness of our state? And whether there be any knowing of this but by comparison?

227 *Question:* Whether there are not single market towns in England that turn more money in buying and selling than whole counties (perhaps provinces) with us?

228 *Question:* Whether the small town of Birmingham alone doth not, upon an average, circulate every week, one way or other, to the value of fifty thousand pounds? But whether the same crown may not be often paid?

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229 *Question:* Whether there be any woollen manufacture in Birmingham?

230 *Question:* Whether bad management may not be worse than slavery? And whether any part of Christendom be in a more languishing condition than this kingdom?

231 *Question:* Whether any kingdom in Europe be so good a customer at Bordeaux as Ireland?

232 *Question:* Whether the police and economy of France be not governed by wise councils? 233 And whether any one from this country, who sees their towns, and manufactures, and commerce, will not wonder what our senators have been doing?

234 *Question:* What variety and number of excellent manufactures are to be met with throughout the whole kingdom of France?

235 *Question:* Whether there are not everywhere some or other mills for many uses, forges and furnaces for iron-work, looms for tapestry, glass-houses, and so forth?

236 *Question:* What quantities of paper, stockings, hats; what manufactures of wool, silk, linen, hemp, leather, wax, earthenware, brass, lead, tin, etc?

237 *Question:* Whether the manufactures and commerce of the single town of Lyons do not amount to a greater value than all the manufactures and all the trade of this kingdom taken together?

238 *Question:* Whether it be not true, that within the compass of one year there flowed from the South Sea, when that commerce was open, into the single town of St. Malo's, a sum in gold and silver equal to four times the whole specie of this kingdom? 239 And whether that same part of France doth not at present draw from Cadiz, upwards of two hundred thousand pounds per annum?

240 *Question:* Whether, in the anniversary fair at the small town of Beaucaire upon the Rhone, there be not as much money laid out as the current cash of this kingdom amounts to?

241 *Question:* Whether it be true that the Dutch make ten millions of livres, every return of the flota and galleons, by their sales at the Indies and at Cadiz?

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242 *Question:* Whether it be true that England makes at least one hundred thousand pounds per annum by the single article of hats sold in Spain?

243 *Question:* Whether the very shreds shorn from woollen cloth, which are thrown away in Ireland, do not make a beautiful tapestry in France?

244 *Question:* Whether the toys of Thiers do not employ five thousand families?

245 *Question:* Whether there be not a small town Or two in France which supply all Spain with cards?

246 *Question:* Whether there be not French towns subsisted merely by making pins?

247 *Question:* Whether the coarse fingers of those very women, those same peasants who one part of the year till the ground and dress the vineyards, are not another employed in making the finest French point?

248 *Question:* Whether there is not a great number of idle fingers among the wives and daughters of our peasants?

249 *Question:* Whether, about twenty-five years ago, they did not first attempt to make porcelain in France; and whether, in a few years, they did not make it so well, as to rival that which comes from China?

250 *Question:* Whether the French do not raise a trade from saffron, dyeing drugs, and the like products, which may do with us as well as with them?

251 *Question:* Whether we may not have materials of our own growth to supply all manufactures, as well as France, except silk, and whether the bulk of what silk even France manufactures be not imported?

252 *Question:* Whether it be possible for this country to grow rich, so long as what is made by domestic industry is spent in foreign luxury?

253 *Question:* Whether part of the profits of the bank should not be employed in erecting manufactures of several kinds, which are not likely to be set on foot and carried on to perfection without great stock, public encouragement, general regulations, and the concurrence of many hands?

254 *Question:* Whether our natural Irish are not partly Spaniards and partly Tartars, and whether they do not bear signatures of their descent

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from both these nations, which is also confirmed by all their histories?

255 *Question:* Whether the Tartar progeny is not numerous in this land? And whether there is an idler occupation under the sun than to attend flocks and herds of cattle?

256 *Question:* Whether the wisdom of the State should not wrestle with this hereditary disposition of our Tartars, and with a high hand introduce agriculture?

257 *Question:* Whether it were not to be wished that our people shewed their descent from Spain, rather by their honour and honesty than their pride, and if so, whether they might not easily insinuate themselves into a larger share of the Spanish trade?

258 *Question:* Whether once upon a time France did not, by her linen alone, draw yearly from Spain about eight millions of livres?

259 *Question:* Whether the French have not suffered in their linen trade with Spain, by not making their cloth of due breadth; and whether any other people have suffered, and are still likely to suffer, through the same prevarication?

260 *Question:* Whether the Spaniards are not rich and lazy, and whether they have not a particular inclination and favour for the inhabitants of this island?

261 But whether a punctual people do not love punctual dealers?

262 *Question:* Whether about fourteen years ago we had not come into a considerable share of the linen trade with Spain, and what put a stop to this?

263 *Question:* Whether we may not, with common industry and common honesty, undersell any nation in Europe?

264 *Question:* Whether, if the linen manufacture were carried on in the other provinces as well as in the North, the merchants of Cork, Limerick, and Galway would not soon find the way to Spain?

265 *Question:* Whether the woollen manufacture of England is not divided into several parts or branches, appropriated to particular places, where they are only or principally manufactured;

266 fine cloths in Somersetshire, coarse in Yorkshire, long ells at Exeter, saies at Sudbury, crapes at Norwich, linseys at Kendal, blankets at Witney, and so forth?

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267 *Question:* Whether the united skill, industry, and emulation of many together on the same work be not the way to advance it? 268 And whether it had been otherwise possible for England to have carried on its woollen manufacture to so great perfection?

269 *Question:* Whether it would not on many accounts be right if we observed the same course with respect to our linen manufacture; 270 and that diapers were made in one town or district, damasks in another, sheeting in a third, fine wearing linen in a fourth, coarse in a fifth, 271 in another cambrics, in another thread and stockings, in others stamped linen, or striped linen, or tickings, or dyed linen, of which last kinds there is so great a consumption among the seafaring people of all nations?

272 *Question:* Whether it may not be worthwhile to inform ourselves of the different sorts of linen which are in request among different people?

273 *Question:* Whether we do not yearly consume of French wines about a thousand tuns more than either Sweden or Denmark, and yet whether those nations pay ready money as we do?

274 *Question:* Whether they are not the Swiss that make hay and gather in the harvest throughout Alsatia?

275 *Question:* Whether it be not a custom for some thousands of French-people to go about the beginning of March into Spain, and having tilled the lands and gathered the harvest of Spain, to return home with money in their pockets about the end of November?

276 *Question:* Whether of late years our Irish labourers do not carry on the same business in England to the great discontent of many there? 277 But whether we have not much more reason than the people of England to be displeased at this commerce?

278 *Question:* Whether, notwithstanding the cash supposed to be brought into it, any nation is, in truth, a gainer by such traffic?

279 *Question:* Whether the industry of our people employed in foreign lands, while our own are left uncultivated, be not a great loss to the country?

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280 *Question:* Whether it would not be much better for us, if, instead of sending our people abroad, we could draw people from the neighbouring countries to cultivate our own?

281 *Question:* Whether, nevertheless, we are not apt to think the money imported by our labourers to be so much clear gains to this country, but whether a little reflexion and a little political arithmetic may not shew us our mistake?

282 *Question:* Whether our prejudices about gold and silver are not very apt to infect or misguide our judgments and reasonings about the public weal?

283 *Question:* Whether it be not a good rule whereby to judge of the trade of any city, and its usefulness, to observe whether there is a circulation through the extremities, and whether the people round about are busy and warm?

284 *Question:* Whether we had not, some years since, a manufacture of hats at Athlone, and of earthenware at Arklow, and what became of those manufactures?

285 *Question:* Why we do not make tiles of our own, for flooring and roofing, rather than bring them from Holland?

286 *Question:* What manufactures are there in France and Venice of gilt-leather, how cheap and how splendid a furniture?

287 *Question:* Whether we may not, for the same use, manufacture diverse things at home of more beauty and variety than wainscot, which is imported at such expense from Norway?

288 *Question:* Whether the use and the fashion will not soon make a manufacture?

289 *Question:* Whether, if our gentry used to drink mead and cider, we should not soon have those liquors in the utmost perfection and plenty?

290 *Question:* Whether it be not wonderful that with such pastures, and so many black cattle, we do not find ourselves in cheese?

291 *Question:* Whether great profits may not be made by fisheries; but whether those of our Irish who live by that business do not contrive to be drunk and unemployed one half of the year?

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292 *Question:* Whether it be not folly to think an inward commerce cannot enrich a State, because it doth not increase its quantity of gold and silver? 293 And whether it is possible a country should not thrive, while wants are supplied, and business goes on?

294 *Question:* Whether plenty of all the necessaries and comforts of life be not real wealth?

295 *Question:* Whether Lyons, by the advantage of its midland situation and the rivers Rhone and Saone, be not a great magazine or mart for inward commerce? 296 And whether it doth not maintain a constant trade with most parts of France; with Provence for oils and dried fruits, for wines and cloth with Languedoc, for stuffs with Champagne, for linen with Picardy, Normandy, and Brittany, for corn with Burgundy?

297 *Question:* Whether it doth not receive and utter all those commodities, and raise a profit from the distribution thereof, as well as of its own manufactures, throughout the kingdom of France?

298 *Question:* Whether the charge of making good roads and navigable rivers across the country would not be really repaid by an inward commerce?

299 *Question:* Whether, as our trade and manufactures increased, magazines should not be established in proper places, fitted by their situation, near great roads and navigable rivers, lakes, or canals, for the ready reception and distribution of all sorts of commodities from and to the several parts of the kingdom; 300 and whether the town of Athlone, for instance, may not be fitly situated for such a magazine, or centre of domestic commerce?

301 *Question:* Whether an inward trade would not cause industry to flourish, and multiply the circulation of our coin, and whether this may not do as well as multiplying the coin itself?

302 *Question:* Whether the benefits of a domestic commerce are sufficiently understood and attended to; and whether the cause thereof be not the prejudiced and narrow way of thinking about gold and silver?

303 *Question:* Whether there be any other more easy and unenvied

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method of increasing the wealth of a people?

304 *Question:* Whether we of this island are not from our peculiar circumstances determined to this very commerce above any other, 305 from the number of necessaries and good things that we possess within ourselves, from the extent and variety of our soil, 306 from the navigable rivers and good roads which we have or may have, at a less expense than any people in Europe, 307 from our great plenty of materials for manufactures, and particularly from the restraints we lie under with regard to our foreign trade?

308 *Question:* Whether commissioners of trade or other proper persons should not be appointed to draw up plans of our commerce both foreign and domestic, and lay them at the beginning of every session before the Parliament?

309 *Question:* Whether registers of industry should not be kept, and the pubic from time to time acquainted what new manufactures are introduced, what increase or decrease of old ones?

310 *Question:* Whether annual inventories should not be published of the fairs throughout the kingdom, in order to judge of the growth of its commerce?

311 *Question:* Whether there be not every year more cash circulated at the card tables of Dublin than at all the fairs of Ireland?

312 *Question:* Whether the wealth of a country will not bear proportion to the skill and industry of its inhabitants?

313 *Question:* Whether foreign imports that tend to promote industry should not be encouraged, and such as have a tendency to promote luxury should not be discouraged?

314 *Question:* Whether the annual balance of trade between Italy and Lyons be not about four millions in favour of the former, and yet, whether Lyons be not a gainer by this trade?

315 *Question:* Whether the general rule, of determining the profit of a commerce by its balance, doth not, like other general rules, admit of exceptions?

316 *Question:* Whether it would not be a monstrous folly to import nothing but gold and silver,

supposing we might do it, from every foreign part to which we trade? 317 And yet, whether some people may not think this foolish circumstance a very happy one?

318 *Question:* But whether we do not all see the ridicule of the Mogul's subjects, who take from us nothing but our silver, and bury it under ground, in order to make sure thereof against the resurrection?

319 *Question:* Whether you must not be a wrongheaded patriot or politician, whose ultimate view was drawing money into a country, and keeping it there?

320 *Question:* Whether it be not evident that not gold but industry causeth a country to flourish?

321 *Question:* Whether it would not be a silly project in any nation to hope to grow rich by prohibiting the exportation of gold and silver?

322 *Question:* Whether there can be a greater mistake in politics than to measure the wealth of the nation by its gold and silver?

323 *Question:* Whether gold and silver be not a drug, where they do not promote industry? Whether they be not even the bane and undoing of an idle people?

324 *Question:* Whether gold will not cause either industry or vice to flourish? 325 And whether a country, where it flowed in without labour, must not be wretched and dissolute like an island inhabited by buccaneers?

326 *Question:* Whether arts and virtue are not likely to thrive, where money is made a means to industry? But whether money without this would be a blessing to any people?

327 *Question:* Whether therefore Mississippi, South Sea, and such like schemes were not calculated for pubic ruin?

328 *Question:* Whether keeping cash at home, or sending it abroad, just as it most serves to promote industry, be not the real interest of every nation?

329 *Question:* Whether commodities of all kinds do not naturally flow where there is the greatest demand? 330 Whether the greatest demand for a thing be not where it is of most use? 331 Whether money, like other things, hath not its proper use? Whether this use be not to circulate? 332 Whether therefore there must not

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of course be money where there is a circulation of industry?

333 *Question:* Whether all such princes and statesmen are not greatly deceived who imagine that gold and silver, any way got, will enrich a country?

334 *Question:* Whether it is not a great point to know what we would be at? And whether whole States, as well as private persons, do not often fluctuate for want of this knowledge?

335 *Question:* Whether gold may not be compared to Sejanus's horse, if we consider its passage through the world, and the fate of those nations which have been successively possess'd thereof?

336 *Question:* Whether the effect is not to be considered more than the kind or quantity of money?

337 *Question:* Whether means are not so far useful as they answer the end? And whether, in different circumstances, the same ends are not obtained by different means?

338 *Question:* If we are a poor nation, abounding with very poor people, will it not follow that a far greater proportion of our stock should be in the smallest and lowest species than would suit with England?

339 *Question:* Whether, therefore, it would not be highly expedient if our money were coined of peculiar values, best fitted to the circumstances and uses of our own country; 340 and whether any other people could take umbrage at our consulting our own convenience, in an affair entirely domestic, and that lies within ourselves?

341 *Question:* Whether every person doth not know, and hath not long known, that the want of a mint causeth many other wants in this kingdom?

342 *Question:* What harm did England sustain about three centuries ago, when silver was coined in this kingdom?

343 *Question:* What harm was it to Spain that its provinces of Naples and Sicily had all along mints of their own?

344 *Question:* Whether those who have the interests of this kingdom at heart, and are concerned in the councils thereof, ought not to make the most humble and earnest representations to his Majesty, 345 that he may vouchsafe to grant us that favour, the want of which is

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ruinous to our domestic industry, and the having of which would interfere with no interest of our fellow-subjects?

346 *Question:* Whether it may not be presumed that our not having a privilege which every other kingdom in the world enjoys, be not owing to our want of diligence and unanimity in soliciting for it?

347 *Question:* Whether his most gracious Majesty hath ever been addressed on this head in a proper manner, and had the case fairly stated for his royal consideration, and if not, whether we may not blame ourselves?

348 *Question:* If his Majesty would be pleased to grant us a mint, whether the consequences thereof may not prove a valuable consideration to the crown?

349 *Question:* Whether it be not the interest of England that we should cultivate a domestic commerce among ourselves? 350 And whether it could give them any possible jealousy, if our small sum of cash was contrived to go a little further, 351 if there was a little more life in our markets, a little more buying and selling in our shops, a little better provision for the backs and bellies of so many forlorn wretches throughout the towns and villages of this island?

352 *Question:* Whether Great Britain ought not to promote the prosperity of its Colonies, by all methods consistent with its own? And whether the Colonies themselves ought to wish or aim at it by others?

353 *Question:* Whether the remotest parts from the metropolis, and the lowest of the people, are not to be regarded as the extremities and capillaries of the political body?

354 *Question:* Whether, although the capillary vessels are small, yet obstructions in them do not produce great chronical diseases?

355 *Question:* Whether faculties are not enlarged and improved by exercise?

356 *Question:* Whether the sum of the faculties put into act, or, in other words, the united action of a whole people, doth not constitute the momentum of a State?

357 *Question:* Whether such momentum be not the real stock or wealth of a State; and whether its credit be not proportional thereunto?

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358 *Question:* Whether in every wise State the faculties of the mind are not most considered?

359 *Question:* Whether every kind of employment or business, as it implies more skill and exercise of the higher powers, be not more valued?

360 *Question:* Whether the momentum of a State doth not imply the whole exertion of its faculties, intellectual and corporeal; and whether the latter without the former could act in concert?

361 *Question:* Whether the divided force of people, acting singly, would not be a rope of sand?

362 *Question:* Whether the particular motions of the members of a State, in opposite directions, will not destroy each other, and lessen the momentum of the whole; but whether they must not conspire to produce a great effect?

363 *Question:* Whether the ready means to put spirit into this State, to fortify and increase its momentum, would not be a national bank, and plenty of small cash?

364 *Question:* Whether private endeavours without assistance from the public are likely to advance our manufactures and commerce to any great degree? 365 But whether, as bills uttered from a national bank upon private mortgages would facilitate the purchases and projects of private people, 366 even so the same bills uttered on the public security alone may not answer pubic ends in promoting new works and manufactures throughout the kingdom?

367 *Question:* Whether that which employs and exerts the force of a community deserves not to be well considered and well understood?

368 *Question:* Whether the immediate mover, the blood and spirits, be not money, paper, or metal; 369 and whether the soul or will of the community, which is the prime mover that governs and directs the whole, be not the legislature?

370 *Question:* Supposing the inhabitants of a country quite sunk in sloth, or even fast asleep, whether, upon the gradual awakening and exertion, first of the sensitive and locomotive faculties, next of reason and reflexion, then of justice and piety,

QUERY

the momentum of such country or State would not, in proportion thereunto, become still more and more considerable?

371 *Question:* Whether that which in the growth is last attained, and is the finishing perfection of a people, be not the first thing lost in their declension?

372 *Question:* Whether force be not of consequence, as it is exerted; and whether great force without great wisdom may not be a nuisance?

373 *Question:* Whether the force of a child, applied with art, may not produce greater effects than that of a giant? 374 And whether a small stock in the hands of a wise State may not go further, and produce more considerable effects, than immense sums in the hands of a foolish one?

375 *Question:* Whether as many as wish well to their country ought not to aim at increasing its momentum?

376 *Question:* Whose fault is it if poor Ireland still continues poor?

The End Book of Divine Panagogue called

GOODNESS

GOOD SENSE

Paul Henri Thiry, Baron D'Holbach

1 When we examine the opinions of humans, we find that nothing is more uncommon, than common-sense; 2 or, in other words, they lack judgment to discover plain truths, or to reject absurdities, and palpable contradictions. 3 We have an example of this in Theology, a system revered in all countries by a great number of people; an object regarded by them as most important, and indispensable to happiness. 4 An examination of the principles upon which this pretended system is founded, forces us to acknowledge, that these principles are only suppositions, 5 imagined by ignorance, propagated by enthusiasm or knavery, adopted by timid credulity, preserved by custom which never reasons, and revered solely because not understood.

6 In a word, whoever uses common-sense upon religious opinions, and will bestow on this inquiry the attention that is commonly given to most subjects, will easily perceive that Religion is a mere castle in the air. 7 Theology is ignorance of natural causes; a tissue of fallacies and contradictions. 8 In every country, it presents romances void of probability, the hero of which is composed of impossible qualities. 9 God’s name, exciting fear in all minds, is only a vague word, to which, humans affix ideas or qualities, which are either contradicted by facts, or inconsistent.

10 Notions of this being, or rather, the word by which He is designated, would be a matter of indifference, if it did not cause innumerable ravages in the world. 11 But humans, prepossessed with the opinion that this phantom is a reality of the greatest interest, instead of concluding wisely from its incomprehensibility, that they are not bound to regard it, infer on the contrary, that they must contemplate it, without ceasing, and never lose sight of it. 12 Their invincible ignorance, upon this subject, irritates their curiosity; instead of putting them upon guard

against their imagination, 13 this ignorance renders humans decisive, dogmatic, imperious, and even exasperates them against all, who oppose doubts to the reveries which they have begotten.

14 What perplexity arises, when it is required to solve an insolvable problem; unceasing meditation upon an object, impossible to understand, 15 but in which however you thinks yourself much concerned, cannot but excite human, and produce a fever in your brain. 16 Let interest, vanity, and ambition, co-operate ever so little with this unfortunate turn of mind, and society must necessarily be disturbed. 17 This is the reason that so many nations have often been the scene of extravagances of senseless visionaries, 18 who, believing their empty speculations to be eternal truths, and publishing them as such, have kindled the zeal of princes and their subjects, and made them take up arms for opinions, represented to them as essential to the glory of the Deity. 19 In all parts of our globe, fanatics have cut each other's throats, publicly burnt each other, committed without a scruple and even as a duty, the greatest crimes, and shed torrents of blood. For what? 20 To strengthen, support, or propagate the impertinent conjectures of some enthusiasts, or to give validity to the cheats of impostors, 21 in the name of a being, who exists only in their imagination, and who has made Himself known only by the ravages, disputes, and follies, you have caused.

22 Savage and furious nations, perpetually at war, adore, under diverse names, some God, conformable to their ideas, that is to say, cruel, carnivorous, selfish, blood-thirsty. 23 We find, in all the religions, "a God of armies," a "jealous God," an "avenging God," a "destroying God," a "God," who is pleased with carnage, and whom His worshippers consider it a duty to serve. 24 Lambs, bulls, children, men, and women, are sacrificed to Him. Zealous servants of this barbarous God think themselves obliged even to offer up themselves as a sacrifice to Him. 25 Mad-people may everywhere be seen, who, after meditating upon their terrible God, imagine that to please Him they must inflict on

themselves, the most exquisite torments. 26 The gloomy ideas formed of the deity, far from consoling them, have every where disquieted their minds, and prejudiced follies destructive to happiness.

27 How could the human mind progress, while tormented with frightful phantoms, and guided by people, interested in perpetuating its ignorance and fears? 28 Human has been forced to vegetate in your primitive stupidity: you have been taught stories about invisible powers upon whom your happiness was supposed to depend. 29 Occupied solely by your fears, and by unintelligible reveries, you have always been at the mercy of priests, who have reserved to themselves the right of thinking for you, and of directing your actions.

30 Thus, human has remained a slave without courage, fearing to reason, and unable to extricate yourself from the labyrinth, in which you have been wandering. 31 You believes yourself forced under the yoke of your gods, known to you only by the fabulous accounts given by your ministers, 32 who, after binding each unhappy mortal in the chains of prejudice, remain your masters, or else abandon you defenceless to the absolute power of tyrants, no less terrible than the gods, of whom they are the representatives. 33 Oppressed by the double yoke of spiritual and temporal power, it has been impossible for the people to be happy. 34 Religion became sacred, and humans have had no other Morality, than what their legislators and priests brought from the unknown regions of heaven. 35 The human mind, confused by theological opinions, ceased to know its own powers, mistrusted experience, feared truth and disdained reason, in order to follow authority. 36 Human has been a mere machine in the hands of tyrants and priests. Always treated as a slave, human has contracted the vices of slavery.

37 Such are the true causes of the corruption of morals. Ignorance and servitude are calculated to make people wicked and unhappy. 38 Knowledge, Reason, and Liberty, can alone reform and make humans happier. But every thing conspires to blind you, and

to confirm your errors. 39 Priests cheat you, tyrants corrupt and enslave you. Tyranny ever was, and ever will be, the true cause of human's depravity, and also of your calamities. 40 Almost always fascinated by religious fiction, poor mortals turn not their eyes to the natural and obvious causes of their misery; 41 but attribute their vices to the imperfection of their natures, and their unhappiness to the anger of the gods. 42 They offer to heaven vows, sacrifices, and presents, to obtain the end of sufferings, which in reality, are attributable only to the negligence, ignorance, and perversity of their guides, to the folly of their customs, and above all, to the general want of knowledge. 43 Let humans' minds be filled with true ideas; let their reason be cultivated; and there will be no need of opposing to the passions, such a feeble barrier, as the fear of gods. 44 Humans will be good, when they are well instructed; and when they are despised for evil, or justly rewarded for good, which they do to their fellow citizens.

45 In vain should we attempt to cure humans of their vices, unless we begin by curing them of their prejudices. 46 It is only by showing them the truth, that they will perceive their true interests, and the real motives that ought to incline them to do good. 47 Instructors have long enough fixed humans' eyes upon heaven; let them now turn them upon earth. 48 An incomprehensible theology, ridiculous fables, impenetrable mysteries, puerile ceremonies, are to be no longer endured. 49 Let the human mind apply itself to what is natural, to intelligible objects, truth, and useful knowledge.

50 Does it not suffice to annihilate religious prejudice, to shew, that what is inconceivable to human, cannot be good for God? 51 Does it require any thing, but plain common-sense, to perceive, that a being, incompatible with the most evident notions-- that a cause continually opposed to the effects which we attribute to it-- 52 that a being, of whom we can say nothing, without falling into contradiction-- 53 that a being, who, far from explaining the enigmas of the universe, only makes them more inexplicable-- 54 that a being, whom for so many

ages humans have vainly addressed to obtain their happiness, and the end of sufferings-- 55 does it require, I say, any thing but plain, common-sense, to perceive-- that the idea of such a being is an idea without model, and that God Himself is merely a phantom of the imagination? 56 Is any thing necessary but common-sense to perceive, at least, that it is folly and madness for humans to hate and damn one another about unintelligible opinions concerning a being of this kind? 57 In short, does not every thing prove, that Morality and Virtue are totally incompatible with the notions of a God, 58 whom your ministers and interpreters have described, in every country, as the most capricious, unjust, and cruel of tyrants, whose pretended will, however, must serve as law and rule the inhabitants of the earth?

59 To discover the true principles of Morality, humans have no need of theology, of revelation, or of gods: They have need only of common-sense. 60 They have only to commune with themselves, to reflect upon their own nature, to consider the objects of society, and of the individuals, who compose it; 61 and they will easily perceive, that virtue is advantageous, and vice disadvantageous to themselves. 62 Let us persuade people to be just, beneficent, moderate, sociable; not because such conduct is demanded by the gods, but, because it is pleasant to humans. 63 Let us advise them to abstain from vice and crime; not because they will be punished in another world, but because they will suffer for it in this.-- 64 These are, says Montesquieu, means to prevent crimes-- these are punishments; these reform manners-- these are good examples.

65 The way of truth is straight; that of imposture is crooked and dark. 66 Truth, ever necessary to human, must necessarily be felt by all upright minds; the lessons of reason are to be followed by all honest people. 67 People are unhappy, only because they are ignorant; they are ignorant, only because every thing conspires to prevent their being enlightened; they are wicked only because their

reason is not sufficiently developed.

68 By what fatality then, have the first founders of all sects given to their gods ferocious characters, at which Nature revolts? 69 Can we imagine a conduct more abominable, than that which Moses tells us his God showed towards the Egyptians, 70 where that assassin proceeds boldly to declare, in the name and by the order of his God, that Egypt shall be afflicted with the greatest calamities, that can happen to human? 71 Of all the different ideas, which they give us of a supreme being, of a God, creator and preserver of humankind, 72 there are none more horrible, than those of the impostors, who represented themselves as inspired by a divine spirit, and "Thus saith the Lord."

73 Why, O theologians! do you presume to inquire into the impenetrable mysteries of a being, whom you consider inconceivable to the human mind? 74 You are the blasphemers, when you imagine that a being, perfect according to you, could be guilty of such cruelty towards creatures whom He has made out of nothing. 75 Confess, your ignorance of a creating God; and cease meddling with mysteries, which are repugnant to common-sense.

GOOD SENSE
WITHOUT GOD
Paul Henri Thiry, Baron D'Holbach

APOLOGUE
1

2 There is a vast empire, governed by a monarch, whose strange conduct is to confound the minds of His subjects. 2 He wishes to be known, loved, respected, obeyed; but never shows Himself to His subjects, and everything conspires to render uncertain the ideas formed of His character.

3 The people, subjected to His power, have, of the character and laws of their invisible sovereign, such ideas only, as His ministers give them. 4 They, however, confess, that they have no idea of their master; that His ways are impenetrable; His views and nature totally incomprehensible. 5 These ministers, likewise, disagree upon the commands which they pretend have been issued by the

sovereign, whose servants they call themselves. 6 They defame one another, and mutually treat each other as impostors and false teachers. 7 The decrees and ordinances, they take upon themselves to promulgate, are obscure; 8 they are enigmas, little calculated to be understood, or even divined, by the subjects, for whose instruction they were intended. 9 The laws of the concealed monarch require interpreters; but the interpreters are always disputing upon the true manner of understanding them. 10 Besides, they are not consistent with themselves; all they relate of their concealed prince is only a string of contradictions. 11 They utter concerning God not a single word that does not immediately confute itself. They call Him supremely good; yet many complain of His decrees. 12 They suppose God infinitely wise; and under His administration everything appears to contradict reason. 13 They extol God's justice; and the best of His subjects are generally the least favoured. 14 They assert, God sees everything; yet His presence avails nothing. 15 God is, say they, the friend of order; yet throughout His dominions, all is in confusion and disorder. 16 God makes all for Himself; and the events seldom answer His designs. He foresees everything; but cannot prevent anything. 17 God impatiently suffers offence, yet gives everyone the power of offending Him. 18 Humans admire the wisdom and perfection of God's works; yet His works, full of imperfection, are of short duration. 19 God is continually doing and undoing; repairing what He has made; but is never pleased with His work. 20 In all God's undertakings, He proposes only His own glory; yet is never glorified. 21 God only end is the happiness of His subjects; and His subjects, for the most part want necessaries. 22 Those, whom He seems to favour are generally least satisfied with their fate; almost all appear in perpetual revolt against a master, whose greatness they never cease to admire, 23 whose wisdom to extol, whose goodness to adore, whose justice to fear, and whose laws to reverence, though never obeyed!

24 This EMPIRE is the WORLD; this MONARCH GOD; his MINISTERS are the PRIESTS; his SUBJECTS humankind.

APOLOGUE
2

25 There is a science that has for its object only things incomprehensible. Contrary to all other sciences, it treats only of what cannot fall under our senses. 26 Hobbes calls it the *kingdom of darkness*. It is a country, where every thing is governed by laws, contrary to those which humankind are permitted to know in the world they inhabit. 27 In this marvellous region, light is only darkness; evidence is doubtful or false; impossibilities are credible: reason is a deceitful guide; and good sense becomes madness. 28 This science is called theology, and this theology is a continual insult to the reason of human.

APOLOGUE
3

29 By the magical power of "ifs," "buts," "perhaps'," "what do we know," etc., heaped together, a shapeless and unconnected system is formed, perplexing humankind, by obliterating from your minds, the most clear ideas and rendering uncertain truths most evident. 30 By reason of this systematic confusion, Nature is an enigma; the visible world has disappeared, to give place to regions invisible; 31 reason is compelled to yield to imagination, who leads to the country of its self-invented chimeras.

APOLOGUE
4

32 The principles of every religion are founded upon the idea of a GOD. Now, it is impossible to have true ideas of a being, who acts upon none of our senses. 33 All our ideas are representations of sensible objects. What then can represent to us the idea of God, which is evidently an idea without an object? 34 Is not such an idea as impossible, as an effect without a cause? Can an idea without an archetype be anything, but a chimera? 35 There are, however, divines, who assure us that the idea of God is innate; or that we have this idea in our mother's womb. 36 Every principle is the result of reason; all reason is the

effect of experience; experience is acquired only by the exercise of our senses: 37 therefore, religious principles are not founded upon reason, and are not innate.

APOLOGUE

5

38 Every system of religion can be founded only upon the nature of God and human; and upon the relations, which subsist between them. 39 But to judge of the reality of those relations, we must have some idea of the divine nature. 40 Now, the world exclaims, the divine nature is incomprehensible to human; yet ceases not to assign attributes to this incomprehensible God, and to assure us, that it is our indispensable duty to find out that God, whom it is impossible to comprehend.

41 The most important concern of human is what you can least comprehend. 42 If God is incomprehensible to human, it would seem reasonable never to think of Him; but religion maintains, human cannot with impunity cease a moment to think (or rather dream) of your God.

APOLOGUE

6

43 We are told, that divine qualities are not of a nature to be comprehended by finite minds. The natural consequence must be, that divine qualities are not made to occupy finite minds. 44 But religion tells us, that the poor finite mind of human ought never to lose sight of an inconceivable being, whose qualities you can never comprehend. 45 Thus, we see, religion is the art of turning the attention of humankind upon subjects they can never comprehend.

APOLOGUE

7

46 Religion unites human with God, or forms a communication between them; yet do they not say, God is infinite? 47 If God be infinite, no finite being can have communication or relation with Him. 48 Where there is no relation, there can be no union, communication, or duties. 49 If there be no duties between human and your God, there is no religion for human. 50 Thus, in saying God is infinite, you annihilate religion from human, who is a finite being.

51 The idea of infinity is to us an idea without model, without archetype, without object.

APOLOGUE
8

52 If God be an infinite being, there cannot be, either in the present or future world, any relative proportion between human and your God. 53 Thus, the idea of God can never enter the human mind. In supposition of a life, in which human would be much more enlightened, than in this, the idea of the infinity of God would ever remain the same distance from your finite mind. 54 Thus the idea of God will be no more clear in the future, than in the present life. Thus, intelligences, superior to human, can have no more complete ideas of God, than human, who has not the least conception of Him in your present life.

APOLOGUE
9

55 How has it been possible to persuade reasonable beings, that the thing, most impossible to comprehend, was most essential to them? 56 It is because they have been greatly terrified; because, when they fear, they cease to reason; because, they have been taught to mistrust their own understanding; 57 because, when the brain is troubled, they believe every thing, and examine nothing.

APOLOGUE
10

58 Ignorance and fear are the two hinges of all religion. The uncertainty in which human finds yourself in relation to your God, is precisely the motive that attaches you to your religion. 59 Human is fearful in the dark-- in moral, as well as physical darkness. Your fear becomes habitual, and habit makes it natural; you would think that you wanted something, if you had nothing to fear.

APOLOGUE
11

60 You, who from infancy has habituated yourself to tremble when you hears pronounced certain words, requires those words and needs to tremble. 61 You are therefore more disposed to listen to one, who entertains you in your fears, than to one, who dissuades you from them. 62 The

superstitious person wishes to fear; your imagination demands it; one might say, that you fears nothing so much, as to have nothing to fear.

63 Humans are imaginary invalids, whose weakness empirics are interested to encourage, in order to have sale for their drugs. 64 They listen rather to the physician, who prescribes a variety of remedies, than to you, who recommends good regimen, and leaves Nature to Herself.

APOLOGUE
12

65 If religion were more clear, it would have less charms for the ignorant, who are pleased only with obscurity, terrors, fables, prodigies, and things incredible. 66 Romances, silly stories, and the tales of ghosts and wizards, are more pleasing to vulgar minds than true histories.

APOLOGUE
13

67 In point of religion, humans are only great children. The more a religion is absurd and filled with wonders, the greater ascendancy it acquires over them. 68 The devout person thinks yourself obliged to place no bounds to your credulity; the more things are inconceivable, they appear to you divine; the more they are incredible, the greater merit, you imagines, there is in believing them.

APOLOGUE
14

69 The origin of religious opinions is generally dated from the time, when savage nations were yet in infancy. 70 It was to gross, ignorant, and stupid people, that the founders of religion have in all ages addressed themselves, when they wished to give them their Gods, their mode of worship, their mythology, their marvellous and frightful fables. 71 These chimeras, adopted without examination by parents, are transmitted, with more or less alteration, to their children, who seldom reason any more than their parents.

APOLOGUE
15

72 The object of the first legislators was to govern the people; and the easiest method to effect it was to terrify their minds, and to prevent the exercise of reason. 73 They led

them through winding bye-paths, lest they might perceive the designs of their guides; they forced them to fix their eyes in the air, for fear they should look at their feet; they amused them on the way with idle stories; 74 in a word, they treated them as nurses do children, who sing lullabies, to put them to sleep, and scold, to make them quiet.

APOLOGUE

16

75 The existence of a God is the basis of all religion. 76 Few appear to doubt God existence; yet this fundamental article utterly embarrasses every mind that reasons. 77 The first question of every catechism has been, and ever will be, the most difficult to resolve. 78 In the year 1701, the holy fathers of the oratory of Vendome maintained in a thesis, this proposition-- that, according to St. Thomas, the existence of God is not, and cannot be, a subject of faith.

APOLOGUE

17

79 Can we imagine ourselves sincerely convinced of the existence of a being, whose nature we know not; who is inaccessible to all our senses; whose attributes, we are assured, are incomprehensible to us? 80 To persuade me that a being exists or can exist, I must be first told what that being is. 81 To induce me to believe the existence or the possibility of such a being, it is necessary to tell me things concerning Him that are not contradictory, and do not destroy one another. 82 In short, to fully convince me of the existence of that being, it is necessary to tell me things that I can understand.

APOLOGUE

18

83 A thing is impossible, when it includes two ideas that mutually destroy one another, and which can neither be conceived nor united in thought. 84 Conviction can be founded only upon the constant testimony of our senses, which alone give birth to our ideas, and enable us to judge of their agreement or disagreement. 85 That, which exists necessarily, is that, whose non-existence implies a contradiction. These

principles, universally acknowledged, become erroneous, when applied to the existence of a God. 86 Whatever has been hitherto said upon the subject, is either unintelligible, or perfect contradiction, and must therefore appear absurd to every rational person.

APOLOGUE
19

87 All human knowledge is more or less clear. By what strange fatality have we never been able to elucidate the science of God? 88 The most civilised nations, and among them the most profound thinkers, are in this respect no more enlightened than the most savage tribes and ignorant peasants; 89 and, examining the subject closely, we shall find, that, by the speculations and subtle refinements of people, the divine science has been only more and more obscured. 90 Every religion has hitherto been founded only upon what is called, in logic, *begging the question*; it takes things for granted, and then proves, by suppositions, instead of principles.

APOLOGUE
20

91 Metaphysics teach us, that God is a pure spirit. But, is modern theology superior to that of the savages? 92 The savages acknowledge a great spirit, for the master of the world. The savages, like all ignorant people, attribute to spirits all the effects, of which their experience cannot discover the true causes. 93 Ask a savage, what works your watch? One will answer, it is a spirit. Ask the divines, what moves the universe? They answer, it is a spirit.

APOLOGUE
21

94 The savage, when they speaks of a spirit, affixes, at least, some idea to the word; they means thereby an agent, like the air, the breeze, the breath, that invisibly produces discernible effects. 95 By subtilising every thing, the modern theologian becomes as unintelligible to own self as to others. 96 Ask the theologian, what one understands by a spirit? The response will be, that it is an unknown substance, perfectly simple, that has no extension, that

has nothing common with matter. 97 Indeed, is there any one, who can form the least idea of such a substance? What then is a spirit, to speak in the language of modern theology, but the absence of an idea? 98 The idea of spirituality is an idea without model.

APOLOGUE

22

99 Is it not more natural and intelligible to draw universal existence from the matter, whose existence is demonstrated by all the senses, and whose effects we experience, which we see act, move, communicate motion, and incessantly generate, 100 than to attribute the formation of things to an unknown power, to a spiritual being, who cannot derive from own nature what you have not yourself, and who, by own spiritual essence, can create neither matter nor motion? 101 Nothing is more evident, than that the idea they endeavour to give us, of the action of mind upon matter, represents no object. It is an idea without model.

.APOLOGUE

23

102 The material Jupiter of the ancients could move, compose, destroy, and create beings, similar to own self; but the God of modern theology is sterile. 103 He can neither occupy any place in space, nor move matter, nor form a visible world, nor create humans or gods. The metaphysical God is fit only to produce confusion, reveries, follies, and disputes.

APOLOGUE

24

104 Since a God was indispensably requisite to humans, why did they not worship the Sun, that visible God, adored by so many nations? 105 What being had greater claim to the homage of humans, than the day-star, who enlightens, warms, and vivifies all beings; whose presence enlivens and regenerates Nature, whose absence seems to cast it into gloom and languor? 106 If any being announced to humankind, power, activity, beneficence, and duration, it was certainly the Sun, whom they ought to have regarded as the parent of nature, as the divinity. 107 At least, they could not,

without folly, dispute its existence, or refuse to acknowledge its influence.

APOLOGUE

25

108 The theologian exclaims to us, that God wants neither hands nor arms to act; that He acts by His will. 109 But pray, who or what is that God, who has a will, and what can be the subject of His divine will?

110 Are the stories of witches, ghosts, wizards, hobgoblins, etc., more absurd and difficult to believe than the magical or impossible action of mind upon matter? 111 When we admit such a God, fables and reveries may claim belief. Theologians treat people as children, whose simplicity makes them believe all the stories they hear.

APOLOGUE

26

112 To shake the existence of God, we need only to ask a theologian to speak of Him. 113 As soon as they have said a word upon the subject, the least reflection will convince us, that their observations are totally incompatible with the essence they ascribes to their God. 114 What then is God? It is an abstract word, denoting the hidden power of Nature; or it is a mathematical point, that has neither length, breadth, nor thickness. 115 David Hume, speaking of theologians, has ingeniously observed, that they have discovered the solution of the famous problem of Archimedes-- a point in the heavens, whence they move the world.

APOLOGUE

27

116 Religion prostrates people before a being, who, without extension, is infinite, and fills all with His immensity; 117 a being, all-powerful, who never executes His will; a being, sovereignly good, who creates only disquietudes; a being, the friend of order, and in whose government all is in confusion and disorder. 118 What then, can we imagine, can be the God of theology?

APOLOGUE

28

119 To avoid all embarrassment, we are told, "that it is not necessary to know what God is;

that we must adore Him; that we are not permitted to extend our views to His attributes." 120 But, before we know that we must adore a God, must we not know certainly, that He exists? 121 But, how can we assure ourselves, that He exists, if we never examine whether the various qualities, attributed to Him, do really exist and agree in Him? 122 Indeed, to adore God, is to adore only the fictions of one's own imagination, or rather, it is to adore nothing.

APOLOGUE

29

123 In view of confounding things the more, theologians have not declared what their God is; they tell us only what He is not. 124 By means of negations and abstractions, they think they have composed a real and perfect being. 125 Mind is that, which is *not* body. An infinite being is a being, who is *not* finite. A perfect being is a being, who is *not* imperfect. 126 Indeed, is there any one, who can form real ideas of such a mass of absence of ideas? That, which excludes all idea, can it be any thing but nothing?

127 To pretend, that the divine attributes are beyond the reach of human conception, is to grant, that God is not made for human. 128 To assure us, that, in God, all is infinite, is to own that there can be nothing common to Him and His creatures. 129 If there be nothing common to God and His creatures, God is annihilated from human, or, at least, rendered useless to you. 130 "God," they say, "has made human intelligent, but He has not made you omniscient;" hence it is inferred, that He has not been able to give you faculties sufficiently enlarged to know your divine essence. 131 In this case, it is evident, that God has not been able nor willing to be known by His creatures. 132 By what right then would God be angry with beings, who were naturally incapable of knowing the divine essence? 133 God would be evidently the most unjust and capricious of tyrants, if He should punish an Atheist for not having known, what, by your nature, it was impossible He should know.

APOLOGUE

30

134 To the generality of humans, nothing renders an argument more convincing than fear. 135 It is therefore, that theologians assure us, *we must take the safest part*; that nothing is so criminal as incredulity; 136 that God will punish without pity every one who has the temerity to doubt His existence; 137 that God's severity is just, since madness or perversity only can make us deny the existence of an enraged monarch, who without mercy avenges Himself on Atheists. 138 If we coolly examine these threatenings, we shall find, they always suppose the thing in question. 139 They must first prove the existence of a God, before they assure us, it is safest to believe, and horrible to doubt or deny His existence. 140 They must then prove, that it is possible and consistent, that a just God cruelly punishes people for having been in a state of madness, that prevented their believing the existence of a being, whom their perverted reason could not conceive. 141 In a word, they must prove, that an infinitely just God can infinitely punish the invincible and natural ignorance of human with respect to the divine nature. 142 Do not theologians reason very strangely? They invent phantoms, they compose them of contradictions; they then assure us, it is safest not to doubt the existence of these phantoms they themselves have invented. 143 According to this mode of reasoning, there is no absurdity, which it would not be more safe to believe, than not to believe.

144 All children are born Atheists; they have no idea of God. Are they then criminal on account of their ignorance? 145 At what age must they begin to believe in God? It is, you say, at the age of reason. But at what time should this age commence? 146 Besides, if the profoundest theologians lose themselves in the divine nature, which they do not presume to comprehend, what ideas must human have of Him?

APOLOGUE

31

147 People believe in God only upon the word of those, who have no more idea of Him than

themselves. 148 Our nurses are our first theologians. They talk to children of God as if He were a scarecrow; they teach them from the earliest age to join their hands mechanically. 149 Have nurses then more true ideas of God than the children whom they teach to pray?

APOLOGUE

32

150 Religion, like a family estate, passes, with its encumbrances, from parents to children. Few people in the world would have a God, had not pains been taken in infancy to give them one. 151 Each would receive from own parents and teachers the God whom they received from theirs; but each, agreeably to own disposition, would arrange, modify, and paint Him in own manner.

APOLOGUE

33

152 The brain of human, especially in infancy, is like soft wax, fit to receive every impression that is made upon it. 153 Education furnishes you with almost all your ideas at a time, when you are incapable of judging for yourself. 154 We believe we have received from Nature, or have brought with us at birth, the true or false ideas, which, in a tender age, had been instilled into our minds; and this persuasion is one of the greatest sources of errors.

APOLOGUE

34

155 Prejudice contributes to cement in us the opinions of those who have been charged with our instruction. 156 We believe them much more experienced than ourselves; we suppose they are fully convinced of the things which they teach us; we have the greatest confidence in them; 157 by the care they have taken of us in infancy, we judge them incapable of wishing to deceive us. 158 These are the motives that make us adopt a thousand errors, without other foundation than the hazardous authority of those by whom we have been brought up. 159 The prohibition likewise of reasoning upon what they teach us, by no means lessens our confidence; but often contributes to increase our respect for their opinions.

GOODNESS

APOLOGUE

35

160 Divines act very wisely in teaching people their religious principles before they are capable of distinguishing truth from falsehood, or their left hand from their right. 161 It would be as difficult to instill into the mind of a person, forty years old, the extravagant notions that are given us of the divinity, as to eradicate them from the mind of you who had imbibed them from infancy.

APOLOGUE

36

162 It is observed, that the wonders of Nature are sufficient to lead us to the existence of a God, and fully to convince us of this important truth. 163 But how many are there in the world who have the time, capacity, or disposition, necessary to contemplate Nature and meditate Her progress? 164 People, for the most part, pay no regard to it. The peasant is not struck with the beauty of the sun, which you sees every day. 165 The sailor is not surprised at the regular motion of the ocean; you will never draw from it theological conclusions. 166 The phenomena of Nature prove the existence of a God only to some prejudiced people, who have been early taught to behold the finger of God in every thing whose mechanism could embarrass them. 167 In the wonders of Nature, the unprejudiced philosopher sees nothing but the power of Nature, the permanent and various laws, the necessary effects of different combinations of matter infinitely diversified.

APOLOGUE

37

168 Is there any thing more surprising than the logic of these divines, who, instead of confessing their ignorance of natural causes, seek beyond Nature, in imaginary regions, a cause much more unknown than that nature, of which they can form at least some idea? 169 To say, that God is the author of the phenomena of Nature, is it not to attribute them to an occult cause? 170 What is God? What is a spirit? They are causes of which we have no idea. 171 O wise divines! Study Nature and Her laws; 172 and since you can there discover the action of

natural causes, go not to those that are supernatural, which, far from enlightening, will only darken your ideas, and make it utterly impossible that you should understand yourselves.

APOLOGUE

38

173 Nature, you say, is totally inexplicable without a God. That is to say, to explain what you understand very little, you have need of a cause which you understand not at all. 174 You think to elucidate what is obscure, by doubling the obscurity; to solve difficulties, by multiplying them. 175 O enthusiastic philosophers! To prove the existence of a God, write complete treatises of botany; enter into a minute detail of the parts of the human body; launch forth into the sky, to contemplate the revolution of the stars; then return to the earth to admire the course of waters; 176 behold with transport the butterflies, the insects, the polypi, and the organised atoms, in which you think you discern the greatness of your God. 177 All these things will not prove the existence of God; they will prove only, that you have not just ideas of the immense variety of matter, and of the effects, producible by its infinitely diversified combinations, that constitute the universe. 178 They will prove only your ignorance of Nature; that you have no idea of Her powers, 179 when you judge Her incapable of producing a multitude of forms and beings, of which your eyes, even with the assistance of microscopes, never discern but the smallest part. 180 In a word, they will prove, that, for want of knowing sensible agents, or those possible to know, you find it shorter to have recourse to a word, expressing an inconceivable agent.

APOLOGUE

39

181 We are gravely and repeatedly told, that, there is no effect without a cause; that, the world did not make itself. 182 But the universe is a cause, it is not an effect; it is not a work; it has not been made, because it is impossible that it should have been made. 183 The world has always been; its existence is necessary; it is its own

cause. Nature, whose essence is visibly to act and produce, requires not, to discharge Her functions, an invisible mover, much more unknown than Herself. 184 Matter moves by its own energy, by a necessary consequence of its heterogeneity. 185 The diversity of motion, or modes of mutual action, constitutes alone the diversity of matter. 186 We distinguish beings from one another only by the different impressions or motions which they communicate to our organs.

APOLOGUE

40

187 You see, that all is action in Nature, and yet pretend that Nature, by itself, is dead and without power. You imagine, that this all, essentially acting, needs a mover! 188 What then is this mover? It is a spirit; a being absolutely incomprehensible and contradictory. 189 Acknowledge then, that matter acts of itself, and cease to reason of your spiritual mover, who has nothing that is requisite to put it in action. 190 Return from your useless excursions; enter again into a real world; keep to second-causes, and leave to divines their first-cause, of which Nature has no need, to produce all the effects you observe in the world.

APOLOGUE

41

191 It can be only by the diversity of impressions and effects, which bodies make upon us, that we feel them; that we have perceptions and ideas of them; that we distinguish one from another; that we assign them properties. 192 Now, to see or feel an object, the object must act upon our organs; this object cannot act upon us, without exciting some motion in us; it cannot excite motion in us, if it be not in motion itself. 193 At the instant I see an object, my eyes are struck by it; I can have no conception of light and vision, without motion, communicated to my eye, from the luminous, extended, coloured body. 194 At the instant I smell something, my sense is irritated, or put in motion, by the parts that exhale from the odoriferous body. 195 At the moment I hear a sound, the tympanum of my ear is struck by

the air, put in motion by a sonorous body, which would not act if it were not in motion itself. 196 Whence it evidently follows, that, without motion, I can neither feel, see, distinguish, compare, judge, nor occupy my thoughts upon any subject whatever.

197 We are taught, that the essence of a thing is that from which all its properties flow. 198 Now, it is evident, that all the properties of bodies, of which we have ideas, are owing to motion, which alone informs us of their existence, and gives us the first conceptions of them. 199 I cannot be informed of my own existence but by the motions I experience in myself. 200 I am therefore forced to conclude, that motion is as essential to matter as extension, and that matter cannot be conceived without it.

201 Should any person deny, that motion is essential and necessary to matter; they cannot, at least, help acknowledging that bodies, which seem dead and inert, produce motion of themselves, when placed in a fit situation to act upon one another. 202 For instance; phosphorus, when exposed to the air, immediately takes fire. Meal and water, when mixed, ferment. 203 Thus dead matter begets motion of itself. Matter has then the power of self-motion; and Nature, to act, has no need of a mover, whose pretended essence would hinder you from acting.

APOLOGUE

42

204 Whence comes human? What is your origin? Did the first human spring, ready formed, from the dust of the earth? 205 Human appears, like all other beings, a production of Nature. 206 Whence came the first stones, the first trees, the first lions, the first elephants, the first ants, the first acorns? 207 We are incessantly told to acknowledge and revere the hand of God, of an infinitely wise, intelligent and powerful maker, in so wonderful a work as the human machine. 208 I readily confess, that the human machine appears to me surprising. But as human exists in Nature, I am not authorised to say that your formation, is above the power of Nature. 209 But I can much less conceive of this

formation, when to explain it, I am told, that a pure spirit, who has neither eyes, feet, hands, head, lungs, mouth nor breath, made human by taking a little clay, and breathing upon it.

210 We laugh at the savage inhabitants of Paraguay, for calling themselves the descendants of the moon. The divines of Europe call themselves the descendants, or the creation, of a pure spirit. Is this pretension any more rational? 211 Human is intelligent; thence it is inferred, that you can be the work only of an intelligent being, and not of a nature, which is void of intelligence. 212 Although nothing is more rare, than to see human make use of this intelligence, of which you seems so proud, 213 I will grant that you are intelligent, that your wants develop this faculty, that society especially contributes to cultivate it. 214 But I see nothing in the human machine, and in the intelligence with which it is endued, that announces very precisely the infinite intelligence of the maker to whom it is ascribed. 215 I see that this admirable machine is liable to be deranged; I see, that your wonderful intelligence is then disordered, and sometimes totally disappears; 216 I infer, that human intelligence depends upon a certain disposition of the material organs of the body, and that we cannot infer the intelligence of God, any more from the intelligence of human, than from your materiality. 217 All that we can infer from it, is, that God is material. 218 The intelligence of human no more proves the intelligence of God, than the malice of human proves the malice of that God, who is the pretended maker of human. 219 In spite of all the arguments of divines, God will always be a cause contradicted by its effects, or of which it is impossible to judge by its works. 220 We shall always see evil, imperfection and folly result from such a cause, that is said to be full of goodness, perfection and wisdom.

APOLOGUE

43

221 "What?" you will say, "is intelligent human, is the universe, and all it contains, the effect

of chance?" 222 No; I repeat it, the universe is not an effect; it is the cause of all effects; every being it contains is the necessary effect of this cause, which sometimes shews us its manner of acting, but generally conceals its operations. 223 People use the word *chance* to hide their ignorance of true causes, which, though not understood, act not less according to certain laws. 224 There is no effect without a cause. Nature is a word, used to denote the immense assemblage of beings, various matter, infinite combinations, and diversified motions, that we behold. 225 All bodies, organised or unorganised, are necessary effects of certain causes. Nothing in Nature can happen by chance. Every thing is subject to fixed laws. 226 These laws are only the necessary connection of certain effects with their causes. 227 One atom of matter cannot meet another *by chance*; this meeting is the effect of permanent laws, which cause every being necessarily to act as it does, and hinder it from acting otherwise, in given circumstances. 228 To talk of the *fortuitous concourse of atoms*, or to attribute some effects to chance, is merely saying that we are ignorant of the laws, by which bodies act, meet, combine, or separate.

229 Those, who are unacquainted with Nature, the properties of beings, and the effects which must necessarily result from the concurrence of certain causes, think, that every thing takes place by chance. 230 It is not chance, that has placed the sun in the centre of our planetary system; it is by its own essence, that the substance, of which it is composed, must occupy that place, and thence be diffused.

APOLOGUE

44

231 The worshippers of a God find, in the order of the universe, an invincible proof of the existence of an intelligent and wise being, who governs it. 232 But this order is nothing but a series of movements necessarily produced by causes or circumstances, which are sometimes favourable, and sometimes hurtful to us: we approve of some, and complain of others.

233 Nature uniformly follows the same round; that is, the same causes produce the same effects, as long as their action is not disturbed by other causes, which force them to produce different effects. 234 When the operation of causes, whose effects we experience, is interrupted by causes, which, though unknown, are not the less natural and necessary, we are confounded; 235 we cry out, *a miracle!* and attribute it to a cause much more unknown, than any of those acting before our eyes.

236 The universe is always in order. It cannot be in disorder. It is our machine, that suffers, when we complain of disorder. 237 The bodies, causes, and beings, which this world contains, necessarily act in the manner in which we see them act, whether we approve or disapprove of their effects. 238 Earthquakes, volcanoes, inundations, pestilences, and famines are effects as necessary, or as much in the order of Nature, as the fall of heavy bodies, 239 the courses of rivers, the periodical motions of the seas, the blowing of the winds, the fruitful rains, and the favourable effects, for which people praise God, and thank Him for His goodness.

240 To be astonished that a certain order reigns in the world, is to be surprised that the same causes constantly produce the same effects. 241 To be shocked at disorder, is to forget, that when things change, or are interrupted in their actions, the effects can no longer be the same. 242 To wonder at the order of Nature, is to wonder that any thing can exist; it is to be surprised at any one's own existence. 243 What is order to one being, is disorder to another. 244 All wicked beings find that every thing is in order, when they can with impunity put every thing in disorder. 245 They find, on the contrary, that every thing is in disorder, when they are disturbed in the exercise of their wickedness.

APOLOGUE

45

246 Upon supposition that God is the author and mover of Nature, there could be no disorder with respect to Him. 247 Would not all the causes, that He should have made, necessarily act according to

the properties, essences, and impulses given them? 248 If God should change the ordinary course of Nature, He would not be immutable. 249 If the order of the universe, in which human thinks you sees the most convincing proof of the existence, intelligence, power and goodness of God, should happen to contradict itself, one might suspect His existence, 250 or, at least, accuse Him of inconstancy, impotence, want of foresight and wisdom in the arrangement of things; 251 one would have a right to accuse Him of an oversight in the choice of the agents and instruments, which He makes, prepares, and puts in action. 252 In short, if the order of Nature proves the power and intelligence of the Deity, disorder must prove His weakness, instability, and irrationality.

253 You say, that God is omnipresent, that He fills the universe with His immensity, that nothing is done without Him, that matter could not act without His agency. 254 But in this case, you admit, that your God is the author of disorder, that it is He who deranges Nature, that He is the father of confusion, that He is in human, and moves you at the moment you sins. 255 If God is everywhere, He is in me, He acts with me, He is deceived with me, He offends Himself with me, and combats with me the existence of Himself! 256 O theologians! you never understand yourselves, when you speak of God.

APOLOGUE

46

257 In order to have what we call intelligence, it is necessary to have ideas, thoughts, and wishes; 258 to have ideas, thoughts, and wishes, it is necessary to have organs; to have organs, it is necessary to have a body; to act upon bodies, it is necessary to have a body; to experience disorder, it is necessary to be capable of suffering. 259 Whence it evidently follows, that a pure spirit can neither be intelligent, nor affected by what passes in the universe.

260 Divine intelligence, ideas, and views, have, you say, nothing common with those of humans. Very well. How then can humans judge, right or wrong, of these

views; reason upon these ideas; or admire this intelligence? 261 This would be to judge, admire, and adore that, of which we can have no ideas. 262 To adore the profound views of divine wisdom, is it not to adore that, of which we cannot possibly judge? To admire these views, is it not to admire without knowing why? 263 Admiration is always the daughter of ignorance. Humans admire and adore only what they do not comprehend.

APOLOGUE

47

264 All those qualities, ascribed to God, are totally incompatible with a being, who, by His very essence, is void of all analogy with human beings. 265 It is true, the divines imagine they extricate themselves from this difficulty, by exaggerating the human qualities, attributed to the Divinity; they enlarge them to infinity, where they cease to understand themselves. 266 What results from this combination of human with God? A mere chimera, of which, if any thing be affirmed, the phantom, combined with so much pains, instantly vanishes.

267 Dante, in his poem upon *Paradise*, relates, that the Deity appeared to him under the figure of three circles, forming an iris, whose lively colours generated each other; but that, looking steadily upon the dazzling light, he saw only his own figure. 268 While adoring God, it is himself, that human adores.

APOLOGUE

48

269 Ought not the least reflection suffice to prove, that God can have none of the human qualities, all ties, virtues, or perfections? 270 Our virtues and perfections are consequences of the modifications of our passions. But has God passions as we have? 271 Again: our good qualities consist in our dispositions towards the beings with whom we live in society. God, according to you, is an insulated being. 272 God has no equals-- no fellow-beings. God does not live in society. He wants the assistance of no one. He enjoys an unchangeable felicity. 273 Admit then, according to your own

principles, that God cannot have what we call virtues, and that human cannot be virtuous with respect to God.

APOLOGUE

49

274 Human, wrapped up in own merit, imagines the human race to be the sole object of God in creating the universe. Upon what does you found this flattering opinion? 275 We are told: that human is the only being endued with intelligence, which enables you to know the Deity, and to render Him homage. 276 We are assured, that God made the world only for His own glory, and that it was necessary that the human species should come into this plan, that there might be some one to admire His works, and glorify Him for them. 277 But, according to these suppositions, has not God evidently missed His object? 278 First. Human, according to yourselves, will always labour under the completest impossibility of knowing your God, and the most invincible ignorance of His divine essence. 279 Secondly. A being, who has no equal, cannot be susceptible of glory; for glory can result only from the comparison of one's own excellence with that of others. 280 Thirdly. If God be infinitely happy, if He be self-sufficient, what need has He of the homage of His feeble creatures? 281 Fourthly. God, notwithstanding all His endeavours, is not glorified; 282 but, on the contrary, all the religions in the world represent Him as perpetually offended; their sole object is to reconcile sinful, ungrateful, rebellious human with own angry God.

APOLOGUE

50

283 If God be infinite, He has much less relation with human, than human with ants. 284 Would the ants reason pertinently concerning the intentions, desires, and projects of the gardener? 285 Could they justly imagine, that a park was planted for them alone, by an ostentatious monarch, and that the sole object of His goodness was to furnish them with a superb residence? 286 But, according to theology, human is, with respect to God, far below

what the vilest insect is to human. 287 Thus, by theology itself, which is wholly devoted to the attributes and views of the Divinity, theology appears a complete folly.

APOLOGUE

51

288 We are told, that, in the formation of the universe, God's only object was the happiness of human. But, in a world made purposely for you, and governed by an omnipotent God, is human in reality very happy? 289 Are your enjoyments durable? Are not your pleasures mixed with pains? Are many persons satisfied with their fate? Is not human continually the victim of physical and moral evils? 290 Is not the human machine, which is represented as a master-piece of the Creator's skill, liable to derangement in a thousand ways? 291 Should we be surprised at the workmanship of a mechanic, who should shew us a complex machine, ready to stop every moment, and which, in a short time, would break in pieces of itself?

.APOLOGUE

52

292 The generous care, displayed by the Deity in providing for the wants, and watching over the happiness of His beloved creatures, is called; Providence. 293 But, when we open our eyes, we find that God provides nothing. His Providence sleeps over the greater part of the inhabitants of this world. 294 For a very small number of people who are supposed to be happy, what an immense multitude groan under oppression, and languish in misery! 295 Are not nations forced to deprive themselves of bread, to administer to the extravagances of a few gloomy tyrants, who are no happier than their oppressed slaves?

296 At the same time that our divines emphatically expatiate upon the goodness of Providence, while they exhort us to repose our confidence in Her, do we not hear them, at the sight of unforeseen catastrophes, exclaim, 297 that: Providence sports with the vain projects of human, that She frustrates their designs, that She laughs at their efforts, that

profound wisdom delights to bewilder the minds of mortals? 298 But, shall we put confidence in a malignant Providence, who laughs at, and sports with humankind? 299 How will one admire the unknown ways of a hidden wisdom, whose manner of acting is inexplicable? 300 Judge of it by effects, you will say. We do; and find, that these effects are sometimes useful, and sometimes hurtful.

301 People think they justify Providence, by saying, that, in this world, there is much more good than evil to every individual of humankind. 302 Supposing the good, we enjoy from Providence, is to the evil, as a hundred to ten; will it not still follow, that, for a hundred degrees of goodness, Providence possesses ten of malignity; which is incompatible with the supposed perfection of the divine nature.

303 Almost all books are filled with the most flattering praises of Providence, whose attentive care is highly extolled. 304 It would seem as if human, to live happily here below, needed not your own exertions. Yet, without your own labour, human could subsist hardly a day. 305 To live, you are obliged to sweat, toil, hunt, fish, and labour without intermission. 306 Without these second causes, the first cause, at least in most countries, would provide for none of our wants. 307 In all parts of the globe, we see savage and civilised person in a perpetual struggle with Providence. 308 You are necessitated to ward off the strokes directed against you by Providence, in hurricanes, tempests, frosts, hail-storms, inundations, droughts, and the various accidents, which so often render useless all your labours. 309 In a word, we see human continually occupied in guarding against the ill offices of that Providence, which is supposed to be attentive to your happiness.

310 A bigot admired divine Providence for wisely ordering rivers to pass through those places, where people have built large cities. 311 Is not this man's reasoning as rational, as that of many learned people, who incessantly talk of final-causes, or who pretend that they clearly perceive the beneficent views of

God in the formation of all things?

APOLOGUE

53

312 Do we see then, that Providence so very sensibly manifests Herself in the preservation of those admirable works, which we attribute to it? 313 If it is Her, who governs the world, we find Her as active in destroying, as in forming; in exterminating, as in producing. 314 Does She not every moment destroy, by thousands, the very people, to whose preservation and welfare we suppose Her continually attentive? 315 Every moment She loses sight of Her beloved creature. Sometimes She shakes your dwelling, sometimes She annihilates your harvests, sometimes She inundates your fields, sometimes She desolates them by a burning drought. 316 She arms all Nature against human. She arms human yourself against your own species, and commonly terminates your existence in anguish. Is this then what is called preserving the universe?

317 If we could view, without prejudice, the equivocal conduct of Providence towards the human race and all sensible beings, we should find, that far from resembling a tender and careful mother, 318 She resembles rather those unnatural mothers, who instantly forgetting the unfortunates of their licentious love, abandon their infants, as soon as they are born, and who, content with having borne them, expose them, helpless, to the caprice of fortune.

319 The Hottentots, in this respect are much wiser than other nations, who treat them as barbarians, and refuse to worship God; because, they say: if you often does good, you often does evil. 320 Is not this manner of reasoning more just and conformable to experience, than that of many people, who are determined to see, in their God, nothing but goodness, wisdom, and foresight, 321 and who refuse to see that the innumerable evils, of which this world is the theatre, must come from the same hand, which they kiss with delight?

GOODNESS

APOLOGUE

54

322 Common-sense teaches, that we cannot, and ought not, to judge of a cause, but by its effects. 323 A cause can be reputed constantly good, only when it constantly produces good. A cause, which produces both good and evil, is sometimes good, and sometimes evil. 324 But the logic of theology destroys all this. According to that, the phenomena of Nature, or the effects we behold in this world, prove to us the existence of a cause infinitely good; and this cause is God. 325 Although this world is full of evils; although disorder often reigns in it; although humans incessantly repine at their hard fate; 326 we must be convinced, that these effects are owing to a beneficent and immutable cause; and many people believe it, or feign believe.

327 Every thing that passes in the world, proves to us, in the clearest manner, that it is not governed by an intelligent being. 328 We can judge of the intelligence of a being only by the conformity of the means, which one employs to attain own proposed object. 329 The object of God, is the happiness of a human. Yet, a like necessity governs the fate of all sensible beings, who are born only to suffer much, enjoy little, and die. 330 The cup of human is filled with joy and bitterness; good is everywhere attended with evil; order gives place to disorder; generation is followed by destruction. 331 If you say, that the designs of God are mysterious and that His ways are impenetrable; I answer, that, in this case, it is impossible to judge whether God be intelligent.

APOLOGUE

55

332 You pretend, that God is immutable! What then produces a continual instability in this world, which you make your empire? 333 Is there a state, subject to more frequent and cruel revolutions, than that of this unknown monarch? 334 How can we attribute to an immutable God, sufficiently powerful to give solidity to His works, a government, in which every thing is in continual vicissitude? 335 If I imagine I see a God of uniform

character in all the effects favourable to my species, what kind of a God can I see in their continual misfortunes? 336 You tell me, it is our sins, which compel Him to punish. I answer, that God, according to yourselves, is then not immutable, since the sins of humans force Him to change His conduct towards them. 337 Can a being, who is sometimes provoked, and sometimes appeased, be constantly the same?

APOLOGUE
56

338 The universe can be only what it is; all sensible beings in it enjoy and suffer; that is, are moved sometimes in an agreeable, and sometimes in a disagreeable manner. 339 These effects are necessary; they result necessarily from causes, which act only according to their properties. 340 These effects necessarily please, or displease, by a consequence of Nature. 341 This same nature compels me to avoid, avert, and resist some things, and to seek, desire, and procure others. 342 In a world, where every thing is necessary, a God, who remedies nothing, who leaves things to run in their necessary course,-- is He any thing but destiny, or necessity personified? 343 It is a deaf and useless God, who can effect no change in general laws, to which He is Himself subject. 344 Of what importance is the infinite power of a being, who will do but very little in my favour? Where is the infinite goodness of a being, indifferent to happiness? 345 Of what service is the favour of a being, who, is able to do an infinite good, does not do even a finite one?

APOLOGUE
57

346 When we ask, why so many miserable objects appear under the government of a good God, we are told, by way of consolation, that the present world is only a passage, designed to conduct human to a happier one. 347 The divines assure us, that the earth we inhabit, is a state of trial. In short, they shut our mouths, by saying, that God could communicate to His creatures neither impossibility nor infinite happiness, which are reserved for Himself alone. Can such answers be satisfactory?

GOODNESS

348 (1). The existence of another life is guaranteed to us only by the imagination of human, who, by supposing it, have only realised the desire they have of surviving themselves, in order to enjoy hereafter a purer and more durable happiness. 349 (2). How can we conceive that a God, who knows every thing, and must be fully acquainted with the dispositions of His creatures, should want so many experiments, in order to be sure of their dispositions? 350 (3). According to the calculations of their chronologists, our earth has existed six or seven thousand years. During that time, nations have experienced calamities. 351 History exhibits the human species at all times tormented and ravaged by tyrants, conquerors, and heroes; by wars, inundations, famines, plagues, etc. 352 Are such long trials then likely to inspire us with very great confidence in the secret views of the Deity? 353 Do such numerous and constant evils give a very exalted idea of the future state, His goodness is preparing for us? 354 (4). If God is so kindly disposed, as He is asserted to be, without giving humans infinite happiness, could He not at least have communicated the degree of happiness, of which finite beings are susceptible here below? 355 To be happy, must we have an infinite or divine happiness? 356 (5). If God could not make humans happier than they are here below, what will become of the hope of a paradise, where it is pretended, that the elect will for ever enjoy ineffable bliss? 357 If God neither could nor would avert evil from the earth, the only residence we can know, what reason have we to presume, that He can or will avert evil from another world, of which we have no idea? 358 Epicurus observed: "either God would remove evil out of this world, and cannot; or He can, and will not; or He has neither the power nor will; or, lastly, He has both the power and will. 359 If He has the will, and not the power, this shews weakness, which is contrary to the nature of God. 360 If He has the power, and not the will, it is malignity; and this is no less contrary to His nature. 361 If He is neither able nor willing, He is both impotent and malignant, and consequently cannot be God. 362 If

He be both willing and able (which alone is consonant to the nature of God) whence comes evil, or why does He not prevent it?" 363 Reflecting minds are still waiting for a reasonable solution of these difficulties; and our divines tell us, that they will be removed only in a future life.

APOLOGUE

58

364 We are told of a pretended *scale of beings*. It is supposed, that God has divided His creatures into different classes, in which each enjoys the degree of happiness, of which it is susceptible. 365 According to this romantic arrangement, from the oyster to the celestial angels, all beings enjoy a happiness, which is suitable to their nature. 366 Experience explicitly contradicts this sublime reverie. In this world, all sensible beings suffer and live in the midst of dangers. 367 Human cannot walk without hurting, tormenting, or killing a multitude of sensible beings, which are in your way; 368 while you yourself is exposed, at every step, to a multitude of evils, foreseen or unforeseen, which may lead you to destruction. 369 During the whole course of your life, you are exposed to pains; you are not sure, a moment, of your existence, to which you are so strongly attached, and which you regards as the greatest gift of the Divinity.

APOLOGUE

59

370 The world, it will be said, has all the perfection, of which it is susceptible: since it is not God who made it, it must have great qualities and great defects. 371 But we answer, that, as the world must necessarily have great defects, it would have been more conformable to the nature of a good God, not to have created a world, which He could not make completely happy. 372 If God was supremely happy, before the creation of the world, and could have continued to be supremely happy, without creating the world, why did He not remain at rest? 373 Why must human suffer? Why must human exist? Of what importance is your existence to God? Nothing, or something? 374 If human's existence is not useful

or necessary to God, why did God make human? If human's existence is necessary to God's glory, He had need of human; He was deficient in something before human existed. 375 We can pardon an unskillful workman for making an imperfect work; because you must work, well or ill, upon penalty of starving. This workman is excusable, but God is not. 376 According to you, God is self-sufficient; if so, why does He make humans? God has, you say, every thing requisite to make human happy. Why then does He not do it? 377 Confess, that your God has more malice than goodness, unless you admit, that God, was necessitated to do what he has done, without being able to do it otherwise. 378 Yet, you assure us, that God is free. You say also, that He is immutable, although it was in *Time* that He began and ceased to exercise His power, like the inconstant beings of this world. 379 O theologians! Vain are your efforts to free your God from defects. This perfect God has always some human imperfections.

APOLOGUE

60

380 "Is not God master of His favours? Can He not give them? Can He not take them away? 381 It does not belong to His creatures to require reasons for His conduct. He can dispose of the works of His own hands as He pleases. Absolute sovereign of mortals, He distributes happiness or misery, according to His good pleasure." 382 Such are the solutions given by theologians to console us for the evils which God inflicts upon us. 383 We reply, that a God, who is infinitely good, cannot be master of his favours, but would by His nature be obliged to bestow them upon His creatures; 384 that a being, truly beneficent, cannot refrain from doing good; that a being, truly generous, does not take back what He has given; 385 and that every human, who does so, dispenses with gratitude, and has no right to complain of finding ungrateful people.

386 How can the odd and capricious conduct, which theologians ascribe to God, be reconciled with religion, which supposes a covenant, or mutual

engagements between God and humans? 387 If God owes nothing to His creatures, they, on their part, can owe nothing to their God. 388 All religion is founded upon the happiness that humans think they have a right to expect from the Deity, who is supposed to say to them: 389 Love me, adore me, obey me: and I will make you happy. Humans, on their part, say to Him: Make us happy, be faithful to your promises, and we will love you, we will adore you, and obey your laws. 390 By neglecting the happiness of His creatures, distributing His favours according to His caprice, and retracting His gifts, does not God break the covenant, which serves as the basis of all religion? 391 Cicero has justly observed, that; if God is not agreeable to human, He cannot be his God. 392 Goodness constitutes deity; this goodness can be manifested to human only by the blessings you enjoys; as soon as you are unhappy, this goodness disappears, and with it the divinity. 393 An infinite goodness can be neither limited, partial, nor exclusive. 394 If God be infinitely good, He owes happiness to all His creatures. The unhappiness of a single being would suffice to annihilate unbounded goodness. 395 Under an infinitely good and powerful God, is it possible to conceive that a single person should suffer? 396 One animal, or mite, that suffers, furnishes invincible arguments against divine providence and its infinite goodness.

APOLOGUE

61

397 According to theology, the afflictions and evils of this life are chastisements, which guilty people incur from the hand of God. But why are humans guilty? 398 If God is omnipotent, does it cost Him more to say: "Let every thing in the world be in order; let all my subjects be good, innocent, and fortunate," than to say: "Let every thing exist"? 399 Was it more difficult for this God to do His work well, than badly? 400 Religion tells us of a hell; that is, a frightful abode, where, notwithstanding God’s goodness, God reserves infinite torments for the majority of humans. 401 Thus after having rendered mortals very

unhappy in this world, religion tells them, that God can render them still more unhappy in another! 402 The theologian gets over this, by saying, that the goodness of God will then give place to His justice. But a goodness, which gives place to the most terrible cruelty, is not an infinite goodness. 403 Besides, can a God, who, after having been infinitely good, becomes infinitely bad, be regarded as an immutable being? 404 Can we discern the shadow of clemency or goodness, in a God filled with implacable fury?

APOLOGUE

62

405 Divine justice, as stated by our divines, is undoubtedly a quality very proper to cherish in us the love of the Divinity. 406 According to the ideas of modern theology, it is evident, that God has created the majority of humans, with the sole view of putting them in a fair way to incur eternal punishment. 407 Would it not have been more conformable to goodness, reason, and equity, to have created only stones or plants, and not to have created sensible beings; 408 than to have formed humans, whose conduct in this world might subject them to endless punishment in the other? 409 A God perfidious and malicious enough to create a single human, and then to abandon you to the danger of being damned, cannot be regarded as a perfect being; but as an unreasonable, unjust, and ill-natured. 410 Very far from composing a perfect God, theologians have formed the most imperfect of beings. 411 According to theological notions, God would resemble a tyrant, who, having put out the eyes of the greater part of His slaves, should shut them up in a dungeon, 412 where, for His amusement, He would, incognito, observe their conduct through a trap-door, in order to punish with rigour all those, who, while walking about, should hit against each other; 413 but who would magnificently reward the few whom He had not deprived of sight, in avoiding to run against their comrades. 414 Such are the ideas, which the dogma of gratuitous predestination gives us of the divinity!

GOODNESS

415 Although people are continually repeating that their God is infinitely good; yet it is evident, that in reality, they can believe nothing of the kind. 416 How can we love what we do not know? How can we love a being, whose character is only fit to throw us into inquietude and trouble? How can we love a being, of whom all that is said tends to render Him an object of utter detestation?

APOLOGUE
63

417 Many people make a subtle distinction between true religion and superstition. They say, that superstition is only a base and inordinate fear of the Deity; 418 but that the truly religious person has confidence in own God, and loves Him sincerely; 419 whereas, the superstitious person sees in God only an enemy, has no confidence in Him, and represents Him to own self as a distrustful, cruel tyrant, sparing of His benefits, lavish of His chastisements. 420 But, in reality, does not all religion give us the same ideas of God? At the same time that we are told, that God is infinitely good, are we not also told, that He is very easily provoked, 421 that God grants His favours to a few people only, and that He furiously chastises those, to whom He has not been pleased to grant favours?

APOLOGUE
64

422 If we take our ideas of God from the nature of things, where we find a mixture of good and evil, this God, just like the good and evil of which we experience, must naturally appear capricious, inconstant, sometimes good, and sometimes malevolent; 423 and therefore, instead of exciting our love, must generate distrust, fear, and uncertainty. 424 There is then no real difference between natural religion, and the most gloomy and servile superstition. 425 If the theist sees God only in a favourable light; the bigot views Him in the most hideous light. The folly of the one is cheerful, that of the other is melancholy; but both are equally delirious.

GOODNESS

APOLOGUE

65

426 If I draw my ideas of God from theology, He appears to inspire aversion. 427 Devotees, who tell us, that they sincerely love their God, are either liars or fools, who see their God only in profile. 428 It is impossible to love a being, the very idea of whom strikes us with terror, and whose judgments make us tremble. 429 How can we, without being alarmed, look upon a God, who is reputed to be barbarous enough to damn us? 430 Let not divines talk to us of a filial, or respectful fear, mixed with love, which people ought to have for their God. 431 A son can by no means love his father, when he knows him to be cruel enough to inflict upon him studied torments for the least faults he may commit. 432 No person upon earth can have the least spark of love for a God, who reserves chastisements, infinite in duration and violence, for ninety-nine hundredths of own children.

APOLOGUE

66

433 The inventors of the dogma of eternal hell-torments have made of that God, whom they call so good, the most detestable of beings. Cruelty in humans is the last act of wickedness. 434 Every sensible mind must revolt at the bare recital of the torments, inflicted on the greatest criminal; but cruelty is much more apt to excite indignation, when void of motives. 435 The most sanguinary tyrants, the Caligulas, the Neros, the Domitians, had, at least, some motives for tormenting their victims. 436 These motives were, either their own safety, or the fury of revenge, or the design of frightening by terrible examples, or perhaps the vanity of making a display of their power, and the desire of satisfying a barbarous curiosity. 437 Can a God have any of these motives? In tormenting the victims of His wrath, He would punish beings, who could neither endanger His immoveable power, nor disturb His unchangeable felicity. 438 On the other hand, the punishments of the other life would be useless to the living, who

cannot be witnesses of them. 439 These punishments would be useless to the damned, since in hell there is no longer room for conversion, and the time of mercy is past. 440 Whence it follows, that God, in the exercise of His eternal vengeance, could have no other end than to amuse Himself, and insult the weakness of His creatures. 441 I appeal to the whole human race;-- is there a person who feels cruel enough coolly to torment, I do not say your fellow-creature, but any sensible being whatever, without emolument, without profit, without curiosity, without having any thing to fear? 442 Confess then, O theologians, that, even according to your own principles, your God is infinitely more malevolent than the worst of humans.

443 Perhaps you will say, that infinite offences deserve infinite punishments. I answer, that we cannot offend a God, whose happiness is infinite; that the offences of finite beings cannot be infinite; 444 that a God, who is unwilling to be offended, cannot consent that the offences of His creatures should be eternal; 445 that a God, infinitely good, can neither be infinitely cruel, nor grant His creatures an infinite duration, solely for the pleasure of eternal torments.

446 Nothing but the most savage barbarity, the most egregious roguery, or the blindest ambition could have imagined the doctrine of eternal punishments. 447 If there is a God, whom we can offend or blaspheme, there are not upon earth greater blasphemers than those, who dare to say, that this same God is a tyrant, perverse enough to delight, during eternity, in the useless torments of His feeble creatures.

APOLOGUE

67

448 To pretend, that God can be offended at the actions of humans, is to annihilate all the ideas, which divines endeavour to give us, in other respects, of this being. 449 To say, that human can trouble the order of the universe; that you can kindle the thunder in the hands of your God; that you can defeat His projects, is to say, that human is stronger than own God, that you are the arbiter of His will, that it

depends upon you to change His goodness into cruelty. 450 Theology continually pulls down, with one hand, what it erects with the other. 451 If all religion is founded upon a God, who is provoked and appeased, all religion is founded on a palpable contradiction.

452 All religions agree in exalting the wisdom and infinite power of the Deity. But no sooner do they display His conduct, than we see nothing but imprudence, want of foresight, weakness and folly. 453 God, it is said, created the world for Himself; and yet, hitherto, He has never been able to make Himself suitably honoured by it. 454 God created humans in order to have, in His dominions, subjects to render Him their homage; and yet, we see humans in continual revolt against Him.

APOLOGUE

68

455 They incessantly extol the divine perfections; and when we demand proofs of them, they point to His works, in which, they assure us, these perfections are written in indelible characters. 456 All these works are, however, imperfect and perishable. Human, who is ever regarded as the most marvellous work, as the master-piece of the Deity, is full of imperfections, which render you disagreeable to the eyes of the almighty Being, who formed you. 457 This surprising work often becomes so revolting and odious to its author, that you are obliged to throw it into the fire. 458 But, if the fairest of God's works is imperfect, how can we judge of the divine perfections? 459 Can a work, with which the author Himself is so little pleased, induce us to admire the ability of its Maker? 460 Human, considered in a physical sense, is subject to a thousand infirmities, to numberless evils, and to death. 461 Human, considered in a moral sense, is full of faults; yet we are unceasingly told, that you are the most beautiful work of the most perfect of beings.

APOLOGUE

69

462 In creating beings more perfect than humans, it appears, that heretofore God has not better

succeeded, nor given stronger proofs of your perfection. 463 Do we not see, in many religions, that angels, have even attempted to dethrone God? 464 God proposed the happiness of angels and humans; yet, He has never been able to render happy either angels or humans;-- 465 the pride, malice, sins, and imperfections of the creatures have always opposed the will of the perfect Creator.

APOLOGUE

70

466 All religion is obviously founded upon this principle, that: God does what He can, and human what you will. 467 Every system of religion presents to us an unequal combat between the Deity on one part, and His creatures on the other, in which the former never comes off to His honour. 468 Notwithstanding His omnipotence, He cannot succeed in rendering the works of His hands such as He would have them. 469 To complete the absurdity, there is a religion, which pretends, that God Himself has died to redeem humankind; and yet, humans are not farther from any thing, than they are from what God would have them.

APOLOGUE

71

470 Nothing is more extravagant, than the part, theology makes the Divinity act in every country. Did a personal God really exist, we should see in Him the most capricious, and senseless being. 471 We should be compelled to believe, that God made the world only to be the theatre of His disgraceful wars with His creatures; 472 that God created angels, humans, and demons, only to make adversaries, against whom He might exercise His power. 473 He renders humans free to offend Him, malicious enough to defeat His projects, too obstinate to submit; and all this merely for the pleasure of being angry, appeased, reconciled, and of repairing the disorder they have made. 474 Had the Deity at once formed His creatures such as He would have them, what pains would He not have spared Himself, or, at least, from what embarrassments would He not have relieved His theologians!

475 Every religion represents God as busy only in doing Himself evil. He resembles those empirics, who inflict upon themselves wounds, to have an opportunity of exhibiting to the public the efficacy of their ointment. 476 But we see not, that the Deity has hitherto been able radically to cure Himself of the evil, which He suffers from human.

APOLOGUE

72

477 God is the author of all; and yet, we are assured that evil does not come from God. Whence then does it come? From human. But, who made human? God. Evil then comes from God. 478 If He had not made human as you are, moral evil or sin would not have existed in the world. The perversity of human is therefore chargeable to God. 479 If human has power to do evil, or to offend God, we are forced to infer, that God chooses to be offended; 480 that God, who made human, has resolved that human shall do evil; otherwise human would be an effect contrary to the cause, from which He derives your being.

APOLOGUE

73

481 Human ascribes to God the faculty of foreseeing, or knowing beforehand whatever will happen; but this prescience seldom turns to His glory, nor protects Him from the lawful reproaches of human. 482 If God foreknows the future, must He not have foreseen the fall of His creatures? 483 If He resolved in His decrees to permit this fall, it is undoubtedly because it was His will that this fall should take place, otherwise it could not have happened. 484 If God's foreknowledge of the sins of His creatures had been necessary or forced, one might suppose, that He has been constrained by His justice to punish the guilty; 485 but, enjoying the faculty of foreseeing, and the power of predetermining every thing, did it not depend upon God not to impose upon Himself cruel laws, 486 or, at least, could He not dispense with creating beings, whom He might be under the necessity of punishing, and rendering unhappy by a subsequent decree? 487 Of what consequence is it, whether God has destined humans to happiness

or misery by an anterior decree, an effect of His prescience, or by a posterior decree, an effect of His justice? 488 Does the arrangement of His decrees alter the fate of the unhappy? 489 Would they not have the same right to complain of a God, who, being able to omit their creation, has notwithstanding created them, although He plainly foresaw that His justice would oblige Him, sooner or later, to punish them?

APOLOGUE

74

490 "Human," you say, "when you came from the hand of God, was pure, innocent, and good; but your nature has been corrupted, as a punishment for sin." 491 If human, when just out of the hands of your God, could sin, your nature was imperfect. Why did God suffer you to sin, and your nature to be corrupted? 492 Why did God permit you to be seduced, well knowing that you was too feeble to resist temptation? 493 Why did God create satan, an evil spirit, a tempter? 494 Why did not God, who wishes so much good to the human race, annihilate once for all so many evil genii, who are naturally enemies of our happiness; 495 or rather, why did God create evil spirits, whose victories and fatal influence over humankind, He must have foreseen? 496 In fine, by what strange fatality in all religions of the world, has the evil principle such a decided advantage over the good principle, or the divinity?

APOLOGUE

75

497 There is related an instance of simplicity, which does honour to the heart of an Italian monk. 498 One day, while preaching, this pious man thought he must announce to his audience, that he had, thank heaven, at last discovered, by dint of meditation, a sure way of rendering all humans happy. 499 "The devil," said he, "tempts humans only to have in hell companions of your misery. Let us therefore apply to the Pope, who has the keys of heaven and hell; 500 let us prevail upon him to pray to God, at the head of the whole church, to consent to a reconciliation with the devil, to restore him to favour, to reinstate

him in his former rank, which cannot fail to put an end to his malicious projects against humankind." 501 Perhaps the honest monk did not see, that the devil is at least as useful as God to the ministers of religion. 502 They have too much interest in their dissensions, to be instrumental in an accommodation between two enemies, upon whose combats their own existence and revenues depend. 503 Let people cease to be tempted and to sin, and the ministry of priests will be useless. 504 Manicheism is evidently the hinge of every religion; but unhappily, the devil, invented to clear the deity from the suspicion of malice, proves to us, every moment, the impotence or unskillfulness of his celestial adversary.

APOLOGUE

76

505 The nature of human, it is said, was necessarily liable to corruption. God could not communicate to your impeccability, which is an inalienable attribute of His divine perfection. 506 But if God could not make human impeccable, why did He give Himself the pains to make human, whose nature must necessarily be corrupted, and who must consequently offend God? 507 On the other hand, if God Himself could not make human nature impeccable, by what right does He punish humans for not being impeccable? 508 It can be only by the right of the strongest; but the right of the strongest is called violence, and violence cannot be compatible with the justest of beings. 509 God would be supremely unjust, should He punish humans for not sharing with you His divine perfections, or for not being able to be gods like Him.

510 Could not God, at least, have communicated to all humans that kind of perfection, of which their nature is susceptible? 511 If some people are good, or render themselves agreeable to their God, why has not that God done the same favour, or given the same dispositions to all beings of our species? 512 Why does the number of the wicked so much exceed the number of the good? 513 Why, for one friend, has God ten thousand

enemies, in a world, which it depended entirely upon Him to people with honest people? 514 If it be true, that, in heaven, God designs to form a court of saints, of elect, or of people who shall have lived upon earth conformably to His views, would He not have had a more numerous, brilliant, and honourable assembly, 515 had He composed it of all humans, to whom, in creating them, He could grant the degree of goodness, necessary to attain eternal happiness? 516 Finally, would it not have been shorter not to have made human, than to have created you a being full of faults, rebellious to your creator, perpetually exposed to cause your own destruction by a fatal abuse of His liberty?

517 Instead of creating humans, a perfect God ought to have created only angels very docile and submissive. 518 Angels, it is said, are free; some have sinned; but, at any rate, all have not abused their liberty by revolting against their master. 519 Could not God have created only angels of the good kind? If God has created angels, who have not sinned, could He not have created impeccable people, or people who should never abuse their liberty? 520 If the elect are incapable of sinning in heaven, could not God have made impeccable people upon earth?

APOLOGUE

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521 Divines never fail to persuade us, that the enormous distance which separates God and human, necessarily renders the conduct of God a mystery to us, and that we have no right to interrogate our master. Is this answer satisfactory? 522 Since my eternal happiness is at stake, have I not a right to examine the conduct of God Himself? 523 It is only in hope of happiness that humans submit to the authority of a God. 524 A despot, to whom people submit only through fear, a master, whom they cannot interrogate, a sovereign totally inaccessible, can never merit the homage of intelligent beings. 525 If the conduct of God is a mystery, it is not made for us. Human can neither adore, admire, respect, nor imitate conduct, in which every thing is inconceivable, or, of

which you can often form only revolting ideas; 526 unless it is pretended, that we ought to adore every thing of which we are forced to be ignorant, and that every thing, which we do not know, becomes for that reason an object of admiration. 527 Divines! You never cease telling us, that the designs of God are impenetrable; that His ways are not our ways, nor His thoughts our thoughts; 528 that it is absurd to complain of His administration, of the motives and springs of which we are totally ignorant; 529 that it is presumption to tax His judgments with injustice, because we cannot comprehend them. 530 But when you speak in this strain, do you not perceive, that you destroy with your own hands all your profound systems, whose only end is to explain to us the ways of the divinity, which, you say, are impenetrable? 531 Have you penetrated His judgments, His ways, His designs? You dare not assert it, and though you reason about them without end, you do not comprehend them any more than we do. 532 If, by chance, you know the plan of God, which you wish us to admire, while most people find it so little worthy of a just, good, intelligent, and reasonable being, no longer say, this plan is impenetrable. 533 If you are as ignorant of it as we are, have some indulgence for those who ingenuously confess, they comprehend nothing in it, or that they see in it nothing divine. 534 Cease to persecute for opinions, of which you understand nothing yourselves; cease to defame each other for dreams and conjectures, which every thing seems to contradict. 535 Talk to us of things intelligible and really useful to humans; and no longer talk to us of the impenetrable ways of God, about which you only stammer and contradict yourselves.

536 By continually speaking of the immense depths of divine wisdom, forbidding us to sound them, saying it is insolence to cite God before the tribunal of our feeble reason, making it a crime to judge our master, 537 divines teach us nothing but the embarrassment they are in, when it is required to account for the conduct of a God, 538 whose conduct they think marvellous only because they are

utterly incapable of comprehending it themselves.

APOLOGUE

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539 Physical evil is commonly regarded as a punishment for sin. Diseases, famines, wars, earthquakes, are means which God uses to chastise wicked people. 540 Thus, they make no scruple of attributing these evils to the severity of a just and good God. 541 But, do not these scourges fall indiscriminately upon the good and bad, upon the impious and devout, upon the innocent and guilty? 542 How, in this proceeding, would they have us admire the justice and goodness of a being, the idea of whom seems comforting to so many wretches, 543 whose brain must undoubtedly be disordered by their misfortunes, since they forget, that their God is the arbiter, the sole disposer of the events of this world. 544 This being the case, ought they not to impute their sufferings to Him, into whose arms they fly for comfort? 545 Unfortunate father! Thou consolest thyself in the bosom of Providence, for the loss of a dear child, or beloved wife, who made thy happiness. 546 Alas! Dost thou not see, that thy God has killed them? Thy God has rendered thee miserable, and thou desirest thy God to comfort thee for the dreadful afflictions He has sent thee!

547 The chimerical or supernatural notions of theology have so succeeded in destroying, in the minds of people, the most simple, dear, and natural ideas, 548 that the devout, unable to accuse God of malice, accustom themselves to regard the several strokes of fate as indubitable proofs of celestial goodness. 549 When in affliction, they are ordered to believe that God loves them, that God visits them, that God wishes to try them. Thus religion has attained the art of converting evil into good! 550 A profane person said with reason--If God Almighty thus treats those whom He loves, I earnestly beseech Him never to think of me.

551 People must have received very gloomy and cruel ideas of their God, who is called so good, to believe that the most dreadful calamities and piercing afflictions are marks of His favour!

552 Would an evil genius, a demon, be more ingenious in tormenting own enemies, than the God of goodness sometimes is, who so often exercises His severity upon His dearest friends?

APOLOGUE

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553 What shall we say of a father, who, we are assured, watches without intermission over the preservation and happiness of His weak and short-sighted children, and who yet leaves them at liberty to wander at random among rocks, precipices, and waters; 554 who rarely hinders them from following their inordinate appetites; who permits them to handle, without precaution, murderous arms, at the risk of their life? 555 What should we think of the same father, if, instead of imputing to Himself the evil that happens to His poor children, He should punish them for their wanderings in the most cruel manner? 556 We should say, with reason, that this father is a madman, who unites injustice to folly. 557 A God, who punishes faults, which He could have prevented, is a being deficient in wisdom, goodness, and equity. 558 A foreseeing God would prevent evil, and thereby avoid having to punish it. 559 A good God would not punish weaknesses, which He knew to be inherent in human nature. 560 A just God, if He made human, would not punish you for not being made strong enough to resist your desires. To punish weakness is the most unjust tyranny. 561 Is it not calumniating a just God, to say, that He punishes people for their faults, even in the present life? 562 How could He punish beings, whom it belonged to Him alone to reform, and who, while they have not grace, cannot act otherwise than they do?

563 According to the principles of theologians themselves, human, in your present state of corruption, can do nothing but evil, since, without divine grace, you are never able to do good. 564 Now, if the nature of human, left to itself, or destitute of divine aid, necessarily determines you to evil, or renders you incapable of good, what becomes of the free-will of human? 565 According to such

principles, human can neither merit nor demerit. 566 By rewarding human for the good you does, God would only reward Himself; by punishing human for the evil you does, God would punish you for not giving Him grace, without which you could not possibly do better.

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567 Theologians repeatedly tell us, that human is free, while all their principles conspire to destroy your liberty. By endeavouring to justify the Divinity, they in reality accuse you of the blackest injustice. 568 They suppose, that without grace, human is necessitated to do evil. They affirm, that God will punish you, because God has not given you grace to do good!

569 Little reflection will suffice to convince us, that human is necessitated in all your actions, that your free-will is a chimera, even in the system of theologians. 570 Does it depend upon human to be born of such or such parents? Does it depend upon human to imbibe or not to imbibe the opinions of your parents or instructors? 571 If I had been born of idolatrous or Mahometan parents, would it have depended upon me to become a Christian? 572 Yet, divines gravely assure us, that a just God will damn without pity all those, to whom He has not given grace to know the Christian religion!

573 Human's birth is wholly independent of your choice. You are not asked whether you are willing, or not, to come into the world. Nature does not consult you upon the country and parents She gives you. 574 Your acquired ideas, your opinions, your notions true or false, are necessary fruits of the education which you have received, and of which you have not been the director. 575 Your passions and desires are necessary consequences of the temperament given you by Nature. 576 During your whole life, your volitions and actions are determined by your connections, habits, occupations, pleasures, and conversations; by the thoughts, that are involuntarily presented to your mind; 577 in a word, by a multitude of events and accidents, which it is out of your power to foresee or prevent.

Incapable of looking into futurity, you knows not what you will do. 578 From the instant of your birth to that of your death, you are never free. 579 You will say, that you wills, deliberates, chooses, determines; and you will hence conclude, that your actions are free. It is true, that human wills, but you are not master of your will or your desires; 580 you can desire and will only what you judges advantageous to yourself; you can neither love pain, nor detest pleasure. 581 It will be said, that you sometimes prefers pain to pleasure; but then you prefers a momentary pain with a view of procuring a greater and more durable pleasure. 582 In this case, the prospect of a greater good necessarily determines you to forego a less considerable good.

583 The lover does not give own mistress the features which captivate own self; you are not then master of loving, or not loving the object of your tenderness; you are not master of your imagination or temperament. 584 Whence it evidently follows, that human is not master of own volitions and desires. "But human," you will say, "can resist own desires; therefore you are free." 585 Human resists own desires, when the motives, which divert you from an object, are stronger than those, which incline you towards it; but then your resistance is necessary. 586 A person, whose fear of dishonour or punishment is greater than own love of money, necessarily resists the desire of stealing.

587 "Are we not free, when we deliberate?" But, are we masters of knowing or not knowing, of being in doubt or certainty? 588 Deliberation is a necessary effect of our uncertainty respecting the consequences of our actions. 589 When we are sure, or think we are sure, of these consequences, we necessarily decide, and we then act necessarily according to our true or false judgment. 590 Our judgments, true or false, are not free; they are necessarily determined by the ideas, we have received, or which our minds have formed.

591 Human is not free in own choice; you are evidently necessitated to choose what you judges most useful and agreeable.

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592 Neither is you free, when you suspends your choice; you are forced to suspend it until you knows, or thinks you knows, the qualities of the objects presented to you, or, until you have weighed the consequences of your actions. 593 "Human," you will say, "often decides in favour of actions, which you knows must be detrimental to yourself; human sometimes kills own self; therefore you are free." I deny it. 594 Is human master of reasoning well or ill? Do not your reason and wisdom depend upon the opinions you have formed, or upon the conformation of your machine? 595 As neither one nor the other depends upon your will, they are no proof of liberty. 596 "If I lay a wager, that I shall do, or not do a thing, am I not free? Does it not depend upon me to do it or not?" No, I answer; 597 the desire of winning the wager will necessarily determine you to do, or not to do the thing in question. 598 "But, supposing I consent to lose the wager?" Then the desire of proving to me, that you are free, will have become a stronger motive than the desire of winning the wager; 599 and this motive will have necessarily determined you to do, or not to do, the thing in question.

600 "But," you will say, "I feel free." This is an illusion, that may be compared to that of the fly in the fable, who, lighting upon the pole of a heavy carriage, applauded himself for directing its course. 601 Human, who thinks yourself free, is a fly, who imagines you have power to move the universe, while you are yourself unknowingly carried along by it.

602 The inward persuasion that we are free to do, or not to do a thing, is but a mere illusion. 603 If we trace the true principle of our actions, we shall find, that they are always necessary consequences of our volitions and desires, which are never in our power. 604 You think yourself free, because you do what you will; but are you free to will, or not to will; to desire, or not to desire? 605 Are not your volitions and desires necessarily excited by objects or qualities totally independent of you?

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APOLOGUE

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606 "If the actions of people are necessary, if humans are not free, by what right does society punish criminals? 607 Is it not very unjust to chastise beings, who could not act otherwise than they have done?" 608 If the wicked act necessarily according to the impulses of their evil nature, society, in punishing them, acts necessarily by the desire of self-preservation. 609 Certain objects necessarily produce in us the sensation of pain; our nature then forces us against them, and avert them from us. 610 A tiger, pressed by hunger, springs upon the human, whom it wishes to devour; but this human is not master of own fear, and necessarily seeks means to destroy the tiger.

APOLOGUE

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611 "If every thing be necessary, the errors, opinions, and ideas of humans are fatal; and, if so, how or why should we attempt to reform them?" 612 The errors of humans are necessary consequences of ignorance. 613 Their ignorance, prejudice, and credulity are necessary consequences of their inexperience, negligence, and want of reflection, in the same manner as delirium or lethargy are necessary effects of certain diseases. 614 Truth, experience, reflection, and reason, are remedies calculated to cure ignorance, fanaticism and follies. 615 But, you will ask, why does not truth produce this effect upon many disordered minds? It is because some diseases resist all remedies; 616 because it is impossible to cure obstinate patients, who refuse the remedies presented to them; 617 because the interest of some people, and the folly of others, necessarily oppose the admission of truth.

618 A cause produces its effect only when its action is not interrupted by stronger causes, which then weakens or render useless, the action of the former. 619 It is impossible that the best arguments should be adopted by people, who are interested in error, prejudiced in its favour, and who decline all reflection; 620 but truth must necessarily undeceive honest minds, who seek it sincerely.

621 Truth is a cause; it necessarily produces its effects, when its impulse is not intercepted by causes, which suspend its effects.

APOLOGUE
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622 "To deprive human of your free-will," it is said, "makes you a mere machine, an automaton. Without liberty, you will no longer have either merit or virtue." 623 What is merit in human? It is a manner of acting, which renders you estimable in the eyes of your fellow-beings. 624 What is virtue? It is a disposition, which inclines us to do good to others. 625 What can there be contemptible in machines, or automatons, capable of producing effects so desirable? 626 Marcus Aurelius was useful to the vast Roman Empire. 627 By what right would a machine despise a machine, whose springs facilitate its action? 628 Good people are springs, which second society in its tendency to happiness; 629 the wicked are ill-formed springs, which disturb the order, progress, and harmony of society. 630 If, for its own utility, society cherishes and rewards the good, it also harasses and destroys the wicked, as useless or hurtful.

APOLOGUE
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631 The world is a necessary agent. All the beings, that compose it, are united to each other, and cannot act otherwise than they do, so long as they are moved by the same causes, and endued with the same properties. 632 When they lose properties, they will necessarily act in a different way. 633 God Himself, admitting His existence, cannot be considered a free agent. 634 If there existed a God, His manner of acting would necessarily be determined by the properties inherent in His nature; nothing would be capable of arresting or altering His will. 635 This being granted, neither our actions, prayers, nor sacrifices could suspend, or change His invariable conduct and immutable designs; whence we are forced to infer, that all religion would be useless.

APOLOGUE
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636 Were not divines in perpetual contradiction with themselves,

they would see, that, according to their hypothesis, human cannot be reputed free an instant. 637 Do they not suppose human continually dependent on own God? 638 Are we free, when we cannot exist and be preserved without God, and when we cease to exist at the pleasure of His supreme will? 639 If God has made human out of nothing; if His preservation is a continued creation; if God cannot, an instant, lose sight of His creature; 640 if whatever happens to you, is an effect of the divine will; if human can do nothing of yourself; if all the events, which you experiences, are effects of the divine decrees; 641 if you does no good without grace from on high, how can they maintain, that a human enjoys a moment's liberty? 642 If God did not preserve you in the moment of sin, how could human sin? If God then preserves you, God forces you to exist, that you may sin.

APOLOGUE

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643 The Divinity is frequently compared to a king, whose revolted subjects are the greater part of humankind; and it is said, He has a right to reward the subjects who remain faithful to Him, and to punish the rebellious. 644 This comparison is not just in any of its parts. God presides over a machine, every spring of which He has created. 645 These springs act agreeable to the manner, in which God has formed them; He ought to impute it to His own unskilfullness, if these springs do not contribute to the harmony of the machine, into which it was His will to insert them. 646 God is a created king, who has created to Himself subjects of every description; who has formed them according to His own pleasure whose will can never find resistance. 647 If God has rebellious subjects in His empire, it is because God has resolved to have rebellious subjects. 648 If the sins of humans disturb the order of the world, it is because it is the will of God that this order should be disturbed.

649 Nobody dares to call in question the divine justice; yet, under the government of a just God, we see nothing but acts of injustice and violence. 650 Force

decides the fate of nations, equity seems banished from the earth; a few people sport, unpunished, with the peace, property, liberty, and life of others. 651 All is disorder in a world governed by a God who is said to be infinitely displeased with disorder.

APOLOGUE

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652 Although humans are for ever admiring the wisdom, goodness, justice, and beautiful order of Providence, they are, in reality, never satisfied with it. 653 Do not the prayers, continually addressed to heaven, shew, that people are by no means satisfied with the divine dispensations? 654 To pray to God for a favour, shews diffidence of His watchful care; to pray to Him to avert or put an end to an evil, is to endeavour to obstruct the course of His justice; 655 to implore the assistance of God in our calamities, is to address the author Himself of these calamities, to represent to Him, that He ought, for our sake, to rectify His plan, which does not accord with our interest.

656 The Optimist, or you who maintains that all is well, and who incessantly cries that we live in the best world possible, to be consistent, should never pray; neither ought you to expect another world, where human will be happier. 657 Can there be a better world than the best world possible? 658 Some theologians have treated the Optimists as impious, for having intimated that God could not produce a better world, than that in which we live. 659 According to these doctors, it is to limit the power of God, and to offer Him insult. 660 But do not these divines see, that it shews much less indignity to God, to assert that He has done His best in producing this world, than to say, that, being able to produce a better, He has had malice enough to produce a very bad one? 661 If the Optimist, by your system, detracts from the divine power, the theologian, who treats you as a blasphemer, is a blasphemer, who offends the goodness of God in espousing the cause of His omnipotence.

GOODNESS

APOLOGUE
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662 When we complain of the evils, of which our world is the theatre, we are referred to the other world, where it is said, God will make reparation for all the iniquity and misery, which, for a time, He permits here below. 663 But if God, suffering His eternal justice to remain at rest for a long time, could consent to evil during the whole continuance of our present world, what assurance have we, that, during the continuance of another world, divine justice will not, in like manner, sleep over the misery of its inhabitants?

664 The divines console us for our sufferings by saying, that God is patient, and that His justice, though often slow, is not the less sure. 665 But do they not see, that patience is incompatible with a just, immutable, and omnipotent being? 666 Can God then permit injustice, even for an instant? To temporise with a known evil, announces either weakness, uncertainty, or collusion. 667 To tolerate evil, when one has power to prevent it, is to consent to the commission of evil.

APOLOGUE
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668 Divines every where exclaim, that God is infinitely just; but that His justice is not the justice of human. Of what kind or nature then is this divine justice? 669 What idea can I form of a justice, which so often resembles injustice? Is it not to confound all ideas of just and unjust, to say, that what is equitable in God is iniquitous in His creatures? 670 How can we receive for our model a being, whose divine perfections are precisely the reverse of human?

671 "God," it is said, "is sovereign arbiter of our destinies. His supreme power, which nothing can limit, justly permits Him to do with the works of His own hands according to His good pleasure. 672 A worm, like human, has no right even to complain." This arrogant style is evidently borrowed from the language, used by the ministers of tyrants, when they stop the mouths of those who suffer from their violences. 673 It cannot then be the language of the ministers of a God, whose equity is highly extolled; it is not made to

be imposed upon a being, who reasons. 674 Ministers of a just God! I will inform you then, that the greatest power cannot confer upon your God Himself the right of being unjust even to the vilest of His creatures. 675 A despot is not a God. A God, who arrogates to Himself the right of doing evil, is a tyrant; a tyrant is not a model for humans; He must be an object execrable to their eyes.

676 Is it not indeed strange, that in order to justify the Divinity, they make Him every moment the most unjust of beings! 677 As soon as we complain of His conduct, they think to silence us by alleging, that God is master; which signifies, that God, being the strongest, is not bound by ordinary rules. 678 But the right of the strongest is the violation of all rights. 679 It seems right only to the eyes of a savage conqueror, who in the heat of his fury imagines, that he may do whatever he pleases with the unfortunate victims, whom he has conquered. 680 This barbarous right can appear legitimate only to slaves blind enough to believe that everything is lawful to tyrants whom they feel too weak to resist. 681 In the greatest calamities, do not devout persons, through a ridiculous simplicity, or rather a sensible contradiction in terms, exclaim, that the Almighty is master. 682 Thus, inconsistent reasoners, believe, that the Almighty (a Being, one of whose first attributes is goodness,) sends you pestilence, war, and famine! 683 You believe that the Almighty, this good being, has the will and right to inflict the greatest evils, you can bear! 684 Cease, at least, to call your God good, when He does you evil; say not, that He is just, say that He is the strongest, and that it is impossible for you to ward off the blows of His caprice.

685 God, say you, chastises only for our good. But what real good can result to a people from being exterminated by the plague, ravaged by wars, corrupted by the examples of perverse rulers, 686 continually crushed under the iron sceptre of a succession of merciless tyrants, annihilated by the scourges of a bad government, whose destructive effects are often felt for ages? 687 If chastisements

are good, then they cannot have too much of a good thing! 688 The eyes of faith must be strange eyes, if with them they see advantages in the most dreadful calamities, in the vices and follies with which our species are afflicted.

APOLOGUE
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689 What strange ideas of divine justice must Christians have, who are taught to believe, that their God, in view of reconciling to Himself the human race, guilty, though unconscious, of the sin of their fathers, has put to death His own son, who was innocent and incapable of sinning? 690 What should we say of a king, whose subjects should revolt, and who, to appease Himself, should find no other expedient than to put to death the heir of His crown, who had not participated in the general rebellion? 691 "It is," the Christian will say, "through goodness to His subjects, unable of themselves to satisfy divine justice, that God has consented to the cruel death of His son." 692 But the goodness of a father to strangers does not give Him the right of being unjust and barbarous to His own son. 693 All the qualities, which theology ascribes to God, reciprocally destroy one another. The exercise of one of His perfections is always at the expense of the exercise of another.

694 Has the Jew more rational ideas of divine justice than the Christian? 695 The pride of a king kindles the anger of heaven; Jehovah causes the pestilence to descend upon His innocent people; 696 seventy thousand subjects are exterminated to expiate the fault of a monarch, whom the goodness of God resolved to spare.

APOLOGUE
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697 Notwithstanding the various acts of injustice, with which all religions delight to blacken the Divinity, humans cannot consent to accuse Him of iniquity. 698 They fear, that, like the tyrants of this world, truth will offend Him, and redouble upon them the weight of His malice and tyranny. 699 They hearken therefore to their priests, who tell them, that their God is a tender father; 700 that this God is an equitable monarch whose object in this world is to

assure Himself of the love, obedience and respect of His subjects; 701 who gives them liberty of acting only to afford them an opportunity of meriting His favours, and of acquiring an eternal happiness, which He does not owe them. 702 By what signs can people discover the tenderness of a father, who has given life to the greater part of His children merely to drag out upon the earth a painful, restless, bitter existence? 703 Is there a more unfortunate present, than that pretended liberty, which, we are told, humans are very liable to abuse, and thereby to incur eternal misery?

APOLOGUE

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704 By calling mortals to life, what a cruel and dangerous part has not the Deity forced them to act? 705 Thrown into the world without their consent, provided with a temperament of which they are not masters, animated by passions and desires inherent in their nature, exposed to snares which they have not power to escape, hurried away by events which they could not foresee or prevent, 706 unhappy mortals are compelled to run a career, which may lead them to punishments horrible in duration and violence.

707 Travellers inform us, that, in Asia, a Sultan reigned, full of fantastical ideas, and very absolute in his whims. 708 By a strange madness, this prince spent his time seated at a table, upon which were placed three dice and a dice-box. 709 One end of the table was covered with pieces of silver, designed to excite the avarice of his courtiers and people. He, knowing the foible of his subjects, addresses them as follows: 710 ‘Slaves, I wish your happiness. My goodness proposes to enrich you, and make you all happy. 711 Do you see these treasures? Well, they are for you; strive to gain them; let each, in your turn, take the box and dice; whoever has the fortune to throw sixes, shall be master of the treasure. 712 But, I forewarn you, that you who has not the happiness to throw the number required, shall be precipitated for ever into a dark dungeon, where my justice demands that you be burned with a slow fire.’ 713 Upon this discourse of the monarch, the company look at each other affrighted. No one

wishes to expose own self to so dangerous a chance. 714 What! says the enraged Sultan, does no one offer to play? I tell you then you must; My glory requires that you should play. Play then; obey without replying. 715 It is well to observe, that the dice of the despot are so prepared, that out of a hundred thousand throws, there is but one, which can gain the number required. 716 Thus the generous monarch has the pleasure of seeing his prison well filled, and his riches seldom ravished from him. 717 Mortals! this SULTAN is your GOD; his TREASURE IS HEAVEN; his DUNGEON IS HELL, and it is you who hold the DICE!

APOLOGUE

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718 Divines repeatedly assure us, that we owe Providence infinite gratitude for the numberless blessings it bestows. They loudly extol the happiness of existence. 719 But, alas! how many mortals are truly satisfied with their mode of existence? If life has sweets, with how much bitterness is it not mixed? 720 Does not a single chagrin often suffice suddenly to poison the most peaceable and fortunate life? 721 Are there many, who, if it were in their power would begin again, at the same price, the painful career, in which, without their consent, destiny has placed them?

722 They say, that existence is a great blessing. But is not this existence continually troubled with fears, and maladies, often cruel and little deserved? 723 May not this existence, threatened on so many sides, be torn from us any moment? 724 Where is the person, who has not been deprived of a dear wife, beloved child, or consoling friend, whose loss every moment intrudes upon your thoughts? 725 There are few, who have not been forced to drink of the cup of misfortune; there are few, who have not desired their end. 726 Finally, it did not depend upon us to exist or not to exist. 727 Should the bird then be very grateful to the fowler for taking it in own net and confining it in own cage for your diversion?

APOLOGUE

94

728 Notwithstanding the infirmities and misery which human is forced to undergo, you have,

nevertheless, the folly to think yourself the favourite of your God, the object of all your cares, the sole end of all your works. 729 You imagines, that the whole universe is made for you; you arrogantly calls yourself the king of Nature, and values yourself far above other animals. 730 Mortal! upon what canst thou found thy haughty pretensions? It is, sayest thou, upon thy soul, upon thy reason, upon the sublime faculties, which enable thee to exercise an absolute empire over the beings, which surround thee. 731 But, weak sovereign of the world; art thou sure, one moment, of the continuance of thy reign? 732 Do not the smallest atoms of matter, which thou despisest, suffice to tear thee from thy throne, and deprive thee of life? 733 Finally, does not the king of animals at last become the food of worms? 734 Thou speakest of thy soul! But dost thou know what a soul is? Dost thou not see, that this soul is only the assemblage of thy organs, from which results life? 735 Wouldst thou then refuse a soul to other animals, who live, think, judge, and compare, like thee; who seek pleasure, and avoid pain, like thee; and who often have organs, which serve them better than thine? 736 Thou boastest of thy intellectual faculties; but do these faculties, of which thou art so proud, make thee happier than other animals? 737 Dost thou often make use of that reason, in which thou gloriest, and to which religion commands thee not to listen? 738 Are those brutes, which thou disdainest, because they are less strong or less cunning than thou art, subject to mental pains, to a thousand frivolous passions, to a thousand imaginary wants, to which thou art a continual prey? 739 Are they, like thee, tormented by the past, alarmed at the future? 740 Confined solely to the present, does not what you call their instinct, and what I call their intelligence, suffice to preserve and defend them, and to supply them with all they want? 741 Does not this instinct, of which thou speakest with contempt, often serve them better than thy wonderful faculties? 742 Is not their peaceful ignorance more advantageous to them, than those extravagant meditations and

worthless researches, which render thee unhappy, and for which thy zeal urges thee even to massacre the beings of thy noble species? 743 Finally, have these beasts, like so many mortals, a troubled imagination, which makes them fear, not only death, but likewise eternal torments?

744 Augustus, hearing that Herod, king of Judea, had put his sons to death, exclaimed: ‘It is much better to be Herod's hog, than his son’. 745 As much may be said of human. This dear child of Providence runs far greater risks than all other animals; having suffered much in this world, does you not imagine, that you are in danger of suffering eternally in another?

APOLOGUE

95

746 Where is the precise line of distinction between human and the animals whom you calls brutes? In what does you differ essentially from beasts? 747 It is, we are told, by your intelligence, by the faculties of your mind, and by your reason, that human appears superior to all other animals, who, in all their actions, move only by physical impulses, in which reason has no share. 748 But finally, brutes, having fewer wants than human, easily do without your intellectual faculties, which would be perfectly useless in their mode of existence. 749 Their instinct is sufficient; while all the faculties of human scarcely suffice to render your existence supportable, and to satisfy the wants, which your imagination and your prejudices multiply to your torment.

750 Brutes are not influenced by the same objects, as human; they have not the same wants, desires, nor fancies; and they very soon arrive to maturity, 751 while the mind of human seldom attains to the full enjoyment and free exercise of its faculties and to such a use of them, as is conducive to your happiness.

APOLOGUE

96

752 We are assured, that the human soul is a simple substance. It should then be the same in every individual, each having the same intellectual faculties; yet this is not the case. 753 Humans differ as much in the qualities of the mind, as in the features of the face. There

are human beings as different from one another, as human is from a horse or a dog. 754 What conformity or resemblance do we find between some people? What an infinite distance is there between the genius of a Locke or a Newton, and that of a peasant, Hottentot, or Laplander?

755 Human differs from other animals only in your organisation, which enables you to produce effects, of which animals are not capable. 756 The variety, observable in the organs of individuals of the human species suffices to explain the differences in what is called their intellectual faculties. 757 More or less delicacy in these organs, warmth in the blood, mobility in the fluids, flexibility or stiffness in the fibres and nerves, must necessarily produce the infinite diversity, which we observe in the minds of humans. 758 It is by exercise, habit and education, that the mind is unfolded and becomes superior to that of others. 759 Human, without culture and experience, is as void of reason and industry, as the brute. 760 A stupid person is one, whose organs move with difficulty, whose brain does not easily vibrate, whose blood circulates slowly. 761 A person of genius is you, whose organs are flexible, whose sensations are quick, whose brain vibrates with celerity. 762 A learned person is you, whose organs and brain have been long exercised upon objects to which you are devoted.

763 Without culture, experience, or reason, is not person more contemptible and worthy of hatred, than the vilest insects or most ferocious beasts? 764 Is there in Nature a more detestable being, than a Tiberius, a Nero, or a Caligula? 765 Have those destroyers of the human race, known by the name of conquerors, more estimable souls than bears, lions, or panthers? 766 Are there animals in the world more detestable than tyrants?

APOLOGUE

97

767 The superiority which human so gratuitously arrogates to own self over other animals, soon vanishes in the light of reason, when we reflect on human extravagances. 768 How many

animals shew more mildness, reflection, and reason, than the animal, who calls own self reasonable above all others? 769 Are there among humans, so often enslaved and oppressed, societies as well constituted as those of the ants, bees, or beavers? 770 Do we ever see ferocious beasts of the same species mangle and destroy one another without profit? Do we ever see religious wars among them? 771 The cruelty of beasts towards other species arises from hunger, the necessity of nourishment; 772 the cruelty of human towards human arises only from the vanity of your masters and the folly of your impertinent prejudices. 773 Speculative people, who endeavour to make us believe, that all in the universe was made for human, are much embarrassed, when we ask, how so many hurtful animals can contribute to the happiness of human? 774 What known advantage results to the friend of the gods, from being bitten by a viper, stung by a gnat, devoured by vermin, torn in pieces by a tiger, etc.? 775 Would not all these animals reason as justly as our theologians, should they pretend that human was made for them?

AN EASTERN TALE

Paul Henri Thiry, Baron D'Holbach

APOLOGUE

1

3 At some distance from Bagdad, a hermit, renowned for his sanctity, passed his days in an agreeable solitude. 2 The neighbouring inhabitants, to obtain an interest in his prayers, daily flocked to his hermitage, to carry him provisions and presents. 3 The holy man, without ceasing, gave thanks to God for the blessings, with which providence loaded him. 4 "O Allah!" said he, "how ineffable is thy love to thy servants. What have I done to merit the favours, that I receive from thy bounty? 5 O Monarch of the skies! O Father of Nature! what praises could worthily celebrate thy munificence, and thy paternal care! 6 O Allah! how great is thy goodness to the children of humans!" 7 Penetrated with gratitude, the hermit made a vow to undertake, for the seventh

time, a pilgrimage to Mecca. 8 The war which then raged between the Persians and Turks, could not induce him to defer his pious enterprise. 9 Full of confidence in God, he sets out under the inviolable safeguard of a religious habit. He passes through the hostile troops without any obstacle; 10 far from being molested, he receives, at every step, marks of veneration from the soldiers of the two parties. 11 At length, borne down with fatigue, he is obliged to seek refuge against the rays of a scorching sun; he rests under the cool shade of a group of palm-trees. 12 In this solitary place, the man of God finds not only an enchanting retreat, but a delicious repast. He has only to put forth his hand to gather dates and other pleasant fruits; 13 a brook affords him the means of quenching his thirst. A green turf invites him to sleep; 14 upon waking he performs the sacred ablution, and exclaims in a transport of joy: "O Allah! how great is thy goodness to the children of humans!" 15 After this perfect refreshment, the saint, full of strength and gaiety, pursues his way; it leads him across a smiling country, which presents to his eyes flowery hillocks, enamelled meadows, and trees loaded with fruit. 16 Affected by this sight, he ceases not to adore the rich and liberal hand of providence, which appears every where providing for the happiness of the human race. 17 Going a little farther, the mountains are pretty difficult to pass; but having once arrived at the summit, a hideous spectacle suddenly appears to his view. His soul is filled with horror. 18 He discovers a vast plain laid waste with fire and sword; he beholds it covered with hundreds of carcases, the deplorable remains of a bloody battle, lately fought upon this field. 19 Eagles, vultures, ravens and wolves were greedily devouring the dead bodies with which the ground was covered. This sight plunges our pilgrim into a gloomy meditation. 20 Heaven, by special favour, had enabled him to understand the language of beasts. He heard a wolf, gorged with human flesh, cry out in the excess of his joy: 21 "O Allah! how great is thy goodness to the children of wolves. Thy provident wisdom

takes care to craze the minds of these detestable people, who are so dangerous to our species. 22 By an effect of thy Providence, which watches over thy creatures, these destroyers cut one another's throats, and furnish us with sumptuous meals. 23 O Allah! how great is thy goodness to the children of wolves!"

APOLOGUE

2

24 A heated imagination sees in the universe only the blessings of heaven; a calmer mind finds in it both good and evil. 25 "I exist," say you; but is this existence always a good? 26 "Behold," you say, "that sun, which lights; this earth, which for you is covered with crops and verdure; 27 these flowers, which bloom to regale your senses; these trees, which bend under the weight of delicious fruits; 28 these pure waters, which run only to quench your thirst; those seas, which embrace the universe to facilitate your commerce; these animals, which a foreseeing Nature provides for your use." 29 Yes; I see all these things, and I enjoy them. But in many climates, this beautiful sun is almost always hidden; in others, its excessive heat torments, creates storms, produces frightful diseases, and parches the fields; 30 the pastures are without verdure, the trees without fruit, the crops are scorched, the springs are dried up; 31 I can only with difficulty subsist, and now complain of the cruelties of Nature, which to you always appears so beneficent. 32 If these seas bring me spices, and useless commodities, do they not destroy numberless mortals, who are foolish enough to seek them? 33 The vanity of human persuades own self, that you are the sole center of the universe; you creates for yourself a world and a God; you thinks yourself of sufficient consequence to derange Nature at your pleasure. 34 But, concerning other animals, you reasons like an atheist. 35 Does you not imagine, that the individuals different from your own are automatons unworthy of the blessings of universal providence, and that brutes cannot be objects of your justice or goodness? 36 Mortals regard the happy or unhappy events, health or sickness, life or

death, plenty or want, as rewards or punishments for the right use or abuse of the liberty, with which they erroneously imagine themselves endowed. 37 Do they reason in the same manner concerning the brutes? No. Although they see them, under a just God, enjoy and suffer, equally subject to health and sickness, live and die, like themselves, 38 it never occurs to them to ask by what crime, these beasts could have incurred the displeasure of their Creator? 39 Have not humans, blinded by their religious prejudices, in order to free themselves from embarrassment, carried their folly so far as to pretend that beasts have no feeling?

40 Will humans never renounce their foolish pretensions? Will they never acknowledge that Nature is not made for them? 41 Will they never see that Nature has placed equality among all beings She has produced? 42 Will they never perceive that all organised beings are equally made to be born and die, enjoy and suffer? 43 Finally, far from having any cause to be puffed up with their mental faculties, are they not forced to grant, that these faculties often make them more unhappy than beasts, in which we find neither opinions, prejudices, vanities, nor follies, which every moment decide the welfare of human?

APOLOGUE

3

44 The superiority which humans arrogate over other animals, is chiefly founded upon their opinion, that they have the exclusive possession of an immortal soul. 45 But ask them what this soul is, and they are puzzled. They will say, it is an unknown substance-- a secret power distinct from their bodies-- a spirit, of which they have no idea. 46 Ask them how this spirit, which they suppose to be like their God wholly void of extension, could combine itself with their material bodies, and they will tell you, they know nothing about it; that it is to them a mystery; that this combination is an effect of the omnipotence of God. 47 These are the ideas that humans form of the hidden, or rather imaginary substance, which they consider as

the main spring of all their actions! 48 If the soul is a substance essentially different from the body, and can have no relation to it, their union would be, not a mystery, but an impossibility. 49 Besides, this soul being of a nature different from the body, must necessarily act in a different manner; 50 yet we see that this pretended soul is sensible of the motions experienced by the body, and that these two substances, essentially different, always acts in concert. 51 You will say that this harmony is also a mystery. But I will tell you, that I see not my soul, that I know and am sensible of my body only, that it is this body which feels, thinks, judges, suffers, and enjoys; 52 and that all these faculties are necessary results of my body's own mechanism, or organisation.

APOLOGUE

4

53 Although it is impossible for humans to form the least idea of the soul, or the pretended spirit, which animates them; yet they persuade themselves that this unknown soul is exempt from death. 54 Every thing proves to them, that they feel, that they think, that they acquire ideas, that they enjoy and suffer, only by means of the senses, or material organs of the body. 55 Admitting even the existence of this soul, they cannot help acknowledging, that it depends entirely upon the body, and undergoes, all its vicissitudes; 56 and yet it is imagined, that this soul has nothing, in its nature, similar to the body; that it can act and feel without the assistance of the body; 57 in a word, that this soul, freed from the body, and disengaged from its senses, can live, enjoy, suffer, experience happiness, or feel excruciating torments. 58 Upon such a tissue of absurdities is built the marvellous opinion of the: immortality of the soul. 59 If I ask, what are the motives for believing the soul immortal, they immediately answer, that it is because human naturally desires to be immortal: 60 but, because you desire a thing ardently, can you infer that your desire will be fulfilled? 61 By what strange logic can we dare affirm, that a thing cannot fail to happen, because we ardently desire it? 62 Are desires,

begotten by the imagination, the measure of reality? 63 The impious, you say, deprived of the flattering hope of another life, wish to be annihilated. 64 Very well: may they not then as justly conclude, from their desire, that they shall be annihilated, as you may conclude from your desire, that you shall exist for ever.

APOLOGUE

5

65 Human dies, and the human body after death is no longer anything but a mass incapable of producing those motions, of which the sum total constituted life. 66 We see, that it has no longer circulation, respiration, digestion, speech, or thought. It is pretended, that the soul is then separated from the body; 67 but to say, that this soul, with which we are unacquainted, is the principle of life, is to say nothing, unless that an unknown power is the hidden principle of imperceptible movements. 68 Nothing is more natural and simple, than to believe, that the dead person no longer lives: nothing is more extravagant, than to believe, that the dead person is still alive. 69 We laugh at the simplicity of some nations, whose custom is to bury provision with the dead, under an idea that it will be useful and necessary to them in the other life. 70 Is it then more ridiculous or absurd to suppose, that humans will eat after death, than to imagine, that they will think, that they will be actuated by agreeable or disagreeable ideas, 71 that they will enjoy or suffer, and that they will experience repentance or delight, after the organs, adapted to produce sensations or ideas, are once dissolved. 72 To say that the souls of humans will be happy or unhappy after death, is in other words to say, that humans will see without eyes, hear without ears, taste without palates, smell without noses, and touch without hands. 73 And persons, who consider themselves very reasonable, adopt these ideas!

APOLOGUE

6

74 The dogma of the immortality of the soul supposes the soul to be a simple substance; in a word, a spirit. But I ask again, what is a

spirit? 75 "It is," say you, "a substance void of extension, incorruptible, having nothing common with matter." 76 If so, how is your soul born, and how does it grow, how does it strengthen or weaken itself, how does it get disordered and grow old, in the same progression as your body?

77 To all these questions you answer, that these are mysteries. If so, you cannot understand them. If you cannot understand them, why do you decide about a thing, of which you are unable to form the least idea? 78 To believe or affirm any thing, it is necessary, at least, to know in what it consists. 79 To believe in the existence of your immaterial soul, is to say, that you are persuaded of the existence of a thing, of which it is impossible for you to form any true notion; it is to believe in words without meaning. 80 To affirm that the thing is as you say, is the height of folly or vanity.

APOLOGUE

7

81 Are not theologians strange reasoners? Whenever they cannot divine the natural causes of things, they invent what they call supernatural; 82 such as spirits, occult causes, inexplicable agents, or rather words, much more obscure than the things they endeavour to explain. 83 Let us remain in Nature, when we wish to account for the phenomena of Nature; 84 let us be content to remain ignorant of causes too delicate for our organs; 85 and let us be persuaded, that, by going beyond Nature, we shall never solve the problems which Nature presents.

86 Even upon the hypothesis of theology, (that is, supposing an all-powerful mover of matter,) by what right would theologians deny, that their God has power to give this matter the faculty of thought? 87 Was it then more difficult for you to create combinations of matter, from which thought might result, than spirits who could think? 88 At least, by supposing matter, which thinks, we should have some notions of the subject of thought, or of what thinks in us; whereas, by attributing thought to an

immaterial being, it is impossible to form the least idea of it.

APOLOGUE
8

89 It is objected against us, that materialism makes human a mere machine, which is said to be very dishonourable. 90 But, will it be much more honourable for human, if we should say, that you acts by the secret impulses of a spirit, or by a certain 'I know not what', that animates you in a manner totally inexplicable.

91 It is easy to perceive, that the supposed superiority of spirit over matter, or of the soul over the body, has no other foundation than humans' ignorance of this soul, 92 while they are more familiarised with matter, with which they imagine they are acquainted, and of which they think they can discern the origin. 93 But the most simple movements of our bodies are to every person, who studies them, as inexplicable as thought.

APOLOGUE
9

94 The high value, which so many people set upon spiritual substance, has no other motive than their absolute inability to define it intelligibly. 95 The contempt shewn for matter by our metaphysicians, arises only from the circumstance, that familiarity begets contempt. 96 When they tell us, that: 'the soul is more excellent and noble than the body', they say what they know not.

APOLOGUE
10

97 The dogma of another life is incessantly extolled, as useful. It is maintained, that even though it should be only a fiction, it is advantageous, because it deceives humans, and conducts them to virtue. 98 But is it true, that this dogma makes humans wiser and more virtuous? Are the nations, who believe this fiction, remarkable for purity of morals? Has not the visible world ever the advantage over the invisible? 99 If those, who are trusted with the instruction and government of people, had knowledge and virtue themselves, they would govern them much better by realities, than by fictions. 100 But crafty, ambitious and corrupt legislators, have every where found it better to amuse with fables, than to teach

them truths, to unfold their reason, to excite them to virtue by sensible and real motives, in fine, to govern them in a rational manner. 101 Priests undoubtedly had reasons for making the soul immaterial; they wanted souls to people the imaginary regions, which they have discovered in the other life. 102 Material souls would, like all bodies, have been subject to dissolution. 103 Now, if people should believe, that all must perish with the body, the geographers of the other world would evidently lose the right of guiding humans' souls towards that unknown abode; 104 they would reap no profits from the hope with which they feed them, and the terrors with which they oppress them. 105 If futurity is of no real utility to humankind, it is, at least, of the greatest utility to those, who have assumed the office of conducting them thither.

APOLOGUE

11

106 "But," it will be said, "is not the dogma of the immortality of the soul comforting to beings, who are often very unhappy here below? 107 Though it should be an error, is it not pleasing? Is it not a blessing to human to believe, that you shall be able to enjoy hereafter a happiness, which is denied you upon earth?" 108 Thus, poor mortals! you make your wishes the measure of truth; because you desire to live for ever, and to be happier, 109 you at once conclude, that you shall live for ever, and that you shall be more fortunate in an unknown world, than in this known world, where you often find nothing but affliction! 110 Consent therefore to leave, without regret, this world which gives the greater part of you much more torment than pleasure. 111 Submit to the order of Nature, which demands that you, as well as all other beings, should not endure for ever.

112 We are incessantly told, that religion has infinite consolations for the unfortunate, that the idea of the soul's immortality, and of a happier life, is very proper to elevate human, and to support you under adversity, which awaits you upon earth. 113 It is said, on the contrary, that materialism is an afflicting system, calculated to

degrade human; 114 then it puts you upon a level with the brutes, breaks your courage, and shows you no other prospect than frightful annihilation, capable of driving you to despair and suicide, whenever you are unhappy. 115 The great art of theologians is to blow hot and cold, to afflict and console, to frighten and encourage. It appears by theological fictions, that the regions of the other life are happy and unhappy. 116 Nothing is more difficult than to become worthy of the abode of felicity; nothing more easy than to obtain a place in the abode of torment, which God is preparing for the unfortunate victims of eternal fury. 117 Have those then, who think the other life so pleasant and flattering, forgotten, that according to them, that life is to be attended with torments to the greater part of mortals? 118 Is not the idea of total annihilation infinitely preferable to the idea of an eternal existence, attended with anguish and gnashing of teeth? 119 Is the fear of an end more afflicting, than that of having had a beginning! 120 The fear of ceasing to exist is a real evil only to the imagination, which alone begat the dogma of another life.

121 Christian ministers say that the idea of a happier life is joyous. Admitted. Every person would desire a more agreeable existence than that you enjoys here. 122 But, if paradise is inviting, you will grant, that hell is frightful. Heaven is very difficult, and hell very easy to be merited. 123 Do you not say, that a narrow way leads to the happy regions, and a broad way to the regions of misery? 124 Do you not often say, that the number of the elect is very small, and that of the reprobate very large? 125 Is not Grace, which your God grants but to a very few, necessary to salvation? 126 Now, I assure you, that these ideas are by no means consoling; that I had rather be annihilated, once for all, than to burn for ever; that the fate of beasts is to me more desirable than that of the damned; 127 that the opinion which relieves me from afflicting fears in this world, appears to me more joyous, than the uncertainty arising from the opinion of a God, who, master of His grace, grants it to none but His favourites, and permits all others

to become worthy of eternal torment. 128 Nothing but enthusiasm or folly can induce a person to prefer improbable conjectures, attended with uncertainty and insupportable fears.

APOLOGUE

12

129 All religious principles are the work of pure imagination, in which experience and reason have no share. 130 It is extremely difficult to combat them, because the imagination, once prepossessed by chimeras, which astonish or disturb it, is incapable of reasoning. 131 To combat religion and its phantoms with the arms of reason, is like using a sword to kill gnats; 132 as soon as the blow is struck, the gnats and chimeras come hovering round again, and resume in the mind the place, from which they were thought to have been for ever banished.

133 When we reject, as too weak, the proofs given of the existence of a God, they instantly oppose to the arguments, which destroy that existence, 134 an ‘inward-sense’, a deep persuasion, an invincible inclination, born in every human, which holds up to your mind, in spite of yourself, 135 the idea of an almighty being, whom you cannot entirely expel from your mind, and whom you are compelled to acknowledge, in spite of the strongest reasons that can be urged. 136 But whoever will analyse this ‘inward-sense’, upon which such stress is laid, will perceive, that it is only the effect of a rooted habit, 137 which, shutting their eyes against the most demonstrative proofs, subjects the greater part of humans, and often even the most enlightened, to the prejudices of childhood. 138 What avails this inward-sense, or this deep persuasion, against the evidence, which demonstrates, that: whatever implies a contradiction cannot exist?

139 We are gravely assured, that the non-existence of God is not demonstrated. Yet, by all that people have hitherto said of Him, nothing is better demonstrated, than that this God is a chimera, whose existence is totally impossible; 140 since nothing is more evident, than that a being

cannot possess qualities so unlike, so contradictory, so irreconcilable, as those, which every religion upon earth attributes to the Divinity. 141 Is not the theologian's God, as well as that of the deist, a cause incompatible with the effects attributed to it? 142 Let them do what they will, it is necessary either to invent another God, or to grant, that He, who, for so many ages, has been held up to the terror of mortals, is at the same time very good and very bad, very powerful and very weak, 143 unchangeable and fickle, perfectly intelligent and perfectly void of reason, of order and permitting disorder, very just and most unjust, very skillful and unskillful. 144 In short, are we not forced to confess, that it is impossible to reconcile the discordant attributes, heaped upon a being, of whom we cannot speak without the most palpable contradictions? 145 Let any one attribute a single quality to the Divinity, and it is universally contradicted by the effects, ascribed to this cause.

APOLOGUE

13

146 Theology might justly be defined the: science of contradictions. 147 Every religion is only a system, invented to reconcile irreconcilable notions. 148 By the aid of habit and terror, human becomes obstinate in the greatest absurdities, even after they are exposed in the clearest manner. 149 All religions are easily combated, but with difficulty extirpated. 150 Reason avails nothing against custom, which becomes, says the proverb, a second nature. 151 Many persons, in other respects sensible, even after having examined the rotten foundation of their belief, adhere to it in contempt of the most striking arguments. 152 Whenever we complain of religion, its shocking absurdities, and impossibilities, we are told that we are not made to understand the truths of religion; that reason goes astray, and is capable of leading us to perdition; 153 and moreover, that: ‘what is folly in the eyes of human, is wisdom in the eyes of God’, to whom nothing is impossible. 154 In short, to surmount, by a single word, the most insurmountable difficulties,

presented on all sides by theology, they get rid of them by saying, these are ‘mysteries!’

APOLOGUE

14

155 What is a mystery? By examining the thing closely, I soon perceive, that a mystery is nothing but a contradiction, a palpable absurdity, a manifest impossibility, over which theologians would oblige people humbly to shut their eyes. 156 In a word, a mystery is whatever our spiritual guides cannot explain.

157 It is profitable to the ministers of religion, that people understand nothing of what they teach. 158 It is impossible to examine what we do not comprehend; when we do not see, we must suffer ourselves to be led. 159 If religion were clear, priests would find less business.

160 Without mysteries there can be no religion; mystery is essential to it; a religion void of mysteries, would be a contradiction in terms. 161 The God, who serves as the foundation of ‘natural religion’, or ‘deism’, is Himself the greatest of mysteries.

APOLOGUE

15

162 Every revealed religion is filled with mysterious dogmas, unintelligible principles, incredible wonders, astonishing recitals, which appear to have been invented solely to confound reason. 163 Every religion announces a hidden God, whose essence is a mystery; consequently, the conduct, ascribed to Him, is no less inconceivable than His essence. 164 The Deity has never spoken only in an enigmatical and mysterious manner, in the various religions, which have been founded in different regions of our globe; 165 He has everywhere revealed Himself only to announce mysteries; 166 that is, to inform mortals, that He intended they should believe contradictions, impossibilities, and things to which they were incapable of affixing any clear ideas.

167 The more mysterious and incredible a religion is, the more power it has to please the imagination of humans. 168 The darker a religion is, the more it appears divine, that is, conformable to the nature of a

hidden being, of whom they have no ideas. 169 Ignorance prefers the unknown, the hidden, the fabulous, the marvellous, the incredible, or even the terrible, to what is clear, simple, and true. 170 Truth does not operate upon the imagination in so lively a manner as fiction, which, in other respects, everyone is able to arrange in your own way. 171 The vulgar like to listen to fables. Priests and legislators, by inventing religions and forging mysteries have served the vulgar people well. They have thereby gained enthusiasts men, women and fools. 172 Beings of this stamp are easily satisfied with things, which they are incapable of examining. 173 The love of simplicity and truth is to be found only among the few, whose imagination is regulated by study and reflection.

174 The inhabitants of a village are never better pleased with their parson, than when he introduces Latin into his sermon. 175 The ignorant always imagine, that you, who speaks to them of things they do not understand, is a learned person. 176 Such is the true principle of the credulity of the people, and of the authority of those, who pretend to guide nations.

APOLOGUE

16

177 To announce mysteries to humans, is to give and withhold; it is to talk in order not to be understood. 178 You, who speaks only obscurely, either seeks to amuse yourself by the embarrassment, which you causes, or finds your interest in not explaining yourself too clearly. 179 All secrecy indicates distrust, impotence, and fear. Princes and their ministers make a mystery of their projects, for fear their enemies should discover and render them abortive. 180 Can a good God amuse Himself by perplexing His creatures? What interest then could He have in commanding His ministers to announce riddles and mysteries?

181 It is said, that human, by the weakness of your nature, is totally incapable of understanding the divine dispensations, which can be to you only a series of mysteries; God cannot disclose to you secrets, necessarily above your reach. 182 If so, I answer again,

that human is not made to attend to the divine dispensations; that these dispensations are to you by no means interesting; 183 that you have no need of mysteries, which you cannot understand; and consequently, that a mysterious religion is no more fit for you, than an eloquent discourse is for a flock of sheep.

APOLOGUE
17

184 The Deity has revealed Himself with so little uniformity in the different countries of our globe, that in point of religion, humans regard one another with hatred and contempt. 185 The partisans of the different sects think each other very ridiculous and foolish. Mysteries, most revered in one religion, are objects of derision to another. 186 God, in revealing Himself to humankind, ought at least, to have spoken the same language to all, and saved their feeble minds the perplexity of inquiring which religion really emanated from Him, or what form of worship is most acceptable in His sight.

187 A universal God ought to have revealed a universal religion. By what fatality then are there so many different religions upon earth? 188 Which is really right, among the great number of those, each of which exclusively pretends to be the true one? There is great reason to believe, that no religion enjoys this advantage. 189 Division and disputes upon opinions are indubitable signs of the uncertainty and obscurity of the principles, upon which they build.

APOLOGUE
18

190 If religion were necessary at all, it ought to be intelligible to all. 191 If this religion were the most important concern of humans, the goodness of God would seem to demand, that it should be to them of all things the most clear, evident, and demonstrative. 192 Is it not then astonishing, that this thing so essential to the happiness of mortals, is precisely that, which they understand least, and about which, for so many ages, their teachers have most disputed? 193 Priests have never agreed upon the manner of understanding the will

of a God, who has revealed Himself.

194 The world, may be compared to a public fair, in which are several empirics, each of whom endeavours to attract the passengers by decrying the remedies sold by own brothers. 195 Each shop has its customers, who are persuaded, that their quacks possess the only true remedies; 196 and notwithstanding a continual use of them, they perceive not the inefficacy of these remedies, or that they are as infirm as those, who run after the quacks of a different shop.

197 Devotion is a disorder of the imagination contracted in infancy. 198 The devout person is a hypochondriac, who only augments own malady by the application of remedies. 199 The wise person abstains from them entirely; you pays attention to your diet, and in other respects leaves Nature to Her course.

APOLOGUE

19

200 To a person of sense, nothing appears more ridiculous, than the opinions, which the partisans of the different religions with equal folly entertain of each other. 200 A Christian regards the Koran, that is, the divine revelation announced by Mahomet, as nothing but a tissue of impertinent reveries, and impostures insulting to the divinity. 201 The Mahometan, on the other hand, treats the Christian as an idolater and a dog. They sees nothing but absurdities in your religion. 202 They imagines they have a right to subdue the Christian, and to force you, sword in hand, to receive the religion of their divine prophet. 203 Finally, they believes, that nothing is more impious and unreasonable, than to worship a human, or to believe in the Trinity.

204 The protestant Christian who without scruple worships a human, and firmly believes the inconceivable mystery of the trinity, ridicules the catholic Christian for believing in the mystery of transubstantiation; 205 they considers you mad, impious, and idolatrous, because you kneels to worship some bread, in which you thinks you sees God. 206 Christians of every sect regard, as

silly stories, the incarnations of ‘Vishnu’, the God of the Indies; they maintain, that the only true incarnation is that of Jesus, son of a carpenter. 207 The deist, who calls themselves the follower of a religion, which they supposes to be that of Nature, content with admitting a God, of whom they have no idea, makes a jest of all the mysteries, taught by the various religions in the world.

APOLOGUE

20

208 Is there any thing more contradictory, impossible, or mysterious, than the creation of matter by an immaterial being, who, though immutable, operates continual changes in the world? 209 Is any thing more incompatible with every notion of common-sense, than to believe, that a supremely good, wise, equitable and powerful being presides over Nature, 210 and by Himself directs the movements of a world, full of folly, misery, crimes and disorders, which by a single word, He could have prevented or removed? 211 In fine, whenever we admit a being as contradictory as the God of theology, how can we reject the most improbable fables, astonishing miracles, and profound mysteries.

APOLOGUE

21

212 The Deist exclaims: "Abstain from worshipping the cruel and capricious God of theology; mine is a being infinitely wise and good; He is the father of humans, the mildest of sovereigns; it is He who fills the universe with His benefits." 213 But do you not see that every thing in this world contradicts the good qualities, which you ascribe to your God? 214 In the numerous family of this tender father, almost all are unhappy. Under the government of this just sovereign, vice is triumphant, and virtue in distress. 215 Among those blessings you extol, and which only enthusiasm can see, I behold a multitude of evils, against which you obstinately shut your eyes. 216 Forced to acknowledge, that your beneficent God, in contradiction with Himself, distributes good and evil with the same hand, for His justification you must, like the priest, refer me to the regions of

another life. 217 Invent, therefore, another God; for yours is no less contradictory than that of theologians.

218 A good God, who does evil, or consents to the commission of evil; a God full of equity, and in whose empire innocence is often oppressed; a perfect God, who produces none but imperfect and miserable works; 219 are not such a God and His conduct as great mysteries, as that of the incarnation?

220 You blush for your fellow-citizens, who allow themselves to be persuaded, that the God of the universe could change Himself into a human, and die upon a cross in a corner of Asia. 221 The mystery of the incarnation appears to you very absurd. You think nothing more ridiculous, than a God, who transforms Himself into bread, and causes Himself daily to be eaten in a thousand different places. 222 But are all these mysteries more contradictory to reason than a God, the avenger and rewarder of the actions of humans? Is human, according to you, free, or not free? 223 In either case, your God, if you have the shadow of equity, can neither punish nor reward you. 224 If human is free, it is God, who has made you free; therefore God is the primitive cause of all your actions; 225 in punishing you for your faults, He would punish you for having executed what He had given you liberty to do. 226 If human is not free to act otherwise than you does, would not God be most unjust, in punishing human for faults, which you could not help committing.

227 The minor, or secondary, absurdities, with which all religions abound, are to many people truly striking; but they have not the courage to trace the source of these absurdities. 228 They see not, that a God full of contradictions, caprices and inconsistent qualities, has only served to disorder humans' imaginations, and to produce an endless succession of chimeras.

APOLOGUE

22

229 The theologian would shut the mouths of those who deny the existence of God, by saying, that all humans, in all ages and

countries, have acknowledged some divinity or other; 230 that every people have believed in an invisible and powerful being, who has been the object of their worship and veneration; 231 in short, that there is no nation, however savage, who are not persuaded of the existence of some intelligence superior to human nature. 232 But, can an error be changed into truth by the belief of all humans? 233 The great philosopher Bayle has justly observed, that "general tradition, or the unanimous consent of humankind, is no criterion of truth."

234 There was a time, when all people believed that the sun moved round the earth, but this error was detected. 235 There was a time, when nobody believed the existence of the antipodes, and when every one was persecuted, who had temerity enough to maintain it. At present, every informed person firmly believes it. 236 All nations, with the exception of a few people who are less credulous than the rest, still believe in ghosts and spirits. 237 No sensible person now adopts such nonsense. But the most sensible people consider it their duty to believe in a universal spirit!

APOLOGUE

23

238 All the gods, adored by humans, are of savage origin. 239 They have evidently been imagined by stupid people, or presented, by ambitious and crafty legislators, to ignorant and uncivilised nations, who had neither capacity nor courage to examine the objects, which through terror they were made to worship.

240 By closely examining God, we are forced to acknowledge, that He evidently bears marks of a savage nature. 241 To be savage is to acknowledge no right but force; it is to be cruel beyond measure; to follow only one's own caprice; to want foresight, prudence, and reason. 242 Ye nations, who call yourselves civilised! Do you not discern, in this hideous character, the God, on whom you lavish your incense? 243 Are not the descriptions given you of the divinity, visibly borrowed from the implacable, jealous, revengeful,

sanguinary, capricious inconsiderate humour of human, who has not cultivated own reason? 244 O humans! You adore only a great savage, whom you regard, however, as a model to imitate, as an amiable master, as a sovereign full of perfection.

245 Religious opinions are ancient monuments of ignorance, credulity, cowardice, and barbarism of their ancestors. 246 Every savage is a child fond of the marvellous, who believes every thing, and examines nothing. 247 Ignorant of Nature, you attributes to spirits, enchantments, and to magic, whatever appears to you extraordinary. 248 Your priests appear to you sorcerers, in whom you supposes a power purely divine, before whom you confounded reason humbles itself, whose oracles are to you infallible decrees which it would be dangerous to contradict.

249 In religion, humans have, for the most part, remained in their primitive barbarity. Modern religions are only ancient follies revived, or presented under some new form. 250 If the savages of antiquity adored mountains, rivers, serpents, trees, and idols of every kind; if the EGYPTIANS paid homage to crocodiles, rats, and onions, 251 do we not see nations, who think themselves wiser than they, worship bread, into which they imagine, that through the enchantments of their priests, the divinity has descended. 252 Is not the Bread-God the idol of many Christian nations, who, in this respect, are as irrational, as the most savage?

APOLOGUE

24

253 The ferocity, stupidity, and folly of uncivilised person have ever disclosed themselves in religious practices, either cruel or extravagant. 254 A spirit of barbarity still survives, and penetrates the religions even of the most polished nations. Do we not still see human victims offered to the divinity? 255 To appease the anger of a God, who is always supposed as ferocious, jealous and vindictive, as a savage, do not those, whose manner of thinking is supposed to displease Him, expire under studied torments, by the command of sanguinary laws? 256 Modern nations, at the instigation

of their priests, have perhaps improved upon the atrocious folly of barbarous nations; 257 at least, we find, that it has ever entered the heads of savages to torment for opinions, to search the thoughts, to molest people for the invisible movements of their brains?

258 When we see learned nations, such as the English, French, German, etc., continue, notwithstanding their knowledge, to kneel before the barbarous God of the Jews; 259 when we see these enlightened nations divide into sects, defame, hate, and despise one another for their equally ridiculous opinions concerning the conduct and intentions of this unreasonable God; 260 when we see people of ability foolishly devote their time to meditate the will of this God, who is full of caprice and folly, we are tempted to cry out: O humans, you are still savage!!!

APOLOGUE

25

261 Whoever has formed true ideas of the ignorance, credulity, negligence, and stupidity of the vulgar, will suspect opinions the more, as you finds them generally established. 262 Humans, for the most part, examine nothing: they blindly submit to custom and authority. 263 Their religious opinions, above all others, are those which they have the least courage and capacity to examine: 264 as they comprehend nothing about them, they are forced to be silent, or at least are soon destitute of arguments. 265 Ask any person, whether they believes in a God? They will be much surprised that you can doubt it. Ask them again, what they understands by the word God. 266 You throw them into the greatest embarrassment; you will perceive immediately, that they are incapable of affixing any real idea to this word, they incessantly repeats. 267 They will tell you, that God is God. They knows neither what they thinks of it, nor their motives for believing in it.

268 All nations speak of a God; but do they agree upon this God? By no means. 269 But division upon an opinion proves not its evidence; it is rather a sign of uncertainty and obscurity. 270 Does the same person always agree with yourself

in the notions you forms of your God? No. 271 Your idea varies with the changes, which you experiences;-- another sign of uncertainty. People always agree in demonstrative truths. 272 In any situation, except that of insanity, every one knows that two and two make four, that the sun shines, that the whole is greater than its part; that benevolence is necessary to merit the affection of people; that injustice and cruelty are incompatible with goodness. 273 Are they thus agreed when they speak of God? Whatever they think, or say of Him, is immediately destroyed by the effects they attribute to Him.

274 Ask several painters to represent a chimera, and each will paint it in a different manner. You will find no resemblance between the features, each has given it a portrait, that has no original. 275 All theologians, in giving us a picture of God, give us one of a great chimera, in whose features they never agree, whom each arranges in their own way, and who exists only in their imaginations. 276 There are not two individuals, who have, or can have, the same ideas of their God.

APOLOGUE

26

277 It might be said with more truth, that people are either sceptics or atheists, than that they are convinced of the existence of God. 278 How can we be assured of the existence of a being, whom we could never examine, and of whom it is impossible to conceive any permanent idea? 279 How can we convince ourselves of the existence of a being, to whom we are every moment forced to attribute conduct, opposed to the ideas, we had endeavoured to form of Him? 280 Is it then possible to believe what we cannot conceive? Is not such a belief the opinions of others without having any of our own? 281 Priests govern by faith; but do not priests themselves acknowledge that God is to them incomprehensible? 282 Confess then, that a full and entire conviction of the existence of God is not so general, as is imagined.

GOODNESS

283 Scepticism arises from a want of motives sufficient to form a judgment. 284 Upon examining the proofs which seem to establish, and the arguments which combat, the existence of God, some persons have doubted and withheld their assent. 285 But this uncertainty arises from not having sufficiently examined. Is it possible to doubt any thing evident? 286 Sensible people ridicule an absolute scepticism, and think it even impossible. 287 A person, who doubted own existence, or that of the sun, would appear ridiculous. Is this more extravagant than to doubt the non-existence of an evidently impossible being? 288 Is it more absurd to doubt one's own existence, than to hesitate upon the impossibility of a being, whose qualities reciprocally destroy one another? 289 Do we find greater probability for believing the existence of a spiritual being, than the existence of a stick without two ends? 290 Is the notion of an infinitely good and powerful being, who causes or permits an infinity of evils, less absurd or impossible, than that of a square triangle? 291 Let us conclude then, that religious scepticism can result only from a superficial examination of theological principles, which are in perpetual contradiction with the most clear and demonstrative principles.

292 To doubt, is to deliberate. Scepticism is only a state of indetermination, resulting from an insufficient examination of things. 293 Is it possible for any one to be sceptical in matters of religion, who will deign to revert to its principles, and closely examine the notion of God, who serves as its basis? 294 Doubt generally arises either from indolence, weakness, indifference, or incapacity. With many people, to doubt is to fear the trouble of examining things, which are thought uninteresting. 295 But religion being presented to humans as their most important concern in this and the future world, scepticism and doubt on this subject must occasion perpetual anxiety and must really constitute a bed of thorns. 296 Every person who has not courage to contemplate, without prejudice, the God upon whom all religion is founded, can never know for what

religion to decide: 297 you knows not what you should believe or not believe, admit or reject, hope or fear.

298 Indifference upon religion must not be confounded with scepticism. This indifference is founded upon the absolute assurance, or at any rate upon the probable belief, that religion is not interesting. 299 A persuasion that a thing which is pretended to be important is not so, or is only indifferent, supposes a sufficient examination of the thing, without which it would be impossible to have this persuasion. 300 Those who call themselves sceptics in the fundamental points of religion, are commonly either indolent or incapable of examining.

APOLOGUE

27

301 In every country, we are assured, that a God has revealed Himself. What has He taught humans? Has He proved evidently that He exists? 302 Has He informed them where He resides? Has He taught them what He is, or in what His essence consists? Has He clearly explained to them His intentions and plan? Does what He says of this plan correspond with the effects, which we see? 303 No. He informs them solely, that He is what He is; that He is a hidden God; that His ways are unspeakable; that He is exasperated against all who have the temerity to fathom His decrees, or to consult reason in judging Him or His works.

304 Does the revealed conduct of God answer the magnificent ideas which theologians would give us of His wisdom, goodness, justice, and omnipotence? 305 By no means. In every revelation, this conduct announces a partial and capricious being, the protector of favourite people, and the enemy of all others. 306 If He deigns to appear to some people, He takes care to keep all others in an invincible ignorance of His divine intentions. 307 Every private revelation evidently announces in God, injustice, partiality and malignity.

308 Do the commands, revealed by any God, astonish us by their sublime reason or wisdom? Do they evidently tend to promote the happiness of the people, to whom

the Divinity discloses them? 309 Upon examining the divine commands, one sees in every country, nothing but strange ordinances, ridiculous precepts, impertinent ceremonies, puerile customs, oblations, sacrifices, and expiations, 310 useful indeed to the ministers of God, but very burdensome to the rest of the citizens. 311 I see likewise, that these laws often tend to make people unsociable, disdainful, intolerant, quarrelsome, unjust, and inhuman, to those who have not received the same revelations, the same ordinances, or the same favours from heaven.

APOLOGUE
28

312 Are the precepts of morality, announced by the Deity, really divine, or superior to those which every reasonable person might imagine? 313 They are divine solely because it is impossible for the human mind to discover their utility. 314 They make virtue consist in a total renunciation of Nature, in a voluntary forgetfulness of reason, a holy hatred of ourselves. 315 Finally, these sublime precepts often exhibit perfection in a conduct, cruel to ourselves, and perfectly useless to others.

316 Has a God appeared? Has He Himself promulgated His laws? Has He spoken to people with His own mouth? 317 I am told, that God has not appeared to a whole people; but that He has always manifested Himself through the medium of some favourite personages, who have been entrusted with the care of announcing and explaining His intentions. 318 The people have never been permitted to enter the sanctuary; the ministers of the gods have alone had the right to relate what passes there.

APOLOGUE
29

319 If in every system of divine revelation, I complain of not seeing either the wisdom, goodness, or equity of God; 320 if I suspect knavery, ambition, or interest; it is replied, that God has confirmed by miracles the mission of those, who speak in His name. 321 But was it not more simple for God to appear in person, to explain

His nature and will? 322 Again, if I have the curiosity to examine these miracles, I find, that they are improbable tales, related by suspected people, who had the greatest interest in giving out that they were the messengers of the Most High.

323 What witnesses are appealed to in order to induce us to believe incredible miracles? 324 Weak people, who existed thousands of years ago, and who, even though they could attest these miracles, may be suspected of being duped by their own imagination, and imposed upon by the tricks of dexterous impostors. 325 But, you will say, these miracles are written in books, which by tradition have been transmitted to us. By whom were these books written? Who are the people who have transmitted them? 326 They are either the founders of religions themselves, or their adherents and assigns. 327 Thus, in religion, the evidence of interested parties becomes irrefragable and incontestable.

328 God has spoken differently to every people. The Indian believes not a word of what He has revealed to the Chinese; the Mahometan considers as fables what He has said to the Christian; 329 the Jew regards both the Mahometan and Christian as sacrilegious corrupters of the sacred law, which their God had given to their fathers. 330 The Christian, proud of own more modern revelation, indiscriminately damns the Indian, Chinese, Mahometan, and even the Jew, from whom they receives their sacred books. 331 Who is wrong or right? Each exclaims, I am in the right! Each adduces the same proofs: each mentions own miracles, diviners, prophets, and martyrs. 332 The person of sense tells them, they are all delirious; that God has not spoken, if it is true that He is a spirit, and can have neither mouth nor tongue; 333 that without borrowing the organ of mortals, God could inspire His creatures with what He would have them learn; 334 and that, as they are all equally ignorant what to think of God, it is evident that it

has not been the will of God to inform them on the subject.

335 The followers of different forms of worship which are established, accuse one another of superstition and impiety. 336 Christians look with abhorrence upon the Pagan, Chinese, and Mahometan superstition. Roman Catholics treat, as impious, Protestant Christians; and the latter incessantly declaim against the superstition of the Catholics. 337 They are all right. To be impious, is to have opinions offensive to the God adored; to be superstitious, is to have of Him false ideas. 338 In accusing one another of superstition, the different religionists resemble humpbacks, who reproach one another with their deformity.

APOLOGUE

31

339 Are the oracles, which the Divinity has revealed by His different messengers, remarkable for clearness? 340 Alas! no two people interpret them alike. Those who explain them to others are not agreed among themselves. 341 To elucidate them, they have recourse to interpretations, to commentaries, to allegories, to explanations: they discover mystical-sense very different from the literal-sense. 342 People are every where wanted to explain the commands of a God, who could not, or would not, announce Himself clearly to those, whom He wished to enlighten.

APOLOGUE

32

343 The founders of religion, have generally proved their missions by miracles. But what is a miracle? 344 It is an operation directly opposite to the laws of Nature. But who, according to you, made those laws? 345 God. Thus, your God, who, according to you, foresaw every thing, counteracts the laws, which your wisdom prescribed to Nature! 346 These laws were then defective, or at least in certain circumstances they did not accord with the views of the same God, since you inform us that you judged it necessary to suspend or counteract them.

347 It is said, that a few people, favoured by the Most High, have

received power to perform miracles. 348 But to perform a miracle, it is necessary to have ability to create new causes capable of producing effects contrary to those of common causes. 349 Is it easy to conceive, that God can give humans the inconceivable power of creating causes out of nothing? 350 Is it credible, that an immutable God can communicate to people power to change or rectify His plan, a power, which by His essence an immutable being cannot save Himself? 351 Miracles, far from doing much honour to God, far from proving the divinity of a religion, evidently annihilate the God idea. 352 How can a theologian tell us, that God, who must have embraced the whole of His plan, who could have made none but perfect laws, and who cannot alter them, is forced to employ miracles to accomplish His projects, 353 or can grant His creatures the power of working prodigies to execute His divine will? 354 An omnipotent being, whose will is always fulfilled, who holds in own hand own creatures, has only to will, to make them believe whatever He desires.

APOLOGUE

33

355 What shall we say of religions that prove their divinity by miracles? 356 How can we credit miracles recorded in the sacred books of the Christians, where God boasts of hardening the hearts and blinding those whom He wishes to destroy; 357 where He permits malicious spirits and magicians to work miracles as great as those of His servants; 358 where it is predicted, that Antichrist shall have power to perform prodigies capable of shaking the faith even of the elect? 359 In this case, by what signs shall we know whether God means to instruct or ensnare us? How shall we distinguish whether the wonders, we behold, come from God or devil? 360 To remove our perplexity, Pascal gravely tells us, that: ‘it is necessary to judge the doctrine by the miracles, and the miracles by the doctrine; that the doctrine proves the miracles, and the miracles the doctrine’. 361 If there exist a vicious and ridiculous circle, it is undoubtedly in this

splendid reasoning of one of the greatest defenders of Christianity. 362 Where is the religion, that does not boast of the most admirable doctrine, and which does not produce numerous miracles for its support?

363 Is a miracle capable of annihilating the evidence of a demonstrated truth? 364 Although a person should have the secret of healing all the sick, of making all the lame to walk, of raising in all the dead of a city, of ascending into the air, of stopping the course of the sun and moon, 365 can you thereby convince me, that two and two do not make four, that one makes three, and that three make only one; 366 that a God, whose immensity fills the universe, could have been contained in the body of a Jew; that the ETERNAL can die like a human; 367 that a God, who is said to be immutable, provident, and sensible, could have changed His mind upon His religion, and reformed His own work by a new revelation?

APOLOGUE

34

368 According to the very principles either of natural or revealed theology, every new revelation should be regarded as false; every change in a religion emanated from the Deity should be reputed an impiety and blasphemy. 369 Does not all reform suppose, that, in His first effort, God could not give His religion the solidity and perfection required? 370 To say, that God, in giving a first law, conformed to the rude ideas of the people whom He wished to enlighten, is to pretend that God was neither able nor willing to render the people, whom He was enlightening, so reasonable as was necessary in order to please Him.

371 Christianity is an impiety, if it is true that Judaism is a religion which has really emanated from a holy, immutable, omnipotent, and foreseeing God. 372 The religion of Christ supposes either defects in the law which God Himself had given by Moses, 373 or impotence or malice in the same God, who was either unable or unwilling to render the Jews such as they ought to have been in order to please

Him. 374 Every new religion, or reform of ancient religions, is evidently founded upon the impotence, inconstancy, imprudence, or malice of the Divinity.

APOLOGUE

35

375 If history informs me, that the first apostles, the founders or reformers of religions, wrought great miracles; history also informs me, that these reformers and their adherents were commonly buffeted, persecuted, and put to death, as disturbers of the peace of nations. 376 I am therefore tempted to believe, that they did not perform the miracles ascribed to them; indeed, such miracles must have gained them numerous partisans among the eye-witnesses, who ought to have protected the operators from abuse. 377 My incredulity redoubles, when I am told, that the workers of miracles were cruelly tormented, or ignominiously executed. 378 How is it possible to believe, that missionaries, protected by God, invested with His divine power, and enjoying the gift of miracles, could not have wrought such a simple miracle, as to escape the cruelty of their persecutors?

379 Priests have the art of drawing from the persecutions themselves, a convincing proof in favour of the religion of the persecuted. 380 But a religion, which boasts of having cost the lives of many martyrs, and informs us, that its founders, in order to extend it, have suffered punishments, cannot be the religion of a beneficent, equitable and omnipotent God. 381 A good God would not permit people, entrusted with announcing His commands, to be ill-treated. 382 An all-powerful God, wishing to found a religion, would proceed in a manner more simple and less fatal to the most faithful of His servants. 383 To say that God would have His religion sealed with blood, is to say that He is weak, unjust, ungrateful, and sanguinary; and that He is cruel enough to sacrifice His messengers to the views of His ambition.

APOLOGUE

36

384 To die for religion proves not that the religion is true, or divine; it proves, at most, that it is supposed to be such. 385 An enthusiast proves nothing by your death, unless that religious fanaticism is often stronger than the love of life. 386 An impostor may sometimes die with courage; you then makes, in the language of the proverb, ‘a virtue of necessity’. 387 People are often surprised and affected at sight of the generous courage and disinterested zeal, which has prompted missionaries to preach their doctrine, even at the risk of suffering the most rigorous treatment. 388 From this ardour for the salvation of humans, are drawn inferences favourable to the religion they have announced. But in reality, this disinterestedness is only apparent. 389 You, who ventures nothing should gain nothing. 390 A missionary seeks to make his fortune by his doctrine. He knows that, if he is fortunate enough to sell his commodity, he will become absolute master of those who receive him for their guide; 391 he is sure of becoming the object of their attention, respect, and veneration. Such are the true motives, which kindle the zeal and charity of so many preachers and missionaries.

392 To die for an opinion, proves the truth or goodness of that opinion no more than to die in battle proves the justice of a cause, in which thousands have the folly to devote their lives. 393 The courage of a martyr, elated with the idea of paradise, is not more supernatural, than the courage of a soldier, intoxicated with the idea of glory, or impelled by the fear of disgrace. 394 What is the difference between an Iroquois, who sings while he is burning by inches, and the martyr ST. LAURENCE, who upon the gridiron insults his tyrant?

395 The preachers of a new doctrine fail, because they are the weakest; apostles generally practise a perilous trade. 396 Their courageous death proves neither the truth of their principles nor their own sincerity, 397 any more than the violent death of the ambitious person, or of the robber, proves, that they were right in

disturbing society, or that they thought themselves authorised in so doing. 398 The trade of a missionary was always flattering to ambition, and formed a convenient method of living at the expense of the vulgar. These advantages have often been enough to efface every idea of danger.

APOLOGUE

37

399 You tell us, theologians! That: ‘what is folly in the eyes of humans, is wisdom before God, who delights to confound the wisdom of the wise’. But do you not also say, that human wisdom is a gift of heaven? 400 In saying this wisdom displeases God, is but folly in His sight, and that He is pleased to confound it, you declare that your God is the friend only of ignorant people, 401 and that He makes sensible people a fatal present for which this perfidious tyrant promises to punish them cruelly at some future day. 402 Is it not strange, that one can be the friend of your God, only by declaring one's self the enemy of reason and good sense?

APOLOGUE

38

403 According to the divines, ‘faith is an assent without evidence’. Whence it follows, that religion requires us firmly to believe inevident things, and propositions often improbable or contrary to reason. 404 But when we reject reason as a judge of faith, do we not confess, that reason is incompatible with faith? 405 As the ministers of religion have resolved to banish reason, they must have felt the impossibility of reconciling it with faith, 406 which is visibly only a blind submission to priests, whose authority seems to many persons more weighty than evidence itself, and preferable to the testimony of the senses.

407 "Sacrifice your reason; renounce experience; mistrust the testimony of your senses; submit without enquiry to what we announce to you in the name of heaven." 408 Such is the uniform language of priests throughout the world; they agree upon no point, except upon the necessity of never reasoning upon the principles which they present to us as most important to our felicity!

GOODNESS

409 I will not sacrifice my reason; because this reason alone enables me to distinguish good from evil, truth from falsehood. 410 If, as you say, my reason comes from God, I shall never believe that a God, whom you call good, has given me reason, as a snare, to lead me to perdition. 411 Priests! do you not see, that, by decrying reason, you calumniate your God, from whom you declare it to be a gift.

412 I will not renounce experience; because it is a guide much more sure than the imagination or authority of spiritual guides. 413 Experience teaches me, that enthusiasm and interest may blind and lead them astray themselves; 414 and that the authority of experience ought to have much more influence upon my mind, than the suspicious testimony of many people, who I know are either very liable to be deceived themselves, or otherwise are very much interested in deceiving others.

415 I will mistrust my senses; because I am sensible they sometimes mislead me. But, on the other hand, I know that they will not always deceive me. 416 I well know, that the eye shews me the sun much smaller than it really is; but experience, which is only the repeated application of the senses, informs me, that objects always appear to diminish, as their distance increases; 417 thus I attain to a certainty, that the sun is much larger than the earth; thus my senses suffice to rectify the hasty judgments, which they themselves had caused.

418 In warning us to mistrust the testimony of our senses, the priests annihilate the proofs of all religion. 419 If humans may be dupes of their imagination; if their senses are deceitful, how shall we believe the miracles, which struck the treacherous senses of our ancestors? 420 If my senses are unfaithful guides, I ought not to credit even the miracles wrought before my eyes.

APOLOGUE

39

421 You incessantly repeat that: ‘the truths of religion are above reason’. If so, do you not perceive, that these truths are not adapted to reasonable beings? 422 To pretend that reason can deceive

us, is to say, that truth can be false; that the useful can be hurtful. Is reason any thing but a knowledge of the useful and true? 423 Besides, as our reason and senses are our only guides in this life, to say they are unfaithful, is to say, that our errors are necessary, our ignorance invincible, and that, without the extreme of injustice, God cannot punish us for following the only guides it was His supreme will to give.

424 To say, we are obliged to believe things above our reason, is ridiculous. 425 To assure us, that upon some objects we are not allowed to consult reason, is to say, that, in the most interesting matter, we must consult only imagination, or act only at random. 426 Our divines say, we must sacrifice our reason to God. But what motives can we have to sacrifice our reason to a being, who makes us only useless presents, which He does not intend us to use? 427 What confidence can we put in a God, who, according to our divines themselves, is malicious enough to harden the heart, to strike with blindness, to lay snares for us, to lead us into temptation? 428 In fine, what confidence can we put in the ministers of this God, who, to guide us more conveniently, commands us to shut our eyes?

APOLOGUE

40

429 Human are persuaded, that religion is to them of all things the most serious, while it is precisely what they least examine for themselves. 430 In pursuit of an office, a piece of land, a house, a place of profit; in any transaction or contract whatever, every one carefully examines all, takes the greatest precaution, weighs every word of a writing, is guarded against every surprise. 431 Not so in religion; every one receives it at a venture, and believes it upon the word of others, without ever taking the trouble to examine.

432 Two causes concur to foster the negligence and carelessness of people, with regard to their religious opinions. The first is the despair of overcoming the obscurity, in which all religion is necessarily enveloped. 433 Their

first principles are only adapted to disgust lazy minds, who regard them as a chaos impossible to be understood. 434 The second cause is, that every one is averse to being too much bound by severe precepts, which all admire in theory, but very few care to practice with rigour. 435 The religion of many people is like old family ties, which they have never taken pains to examine, but which they deposit in their archives to have recourse to them occasionally.

APOLOGUE

41

436 The disciples of Pythagoras paid implicit faith to the doctrine of their master; ‘he has said it’, was to them the solution of every problem. 437 The generality of humans are not more rational. In matters of religion, a curate, a priest, an ignorant monk becomes master of the thoughts. 438 Faith relieves the weakness of the human mind, to which application is commonly painful; it is much more convenient to depend upon others, than to examine for one's self. 439 Inquiry, being slow and difficult, equally, displeases the stupidity of the ignorant, and the ardour of the enlightened. Such is undoubtedly the reason why Faith has so many partisans.

440 The more people are deficient in knowledge and reason, the more zealous they are in religion. 441 In theological quarrels, the populace, like ferocious beasts, fall upon all those, against whom their priest is desirous of exciting them. 442 A profound ignorance, boundless credulity, weak intellect, and warm imagination, are the materials, of which are made bigots, zealots, fanatics, and saints. 443 How can the voice of reason be heard by them who make it a principle never to examine for themselves, but to submit blindly to the guidance of others? 444 The saints and the populace are, in the hands of their directors, automatons, moved at pleasure.

APOLOGUE

42

445 Religion is an affair of custom and fashion. We must do as others do. But, among the numerous religions in the world, which should humans choose? 446 This

inquiry would be too painful and long. They must therefore adhere to the religion of their fathers, to that of their country, which, having force on its side, must be the best.

447 If we judge of the intentions of Providence by the events and revolutions of this world, we are compelled to believe, that He is very indifferent about the various religions upon earth. 448 For thousands of years, paganism, polytheism, idolatry, were the prevailing religions. 449 We are now assured, that the most flourishing nations had not the least idea of God; an idea, regarded as so essential to the happiness of human. 450 Christians say, all humankind lived in the grossest ignorance of their duties towards God, and had no notions of Him, but what were insulting to His Divine Majesty. 451 Christianity, growing out of Judaism, very humble in its obscure origin, became powerful and cruel under the Christian emperors, 452 who, prompted by holy zeal, rapidly spread it in their empire by means of fire and sword, and established it upon the ruins of paganism. 453 Mahomet and his successors, seconded by Providence or their victorious arms, in a short time banished the Christian religion from a part of Asia, Africa, and even Europe; and the gospel was then forced to yield to the Koran.

454 In all the factions or sects, which, for many ages have distracted Christianity, the best argument has been always that of the strongest party; arms have decided which doctrine is most conducive to the happiness of nations. 455 May we not hence infer, either that the Deity feels little interested in the religion of humans, or that He always declares in favour of the opinions, which best suit the interest of earthly powers; in fine, that He changes His plan to accommodate their fancy?

456 Rulers infallibly decide the religion of the people. The true religion is always the religion of the prince; 457 the true God is the God, whom the prince desires his people to adore; the will of the priests, who govern the prince, always becomes the will of God. 458 A wit justly observed,

that: ‘the true religion is always that, on whose side are the prince and the hangman’. 459 Emperors and hangmen long supported the gods of Rome against the God of Christians; 460 the latter, having gained to his interest the emperors, their soldiers, and their hangmen, succeeded in destroying the worship of the Roman gods. 461 The God of Mahomet has dispossessed the God of Christians of a great part of the dominions, which He formerly occupied.

462 In the eastern part of Asia, is a vast, flourishing, fertile, populous country, governed by such wise laws, that the fiercest conquerors have adopted them with respect. 463 I mean China. Excepting Christianity, which was banished as dangerous, the people there follow such superstitions as they please, 464 while the mandarins, or magistrates, having long known the errors of the popular religion, are vigilant to prevent the bonzes or priests from using it as an instrument of discord. 465 Yet we see not, that Providence refuses His blessing to a nation, whose chiefs are so indifferent about the worship that is rendered to Him. 466 On the contrary, the Chinese enjoy a happiness and repose worthy to be envied, by the many nations whom religion divides, and often devastates.

467 We cannot reasonably propose to divest the people of their follies; but we may perhaps cure the follies of those who govern the people, and who will then prevent the follies of the people from becoming dangerous. 468 Superstition is to be feared only when princes and soldiers rally round its standard; then it becomes cruel and sanguinary. 469 Every sovereign, who is the protector of one sect or religious faction, is commonly the tyrant of others, and becomes the most cruel disturber of the peace of own dominions.

APOLOGUE

43

470 It is incessantly repeated, and many sensible persons are induced to believe, that religion is a restraint necessary to humans; 471 that without religion, there would no longer exist the least check for the vulgar; and that morality and religion are intimately connected with it. 472 "The fear of the Lord,"

cries the priest, "is the beginning of wisdom. The terrors of another life are salutary, and are proper to curb the passions of humans."

473 To perceive the inutility of religious notions, we have only to open our eyes and contemplate the morals of those nations, who are the most under the dominion of religion. 474 We there find proud tyrants, oppressive ministers, perfidious courtiers, shameless extortioners, corrupt magistrates, knaves, adulterers, debauchees, prostitutes, thieves, 475 and rogues of every kind, who have never doubted either the existence of an avenging and rewarding God, the torments of hell, or the joys of paradise. 476 Without the least utility to the greater part of humankind, the ministers of religion have studied to render death terrible to the eyes of their followers. 477 If devout Christians could but be consistent, they would pass their whole life in tears, and die under the most dreadful apprehensions. 478 What can be more terrible than death, to the unfortunate who are told, ‘that it is horrible to fall into the hands of the living God; that we must work out our salvation with fear and trembling!’ 479 Yet we are assured, that the death of the Christian is attended with infinite consolations, of which the unbeliever is deprived. 480 The good Christian, it is said, dies in the firm hope of an eternal happiness which you have strived to merit. But is not this firm assurance itself a presumption punishable in the eyes of a severe God? 481 Ought not the greatest saints to be ignorant whether they are worthy of love or hatred? 482 Ye Priests! while consoling us with the hope of the joys of paradise; have you then had the advantage to see your names and ours inscribed ‘in the book of life’?

APOLOGUE

44

483 To oppose the passions and present interests of humans the obscure notions of a metaphysical, inconceivable God,-- the incredible punishments of another life,-- or the pleasures of the heaven, of which nobody has the least idea,-- is not this combating realities with fictions? 484 People

have never any but confused ideas of their God: they see Him only in clouds. 485 They never think of God when they are desirous to do evil: whenever ambition, fortune, or pleasure allures them, God's threatenings and promises are forgotten. 486 In the things of this life, there is a degree of certainty, which the most lively faith cannot give to the things of another life.

487 Every religion was originally a curb invented by legislators, who wished to establish their authority over the minds of rude nations. 488 Like nurses who frighten children to oblige them to be quiet, the ambitious used the name of the gods to frighten savages; and had recourse to terror in order to make them support quietly the yoke they wished to impose. 489 Are then the bugbears of infancy made for riper age? At the age of maturity, no person longer believes them, or if you does, they excite little emotion in you, and never alter your conduct.

APOLOGUE

45

490 Almost every person fears what you sees much more than what you does not see; 491 you fears the judgments of people of which you feels the effects, more than the judgments of God of whom you have only fluctuating ideas. 492 The desire of pleasing the world, the force of custom, the fear of ridicule, and of censure, have more force than all religious opinions. 493 Does not the soldier, through fear of disgrace, daily expose own life in battle, even at the risk of incurring eternal damnation?

494 The most religious persons have often more respect for a varlet, than for God. 495 A person who firmly believes, that God sees everything, and that He is omniscient and omnipresent, will be guilty, when alone, of actions, which you would never do in presence of the meanest of mortals. 496 Those, who pretend to be the most fully convinced of the existence of God, every moment act as if they believed the contrary.

APOLOGUE

46

497 "Let us, at least," it will be said, "cherish the idea of a God, which alone may serve as a barrier

to the passions of kings." 498 But, can we sincerely admire the wonderful effects, which the fear of this God generally produces upon the minds of princes, who are called His images? 499 What idea shall we form of the original, if we judge of it by the copies!

500 Sovereigns, it is true, call themselves the representatives of God, His vicegerents upon earth. 501 But does the fear of a master, more powerful than they are, incline them seriously to study the welfare of the nations, whom Providence has entrusted to their care? 502 Does the pretended terror, which ought to be inspired into them by the idea of an invisible judge, to whom alone they acknowledge themselves accountable for their actions, 503 render them more equitable, more compassionate, more sparing of blood and treasure of their subjects, more temperate in their pleasures, more attentive to their duties? 504 In fine, does this God, by whose authority kings reign, deter them from inflicting a thousand evils upon the people to whom they ought to act as guides, protectors, and fathers? 505 Alas! If we survey the whole earth, we shall see humans almost every where governed by tyrants, who use religion merely as an instrument to render more stupid the slaves, whom they overwhelm under the weight of their vices, or whom they sacrifice without mercy to their extravagancies.

506 Far from being a check upon the passions of kings, Religion, by its very principles, frees them from all restraint. It transforms them into divinities, whose caprice the people are never permitted to resist. 507 While it gives up the reins to princes, and on their part breaks the bonds of the social compact, it endeavours to chain the minds and hands of their oppressed subjects. 508 Is it then surprising, that the gods of the earth imagine every thing lawful for them, and regard their subjects only as instruments of their caprice or ambition?

509 In every country, Religion has represented the Monarch of Nature as a cruel, fantastical, partial tyrant, whose caprice is law; the Monarch God, is but too faithfully imitated by his representatives upon earth. 510 Religion seems

every where invented solely to lull the people in the lap of slavery, in order that their masters may easily oppress them, or render them wretched with impunity.

APOLOGUE

47

511 To guard against the enterprises of a haughty pontiff who wished to reign over kings, to shelter their persons from the attempts of credulous nations excited by the priests, 512 several European princes have pretended to hold their crowns and rights from God alone, and to be accountable only to Him for their actions. 513 After a long contest between the civil and spiritual power, the former at length triumphed; 514 and the priests, forced to yield, acknowledged the divine right of kings and preached them to the people, 515 reserving the liberty of changing their minds and of preaching revolt, whenever the divine rights of kings clashed with the divine rights of the clergy. 516 It was always at the expense of nations, that peace was concluded between kings and priests; but the latter, in spite of treaties, always preserved their pretensions.

517 Tyrants and wicked princes, whose consciences continually reproach them with negligence or perversity, far from fearing their God, had rather deal with this invisible judge who never opposes any thing, 518 or with His priests who are always condescending to the rulers of the earth, than with their own subjects. 519 The people, reduced to despair, might probably appeal from the divine right of their chiefs. 520 People when oppressed to the last degree, sometimes become turbulent; and the divine rights of the tyrant are then forced to yield to the natural rights of the subjects.

521 It is cheaper dealing with gods than humans. Kings are accountable for their actions to God alone; priests are accountable only to themselves. 522 There is much reason to believe, that both are more confident of the indulgence of heaven, than of that of earth. 523 It is much easier to escape the vengeance of gods who may be cheaply appeased, than the vengeance of humans whose patience is exhausted.

GOODNESS

524 "If you remove the fear of an invisible power, what restraint will you impose upon the passions of sovereigns?" 525 Let them learn to reign; let them learn to be just; to respect the rights of the people; and to acknowledge the kindness of the nations, from whom they hold their greatness and power. 526 Let them learn to fear humans, and to submit to the laws of equity. Let nobody transgress these laws with impunity; 527 and let them be equally binding upon the powerful and the weak, the great and the small, the sovereign and the subjects.

528 The fear of gods, Religion, and the terrors of another life, are the metaphysical and supernatural bulwarks, opposed to the impetuous passions of princes! Are these bulwarks effectual? Let experience resolve the question. 529 To oppose Religion to the wickedness of tyrants, is to wish, that vague, uncertain, unintelligible speculations may be stronger than propensities which every thing conspires daily to strengthen.

APOLOGUE

48

530 The immense service of religion to politics is incessantly boasted; but, a little reflection will convince us, that religious opinions equally blind both sovereigns and people, and never enlighten them upon their true duties or interests. 531 Religion but too often forms licentious, immoral despots, obeyed by slaves, whom every thing obliges to conform to their views.

532 For want of having studied or known the true principles of administration, the objects and rights of social life, the real interests of humans and their reciprocal duties, 533 princes, in almost every country, have become licentious, absolute, and perverse; and their subjects abject, wicked, and unhappy. 534 It was to avoid the trouble of studying these important objects, that recourse was had to chimeras, which, far from remedying any thing, have hitherto only multiplied the evils of humankind, and diverted them from whatever is most essential to their happiness.

535 Does not the unjust and cruel manner in which so many nations are governed, manifestly furnish one of the strongest proofs, 536 not only of the small effect produced by the fear of another life, but also of the non-existence of a Providence, busied with the fate of the human race? 537 If there existed a good God, should we not be forced to admit, that in this life He strangely neglects the greater part of humankind? 538 It would seem, that this God has created nations only to be the sport of the passions and follies of His representatives upon earth.

APOLOGUE

49

539 By reading history with attention, we shall perceive that Christianity, at first weak and servile, established itself among the savage 540 and free nations of Europe only intimating to their chiefs, that its religious principles favoured despotism and rendered them absolute. 541 Consequently, we see barbarous princes suddenly converted; that is, we see them adopt, without examination, a system so favourable to their ambition, and use every art to induce their subjects to embrace it. 542 If the ministers of this religion have since often derogated from their favourite principles, it is because the theory influences the conduct of the ministers of the Lord, only when it suits their temporal interests.

543 Christianity boasts of procuring people a happiness unknown to preceding ages. It is true, the Greeks knew not the ‘divine rights’ of tyrants or of the usurpers of the rights of their country. 544 Under paganism, it never entered the head of any person to suppose, that it was against the will of heaven for a nation to defend themselves against a ferocious beast, who had the audacity to lay waste their possessions. 545 The religion of the Christians was the first that screened tyrants from danger, by laying down as a principle that the people must renounce the legitimate defence of themselves. 546 Thus Christian nations are deprived of the first law-of-Nature, which orders human to resist evil, and to disarm whoever is preparing to destroy you! 547 If the

ministers of the church have often permitted the people to revolt for the interest of heaven, they have never permitted them to revolt for their own deliverance from real evils or known violences.

548 From heaven came the chains, that were used for fettering the minds of mortals. 549 Why is the Mahometan every where a slave? Because his prophet enslaved him in the name of the Deity, as Moses had before subdued the Jews. 550 In all parts of the earth, we see, that the first legislators were the first sovereigns and the first priests of the savages, to whom they gave laws.

551 Religion seems invented solely to exalt princes above their nations, and rivet the fetters of slavery. 552 As soon as the people are too unhappy here below, priests are ready to silence them by threatening them with the anger of God. 553 They are made to fix their eyes upon heaven, lest they should perceive the true causes of their misfortunes, and apply the remedies which Nature presents.

APOLOGUE

50

554 By dint of repeating to humans, that the earth is not their true country; that the present life is only a passage; that they are not made to be happy in this world; 555 that their sovereigns hold their authority from God alone, and are accountable only to Him for the abuse of it; that it is not lawful to resist them, etc., 556 priests have eternised the mis-government of kings and the misery of the people; the interests of nations have been basely sacrificed to their chiefs. 557 The more we consider the dogmas and principles of religion, the more we shall be convinced, that their sole object is the advantage of tyrants and priests, without regard to that of societies.

558 To mask the impotence of its deaf gods, religion has persuaded mortals, that iniquities always kindle the wrath of heaven. 559 People impute to themselves alone the disasters that daily befall them. 560 If nations sometimes feel the strokes of convulsed nature, their bad governments are but too often the immediate and permanent causes, from whence proceed the

continual calamities which they are forced to endure. 561 Are not the ambition, negligence, vices, and oppressions of kings and nobles, generally the causes of scarcity, beggary, wars, pestilences, corrupt morals, and all the multiplied scourges which desolate the earth?

562 In fixing humans' eyes continually upon heaven; in persuading them, that all their misfortunes are effects of divine anger; 563 in providing none but ineffectual and futile means to put an end to their sufferings, we might justly conclude, that the only object of priests was to divert nations from thinking about the true sources of their misery, and thus to render it eternal. 564 The ministers of religion conduct themselves almost like those indigent mothers, who, for want of bread, sing their starved children to sleep, or give them playthings to divert their thoughts from afflicting hunger.

565 Blinded by error from their very infancy, restrained by the invisible bonds of opinion, overcome by panic terrors, their faculties blunted by ignorance, how should the people know the true causes of their wretchedness? 566 They imagine that they can avert it by invoking the gods. Alas! do they not see, that it is, in the name of these gods, that they are ordered to present their throats to the sword of their merciless tyrants, 567 in whom they might find the obvious cause of the evils under which they groan, and for whom they cease not to implore, in vain, the assistance of heaven?

568 Ye credulous people! In your misfortunes, redouble your prayers, offerings, and sacrifices; throng to your temples; fast in sack-cloth and ashes; bathe yourselves in your own tears; and above all, completely ruin yourselves to enrich your gods! 569 You will only enrich their priests. The gods of heaven will be propitious, only when the gods of the earth shall acknowledge themselves, humans, like you, and shall devote to your welfare the attention you deserve.

GOODNESS

APOLOGUE

51

570 Negligent, ambitious, and perverse Princes are the real causes of public misfortunes. Useless, unjust Wars depopulate the earth. Encroaching and despotic Governments absorb the benefits of Nature. 571 The rapacity of Courts discourages agriculture, extinguishes industry, produces want, pestilence and misery. 572 Heaven is neither cruel nor propitious to the prayers of the people; it is their proud chiefs, who have almost always hearts of stone.

573 It is destructive to the morals of princes, to persuade them that they have God alone to fear, when they injure their subjects, or neglect their happiness. 574 Sovereigns! It is not the gods, but your people, that you offend, when you do evil. It is your people and yourselves that you injure, when you govern unjustly.

575 In history, nothing is more common than to see Religious Tyrants; nothing more rare than to find equitable, vigilant, enlightened princes. 576 A monarch may be pious, punctual in a servile discharge of the duties of own religion, very submissive and liberal to own priests, and yet at the same time be destitute of every virtue and talent necessary for governing. 577 To princes, Religion is only an instrument destined to keep the people more completely under the yoke. 578 By the excellent principles of religious morality, a tyrant who, during a long reign, has done nothing but oppress own subjects, wresting, from them the fruits of their labour, sacrificing them without mercy to own insatiable ambition,-- 579 a conqueror, who has usurped the provinces of others, slaughtered whole nations, and who, during own whole life, has been a scourge to humankind,-- 580 imagines his conscience may rest, when, to expiate so many crimes, he has wept at the feet of a priest, who generally has the base complaisance to console and encourage a robber, whom the most hideous despair would too lightly punish for the misery he has caused upon earth.

APOLOGUE

52

581 A sovereign, sincerely devout, is commonly dangerous to the state. Credulity always supposes a contracted mind; devotion generally absorbs the attention, which a prince should pay to the government of own people. 582 Obsequious to the suggestions of his priests, he becomes the sport of their caprices, the favourer of their quarrels, and the instrument and accomplice of their follies, which he imagines to be of the greatest importance. 583 Among the most fatal presents, which religion has made the world, ought to be reckoned those devout and zealous monarchs, 584 who, under an idea of working for the welfare of their subjects, have made it a sacred duty to torment, persecute, and destroy those, who thought differently from themselves. 585 A bigot, at the head of an empire, is one of the greatest scourges. A single fanatical or knavish priest, listened to by a credulous and powerful prince, suffices to put a state in disorder.

586 In almost all countries, priests and pious persons are entrusted with forming the minds and hearts of young princes, destined to govern nations. 587 What qualifications have instructors of this stamp! By what interests can they be animated? 588 Full of prejudices themselves, they will teach their pupil to regard superstition, as most important and sacred; 589 its chimerical duties, as most indispensable, intolerance and persecution, as the true foundation of his future authority. 590 They will endeavour to make him a party leader, a turbulent fanatic, a tyrant; they will early stifle his reason, and forewarn him against the use of it; 591 they will prevent truth from reaching his ears; they will exasperate him against true talents, and prejudice him in favour of contemptible ones; 592 in short, they will make him a weak devotee, who will have no idea either of justice or injustice, nor of true glory, nor of true greatness, 593 and who will be destitute of the knowledge and virtues necessary to the government of a great nation. 594 Such is the plan of the education of a child, destined one

day to create the happiness or misery of millions of people!

APOLOGUE

53

595 Priests have ever shewn themselves the friends of despotism, and the enemies of public liberty: their trade requires abject and submissive slaves, who have never the audacity to reason. 596 In an absolute government, who ever gains an ascendancy over the mind of a weak and stupid prince, becomes master of the state. 597 Instead of conducting the people to salvation, priests have always conducted them to servitude.

598 In consideration of the supernatural titles, which religion has forged for the worst of princes, the latter have commonly united with priests, 599 who, sure of governing by opinion the sovereign himself, have undertaken to bind the hands of the people and to hold them under the yoke. 600 But the tyrant, covered with the shield of religion, in vain flatters himself that he is secure from every stroke of fate; opinion is a weak rampart against the despair of the people. 601 Besides, the priest is a friend of the tyrant only while he finds his account in tyranny; 602 he preaches sedition, and demolishes the idol he has made, when he finds it no longer sufficiently conformable to the interest of God, whom he makes to speak at His will, and who never speaks except according to his interests.

603 It will no doubt be said, that sovereigns, knowing all the advantages which religion procures them, are truly interested in supporting it with all their strength. 604 If religious opinions are useful to tyrants, it is very evident, that they are useful to those, who govern by the laws of reason and equity. 605 Is there then any advantage in exercising tyranny? Are princes truly interested in being tyrants? Does not tyranny deprive them of true power, of the love of the people, and of all safety? 606 Ought not every reasonable prince to perceive, that the despot is a madman, and an enemy to himself? 607 Should not every enlightened prince beware of flatterers, whose object is to lull

him to sleep upon the brink of the precipice which they form beneath him?

APOLOGUE

54

608 If sacerdotal flatteries succeed in perverting princes and making them tyrants; tyrants, on their part, necessarily corrupt both the great and the humble. 609 Under an unjust ruler, void of goodness and virtue, who knows no law but own caprice, a nation must necessarily be depraved. 610 Will this ruler wish to have, about own person, honest, enlightened, and virtuous people? No. They wants none but flatterers, approvers, imitators, slaves, base and servile souls, who conform themselves to own inclinations. 611 Their court will propagate the contagion of vice among the lower ranks. All will gradually become corrupted in a state, whose chief is corrupt. 612 It was long since said, that "Princes seem to command others to do whatever they do themselves."

613 Religion, far from being a restraint upon sovereigns, enables them to indulge without fear or remorse, in acts of licentiousness as injurious to themselves, as to the nations whom they govern. 614 It is never with impunity, that people are deceived. Tell a sovereign, that he is a god; he will very soon believe that he owes nothing to any one. 615 Provided he is feared, he will care very little about being loved: he will observe neither rules, nor relations with his subjects, nor duties towards them. 616 Tell this prince, that he is accountable for his actions to God alone, and he will soon act as if he were accountable to no one.

APOLOGUE

55

617 An enlightened sovereign is you, who knows your true interests; who knows, that they are connected with the interests of your nation; 618 that a prince cannot be great, powerful, beloved, or respected, while you commands only unhappy slaves; 619 that equity, beneficence, and vigilance will give you more real authority over your people, than the fabulous titles, said to be derived from heaven. 620 You will see, that Religion is useful only to

priests, that it is useless to society and often troubles it, and that it ought to be restrained in order to be prevented from doing injury. 621 Finally, you will perceive, that, to reign with glory, you must have good laws and inculcate virtue, and not found your power upon impostures and fallacies.

APOLOGUE

56

622 The ministers of religion have taken great care to make of their God, a formidable, capricious, and fickle tyrant. Such a God was necessary to their variable interests. 623 A God, who should be just and good, without mixture of caprice or perversity; a God, who had constantly the qualities of an honest person, or of a kind sovereign, would by no means suit own ministers. 624 It is useful to priests, that people should tremble before their God, in order that they may apply to them to obtain relief from their fears. 625 "No person is a hero before your valet de chambre." It is not surprising, that a God, dressed up by own priests so as to be terrible to others, should rarely impose upon them, or should have but very little influence upon their conduct. 626 Hence, in every country, their conduct is very much the same. Under pretext of the glory of their God, they every where prey upon ignorance, degrade the mind, discourage industry, and sow discord. 627 Ambition and avarice have at all times been the ruling passions of the priesthood. 628 The priest every where rises superior to sovereigns and laws; we see them every where occupied with the interests of their pride, of their cupidity, and of their despotic, revengeful humour. 629 In the room of useful and social virtues, they everywhere substitutes expiations, sacrifices, ceremonies, mysterious practices, in a word, inventions lucrative to themselves and ruinous to others.

630 The mind is confounded and the reason is amazed upon viewing the ridiculous customs and pitiful means, which the ministers of the gods have invented in every country to purify souls, and render heaven favourable. 631 Here they cut off part of a child's prepuce, to secure for him divine benevolence; there, they pour water upon his

head, to cleanse him of crimes, which he could not as yet have committed. 632 In one place, they command him to plunge into a river, whose waters have the power of washing away all stains; in another, he is forbidden to eat certain food, the use of which will not fail to excite the celestial wrath; 633 in other countries, they enjoin upon sinful person to come periodically and confess own faults to a priest, who is often a greater sinner than own self, etc., etc., etc.

APOLOGUE

57

634 What should we say of a set of empirics, who, resorting every day to a public place, should extol the goodness of their remedies, and vend them as infallible, while they themselves were full of the infirmities, which they pretend to cure? 635 Should we have much confidence in the recipes of these quacks, though they stun us with crying, "take our remedies, their effects are infallible; they cure every body; except us." 636 What should we afterwards think, should those quacks spend their lives in complaining, that their remedies never produced the desired effect upon the sick, who take them? 637 In fine, what idea should we form of the stupidity of the vulgar, who, notwithstanding these confessions, should not cease to pay dearly for remedies, the inefficacy of which every thing tends to prove? 638 Priests resemble these alchymists, who boldly tell us, they have the secret of making gold, while they have scarcely clothes to cover their nakedness.

639 The ministers of religion incessantly declaim against the corruption of the age, and loudly complain of the little effect of their lessons, while at the same time they assure us, that religion is the universal remedy, the true panacea against the wickedness of humankind. 640 These priests are very sick themselves, yet people continue to frequent their shops, and to have faith in their divine antidotes, which, by their own confession, never effect a cure!

APOLOGUE

58

641 Religion, especially with the moderns, has tried to identify itself with Morality, the principles of which it has thereby totally obscured. 642 It has rendered people unsociable by duty, and forced them to be inhuman to everyone who thought differently from themselves. 643 Theological disputes, equally unintelligible to each of the enraged parties, have shaken empires, caused revolutions, been fatal to sovereigns, and desolated all Europe. 644 These contemptible quarrels have not been extinguished even in rivers of blood. 645 Since the extinction of paganism, the people have made it a religious principle to become outrageous, whenever any opinion is advanced which their priests think contrary to ‘sound doctrine’. 646 The sectaries of a religion, which preaches, in appearance, nothing but charity, concord, and peace, have proved themselves more ferocious than cannibals or savages, whenever their divines excited them to destroy their brethren. 647 There is no crime, which people have not committed under the idea of pleasing the Divinity, or appeasing His wrath.

648 The idea of a terrible God, whom we paint to ourselves as a despot, must necessarily render His subjects wicked. 649 Fear makes only slaves, and slaves are cowardly, base, cruel, and think every thing lawful, in order to gain the favour or escape the chastisements of the master whom they fear. 650 Liberty of thinking alone can give people humanity and greatness of soul. The notion of a tyrant-god tends only to make them abject, morose, quarrelsome, intolerant slaves.

651 Every religion, which supposes a God easily provoked, jealous, revengeful, punctilious about His rights or the etiquette with which He is treated;-- 652 a God little enough to be hurt by the opinions which people can form of Him;-- a God unjust enough to require that we have uniform notions of His conduct; 653 a religion which supposes such a God necessarily becomes restless, unsociable, and sanguinary; 654 the worshippers of such a God would never think, that they could, without offence,

forbear hating and even destroying every one, who is pointed out to them, as an adversary of this God; 655 they would think, that it would be to betray the cause of their celestial Monarch, to live in friendly intercourse with rebellious fellow-citizens. 656 If we love what God hates, do we not expose ourselves to His implacable hatred?

657 Infamous persecutors, and devout people-haters! Will you never discern the folly and injustice of your intolerant disposition? 658 Do you not see, that person is no more master of own religious opinions, own belief or unbelief, than of the language, which one learns from infancy? 659 To punish a person for own errors, is it not to punish one for having been educated differently from you? 660 If I am an unbeliever, is it possible for me to banish from my mind the reasons that have shaken my faith? 661 If your God gives people leave to be damned, what have you to meddle with? Are you more prudent and wise, than this God, whose rights you would avenge?

APOLOGUE

59

662 There is no devotee, who does not, according to own temperament, hate, despise, or pity the adherents of a sect, different from one's own. 663 The established religion, which is never any other than that of the sovereign and the armies, always makes its superiority felt in a very cruel and injurious manner by the weaker sects. 664 As yet there is no true toleration upon earth; humans every where adore a jealous God, of whom each nation believes itself the friend, to the exclusion of all others.

665 Every sect boasts of adoring alone the true God, the universal God, the Sovereign of all Nature. 666 But when we come to examine this Monarch of the world, we find that every society, sect, party, or religious cabal, makes of this powerful God only a pitiful sovereign, 667 whose care and goodness extend only to a small number of His subjects, who pretend that they alone have the happiness to enjoy His favours, and that He is not at all concerned about the others.

GOODNESS

668 The founders of religions, and the priests who support them, evidently proposed to separate the nations, whom they taught, from the other nations; 669 they wished to separate their own flock by distinguishing marks; they gave their followers gods, who were hostile to the other gods; they taught them modes of worship, dogmas and ceremonies apart; 670 and above all, they persuaded them, that the religion of others was impious and abominable. 671 By this unworthy artifice, the ambitious knaves established, their usurpation over the minds of their followers, rendered them unsociable, 672 and made them regard with an evil eye all persons who had not the same mode of worship and the same ideas as they had. 673 Thus it is, that Religion has shut up the heart and for ever banished from it the affection that human ought to have for your fellow-creature. 674 Sociability, indulgence, humanity, those first virtues of all morality, are totally incompatible with religious prejudices.

APOLOGUE

60

675 Every national religion is calculated to make human vain, unsociable, and wicked; 676 the first step towards humanity is to permit every one peaceably to embrace the mode of worship and opinions, which they judges to be right. 677 But this conduct cannot be pleasing to the ministers of religion, who wish to have the right of tyrannising over people even in their thoughts.

678 Blind and bigoted princes! You hate and persecute heretics, and order them to execution, because you are told, that these wretches displease God. 679 But do you not say, that your God is full of goodness? How then can you expect to please Him by acts of barbarity, which He must necessarily disapprove? 680 Besides, who has informed you, that their opinions displease your God? Your priests? 681 But, who assures you, that your priests are not themselves deceived or wish to deceive you? The same priests? 682 Princes! It is then upon the hazardous word of your priests, that you commit the most

atrocious crimes, under the idea of pleasing the Divinity!

APOLOGUE

61

683 Pascal says, "that human never does evil so fully and cheerfully, as when you acts from a false principle of conscience." 684 Nothing is more dangerous than a religion, which lets loose the ferocity of the multitude, and justifies their blackest crimes. 685 They will set no bounds to their wickedness, when they think it authorised by their God, whose interests, they are told, can make every action legitimate. 686 Is religion in danger?-- the most civilised people immediately becomes true savages, and think nothing forbidden. 687 The more cruel they are, the more agreeable they suppose they are to their God, whose cause they imagine cannot be supported with too much warmth.

688 All religions have authorised innumerable crimes. The Jews, intoxicated with the promises of their God, arrogated the rights of exterminating whole nations. 689 Relying on the oracles of their God, the Romans conquered and ravaged the world. The Arabians, encouraged by their divine prophet, carried fire and sword among the Christians and the idolaters. 690 The CHRISTIANS, under pretext of extending their holy religion, have often deluged both hemispheres in blood.

691 In all events favourable to their own interest, which they always call the cause of God, priests show us the finger of God. 692 According to these principles, the devout have the happiness to see the finger of God in revolts, revolutions, massacres, regicides, crimes, prostitutions, horrors; 693 and, if these things contribute ever so little to the triumph of religion, we are told, that "God uses all sorts of means to attain His ends." 694 Is any thing more capable of effacing every idea of morality from the minds of humans, than to inform them, that their God, so powerful and perfect, is often forced to make use of criminal actions in order to accomplish His designs?

GOODNESS

APOLOGUE

62

695 No sooner do we complain of the extravagancies and evils, which Religion has so often caused upon the earth, than we are reminded, that these excesses are not owing to Religion; but "that they are the sad effects of the passions of humans." 696 But I would ask, what has let loose these passions? It is evidently Religion; it is zeal, that renders humans inhuman, and serves to conceal the greatest atrocities. 697 Do not these disorders then prove, that religion, far from restraining the passions of people, only covers them with a veil, which sanctifies them, 698 and that nothing would be more useful, than to tear away this sacred veil of which people often make such a terrible use? 699 What horrors would be banished from society, if the wicked were deprived of so plausible a pretext for disturbing it!

700 Instead of being angels of peace among people, priests have been demons of discord. They have pretended to receive from heaven the right of being quarrelsome, turbulent, and rebellious. 701 Do not the ministers of the Lord think themselves aggrieved, and pretend that the divine Majesty is offended, whenever sovereigns have the temerity to prevent them from doing evil? 702 Priests are like the spiteful woman who cried ‘fire! murder! assassination’! while her husband held her hands to prevent her from striking him.

APOLOGUE

63

703 Notwithstanding the bloody tragedies, which Religion often acts, it is insisted, that, without Religion, there can be no Morality. 704 If we judge theological opinions by their effects, we may confidently assert, that all Morality is perfectly incompatible with humans' religious opinions.

705 "Imitate God," exclaim the pious. But, what would be our Morality, should we imitate this God! And what God ought we to imitate? The God of the Deist? 706 But even this God cannot serve us as a very constant model of goodness. If He is the author of all things, He is the author both of good and evil. 707 If He is the

author of order, He is also the author of disorder, which could not take place without His permission. 708 If He produces, He destroys; if He gives life, He takes it away; if He grants abundance, riches, prosperity, and peace, He permits or sends scarcity, poverty, calamities, and wars. 709 How then can we receive as a model of permanent beneficence, the God of Deism or natural religion, whose favourable dispositions are every instant contradicted by all the effects we behold? 710 Morality must have a basis less tottering than the example of a God, whose conduct varies, and who cannot be called good, unless we obstinately shut our eyes against the evil which He causes or permits in this world.

711 Shall we imitate the beneficent, mighty Jupiter of heathen antiquity? To imitate such a god, is to admit as a model, a rebellious son, who ravishes the throne from his father. 712 It is to imitate a debauchee, an adulterer, one guilty of incest and of base passions, at whose conduct every reasonable mortal would blush. 713 What would have been the condition of people under paganism, had they imagined, like Plato, that virtue consisted in imitating the gods!

714 Must we imitate the God of the Jews! Shall we find in Jehovah a model for our conduct? 715 This is a truly savage god, made for a stupid, cruel, and immoral people; He is always furious, breathes nothing but vengeance, commands carnage, theft, and unsociability. 716 The conduct of this god cannot serve as a model to that of an honest person, and can be imitated only by a chief of robbers.

717 Shall we then imitate the Jesus of the Christians? Does this God, who died to appease the implacable fury of his father, furnish us an example which people ought to follow? 718 Alas! we shall see in Him only a God, or rather a fanatic, a misanthrope, who, Himself plunged in wretchedness and preaching to wretches, will advise them to be poor, to combat with and stifle Nature, to hate pleasure, seek grief, and detest themselves. 719 He will tell them to leave father, mother, relations, friends, etc., to follow Him. "Fine morality!" you say. It is, undoubtedly, admirable:

it must be divine, for it is impracticable to humans. 720 But is not such sublime morality calculated to render virtue odious? 721 According to the so much boasted morality of the human-God of the Christians, a disciple of His in this world must be like Tantalus, tormented with a burning thirst, which you are not allowed to quench. 722 Does not such morality give us a wonderful idea of the author of Nature? 723 If, as we are assured, He has created all things for His creatures, by what strange whim does He forbid them the use of the goods He has created for them? 724 Is pleasure then, which human continually desires, only a snare, which God has maliciously laid to surprise your weakness?

APOLOGUE

64

725 The followers of Christ would have us regard, as a miracle, the establishment of their Religion, which is totally repugnant to Nature, opposite to all the propensities of the heart, and inimical to sensual pleasures. 726 But the austerity of a doctrine renders it the more marvellous in the eyes of the vulgar. 727 The same disposition, which respects inconceivable mysteries as divine and supernatural, admires, as divine and supernatural, a Morality, that is impracticable, and beyond the powers of human.

728 To admire a system of Morality, and to put it in practice, are two very different things. All Christians admire and extol the Morality of the gospel; which they do not practise.

729 The whole world is more or less infected with a Religious morality, founded upon the opinion, that to please the Divinity, it is absolutely necessary to render ourselves unhappy upon earth. 730 In all parts of our globe, we see penitents, fakirs, and fanatics, who seem to have profoundly studied the means of tormenting themselves, in honour of a being whose goodness all agree in celebrating. 731 Religion, by its essence, is an enemy to the joy and happiness of people. 732 "Blessed are the poor, blessed are they, who weep; blessed are they, who suffer; misery to those, who are in abundance and joy." Such

are the rare discoveries, announced by Christianity!

APOLOGUE

65

733 What is a Saint in every religion? A person, who prays, and fasts, who torments own self, and shuns the world; 734 who like an owl, delights only in solitude, abstains from all pleasure, and seems frightened of every object, which may divert you from your fanatical meditations. Is this virtue? 735 Is a being of this type, kind to own self, or useful to others? Would not society be dissolved, and human return to a savage state, if every one were fool enough to be a Saint?

736 It is evident, that the literal and rigorous practice of the divine Morality of the Christians would prove the infallible ruin of nations. 737 A Christian, aiming at perfection, ought to free own mind from whatever can divert it from heaven, your true country. Upon earth, you sees nothing but temptations, snares, and rocks of perdition. 734 You must fear science, as hurtful to faith; you must avoid industry, as a means of obtaining riches, too fatal to salvation; you must renounce offices and honours, as capable of exciting your pride, and calling off your attention from the care of your soul. 735 In a word, the sublime Morality of Christ, were it practicable, would break all the bonds of society.

736 A Saint in society is as useless, as a Saint in the desert; your humour is morose, discontented, and often turbulent; 737 your zeal sometimes obliges you in conscience to trouble society by opinions or dreams, which your vanity makes you consider as inspirations from on high. 738 The annals of every religion are full of restless Saints, intractable Saints, and seditious Saints, who have become famous by the ravages, with which, for the greater glory of God, they have desolated the universe. 739 If Saints, who live in retirement, are useless, those who live in the world, are often very dangerous.

740 The vanity of acting, the desire of appearing illustrious and peculiar in conduct, commonly constitute the distinguishing character of Saints. 741 Pride

persuades them, that they are extraordinary people far above human nature, beings much more perfect than others, favourites whom God regards with much more complaisance than the rest of mortals. 742 Humility, in a Saint, is commonly only a more refined pride than that of the generality of people. Nothing but the most ridiculous vanity can induce human to wage continual war against your own nature.

APOLOGUE

66

743 A morality, which contradicts the nature of human, is not made for human. 744 "But," say you, "the nature of human is depraved." In what consists this pretended depravity? In having passions? 745 But, are not passions essential to human? Are you not obliged to seek, desire, and love what is, or what you thinks is, conducive to your happiness? 746 Are you not forced to fear and avoid what you judges disagreeable or fatal? 747 Kindle your passions for useful objects; connect your welfare with those objects; divert yourself, by sensible and known motives, from what may injure either you or others, and you will make yourself a reasonable and virtuous being. 748 A person without passions would be equally indifferent to vice and to virtue.

749 Holy Doctors! you are always repeating to us that the nature of human is perverted; you exclaim, "that: ‘all flesh has corrupted its way’, that all the propensities of Nature have become inordinate." 750 In this case, you accuse your God; who was either unable, or unwilling, that this nature should preserve its primitive perfection. 751 If this nature is corrupted, why has not God repaired it? The Christian immediately assures me, "that human nature is repaired; that the death of their God has restored its integrity." 752 How then, I would ask, do you pretend that human nature, notwithstanding the death of a God, is still depraved? Is then the death of your God wholly fruitless? 753 What becomes of His omnipotence and of His victory over the Devil, if it is true that the Devil still preserves the empire, which, according to you, He has always exercised in the world?

GOODNESS

754 According to Christian theology, Death is the ‘wages of sin’. 755 This opinion is conformable to that of some negro and savage nations, who imagine that the Death of a human is always the supernatural effect of the anger of the Gods. 756 Christians firmly believe, that Christ has delivered them from sin; though they see, that, in their Religion, as in others, human is subject to Death. 757 To say that Jesus Christ has delivered us from sin, is it not to say, that a judge has pardoned a criminal, while we see that he leaves him for execution?

APOLOGUE
67

758 If shutting our eyes upon whatever passes in the world, we would credit the partisans of the Christian Religion, 759 we should believe, that the coming of their divine Saviour produced the most wonderful and complete reform in the morals of nations.

760 If we examine the Morals of Christian nations, and listen to the clamours of their priests, we shall be forced to conclude, that Jesus Christ, their God, preached and died, in vain; 761 His omnipotent will still finds in humans, a resistance, over which he cannot, or will not triumph. 762 The Morality of this divine Teacher, which his disciples so much admire and so little practise, is followed, in a whole century only by half a dozen obscure saints, and fanatics, and unknown monks, who alone will have the glory of shining in the celestial court, 763 while all the rest of mortals, though redeemed by the blood of this God, will be the prey of eternal flames.

APOLOGUE
68

764 When a person is strongly inclined to sin, you thinks very little about your God. 765 Nay more, whatever crimes you have committed, you always flatters yourself, that this God will soften, in your favour, the rigour of your decrees. 766 No mortal seriously believes, that your conduct can damn you. Though you fears a terrible God, who often makes you tremble, yet, whenever you are strongly tempted, you yields; 767 and you afterwards sees only the God of mercies, the idea of whom

calms your apprehensions. 768 If a person commits evil, you hopes, you shall have time to reform, and promises to repent at a future day. 769 In religious pharmacy, there are infallible prescriptions to quiet consciences: priests, in every country, possess sovereign secrets to disarm the anger of heaven. 770 Yet, if it be true that the Deity is appeased by prayers, offerings, sacrifices, and penances, it can no longer be said, that Religion is a check to the irregularities of humans; they will first sin, and then seek the means to appease God. 771 Every Religion, which expiates crime and promises a remission of them, if it restrain some persons, encourages the majority to commit evil. 772 Notwithstanding His immutability, God, in every Religion, is a true 'Proteus'. 773 His priests represent Him at one time armed with severity, at another full of clemency and mildness; sometimes cruel and unmerciful, and sometimes easily melted by the sorrow and tears of sinners. 774 Consequently, people see the Divinity only on the side most conformable to their present interests. 775 A God always angry would discourage His worshippers, or throw them into despair. People must have a God, who is both irritable, and placable. 776 If your anger frightens some timorous souls, your clemency encourages the resolutely wicked, who depend upon recurring, sooner or later, to the means of accommodation. 777 If the judgments of God terrify some faint-hearted pious persons, who by constitution and habit are not prone to evil, 'the treasures of divine mercy' encourage the greatest criminals, who have reason to hope they participate therein equally with the others.

APOLOGUE

69

778 Most people seldom think of God, or, at least, bestow on Him serious attention. The only ideas we can form of Him are so devoid of object, and are at the same time so afflicting, 779 that the only imaginations people can arrest are those of melancholy hypochondriacs, who do not constitute the majority of the inhabitants of this world. 780 The

vulgar have no conception of God; their weak brains are confused, whenever they think of Him. 781 The person of business thinks only of own business; the courtier of own intrigues; men of fashion, women, and young people of their pleasures; dissipation soon effaces in them all the fatiguing notions of Religion. 782 The ambitious person, the miser and the debauchee carefully avoid speculations too feeble to counterbalance their various passions.

783 Who is awed by the idea of a God? A few enfeebled people, morose and disgusted with the world; a few, in whom the passions are already deadened by age, by infirmity, or by the strokes of fortune. 784 Religion is a check, to those alone who by their state of mind and body, or by fortuitous circumstances, have been already brought to reason. 785 The fear of God hinders from sin only those, who are not much inclined to it, or else those who are no longer able to commit it. 786 To tell people, that the Deity punishes crimes in this world, is to advance an assertion, which experience every moment contradicts. 787 The worst of people are commonly the arbiters of the world, and are those whom fortune loads with its favours. 788 To refer us to another life, in order to convince us of the judgments of God, is to refer us to conjectures, in order to destroy facts, which cannot be doubted.

APOLOGUE

70

789 Nobody thinks of the life to come, when you are strongly smitten with the objects you finds here below. 790 In the eyes of a passionate lover, the presence of your mistress extinguishes the flames of hell, and her charms efface all the pleasures of paradise.

791 Woman! you leave, say you, your lover for your God. This is either because your lover is no longer the same in your eyes, or because he leaves you.

792 Nothing is more common, than to see ambitious, perverse, corrupt, and immoral people, who have some ideas of Religion, and sometimes appear even zealous for its interest. 793 If they do not practise it at present, they hope to in the future. They lay it up, as a

remedy, which will be necessary to salve the conscience for the evil they intend to commit. 794 Besides, the party of devotees and priests being very numerous, active, and powerful, is it not astonishing, that rogues and knaves seek its support to attain their ends? 795 It will undoubtedly be said, that many honest people are sincerely religious, and that without profit; but is uprightness of heart always accompanied with knowledge?

796 It is urged, that many learned people, many people of genius have been strongly attached to Religion. 797 This proves, that people of genius may have prejudices, be pusillanimous, and have an imagination, which misleads them and prevents them from examining subjects coolly. 798 Pascal proves nothing in favour of Religion, unless that a person of genius may be foolish on some subjects, and is but a child, when you are weak enough to listen to your prejudices. 799 Pascal himself tells us, that: 'the mind may be strong and contracted, enlarged and weak'. 800 He previously observes, that; 'a person may have a sound mind, and not understand every subject equally well; for there are some, who, having a sound judgment in a certain order of things, are bewildered in others'.

APOLOGUE

71

801 What is virtue according to theology? 'It is', we are told, 'the conformity of the actions of human to the will of God'. 802 But, what is God? A being, of whom nobody has the least conception, and whom every one consequently modifies in own way. 803 What is the will of God? It is what people, who have seen God, or whom God has inspired, have declared to be the will of God. 804 Who are those, who have seen God? They are either fanatics, or rogues, or ambitious people, whom we cannot believe.

805 To found Morality upon a God, whom every person paints to yourself differently, composes in your way, and arranges according to your own temperament and interest, is evidently to found Morality upon the caprice and imagination of people; 806 it is to found it upon the whims of a sect,

a faction, a party, who believe they have the advantage to adore a true God to the exclusion of all others. 807 To establish Morality or the duties of human upon the divine will, is to found it upon the will, the reveries and the interests of those, who make God speak, without ever fearing that He will contradict them. 808 In every Religion, priests alone have a right to decide what is pleasing or displeasing to their God, and we are certain they will always decide, that it is what pleases or displeases themselves. 809 The dogmas, the ceremonies, the morals, and the virtues, prescribed by every Religion, are visibly calculated only to extend the power or augment the emoluments of the founders and ministers of these Religions. 810 The dogmas are obscure, inconceivable, frightful, and are therefore well calculated to bewilder the imagination and to render the vulgar more obsequious to the will of those who wish to domineer over them. 811 The ceremonies and practices procure the priests, riches or respect. Religion consists in a submissive faith, which prohibits the exercise of reason; 812 in a devout humility, which insures priests the submission of their slaves; in an ardent zeal, when Religion, that is, when the interest of these priests, is in danger. 813 The only object of all religions is evidently the advantage of its ministers.

APOLOGUE

72

814 When we reproach theologians with the barrenness of their divine virtues, they emphatically extol charity, that tender love of one's neighbour, which Christianity makes an essential duty of its disciples. 815 But, alas! what becomes of this pretended charity, when we examine the conduct of the ministers of the Lord? 816 Ask them, whether we must love or do good to our neighbour, if you be an impious person, a heretic, or an infidel, that is, if you do not think like them? 817 Ask them, whether we must tolerate opinions contrary to those of the religion, they profess? 818 Ask them, whether the sovereign can show indulgence to those who are in error? 819 Their charity

instantly disappears, and the established clergy will tell you, that: ‘the prince bears the sword only to support the cause of the Most High’: 820 they will tell you that, through love for our neighbour, we must prosecute, imprison, exile, and burn them. 821 You will find no toleration except among a few priests, persecuted themselves, who will lay aside Christian charity the instant they have power to persecute in their turn.

822 The Christian religion, in its origin preached by beggars and miserable people, under the name of charity, strongly recommends alms. The religion of Mahomet also enjoins it as an indispensable duty. 823 Nothing undoubtedly is more conformable to humanity, than to succour the unfortunate, to clothe the naked, to extend the hand of beneficence to every one in distress. 824 But would it not be more humane and charitable to prevent the source of misery and poverty? 825 If Religion, instead of deifying princes, had taught them to respect the property of their subjects, to be just, to exercise only their lawful rights, we should not be shocked by the sight of such a multitude of beggars. 826 A rapacious, unjust, tyrannical government multiplies misery; heavy taxes produce discouragement, sloth, and poverty, which in their turn beget robberies, assassinations, and crimes of every description. 827 Had sovereigns more humanity, charity, and equity, their dominions would not be peopled by so many wretches, whose misery it becomes impossible to alleviate.

828 Christian and Mahometan states are full of large hospitals, richly endowed, in which we admire the pious charity of the kings and sultans, who erected them. 829 But would it not have been more humane to govern the people justly, to render them happy, to excite and favour industry and commerce, and to let people enjoy in safety the fruit of their labours, 830 than to crush them under a despotic yoke, to impoverish them by foolish wars, to reduce them to beggary, in order that luxury may be satisfied, 831 and then to erect splendid buildings, which can contain but a

very small portion of those, who have been rendered miserable? 832 Religion has only deluded humans; instead of preventing evils, it always applies ineffectual remedies.

833 The ministers of heaven have always known how to profit by the calamities of others. Public misery is their element. 834 They have every where become administrators of the property of the poor, distributors of alms, depositaries of charitable donations; 835 and thereby they have at all times extended and supported their power over the unhappy, who generally compose the most numerous, restless, and seditious part of society. 836 Thus the greatest evils turn to the profit of the ministers of the Lord. Christian priests tell us, that the property they possess is the property of the poor, and that it is therefore sacred. 837 Consequently they have eagerly accumulated lands, revenues, and treasures. Under colour of charity, spiritual guides have become extremely opulent, 838 and in the face of impoverished nations they enjoy wealth, which was destined solely for the unfortunate; 839 while the latter, far from murmuring, applaud a pious generosity, which enriches the church, but rarely contributes to the relief of the poor.

840 According to the principles of Christianity, poverty itself is a virtue; indeed, it is the virtue, which sovereigns and priests oblige their slaves to observe most rigorously. 841 With this idea, many pious Christians have of their own accord renounced riches, distributed their patrimony among the poor, and retired into deserts, there to live in voluntary indigence. 842 But this enthusiasm, this supernatural taste for misery, has been soon forced to yield to Nature. 843 The successors of these volunteers in poverty sold to the devout people their prayers, and their intercessions with the Deity. 844 They became rich and powerful. Thus monks and hermits lived in indolence, and under colour of charity, impudently devoured the substance of the poor.

845 The species of poverty, most esteemed by Religion, is ‘poverty of mind’. 846 The fundamental

virtue of every Religion, most useful to its ministers, is ‘faith’. 847 It consists in unbounded credulity, which admits, without enquiry, whatever the interpreters of the Deity are interested in making people believe. 848 By the aid of this wonderful virtue, priests became the arbiters of right and wrong, of good and evil: they could easily cause the commission of crimes to advance their interest. 849 Implicit faith has been the source of the greatest outrages that have been committed.

APOLOGUE

73

850 You, who first taught nations, that, when we wrong Human, we must ask pardon of God, appease Him by presents, and offer Him sacrifices, evidently destroyed the true principles of Morality. 851 According to such ideas, many persons imagine that they may obtain of the king of heaven, as of kings of the earth, permission to be unjust and wicked, or may at least obtain pardon for the evil they may commit.

852 Morality is founded upon the relations, wants, and constant interests of humankind; 853 the relations, which subsist between God and Humans, are either perfectly unknown, or imaginary. 854 Religion, by associating God with Human, has wisely weakened, or destroyed, the bonds, which unite them. 855 Mortals imagine, they may injure one another with impunity, by making suitable satisfaction to the almighty being, who is supposed to have the right of remitting all offences committed against His creatures.

856 Is any thing better calculated to encourage the wicked or harden them in crimes, than to persuade them that there exists an invisible being, who has a right to forgive acts of injustice, rapine, and outrage committed against society? 857 By these destructive ideas, perverse people perpetrate the most horrid crimes, and believe they make reparation by imploring divine mercy; 858 their conscience is at rest, when a priest assures them that heaven is disarmed by a repentance, which,

though sincere, is very useless to the world.

859 In the mind of a devout human, God must be regarded more than His creatures; it is better to obey Him, than humans. 860 The interests of the celestial monarch must prevail over those of weak mortals. But the interests of heaven are obviously those of its ministers; 861 whence it evidently follows, that in every religion, priests, under pretext of the interests of heaven or the glory of God, can dispense with the duties of human Morality, when they clash with the duties, which God has a right to impose. 862 Besides, must not one, who has power to pardon crimes, have a right to encourage the commission of crimes?

APOLOGUE

74

863 We are perpetually told, that, without a God there would be no ‘moral obligation’; that the people and even the sovereigns require a legislator powerful enough to constrain them. 864 Moral constraint supposes a law; but this law arises from the eternal and necessary relations of things with one another; relations, which have nothing common with the existence of a God. 865 The rules of Human's conduct are derived from your own nature which you are capable of knowing, and not from the Divine nature of which you have no idea. 866 These rules constrain or oblige us; that is, we render ourselves estimable or contemptible, amiable or detestable, worthy of reward or of punishment, happy or unhappy, accordingly as we conform to, or deviate from these rules. 867 The law, which obliges human not to hurt yourself, is founded upon the nature of a sensible being, who, in whatever way you came into this world, is forced by your actual essence to seek good and shun evil, to love pleasure and fear pain. 868 The law, which obliges human not to injure, and even to do good to others, is founded upon the nature of sensible beings, living in society, whose essence compels them to despise those who are useless, and to detest those who oppose their felicity.

869 Whether there exists a God or not, whether this God has spoken

or not, the moral duties of humans will be always the same, so long as they are sensible beings. 870 Have people then need of a God whom they know not, of an invisible legislator, of a mysterious religion and of chimerical fears, in order to learn that every excess evidently tends to destroy them, that to preserve health they must be temperate; 871 that to gain the love of others it is necessary to do them good, that to do them evil is a sure means to incur their vengeance and hatred? 872 "Before the law there was no sin." Nothing is more false than this maxim. 873 It suffices that human is what you are, or that you are a sensible being, in order to distinguish what gives you pleasure or displeasure. 874 It suffices that one person knows that another person is a sensible being like own self, to perceive what is useful or hurtful to oneself. 875 It suffices that human needs own fellow-creature, in order to know that you must fear to excite sentiments unfavourable to yourself. 876 Thus the feeling and thinking being has only to feel and think, in order to discover what you must do for yourself and others. 877 I feel, and another feels like me; this is the foundation of all morals.

APOLOGUE

75

878 We can judge of the goodness of a system of Morals, only by its conformity to the nature of human. 879 By this comparison, we have a right to reject it, if contrary to the welfare of our species. 880 Whoever has seriously meditated Religion; whoever has carefully weighed its advantages and disadvantages, will be fully convinced, that both are injurious to the interests of Human, or directly opposite to your nature.

881 "To arms! the cause of your God is at stake! Heaven is outraged! The faith is in danger! Impiety! blasphemy! heresy!" 882 The magical power of these formidable words, the real value of which the people never understand, have at all times enabled priests to excite revolts, to dethrone kings, to kindle civil wars, and to lay waste. 883 If we examine the important objects, which have produced so many ravages upon earth, it appears, that

either the foolish reveries and whimsical conjectures of some theologian who did not understand own self, or else the pretensions of the clergy, have broken every social bond and deluged humankind with blood and tears.

APOLOGUE

76

884 The sovereigns of this world, by associating the Divinity in the government of their dominions, by proclaiming themselves His vicegerents and representatives upon earth, and by acknowledging they hold their power from Him, have necessarily constituted His ministers their own rivals or masters. 885 Is it then astonishing, that priests have often made kings feel the superiority of the Celestial Monarch? 886 Have they not more than once convinced temporal princes, that even the greatest power is compelled to yield to the spiritual power of opinion? 887 Nothing is more difficult than to serve two masters, especially when they are not agreed upon what they require.

888 The association of Religion with Politics necessarily introduced double legislation. 889 The law of God, interpreted by His priests, was often repugnant to the law of the sovereign, or the interest of the state. 890 When princes have firmness and are confident of the love of their subjects, the law of God is sometimes forced to yield to the wise intentions of the temporal sovereign; 891 but generally the sovereign authority is obliged to give way to the divine authority, that is, to the interests of the clergy. 892 Nothing is more dangerous to a prince, than to encroach upon the authority of the Church, that is, to attempt to reform abuses consecrated by religion. 893 God is never more angry than when we touch the divine rights, privileges, possessions, or immunities of His priests.

894 The metaphysical speculations or religious opinions of people influence their conduct, only when they judge them conformable to their interest. 895 Nothing proves this truth more clearly, than the conduct of many princes with respect to the spiritual power, which they often resist. 896 Ought

not a sovereign, persuaded of the importance and rights of Religion, to believe yourself in conscience bound to receive respectfully the orders of its priests, and to regard them as the orders of the Divinity? 897 There was a time, when kings and people, more consistent in their conduct, were convinced of the rights of spiritual power, and becoming its slaves, yielded to it upon every occasion, and were but docile instruments in its hands. 898 That happy time is passed. By a strange inconsistency the most devout monarchs are sometimes seen to oppose the enterprises of those, whom they yet regard as the ministers of God. 899 A sovereign, deeply religious, ought to remain prostrate at the feet of own ministers, and regard them as true sovereigns. 900 Is there upon earth a power which has a right to put itself in competition with that of the Most High?

APOLOGUE

77

901 Have princes then, who imagine themselves interested in cherishing the prejudices of their subjects, seriously reflected upon the effects, which have been, and may be again produced by certain privileged demagogues, 902 who have a right to speak at pleasure, and in the name of heaven to inflame the passions of millions of subjects? 903 What ravages would not these sacred haranguers cause, if they should conspire, as they have so often done, to disturb the tranquillity of a state!

904 To most nations, nothing is more burthensome and ruinous than the worship of their gods. 905 Not only do the ministers of these gods every where constitute the first order in the state, but they also enjoy the largest portion of the goods of society, and have a right to levy permanent taxes upon their fellow-citizens. 906 What real advantages then do these organs of the Most High procure the people, for the immense profits extorted from their industry? 907 In exchange for their riches and benefits, what do they give them but mysteries, hypotheses, ceremonies, subtle questions, and endless quarrels, which states are again compelled to pay with blood?

APOLOGUE

78

908 Religion, though said to be the firmest prop of Morality, evidently destroys its true springs, in order to substitute imaginary ones, inconceivable chimeras, which, being obviously contrary to reason, nobody firmly believes. 909 All nations declare that they firmly believe in a God, who rewards and punishes; all say they are persuaded of the existence of hell and paradise; yet, do these ideas render people better or counteract the most trifling interests? 910 Every one assures us, that they trembles at the judgments of God; yet every one follows their passions, when they thinks themselves sure of escaping the judgments of Human. 911 The fear of invisible powers is seldom so strong as the fear of visible ones. 912 Unknown or remote punishments strike the multitude far less forcibly than the sight of the gallows. 913 Few courtiers fear the anger of their God so much as the displeasure of their master. 914 A pension, a title, or a riband suffices to efface the remembrance both of the torments of hell, and of the pleasures of the celestial court. 915 The caresses of a woman repeatedly prevail over the menaces of the Most High. 916 A jest, a stroke of ridicule, a witticism, make more impression upon the human of the world, than all the grave notions of your Religion.

917 Are we not assured that a true repentance is enough to appease the Deity? Yet we do not see that this true repentance is very sincere; 918 at least, it is rare to see noted thieves, even at the point of death, restore goods, which they have unjustly acquired. 919 People are undoubtedly persuaded, that they shall fit themselves for eternal fire, if they cannot insure themselves against it. 920 But, "Some useful compacts may be made with heaven." By giving the church a part of your fortune, almost every devout rogue may die in peace, without concerning yourself in how you gained your riches.

APOLOGUE

79

921 By the confession of the warmest defenders of Religion and of its utility, nothing is more rare

than sincere conversions, and, we might add, nothing more unprofitable to society. 922 People are not disgusted with the world, until the world is disgusted with them.

923 If the devout have the talent of pleasing God and His priests, they have seldom that of being agreeable or useful to society. 924 To a devotee, Religion is a veil, which covers all passions; pride, ill-humour, anger, revenge, impatience, and rancour. 925 Devotion arrogates a tyrannical superiority, which banishes gentleness, indulgence, and gaiety; 926 it authorises people to censure their neighbours, to reprove and revile the profane for the greater glory of God. 927 It is very common to be devout, and at the same time destitute of every virtue and quality necessary to social life.

APOLOGUE

80

928 It is asserted, that the dogma of another life is of the utmost importance to peace and happiness; that without it, humans would be destitute of motives to do good. 929 What need is there of terrors and fables to make people sensible how you ought to conduct yourself? 930 Does not every one see, that you have the greatest interest, in meriting the approbation, esteem, and benevolence of the beings who surround you, 931 and in abstaining from every thing, by which you may incur the censure, contempt, and resentment of society? 932 However short an entertainment, a conversation, or visit, does not each desire to act your part decently, and agreeably to yourself and others? 933 If life is but a passage, let us strive to make it easy; which we cannot effect, if we fail in regard for those who travel with us. 934 Religion, occupied with its gloomy reveries, considers human merely as a pilgrim upon earth; 935 and therefore supposes that, in order to travel the more securely, you must forsake company, and deprive yourself of pleasure and amusements, which might console you for the tediousness and fatigue of the journey. 936 A stoical and morose philosopher sometimes gives us advice as irrational as that of Religion. But a more rational

philosophy invites us to spread flowers upon the way of life, 937 to dispel melancholy and banish terrors, to connect our interest with that of our fellow-travellers, and by gaiety and lawful pleasures, to divert our attention from difficulties and accidents, to which we are often exposed; 938 it teaches us, that, to travel agreeably, we should abstain from what might be injurious to ourselves, and carefully shun what might render us odious to our associates.

APOLOGUE

81

939 It is asked: what motives an Atheist can have to do good? The motive to please yourself and your fellow-creatures; to live happily and peaceably; to gain the affection and esteem of people. 940 "Can you, who fears not the gods, fear any thing?" You can fear people; you can fear contempt, dishonour, the punishment of the laws; 941 in short, you can fear yourself, and the remorse felt by all those who are conscious of having incurred or merited the hatred of their fellow-creatures.

942 Conscience is the internal testimony, which we bear to ourselves, of having acted so as to merit the esteem or blame of the beings, with whom we live; 943 and it is founded upon the clear knowledge we have of humans, and of the sentiments which our actions must produce in them. 944 The Conscience of the religious person consists in imagining that you have pleased or displeased your God, of whom you have no idea, 945 and whose obscure and doubtful intentions are explained to you only by people of doubtful veracity, who, like you, are utterly unacquainted with the essence of the Deity, and are little agreed upon what can please or displease Him. 946 In a word, the conscience of the credulous is directed by people, who have themselves an erroneous conscience, or whose interest stifles knowledge.

947 "Can an Atheist have a Conscience? What are your motives to abstain from hidden vices and secret crimes of which other people are ignorant, and which are beyond the reach of laws?" 948 You may be assured by constant experience, that there is

no vice, which, by the nature of things, does not punish itself. 949 Would you preserve this life? You will avoid every excess, that may impair your health; you will not wish to lead a languishing life, which would render you a burden to yourself and others. 950 As for secret crimes, you will abstain from them, for fear you shall be forced to blush at yourself, from whom you cannot flee. 951 If you have any reason, you will know the value of the esteem which an honest person ought to have for yourself. 952 You will see, that unforeseen circumstances may unveil the conduct, which you feels interested in concealing from others. 953 The other world furnishes no motives for doing good, to you, who finds none on earth.

APOLOGUE

82

954 "The speculative Atheist," says the Theist, "may be an honest person, but your writings will make political Atheists. 955 Princes and ministers, no longer restrained by the fear of God, will abandon themselves, without scruple, to the most horrid excesses." 956 But, however great the depravity of an Atheist upon the throne, can it be stronger and more destructive, than that of the many conquerors, tyrants, persecutors, ambitious people, and perverse courtiers, 957 who, though not Atheists, but often very religious and devout, have notwithstanding made humanity groan under the weight of their crimes? 958 Can an atheistical prince do more harm to the world, than a Louis XI, a Philip II, a Richelieu, who all united Religion with crime? 959 Nothing is more rare, than atheistical princes; nothing more common, than tyrants and ministers, who are very wicked and very religious.

APOLOGUE

83

960 A person of reflection cannot be incapable of own duties, of discovering the relations subsisting between humans, of meditating your own nature, of discerning your own wants, propensities, and desires, and of perceiving what you owes to beings, who are necessary to your happiness.

GOODNESS

961 These reflections naturally lead you to a knowledge of the Morality most essential to social beings. 962 Dangerous passions seldom fall to the lot of a person who loves to commune with own self, to study, and to investigate the principles of things. 963 The strongest passion of such a person will be to know truth, and your ambition to teach it to others. Philosophy cultivates the mind. 964 On the score of morals and honesty, have not one who reflects and reasons, evidently an advantage over you, who makes it a principle never to reason?

965 If ignorance is useful to priests, and to the oppressors of humankind, it is fatal to society. 966 Human, void of knowledge, does not enjoy reason; without reason and knowledge, you are a savage, liable to commit crimes. 967 Morality, or the science of duties, is acquired only by the study of Human, and of what is relative to Human. 968 You, who does not reflect, is unacquainted with true Morality, and walks with precarious steps, in the path of virtue. 969 The less people reason, the more wicked they are.

970 Savages, princes, nobles, and the dregs of the people, are commonly the worst of people, because they reason the least. 971 The devout person seldom reflects, and rarely reasons. 972 You fears all enquiry, scrupulously follows authority, and often, through an error of conscience, makes it a sacred duty to commit evil. 973 The Atheist reasons: you consults experience, which you prefers to prejudice. 974 If you reasons justly, your conscience is enlightened; you finds more real motives to do good than the bigot whose only motives are your fallacies, and who never listens to reason. 975 Are not the motives of the Atheist sufficiently powerful to counteract own passions? Are you blind enough to be unmindful of your true interest, which ought to restrain you? 976 But you will be neither worse nor better, than the numerous believers, who, notwithstanding Religion and its sublime precepts, follow a conduct which Religion condemns. 977 Is a credulous assassin less to be feared, than an assassin who believes nothing? Is a very devout

tyrant less tyrannical than an undevout tyrant?

APOLOGUE

84

978 Nothing is more uncommon, than to see people consistent. Their opinions never influence their conduct except when conformable to their temperaments, passions, and interests. 979 Daily experience shows, that religious opinions produce much evil and little good. 980 They are hurtful, because they often favour the passions of tyrants, of ambitious people, of fanatics, and of priests; 981 they are of no effect, because incapable of counter-balancing the present interests of the greater part of humankind. 982 Religious principles are of no avail, when they act in opposition to ardent desires; though not unbelievers, people then conduct themselves as if they believed nothing.

983 We shall always be liable to err, when we judge of the opinions of humans by their conduct, or of their conduct by their opinions. 984 A religious person, notwithstanding the unsociable principles of a sanguinary religion, will sometimes by a happy inconsistency, be humane, tolerant, and moderate; the principles of your religion do not then agree with the gentleness of your character. 985 Libertines, debauchees, hypocrites, adulterers, and rogues, often appear to have the best ideas upon morals. 986 Why do they not reduce them to practice? Because their temperament, their interest, and their habits do not accord with their sublime theories. 987 The rigid principles of Christian morality, which many people regard as divine, have but little influence upon the conduct of those, who preach them to others. 988 Do they not daily tell us: to do what they preach, and not what they practise?

989 The partisans of Religion often denote an infidel by the word: ‘libertine’. It is possible that many unbelievers may have loose morals, which is owing to their temperament, and not to their opinions. 990 But how does their conduct affect their opinions? Cannot then an immoral person be a good physician, architect, geometrician, logician, or

metaphysician? 991 A person of irreproachable conduct may be extremely deficient in knowledge and reason. In quest of truth, it little concerns us from whom it comes. 992 Let us not judge humans by their opinions, nor opinions by humans; let us judge humans by their conduct, and their opinions by their conformity with experience and reason and by their utility to humankind.

APOLOGUE

85

993 Every person, who reasons, soon becomes an unbeliever; for reason shows, that theology is nothing but a tissue of chimeras; 994 that religion is contrary to every principle of good sense, that it tinctures all human knowledge with falsity. 995 The sensible person is an unbeliever, because you sees, that, far from making people happier, religion is the chief source of the greatest disorders, and the permanent calamities, with which human is afflicted. 996 The man, who seeks own welfare and tranquillity, examines and throws aside religion, because you thinks it no less troublesome than useless, to spend your life in trembling before phantoms, fit to impose only upon silly women or children.

997 If licentiousness, which reasons but little, sometimes leads to irreligion, the person of pure morals may have very good motives for examining own religion, and banishing it from own mind. 998 Religious terrors, too weak to impose upon the wicked in whom vice is deeply rooted, afflict, torment and overwhelm restless imaginations. 999 Courageous and vigourous minds soon shake off the insupportable yoke. But those, who are weak and timorous, languish under it during life; and as they grow old their fears increase.

1000 Priests have represented God as so malicious, austere, and terrible a being, that most people would cordially wish, that there was no God. 1001 It is impossible to be happy, while always trembling. 1002 Ye devout! you adore a terrible God! But you hate Him; you would be glad, if He did not exist. 1003 Can we refrain from desiring the absence or destruction

of a master, the idea of whom destroys our happiness? 1004 The black colours, in which priests paint the Divinity, are truly shocking, and force us to hate and reject Him.

APOLOGUE

86

1005 If fear created the gods, fear supports their empire over the minds of mortals. 1006 So early are people accustomed to shudder at the mere name of the Deity, that they regard Him as a spectre, a hobgoblin, a bugbear, which torments and deprives them of courage even to wish relief from their fears. 1007 They apprehend, that the invisible spectre, will strike them the moment they cease to be afraid. Bigots are too much in fear of their God to love Him sincerely. 1008 They serve Him like slaves, who, unable to escape His power, resolve to flatter their master, and who, by dint of lying, at length persuade themselves, that they in some measure love Him. 1009 They make a virtue of necessity. The love of devotees for their God, and of slaves for their despots, is only a feigned homage.

APOLOGUE

87

1010 Christian divines have represented their God so terrible and so little worthy of love, that several of them have thought they must dispense with loving him; a blasphemy, shocking to other divines, who were less ingenuous. 1011 St. Thomas having maintained, that we are obliged to love God as soon as we attain the use of reason, the Jesuit Sirmond answered him: ‘that is very soon’. The Jesuit Vasquez assures us, that: ‘it is enough to love God at the point of death’. 1012 Hurtado, more rigid, says: ‘we must love God very year’. Henriquez is contented that we love him ‘every five years’; Sotus says: ‘every Sunday’. 1013 Upon what are these opinions grounded? asks father Sirmond; who adds, that Suarez requires us to: ‘love God sometimes’. 1014 But when? He leaves that to us; he knows nothing about it himself. ‘Now’, says he, ‘who will be able to know that, of which such a learned divine is ignorant?’ 1015 The same Jesuit Sirmond further observes, that God "does not command us to love Him with an affectionate love, nor does He

promise us salvation upon condition that we give Him our hearts; 1016 it is enough to obey and love God with an effective love by executing His orders; this is the only love we owe Him; and He has not so much commanded us to love Him, as not to hate Him." 1017 This doctrine appears heretical, impious, and abominable to the Jansenists, who, by the revolting severity they attribute to their God, make Him far less amiable, than the Jesuits, their adversaries. 1018 The latter, to gain adherents, paint God in colours capable of encouraging the most perverse of mortals. 1019 Thus nothing is more undecided with the Christians, than the important question, whether they can, ought, or ought not to love God. 1020 Some of their spiritual guides maintain, that it is necessary to love God with all one's heart, notwithstanding all His severity; 1021 others, like father Daniel, think that: ‘an act of pure love to God is the most heroic act of Christian virtue, and almost beyond the reach of human weakness’. 1022 The Jesuit Pintereau goes farther; he says: ‘a deliverance from the grievous yoke of loving God is a privilege of the new covenant’.

APOLOGUE

88

1023 The character of the Person always decides that of your God; every body makes one for yourself and like yourself. 1024 The person of gaiety, involved in dissipation and pleasure, does not imagine, that, God can be stern and cross; you wants a good-natured God, with whom you can find reconciliation. 1025 The person of a rigid, morose, bilious, sour disposition, must have a God like yourself, a God of terror; and you regards, as perverse, those, who admit a placable, indulgent God. 1026 As people are constituted, organised, and modified in a manner, which cannot be precisely the same, how can they agree about a chimera, which exists only in their brains?

1027 The cruel and endless disputes between the ministers of the Lord, are not such as to attract the confidence of those, who impartially consider them. 1028 How can we avoid complete infidelity, upon viewing principles, about which those who teach them

to others are never agreed? 1029 How can we help doubting the existence of a God, of whom it is evident that even His ministers can only form very fluctuating ideas? 1030 How can we in short avoid totally rejecting a God, who is nothing but a shapeless heap of contradictions? 1031 How can we refer the matter to the decision of priests, who are perpetually at war, treating each other as impious and heretical, defaming and persecuting each other without mercy, for differing in the manner of understanding what they announce to the world?

APOLOGUE

89

1032 The existence of a God is the basis of all Religion. Nevertheless, this important truth has not as yet been demonstrated, I do not say so as to convince unbelievers, but in a manner satisfactory to theologians themselves. 1033 Profound thinkers have at all times been occupied in inventing new proofs. What are the fruits of their meditations and arguments? 1034 They have left the subject in a worse condition; they have demonstrated nothing; they have almost always excited the clamours of their brethren, who have accused them of having poorly defended the best of causes.

APOLOGUE

90

1035 The apologists of religion daily repeat, that the passions alone make unbelievers. "Pride," say they, "and the desire of signalising themselves, make people Atheists. 1036 They endeavour to efface from their minds the idea of God, only because they have reason to fear His terrible judgments." 1037 Whatever may be the motives, which incline people to Atheism, it is our business to examine, whether their sentiments are founded in truth. 1038 No person acts without motives. 1039 Let us first examine the arguments and afterwards the motives. We shall see whether these motives are not legitimate, and more rational than those of many credulous bigots, who suffer themselves to be guided by masters little worthy of the confidence of people.

1040 You say then, Priests of the Lord! that the passions make

unbelievers; that they renounce Religion only through interest, or because it contradicts their inordinate propensities; 1041 you assert, that they attack your gods only because they fear their severity. But, are you yourselves, in defending Religion and its chimeras, truly exempt from passions and interests? 1042 Who reap advantages from this Religion, for which priests display so much zeal? Priests. 1043 To whom does Religion procure power, influence, riches, and honours? To Priests. 1044 Who wage war, in every country, against reason, science, truth, and philosophy, and render them odious to sovereigns and people? Priests. 1045 Who profit by the ignorance and vain prejudices of humans? Priests.-- 1046 Priests! you are rewarded, honoured and paid for deceiving mortals, and you cause those to be punished who undeceive them. 1047 The follies of people procure you benefices, offerings, and expiations; while those, who announce the most useful truths, are rewarded only with chains, gibbets and funeral-piles. Let the world judge between us.

APOLOGUE

91

1048 Pride and vanity have been, and ever will be, inherent in the priesthood. 1049 Is any thing more capable of rendering humans haughty and vain, than the pretence of exercising a power derived from heaven, of bearing a sacred character, of being the messengers and ministers of the Most High? 1050 Are not these dispositions perpetually nourished by the credulity of the people, the deference and respect of sovereigns, the immunities, privileges, and distinctions enjoyed by the clergy? 1051 In every country, the vulgar are much more devoted to their spiritual guides, whom they regard as divine, than to their temporal superiors, whom they consider as no more than ordinary people. 1052 The parson of a village acts a much more conspicuous part, than the lord of the manor or the justice of the peace. 1053 Among the Christians, a priest thinks own self far above a king or an emperor. A

Spanish grandee having spoken rather haughtily to a monk, the latter arrogantly said, "Learn to respect a person, who daily has your God in his hands, and your Queen at his feet." 1054 Have priests then a right to accuse unbelievers of pride? Are they themselves remarkable for uncommon modesty or profound humility? 1055 Is it not evident, that the desire of domineering over people is essential to their trade? 1056 If the ministers of the Lord were truly modest, should we see them so greedy of respect, so impatient of contradiction, so positive in their decisions, and so unmercifully revengeful to those whose opinions offend them? 1057 Has not Science the modesty to acknowledge how difficult it is to discover truth? 1058 What other passion but ungovernable pride can make people so savage, revengeful, and void of indulgence and gentleness? 1059 What can be more presumptuous, than to arm nations and deluge the world in blood, in order to establish or defend futile conjectures?

1060 You say, that presumption alone makes Atheists. Inform them then what your God is; teach them His essence; speak of Him intelligibly; say something about Him, which is reasonable, and not contradictory or impossible. 1061 If you are unable to satisfy them, if hitherto none of you have been able to demonstrate the existence of a God in a clear and convincing manner; 1062 if by your own confession, His essence is completely veiled from you, as from the rest of mortals, forgive those, who cannot admit what they can neither understand nor make consistent with itself; 1063 do not tax with presumption and vanity those who are sincere enough to confess their ignorance; 1064 do not accuse of folly those who find themselves incapable of believing contradictions; 1065 and for once, blush at exciting the hatred and fury of sovereigns and people against people, who think not like you concerning a being, of whom you have no idea. 1066 Is any thing more rash and extravagant, than to reason concerning an object, known to be inconceivable? 1067 You say, that the corruption of the heart produces Atheism, that people shake off the yoke of the

Deity only because they fear His formidable judgments. 1068 But, why do you paint your God in colours so shocking, that He becomes insupportable? Why does so powerful a God permit people to be so corrupt? 1069 How can we help endeavouring to shake off the yoke of a tyrant, who, able to do as he pleases with people, consents to their perversion, 1070 who hardens, and blinds them, and refuses them His grace, that He may have the satisfaction to punish them eternally, for having been hardened, and blinded, and for not having the grace which He refused? 1071 Theologians and priests must be very confident of the grace of heaven and a happy futurity, to refrain from detesting a master so capricious as the God they announce. 1072 A God, who damns eternally, is the most odious of beings that the human mind can invent.

APOLOGUE

92

1073 No human upon earth is truly interested in the support of error, which is forced sooner or later to yield to truth. 1074 The general good must at length open the eyes of mortals: the passions themselves sometimes contribute to break the chains of prejudices. 1075 Did not the passions of sovereigns, centuries ago, annihilate in some countries of Europe the tyrannical power, which a too haughty pontiff once exercised over all princes of his sect? 1076 In consequence of the progress of political science, the clergy were then stripped of immense riches, which credulity had accumulated upon them. 1077 Ought not this memorable example to convince priests, that prejudices triumph but for a time, and that truth alone can insure solid happiness?

1078 By caressing sovereigns, by fabricating divine rights for them, by deifying them, and by abandoning the people, bound hand and foot, to their will, the ministers of the Most High must see, that they are labouring to make them tyrants. 1079 Have they not reason to apprehend, that the gigantic idols, which they raised to the clouds, will one day crush them by their enormous weight? 1080 Do not a thousand examples

remind them that these tyrants, after preying upon the people, may prey upon them in their turn.

1081 We will respect priests, when they become sensible people. Let them, if they please, use the authority of heaven to frighten those princes who are continually desolating the earth; 1082 but let them no more adjudge to them the horrid right of being unjust with impunity. 1083 Let them acknowledge, that no human is interested in living under tyranny; 1084 and let them teach sovereigns, that they themselves are not interested in exercising a despotism, which, by rendering them odious, exposes them to danger, and detracts from their power and greatness. 1085 Finally, let priests and kings become so far enlightened as to acknowledge, that no power is secure which is not founded upon truth, reason, and equity.

APOLOGUE

93

1086 By waging war against Reason, which they ought to have protected and developed, the ministers of the gods evidently act against their own interest. 1087 What power, influence, and respect might they not have gained among the wisest of people, 1088 what gratitude would they not have excited in the people, if, instead of wasting their time about their vain disputes, they had applied themselves to really useful science, and investigated the true principles of philosophy, government, and morals! 1089 Who would dare to reproach a body with its opulence or influence, if the members dedicating themselves to the public good, employed their leisure in study, and exercised their authority in enlightening the minds both of sovereigns and subjects?

1090 Priests! Forsake your chimeras, your unintelligible dogmas, your contemptible quarrels! 1091 Banish those phantoms which could be useful only in the infancy of nations. Assume, at length, the language of reason. 1092 Instead of exciting persecution; instead of entertaining the people with silly disputes; instead of preaching useless and fanatical dogmas, preach human

and social morality; 1093 preach virtues really useful to the world; become the apostles of reason, the defenders of liberty, and the reformers of abuses.

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1094 Philosophers have every where taken upon themselves a part, which seemed destined to the ministers of Religion. The hatred of the latter for philosophy was only a jealousy of trade. 1095 But, instead of endeavouring to injure and decry each other, all people of good sense should unite their efforts to combat error, seek truth, 1096 and especially to put to flight the prejudices, that are equally injurious to sovereigns and subjects, and of which the abettors themselves sooner or later become the victims.

1097 In the hands of an enlightened government, the priests would become the most useful of the citizens. 1098 Already richly paid by the state, and free from the care of providing for their own subsistence, how could they be better employed than in qualifying themselves for the instruction of others? 1099 Would not their minds be better satisfied with discovering luminous truths, than in wandering through the thick darkness of error? 1100 Would it be more difficult to discern the clear principles of Morality, than the imaginary principles of a divine and theological Morality? 1101 Would people of ordinary capacities find it as difficult to fix in their heads the simple notions of their duties, as to load their memories with mysteries, unintelligible words and obscure definitions, of which they can never form a clear idea? 1102 What time and pains are lost in learning and teaching things, which are not of the least real utility! 1103 What resources for the encouragement of the sciences, the advancement of knowledge, and the education of youth, well disposed sovereigns might find in the many monasteries, which in several countries live upon the people without in the slightest degree profiting them! 1104 But superstition, jealous of its exclusive empire, seems resolved to form only useless beings. 1105 To what advantage might we not

turn a multitude of cenobites of both sexes, who, in many countries, are amply endowed for doing nothing? 1106 Instead of overwhelming them with fasting and austerities; instead of barren contemplations, mechanical prayers, and trifling ceremonies; 1107 why should we not excite in them a salutary emulation, which may incline them to seek the means, not of being 'dead' to the world, but of being 'useful' to it? 1108 Instead of filling the youthful minds of their pupils with fables, sterile dogmas, and puerilities, why are not priests obliged, or invited to teach them truths, and to render them useful citizens of their country? 1109 Under the present system, people are only useful to the clergy who blind them, and to the tyrants who fleece them.

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1110 The partisans of credulity often accuse unbelievers of insincerity, because they sometimes waver in their principles, alter their minds in sickness, and retract at death. 1111 When the body is disordered, the faculty of reasoning is commonly disordered with it. 1112 At the approach of death, human, weak and decayed, is sometimes yourself sensible that Reason abandons you, and that Prejudice returns. 1113 There are some diseases, which tend to weaken the brain; to create despondency and pusillanimity; and there are others, which destroy the body, but do not disturb the reason. 1114 At any rate, an unbeliever who recants in sickness is not more extraordinary, than a devotee who neglects in health the duties which own religion explicitly enjoins.

1115 Ministers of Religion openly contradict in their daily conduct the rigorous principles, they teach to others; in consequence of which, unbelievers, in their turn, may justly accuse them of insincerity. 1116 Is it easy to find many prelates humble, generous, void of ambition, enemies of pomp and grandeur, and friends of poverty? 1117 In short, is the conduct of Christian ministers conformable to the austere morality of Christ, their God, and their model?

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1118 ‘Atheism’, it is said, ‘breaks all the ties of society. Without the belief of a God, what will become of the sacredness of oaths? 1119 How shall we oblige a person to speak the truth, who cannot seriously call the Deity to witness what one says?’ 1120 But, does an oath strengthen our obligation to fulfill the engagements contracted? Will you, who is not fearful of lying, be less fearful of perjury? 1121 You, who is base enough to break your word, or unjust enough to violate your engagements, in contempt of the esteem of people, will not be more faithful therein for having called all the gods to witness your oaths. 1122 Those, who disregard the judgments of humans, will soon disregard the judgments of God. 1123 Are not princes, of all people, the most ready to swear, and the most ready to violate their oaths?

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1124 ‘The vulgar’, it is repeatedly said, ‘must have a Religion. If enlightened persons have no need of the restraint of opinion, it is at least necessary to rude people, whose reason is uncultivated by education’. 1125 But, is it indeed a fact, that religion is a restraint upon the vulgar? Do we see, that this religion preserves them from intemperance, drunkenness, brutality, violence, fraud, and every kind of excess? 1126 Could a people who have no idea of the Deity conduct themselves in a more detestable manner, than these believing people, among whom we find dissipation and vices, the most unworthy of reasonable beings? 1127 Upon going out of the churches, do not the working classes, and the populace, plunge without fear into their ordinary irregularities, 1128 under the idea, that the periodical homage, which they render to their God, authorises them to follow, without remorse, their vicious habits and pernicious propensities? 1129 Finally, if the people are so low-minded and unreasonable, is not their stupidity chargeable to the negligence of their princes, who are wholly regardless of public education, or who even oppose the instruction of their subjects? 1130 Is not the want of reason in the

people evidently the work of the priests, who, instead of instructing people in a rational morality, entertain them with fables, reveries, ceremonies, fallacies, and false virtues which they think of the greatest importance?

1131 To the people, Religion is but a vain display of ceremonies, to which they are attached by habit, which entertains their eyes, and produces a transient emotion in their torpid understandings, without influencing their conduct or reforming their morals. 1132 Even by the confession of the ministers of the altars, nothing is more rare than that 'internal' and 'spiritual' Religi on, which alone is capable of regulating the life of human and of triumphing over your evil propensities. 1133 In the most numerous and devout nation, are there many persons, who are really capable of understanding the principles of their religious system, and who find them powerful enough to stifle their perverse inclinations?

1134 Many persons will say, that: 'any restraint whatever is better than none'. 1135 They will maintain, that: 'if religion awes not the greater part, it serves at least to restrain some individuals, who would otherwise without remorse abandon themselves to crime'. 1136 People ought undoubtedly to have a restraint, but not an imaginary one. 1137 Religion only frightens those whose imbecility of character has already prevented them from being formidable to their fellow-citizens. 1138 An equitable government, severe laws, and sound morality have an equal power over all; at least, every person must believe in them, and perceive the danger of not conforming to them.

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1139 Perhaps it will be asked: 'whether Atheism can be proper for the multitude?' I answer, that any system, which requires discussion, is not made for the multitude. 1140 'What purpose then can it serve to preach Atheism?' It may at least serve to convince all those who reason, that nothing is more extravagant than to fret one's self, and nothing more unjust than to vex others, for mere groundless conjectures. 1141 As for the vulgar

who never reason, the arguments of an Atheist are no more fit for them than the systems of a natural philosopher, 1142 the observations of an astronomer, the experiments of a chemist, the calculations of a geometrician, the researches of a physician, the plans of an architect, or the pleadings of a lawyer, who all labour for the people without their knowledge.

1143 Are the metaphysical reasonings and religious disputes, which have so long engrossed the time and attention of so many profound thinkers, better adapted to the generality of people than the reasoning of an Atheist? 1144 Nay, as the principles of Atheism are founded upon plain common-sense, are they not more intelligible, than those of a theology, beset with difficulties, which even the persons of the greatest genius cannot explain? 1145 In every country, the people have a religion, the principles of which they are totally ignorant, and which they follow from habit without any examination: their priests alone are engaged in theology, which is too dense for vulgar heads. 1146 If the people should chance to lose this unknown theology, they mighty easily console themselves for the loss of a thing, not only perfectly useless, but also productive of dangerous commotions.

1147 It would be madness to write for the vulgar, or to attempt to cure their prejudices all at once. We write for those only, who read and reason; 1148 the multitude read but little, and reason still less. Calm and rational persons will require new ideas, and knowledge will be gradually diffused.

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1149 If theology is a branch of commerce profitable to theologians, it is evidently not only superfluous, but injurious to the rest of society. 1150 Self-interest will sooner or later open the eyes of humans. 1151 Sovereigns and subjects will one day adopt the profound indifference and contempt, merited by a futile system, which serves only to make humans miserable. 1152 All persons will be sensible of the inutility of the many expensive ceremonies, which contribute

nothing to public felicity. 1153 Contemptible quarrels will cease to disturb the tranquility of states, when we blush at having considered them important.

1154 Instead of Parliament meddling with the senseless combats of your clergy; instead of foolishly espousing their impertinent quarrels, and attempting to make your subjects adopt uniform opinions-- strive to make them happy in this world. 1155 Respect their liberty and property, watch over their education, encourage them in their labours, reward their talents and virtues, repress licentiousness; and do not concern yourselves with their manner of thinking. 1156 Theological fables are useful only to tyrants and the ignorant.

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1157 Does it then require an extraordinary effort of genius to comprehend, that what is above the capacity of human, is not made for you; 1158 that things supernatural are not made for natural beings; that impenetrable mysteries are not made for limited minds? 1159 If theologians are foolish enough to dispute upon objects, which they acknowledge to be unintelligible even to themselves, ought society to take any part in their silly quarrels? 1160 Must the blood of nations flow to enhance the conjectures of a few infatuated dreamers? 1161 If it is difficult to cure theologians of their madness and the people of their prejudices, it is at least easy to prevent the extravagancies of one party, and the silliness of the other from producing pernicious effects. 1162 Let every one be permitted to think as you pleases; but never let you be permitted to injure others for their manner of thinking. 1163 Were the rulers of nations more just and rational, theological opinions would not affect the public tranquillity, more than the disputes of natural philosophers, physicians, grammarians, and critics. 1164 It is tyranny which causes theological quarrels to be attended with serious consequences.

1165 Those, who extol the importance and utility of Religion, ought to shew us its happy effects, 1166 the advantages for instance,

which the disputes and abstract speculations of theology can be to porters, artisans, and labourers, and to the multitude of unfortunate women and corrupt servants with which great cities abound. 1167 All these beings are religious; they have what is called: ‘an implicit faith’. Their parsons believe for them; and they stupidly adhere to the unknown belief of their guides. 1168 They go to hear sermons, and would think it a great crime to transgress any of the ordinances, to which, in childhood, they are taught to conform. But of what service to morals is all this? None at all. 1169 They have not the least idea of Morality, and are even guilty of all the roguery, fraud, rapine, and excess, that is out of the reach of law.

1170 The populace have no idea of their Religion; what they call Religion is nothing but a blind attachment to unknown opinions and mysterious practices. 1171 In fact, to deprive people of Religion is to deprive them of nothing. 1172 By overthrowing their prejudices, we should only lessen or annihilate the dangerous confidence they put in interested guides, 1173 and should teach them to mistrust those, who, under the pretext of Religion, often lead them into fatal excesses.

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1174 While pretending to instruct and enlighten humans, Religion in reality keeps them in ignorance, and stifles the desire of knowing the most interesting objects. 1175 The people have no other rule of conduct, than what their priests are pleased to prescribe. Religion supplies the place of every thing else: 1176 but being in itself essentially obscure, it is more proper to lead mortals astray than to guide them in the path of science and happiness. 1177 Religion renders enigmatical all Natural Philosophy, Morality, Legislation and Politics. 1178 A person blinded by religious prejudices, fears truth, whenever it clashes with own opinions: you cannot know your own nature, you cannot cultivate your reason, you cannot perform experiments.

1179 Everything concurs to render the people devout; but every thing tends to prevent them from being

humane, reasonable and virtuous. Religion seems to have no other object, than to stupefy the mind.

1180 Priests have been ever at war with genius and talent, because well-informed people perceive, that superstition shackles the human mind, and would keep it in eternal infancy, occupied solely by fables and frightened by phantoms. 1181 Incapable of improvement itself, Theology opposed insurmountable barriers to the progress of true knowledge; 1182 its sole object is to keep nations and their rulers in the most profound ignorance of their duties, and of the real motives, that should incline them to do good. 1183 It obscures Morality, renders its principles arbitrary, and subjects it to the caprice of the gods or of their ministers. 1184 It converts the art of governing people into a mysterious tyranny, which is the scourge of nations. 1185 It changes princes into unjust, licentious despots, and the people into ignorant slaves, who become corrupt in order to merit the favour of their masters.

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1186 By tracing the history of the human mind, we shall be easily convinced, that Theology has cautiously guarded against its progress. 1187 It began by giving out fables as sacred truth: it produced poetry, which filled the imagination of people with its puerile fictions: it entertained them with its gods and their incredible deeds. 1188 In a word, Religion has always treated people, like children, whom it lulled to sleep with tales, which its ministers would have us still regard as incontestable truths.

1189 If the ministers of the gods have sometimes made useful discoveries, they have always been careful to give them a dogmatical tone, and envelope them in the shades of mystery. 1190 Pythagoras and Plato, in order to acquire some trifling knowledge, were obliged to court the favour of priests, to be initiated in their mysteries, and to undergo whatever trials they were pleased to impose. 1191 At this price, they were permitted to imbibe those exalted notions, still so bewitching to all those who

admire only what is perfectly unintelligible. 1192 It was from Egyptian, Indian, and Chaldean priests, from the schools of these visionaries, professionally interested in bewildering human reason, that philosophy was obliged to borrow its first rudiments. 1193 Obscure and false in its principles, mixed with fictions and fables, and made only to dazzle the imagination, the progress of this philosophy was precarious, and its theories unintelligible; instead of enlightening, it blighted the mind, and diverted it from objects truly useful.

1194 The theological speculations and mystical reveries of the ancients are still law in a great part of the philosophic world; and being adopted by modern theology, it is heresy to abandon them. 1195 They tell us "of aerial beings, of spirits, angels, demons, genii," and other phantoms, which are the object of their meditations, 1196 and serve as the basis of ‘metaphysics’, an abstract and futile science, which for thousands of years the greatest geniuses have vainly studied. 1197 Hypothesis, imagined by a few visionaries of Memphis and Babylon, constitute even now the foundations of a science, whose obscurity makes it revered as marvellous and divine.

1198 The first legislators were priests; the first mythologists, poets, learned people, and physicians were priests. In their hands science became sacred and was withheld from the profane. 1199 They spoke only in allegories, emblems, enigmas, and ambiguous oracles-- means well calculated to excite curiosity, 1200 and above all to inspire the astonished vulgar with a holy respect for people, who when they were thought to be instructed by the gods, and capable of reading in the heavens the fate of the earth, boldly proclaimed themselves the oracles of the Deity.

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1201 The religions of ancient priests have only changed form. Although our modern theologians regard their predecessors as impostors, yet they have collected many scattered fragments of their religious systems. 1202 In modern

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Religions we find, not only their metaphysical dogmas, which theology has merely clothed in a new dress, but also some remarkable remains of their superstitious practices, their magic, and their enchantments. 1203 Christians are still commanded to respect the remaining monuments of the legislators, priests, and prophets of the Hebrew Religion, which had borrowed its strange practices from Egypt. 1204 Thus extravagancies, imagined by knaves or idolatrous visionaries, are still sacred among Christians! 1205 If we examine history, we shall find a striking resemblance among all Religions. 1206 In all parts of the earth, we see, that religious notions, periodically depress and elevate the people. 1207 The attention of human is every where engrossed, by rites often abominable, and by mysteries always formidable, which become the sole objects of meditation. 1208 The different superstitions borrow, from one another, their abstract reveries and ceremonies. 1209 Religions are in general mere unintelligible rhapsodies, combined by new teachers, who use the materials of their predecessors, reserving the right of adding or retrenching whatever is not conformable to the present age. 1210 The religion of Egypt was evidently the basis of the religion of Moses, who banished the worship of idols: Moses was merely a schismatic Egyptian. 1211 Christianism is only reformed Judaism. Mahometanism is composed of Judaism, Christianity, and the ancient religion of Arabia, etc.

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1212 Theology, from the remotest antiquity to the present time, has had the exclusive privilege of directing philosophy. 1213 What assistance has been derived from its labours? It changed philosophy into an unintelligible jargon, calculated to render uncertain the clearest truths; it has converted the art of reasoning into a jargon of words; 1214 it has carried the human mind into the airy regions of metaphysics, and there employed it in vainly fathoming an obscure abyss. 1215 Instead of

physical and simple causes, this transformed philosophy has substituted supernatural, or rather, 'occult' causes; 1216 it has explained phenomena difficult to be conceived by agents still more inconceivable. 1217 It has filled language with words, void of sense, incapable of accounting for things, better calculated to obscure than enlighten, 1218 and which seems invented expressly to discourage human, to guard you against the powers of your mind, to make you mistrust the principles of reason and evidence, and to raise an insurmountable barrier between you and truth.

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1219 Were we to believe the partisans of Religion, nothing could be explained without it; Nature would be a perpetual enigma, and human would be incapable of understanding yourself. 1220 But, what does this Religion in reality explain? The more we examine it, the more we are convinced that its theological notions are fit only to confuse our ideas; 1221 they change every thing into mystery: they explain difficult things by things that are impossible. 1222 Is it a satisfactory explanation of phenomena, to attribute them to unknown agents, to invisible powers, to immaterial causes? 1223 Does the human mind receive much light by being referred to: 'the depths of the treasures of divine wisdom', to which, we are repeatedly told, it is vain to extend our rash enquiries? 1224 Can the divine nature, of which we have no conception, enable us to conceive the nature of human?

1225 Ask a Christian, what is the origin of the world? You will answer, that God created it. What is God? You cannot tell. What is it to create? You knows not. 1226 What is the cause of pestilence, famine, wars, droughts, inundations and earthquakes? The anger of God. 1227 What remedies can be applied to these calamities? Prayers, sacrifices, processions, offerings, and ceremonies are, it is said, the true means of disarming celestial fury. 1228 But why is heaven enraged? Because humans are wicked. Why are humans wicked? Because their nature is

corrupt. 1229 What is the cause of this corruption? It is, says the theologian, because the first man, beguiled by the first woman, ate an apple, which God had forbidden him to touch. 1230 Who beguiled this woman into such folly? The devil. Who made the devil? God. 1231 But, why did God make this devil, destined to pervert humankind? This is unknown; it is a mystery which the Deity alone is acquainted with.

1232 It is now universally acknowledged, that the earth turns round the sun. Centuries ago, this opinion was blasphemy, as being irreconcileable with the sacred books which every Christian reveres as inspired by the Deity Himself. 1233 Notwithstanding divine revelation, astronomers now depend rather upon evidence, than upon the testimony of their inspired books.

1234 What is the hidden principle of the motions of the human body? The soul. What is a soul? A spirit. What is a spirit? A substance, which has neither form, nor colour, nor extension, nor parts. 1235 How can we form any idea of such a substance? How can it move a body? That is not known; it is a mystery. 1236 Have beasts souls? But, do they not act, feel, and think, in a manner very similar to human? Mere illusion! 1237 By what right do you deprive beasts of a soul, which you attribute to human, though you know nothing at all about it? 1238 Because the souls of beasts would embarrass our theologians, who are satisfied with the power of terrifying and damning the immaterial souls of humans, and are not so much interested in damning those of beasts. 1239 Such are the puerile solutions, which philosophy, always in the leading strings of theology, was obliged to invent, in order to explain the problems of the physical and moral world?

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1240 How many evasions have been used, both in ancient and modern times, in order to avoid an engagement with the ministers of the gods, who have ever been the tyrants of thought? 1241 How many hypotheses and shifts were such people as Descartes, Mallebranche, and Leibnitz, forced

to invent, in order to reconcile their discoveries with the fables and mistakes which Religion had consecrated! 1242 In what guarded phrases have the greatest philosophers expressed themselves, even at the risk of being absurd, inconsistent, or unintelligible, whenever their ideas did not accord with the principles of theology! 1243 Priests have been always attentive to extinguish systems which opposed their interest. 1244 Theology was ever the bed of Procrustes, to be adapted to which, the limbs of travellers, if too long were cut off, and if too short were lengthened.

1245 Can any sensible person, delighted with the sciences and attached to the welfare of your fellow-creatures, reflect, without vexation and anguish, how many profound, labourious, and subtle brains have been for ages foolishly occupied in the study of absurdities? 1246 What a treasure of knowledge might have been diffused by many celebrated thinkers, if instead of engaging in the impertinent disputes of vain theology, they had devoted their attention to intelligible objects really important to humankind? 1247 Half the efforts which religious opinions have cost genius, and half the wealth which frivolous forms of worship have cost nations would have sufficed to instruct them perfectly in morality, politics, natural philosophy, medicine, agriculture, etc. 1248 Superstition generally absorbs the attention, admiration, and treasures of the people; their Religion costs them very dear; but they have neither knowledge, virtue, nor happiness, for their money.

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1249 Some ancient and modern philosophers have been bold enough to assume experience and reason for their guides, and to shake off the chains of superstition. 1250 Democritus, Epicurus, and other Greeks presumed to tear away the veil of prejudice, and to deliver philosophy from theological shackles. 1251 But their systems, too simple, too sensible, and too free from the marvellous, for imaginations enamoured with

chimeras, were obliged to yield to the fabulous conjectures of such people as Plato and Socrates. 1252 Among the moderns, Hobbes, Spinoza, Bayle, etc., have followed the steps of Epicurus; but their doctrine has found very few followers, in a world, still intoxicated with fables, to listen to reason.

1253 In every age, it has been dangerous to depart from prejudices. Discoveries of every kind have been prohibited. All that enlightened people could do, was to speak ambiguously, hence they often confounded falsehood with truth. 1254 Several had a ‘double doctrine’, one public and the other secret; the key of the latter being lost, their true sentiments, have often become unintelligible and consequently useless.

1255 How could modern philosophers, who, under pain of cruel persecution, were commanded to renounce reason, and to subject it to faith, that is, to the authority of priests; 1256 how, I say, could people, thus bound, give free scope to their genius, improve reason, and accelerate the progress of the human mind?

1257 It was with fear and trembling that even the greatest people obtained a glimpse of truth; rarely had they the courage to announce it; and those, who did, were terribly punished. 1258 With Religion, it has ever been unlawful to think, or to combat the prejudices of which human is every where the victim and the dupe.

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1259 Every person, sufficiently intrepid to announce truths to the world, is sure of incurring the hatred of the ministers of Religion, who loudly call to their aid secular powers; and want the assistance of laws to support both their arguments and their gods. 1260 Their clamours expose too evidently the weakness of their cause. "None call for aid but those who feel distressed."

1261 In Religion, human is not permitted to err. In general, those who err are pitied, and some kindness is shewn to persons who discover new truths; 1262 but, when Religion is thought to be interested either in the errors or the

discoveries, a holy zeal is kindled, the populace become frantic, and nations are in an uproar.

1263 Can any thing be more afflicting, than to see public and private felicity depending upon a futile system, which is destitute if principles, founded only on a distempered imagination, and incapable of presenting any thing but words void of sense? 1264 In what consists the so much boasted utility of a Religion, which nobody can comprehend, which continually torments those who are weak enough to meddle with it, which is incapable of rendering people better, and which often makes them consider it meritorious to be unjust and wicked? 1265 Is there a folly more deplorable, and more justly to be combated, than that, which far from doing any service to the human race, only makes them blind, delirious, and miserable, by depriving them of Truth, the sole cure for their wretchedness.

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1266 Religion has ever filled the mind of human with darkness, and kept you in ignorance of your real duties and true interests. 1267 It is only by dispelling the clouds and phantoms of Religion, that we shall discover Truth, Reason, and Morality. 1268 Religion diverts us from the causes of evils, and from the remedies which Nature prescribes; far from curing, it only aggravates, multiplies, and perpetuates them. 1269 Let us observe with the celebrated Lord Bolingbroke, that: "theology is the box of Pandora; and if it is impossible to shut it, it is at least useful to inform humans, that this fatal box is open."

NERVES AND COMMON-SENSE

Annie Payson Call

HABIT AND NERVOUS STRAIN

4 PEOPLE form habits which cause nervous strain. 2 When these habits have fixed themselves for long enough upon their victims, the nerves give way and severe depression or some other form of nervous prostration is the result. 3 If such an illness turns the attention to its cause, and so starts

the sufferer toward a radical change from habits which cause nervous strain to habits which bring nervous strength, then the illness can be the beginning of better and permanent health. 4 If, however, there simply is an enforced rest, without any intelligent understanding of the trouble, the invalid gets "well" only to drag out a miserable existence or to get very ill again.

5 Although any nervous suffering is worthwhile if it is the means of teaching us how to avoid nervous strain, it certainly is far preferable to avoid the strain without the extreme pain of a nervous breakdown.

6 To point out many of these pernicious habits and to suggest a practical remedy for each and all of them is the aim of this book, and for that reason common examples in various phases of every-day life are used as illustrations.

7 When there is no organic trouble there can be no doubt that: ‘defects of character, inherited or acquired, are at the root of all nervous illness’. 8 If this can once be generally recognised and acknowledged, especially by the sufferers themselves, we are in a fair way toward eliminating such illness entirely.

9 The trouble is people suffer from mortification and an unwillingness to look their bad habits in the face. 10 They have not learned that humiliation can be wholesome, sound, and healthy, and so they keep themselves in a mess of a fog because they will not face the shame necessary to get out of it. 11 They would rather be ill and suffering, and believe themselves to have strong characters than to look the weakness of their characters in the face, own up to them like humans, and come out into open fresh air with healthy nerves which will gain in strength as they live.

12 Any intelligent man or woman who thinks a bit for yourself can see the stupidity of this mistaken choice at a glance, and seeing it will act against it and thus do so much toward bringing light to all nervously prostrated humanity.

13 We can talk about faith cure, Christian Science, mind cure, hypnotism, psychotherapeutics, or any other forms of nerve cure

which at the very best can only give the person a gentle shunt toward the middle of the stream of life. 14 Once assured of the truth, the person must hold oneself in the clean wholesomeness of it by actively working for own strength of character ‘from your own initiative’. There can be no other permanent cure.

15 I say that strength of character must grow from our own initiative, 16 and I should add that it must be from our own initiative that we come to recognise and actively believe that we are dependent upon a power not our own and our real strength comes from ceasing to be an obstruction to that power. 17 The work of not interfering with our best health, moral and physical, means hard fighting and steady, never-ending vigilance. But it pays-- it more than pays! 18 And, it seems to me, this prevailing trouble of nervous strain which is so much with us now can be the means of guiding all men and women toward more solid health than has ever been known before. 19 But we must work for it! We must give up expecting to be cured.

HOW WOMEN CAN KEEP FROM BEING NERVOUS

Annie Payson Call

5 MANY people suffer unnecessarily from "nerves" just for the want of a little knowledge of how to adjust themselves in order that the nerves may get well. 2 As an example, I have in mind a little woman who had been ill for eight years-- eight of what might have been the best years of her life-- all because neither she nor her family knew the straight road toward getting well. 3 Now that she has found the path she has gained health wonderfully in six months, and promises to be better than ever before in her life.

4 Let me tell you how she became ill and then I can explain her process of getting well again. One night she was overtired and could not get to sleep, and became very much annoyed at various noises that were about the house. 5 Just after she had succeeded in stopping one noise she would go back to bed and hear several others. 6 Finally, she was so worked up and nervously strained over the noises that her hearing

became exaggerated, and she was troubled by noises that other people would not have even heard; so she managed to keep herself awake all night.

7 The next day the strain of the over-fatigue was, of course, very much increased, not only by the wakeful night, but also by the annoyance which had kept her awake. 8 The family were distressed that she should not have slept all night; talked a great deal about it, and called in the doctor.

9 The woman's strained nerves were on edge all day, so that her feelings were easily hurt, and her brothers and sisters became, as they thought, justly impatient at what they considered her silly babyishness. 10 This, of course, roused her to more strain. The overcare and the feeble, unintelligent sympathy that she had from some members of her family kept her weak and self-centered, 11 and the ignorant, selfish impatience with which the others treated her increased her nervous strain. 12 After this there followed various other worries and a personal sense of annoyance-- all of which made her more nervous.

13 Then-- the stomach and brain are so closely associated-- her digestion began to cause her discomfort: a lump in her stomach, her food "would not digest," and various other symptoms, 14 all of which mean strained and overwrought nerves, although they are more often attributed merely to a disordered stomach. 15 She worried as to what she had better eat and what she had better not eat. If her stomach was tired and some simple food disagreed with her all the discomfort was attributed to the food, instead of to the real cause,-- a tired stomach,-- and the cause back of that,-- strained nerves. 16 The consequence was that one kind of wholesome food after another was cut off as being impossible for her to eat. 17 Anything that this poor little invalid did not like about circumstances or people she felt ugly and cried over. 18 Finally, the entire family were centered about her illness, either in overcare or annoyance.

19 You see, she kept constantly repeating her brain impression of over-fatigue: first annoyance because she stayed awake; then

annoyance at noises; then excited distress that she should have stayed awake all night; then resistance and anger at other people who interfered with her. 20 Over and over that brain impression of nervous illness was repeated by the woman herself and people about her until she seemed settled into it for the rest of her life. 21 It was like expecting a sore to get well while it was constantly being rubbed and irritated. 22 A woman might have the healthiest blood in the world, but if she cut herself and then rubbed and irritated the cut, and put salt in it, it would be impossible for it to heal.

23 Now let me tell you how this little woman got well. The first thing she did was to take some very simple relaxing exercises while she was lying in bed. 24 She raised her arms very slowly and as loosely as she could from the elbow and then her hands from the wrist, and stretched and relaxed her fingers steadily, 25 then dropped her hand and forearm heavily, and felt it drop slowly at first, then quickly and quietly, with its own weight. 26 She tried to shut her eyes like a baby going to sleep, and followed that with long, gentle, quiet breaths. 27 These and other exercises gave her an impression of quiet relaxation so that she became more sensitive to superfluous tension.

28 When she felt annoyed at noises she easily noticed that in response to the annoyance her whole body became tense and strained. 29 After she had done her exercises and felt quiet and rested something would happen or some one would say something that went against the grain, 30 and quick as a wink all the good of the exercises would be gone and she would be tight and strained again, and nervously irritated.

31 Very soon she saw clearly that she must learn to drop the habit of physical strain if she wanted to get well; 32 but she also learned what was more-- far more-- important than that: that: ‘she must conquer the cause of the strain or she could never permanently drop it’. 33 She saw that the cause was resentment and resistance to the noises-- the circumstances, the people, and all the variety of things that had "made her nervous."

GOODNESS

34 Then she began her steady journey toward strong nerves and a wholesome, happy life. 35 She began the process of changing her brain impressions. If she heard noises that annoyed her she would use her will to direct her attention toward dropping resistance to the noises, 36 and in order to drop her mental resistance she gave her attention to loosening out the bodily contractions. 37 Finally she became interested in the new process as in a series of deep and true experiments. 38 Of course her living and intelligent interest enabled her to gain very much faster, for she not only enjoyed her growing freedom, but she also enjoyed seeing her experiments work. 39 Nature always tends toward health, and if we stop interfering with Her she will get us well.

40 There is just this difference between the healing of a physical sore and the healing of strained and irritated nerves. With the one our bodies are healed, and things go on in them about the same as before. 41 With the other, every use of the will to free ourselves from the irritation and its cause not only enables us to get free from the nervous illness, but in addition brings us new nerve vigour.

42 When nervous illness is met deeply enough and in the normal way, the result is that the nerves become stronger than ever before.

43 Often the effect of nervous strain in women is constant talking. Talk-- talk-- talk, and mostly about themselves, their ailments, their worries, and the hindrances that are put in their way to prevent their getting well. 44 This talking is not a relief, as people sometimes feel. It is a direct waste of vigour. But the waste would be greater if the talk were repressed. 45 The only real help comes when the talker herself recognises the strain of her talk and "loosens" into silence.

46 People must find themselves out to get well-- really well-- from nervous suffering. 47 The cause of nervous strain is so often in the character and in the way we meet circumstances and people that it seems essential to recognise our mistakes in that direction, and to face them squarely before we can do our part toward removing the causes of any nervous illness.

GOODNESS

48 Remember it is not circumstances that keep us ill. It is not people that cause our illness. It is not our environment that overcomes us. 49 It is the way we face and deal with circumstances, with people, and with environment that keeps our nerves irritated or keeps them quiet and wholesome and steady.

50 Let me tell the story of two men, both of whom were brought low by severe nervous breakdown. 51 One complained of his environment, complained of circumstances, complained of people. Everything and every one was the cause of his suffering, except himself. 52 The result was that he weakened his brain by the constant willful and enforced strain, so that what little health he regained was the result of Nature's steady and powerful tendency toward health, and in spite of the man himself.

53 The other man-- to give a practical instance-- returned from a journey taken in order to regain the strength which he had lost from not knowing how to work. 54 His business agent met him at the railroad station with a piece of very bad news. 55 Instead of being frightened and resisting and contracting in every nerve of his body, he took it at once as an opportunity to drop resistance. 56 He had learned to relax his body, and by doing relaxing and quieting exercises over and over he had given himself a brain impression of quiet and "let go" which he could recall at will. 57 Instead of expressing distress at the bad news he used his will at once to drop resistance and relax; 58 and, to the surprise of his informant, who had felt that he must break his bad news as easily as possible, he said "Anything else?" 59 Yes, there was another piece of news about as bad as the first. "Go on," answered the man who had been sick with nerves; "tell me something else."

60 And so he did, until he had told him five different things which were about as disagreeable and painful to hear as could have been. 61 For every bit of news our friend used his will with decision to drop the resistance, which would, of course, at once arise in response to all that seemed to go against him.

62 He had, of course, to work at intervals for long afterward to

keep free from the resistance; but the habit is getting more and more established as life goes on with him, 63 and the result is a brain clearer than ever before in his life, a power of nerve which is a surprise to every one about him, and a most successful business career.

64 The success in business is, however, a minor matter. His brain would have cleared and his nerve strengthened just the same if what might be called the business luck had continued to go against him, as it seemed to do for the first few months after his recovery. 65 That everything did go against him for some time was the greatest blessing he could have had. The way he met all the reverses increased his nerve power steadily and consistently.

66 These two men are fair examples of two extremes. The first one did not know how to meet life. If he had had the opportunity to learn he might have done as well as the other. 67 The second had worked and studied to help himself out of nerves, and had found the true secret of doing it.

68 Some men, however, and, I regret to say, more women, have the weakening habit so strong upon them that they are unwilling to learn how to get well, even when they have the opportunity. 69 It seems so strange to see people suffer intensely-- and be unwilling to face and follow the only way that will lead them out of their torture.

70 The trouble is we want our own way and nervous health, too, and with those who have once broken down nervously the only chance of permanent health is through learning to drop the strain of resistance when things do not go their way. 71 This is proved over and over by the constant relapse into "nerves" which comes to those who have simply been healed over. 72 Even with those who appear to have been well for some time, if they have not acquired the habit of dropping their mental and physical tension you can always detect an overcare for themselves which means dormant fear-- or even active fear in the background.

73 There are some wounds which the surgeons keep open, even

though the process is most painful, because they know that to heal really they must heal from the inside. 74 Healing over on the outside only means decay underneath, and eventual death. This is in most cases exactly synonymous with the healing of broken-down nerves. 75 They must be healed in causes to be permanently cured. Sometimes the change that comes in the process is so great that it is like reversing an engine.

76 If the little woman whom I mentioned first had practiced relaxing and quieting exercises every day for years, and had not used the quiet impression gained by the exercises to help her in dropping mental resistances, she never would have gained her health.

77 Concentrating steadily on dropping the tension of the body is very radically helpful in dropping resistance from the mind, 78 and the right idea is to do the exercises over and over until the impression of quiet openness is, by constant repetition, so strong with us that we can recall it at will whenever we need it. 79 Finally, after repeated tests, we gain the habit of meeting the difficulties of life without strain-- first in little ways, and then in larger ways.

80 The most quieting, relaxing, and strengthening of all exercises for the nerves comes in deep and rhythmic breathing, and in voice exercises in connection with it. 80 Nervous strain is more evident in a voice than in any other expressive part of man or woman. 81 It sometimes seems as if all other relaxing exercises were mainly useful because of opening a way for us to breathe better. 82 There is a pressure on every part of the body when we inhale, and a consequent reaction when we exhale, and the more passive the body is when we take our deep breaths the more freely and quietly the blood can circulate all the way through it, 83 and, of course, all nervous and muscular contraction impairs circulation, and all impaired circulation emphasises nervous contraction.

84 To any one who is suffering from "nerves," in a lesser or greater degree, it could not fail to be of very great help to take half an hour in the morning, lie flat on

the back, with the body as loose and heavy as it can be made, 85 and then study taking gentle, quiet, and rhythmic breaths, long and short. Try to have the body so loose and open and responsive that it will open as you inhale and relax as you exhale, just as a rubber bag would. 86 Of course, it will take time, but the refreshing quiet is sure to come if the practice is repeated regularly for a long enough time, and eventually we would no more miss it than we would go without our dinner.

87 We must be careful after each deep, long breath to rest quietly and let our lungs do as they please. 88 Be careful to begin the breaths delicately and gently, to inhale with the same gentleness with which we begin, and to make the change from inhaling to exhaling with the greatest delicacy possible-- keeping the body loose.

89 For the shorter breaths we can count three, or five, or ten to inhale, and the same number to exhale, until we have the rhythm established, and then go on breathing without counting, as if we were sound asleep. 90 Always aim for gentleness and delicacy. If we have not half an hour to spare to lie quietly and breathe we can practice the breathing while we walk. 91 It is wonderful how we detect strain and resistance in our breath, and the restfulness which comes when we breathe so gently that the breath seems to come and go without our volition brings new life with it.

92 We must expect to gain slowly and be patient; we must remember that nerves always get well by ups and downs, and use our wills to make every down lead to a higher up. 93 If we want the lasting benefit, or any real benefit at all when we get the brain impression of quiet freedom from these breathing exercises, we must insist upon recalling that impression every time a test comes, 94 and face the circumstances, or the person, or the duty with a voluntary insistence upon a quiet, open brain, rather than a tense, resistant one.

95 It will come hard at first, but we are sure to get there if we keep steadily at it, for it is really the Law of the Lord God Almighty that we are learning to obey, 96 and this process of learning gives

us steadily an enlarged appreciation of what trust in the Lord really is. 97 There is no trust without obedience, and an intelligent obedience begets trust. 98 The nerves touch the soul on one side and the body on the other, and we must work for freedom of soul and body in response to spiritual and physical law if we want to get sick nerves well. 99 If we do not remember always a childlike attitude toward the Lord the best nerve training is only an easy way of being selfish.

100 To sum it all up-- if you want to learn to help yourself out of "nerves" learn to rest when you rest and to work without strain when you work; 101 learn to loosen out of the muscular contractions which the nerves cause; 102 learn to drop the mental resistances which cause the "nerves," and which take the form of anger, resentment, worry, anxiety, impatience, annoyance, or self-pity; 103 eat only nourishing food, eat it slowly, and chew it well; breathe the freshest air you can, and breathe it deeply, gently, and rhythmically; 104 take what healthy, vigourous exercise you find possible; do your daily work to the best of your ability; 105 give your attention so entirely to the process of gaining health for the sake of your work and other people that you have no mind left with which to complain of being ill, 106 and see that all this effort aims toward a more intelligent obedience to and trustfulness in the Power that gives us life. 107 Wholesome, sustained concentration is in the very essence of healthy nerves.

"YOU HAVE NO IDEA HOW I AM RUSHED"

Annie Payson Call

6 A WOMAN can feel rushed when she is sitting perfectly still and has really nothing whatever to do. 2 A woman can feel at leisure when she is working diligently at something, with a hundred other things waiting to be done when the time comes. 3 It is not all we have to do that gives us the rushed feeling; it is the way we do what is before us. It is the attitude we take toward our work.

4 Now this rushed feeling in the brain and nerves is intensely oppressive. Many women, and men too, suffer from it keenly, 5 and they suffer the more because they do not recognise that that feeling of rush is really entirely distinct from what they have to do; in truth it has nothing whatever to do with it.

6 I have seen a woman suffer painfully with the sense of being pushed for time when she had only two things to do in the whole day, and those two things at most need not take more than an hour each. 7 This same woman was always crying for rest. I never knew, before I saw her, that women could get just as abnormal in their efforts to rest as in their insistence upon overwork. 8 This little lady never rested when she went to rest; she would lie on the bed for hours in a state of strain about resting that was enough to tire any ordinarily healthy woman. 9 One friend used to tell her that she was an inebriate on resting. It is perhaps needless to say that she was a nervous invalid, and in the process of gaining her health she had to be set to work and kept at work. 10 Many and many a time she has cried and begged for rest when it was not rest she needed at all: it was work.

11 She has started off to some good, healthy work crying and sobbing at the cruelty that made her go, and has returned from the work as happy and healthy, apparently, as a little child. 12 Then she could go to rest and rest to some purpose. She had been busy in wholesome action and the normal reaction came in her rest. 13 As she grew more naturally interested in her work she rested less and less, and she rested better and better because she had something to rest from and something to rest for.

14 Now she does only a normal amount of resting, but gets new life from every moment of rest she takes; 15 before, all her rest only made her want more rest and kept her always in the strain of fatigue. 16 And what might seem to many a very curious result is that as the abnormal desire for rest disappeared the rushed feeling disappeared, too.

17 There is no one thing that American women need more than

a healthy habit of rest, but it has got to be real rest, not strained nor self-indulgent rest.

18 Another example of this effort at rest which is a sham and a strain is the woman who insists upon taking a certain time every day in which to rest. 19 She insists upon doing everything quietly and with-- as she thinks-- a sense of leisure, and yet she keeps the whole household in a sense of turmoil and does not know it. 20 She sits complacently in her pose of prompt action, quietness and rest, and has a tornado all about her. 21 She is so deluded in her own idea of herself that she does not observe the tornado, and yet she has caused it. 22 Everybody in her household is tired out with her demands, and she herself is ill, chronically ill. But she thinks she is at peace, and she is annoyed that others should be tired.

23 If this woman could open and let out her own interior tornado, which she has kept frozen in there by her false attitude of restful quiet, she would be more ill for a time, 24 but it might open her eyes to the true state of things and enable her to rest to some purpose and to allow her household to rest, too.

25 It seems, at first thought, strange that in this country, when the right habit of rest is so greatly needed, that the strain of rest should have become in late years one of the greatest defects. 26 On second thought, however, we see that it is a perfectly rational result. We have strained to work and strained to play and strained to live for so long that when the need for rest gets so imperative that we feel we must rest the habit of strain is so upon us that we strain to rest. 27 And what does such "rest" amount to? What strength does it bring us? What enlightenment do we get from it?

28 With the little lady of whom I first spoke rest was a steadily-weakening process. She was resting her body straight toward its grave. 29 When a body rests and rests the circulation gets more and more sluggish until it breeds disease in the weakest organ, and then the physicians seem inclined to give their attention to the disease, and not to the cause of the abnormal strain which was behind the disease. 30 Again, as we have

seen, the abnormal, rushed feeling can exist just as painfully with too much and the wrong kind of rest as with too much work and the wrong way of working.

31 We have been, as a nation, inclined toward "Americanitis" for so long now that children and children's children have inherited a sense of rush, 32 and they suffer intensely from it with a perfectly clear understanding of the fact that they have nothing whatever to hurry about. 33 This is quite as true of men as it is of women. In such cases the first care should be not to fasten this sense of rush on to anything; 34 the second care should be to go to work to cure it, to relax out of that contraction--just as you would work to cure twitching St. Vitus's dance, or any other nervous habit.

35 Many women will get up and dress in the morning as if they had to catch a train, and they will come in to breakfast as if it were a steamer for the other side of the world that they had to get, and no other steamer went for six months. 36 They do not know that they are in a rush and a hurry, and they do not find it out until the strain has been on them for so long that they get nervously ill from it-- and then they find themselves suffering from "that rushed feeling."

37 Watch some women in an argument pushing, actually rushing, to prove themselves right; they will hardly let their opponent have an opportunity to speak, much less will they stop to consider what he says and see if by chance he may not be right and they wrong.

38 The rushing habit is not by any means in the fact of doing many things. It asserts itself in our brains in talking, in writing, in thinking. 39 How many of us, I wonder, have what might be called a quiet working brain? Most of us do not even know the standard of a brain that thinks and talks and lives quietly: 40 a brain that never pushes and never rushes, or, if by any chance it is led into pushing or rushing, is so wholesomely sensitive that it drops the push or the rush as a bare hand would drop a red-hot coal.

41 None of us can appreciate the weakening power of this strained habit of rush until we have, by the use of our own wills, directed our

minds toward finding a normal habit of quiet, 42 and yet I do not in the least exaggerate when I say that its weakening effect on the brain and nerves is frightful.

43 And again I repeat, the rushed feeling has nothing whatever to do with the work before us. 44 A woman can feel quite as rushed when she has nothing to do as when she is extremely busy.

45 "But," some one says, "may I not feel pressed for time when I have more to do than I can possibly put into the time before me?"

46 Oh, yes, yes-- you can feel normally pressed for time; and because of this pressure you can arrange in your mind what best to leave undone, and so relieve the pressure. 47 If one thing seems as important to do as another you can make up your mind that of course you can only do what you have time for, and the remainder must go. 48 You cannot do what you have time to do so well if you are worrying about what you have no time for. There need be no abnormal sense of rush about it.

49 Just as Nature tends toward health, Nature tends toward rest-- toward the right kind of rest; 50 and if we have lost the true knack of resting we can just as surely find it as a sunflower can find the sun. 51 It is not something artificial that we are trying to learn-- it is something natural and alive, something that belongs to us, 52 and our own best instinct will come to our aid in finding it if we will only first turn our attention toward finding our own best instinct.

53 We must have something to rest from, and we must have something to rest for, if we want to find the real power of rest. 54 Then we must learn to let go of our nerves and our muscles, to leave everything in our bodies open and passive so that our circulation can have its own best way. 55 But we must have had some activity in order to have given our circulation a fair start before we can expect it to do its best when we are passive.

56 Then, what is most important, we must learn to drop all effort of our minds if we want to know how to rest; and that is difficult. 57 We can do it best by keeping our minds concentrated on something simple and quiet and wholesome.

58 For instance, you feel tired and rushed and you can have half an hour in which to rest and get rid of the rush. 59 Suppose you lie down on the bed and imagine yourself a turbulent lake after a storm. The storm is dying down, dying down, until by and by there is no wind, only little dashing waves that the wind has left. 60 Then the waves quiet down steadily, more and more, until finally they are only ripples on the water. 61 Then no ripples, but the water is as still as glass. The sun goes down. The sky glows. Twilight comes. 62 One star appears, and green banks and trees and sky and stars are all reflected in the quiet mirror of the lake, 63 and you are the lake, and you are quiet and refreshed and rested and ready to get up and go on with your work-- to go on with it, too, better and more quietly than when you left it.

64 Or, another way to quiet your mind and to let your imagination help you to a better rest is to float on the top of a turbulent sea and then to sink down, down, down until you get into the still water at the bottom of the sea. 65 We all know that, no matter how furious the sea is on the surface, not far below the surface it is absolutely still. It is very restful to go down there in imagination.

66 Whatever choice we may make to quiet our minds and our bodies, as soon as we begin to concentrate we must not be surprised if intruding thoughts are at first constantly crowding to get in. 67 We must simply let them come. Let them come, and pay no attention to them.

68 I knew of a woman who was nervously ill, and some organs of her body were weakened very much by the illness. 69 She made-up her mind to rest herself well and she did so. Every day she would rest for three hours; she said to herself, "I will rest an hour on my left side, an hour on my right side, and an hour on my back." 70 And she did that for days and days. When she lay on one side she had a very attractive tree to look at. When she lay on the other she had an interesting picture before her. 71 When she lay on her back she had the sky and several trees to see through a window in front of the bed. 72 She grew steadily better every week-- she

had something to rest for. She was resting to get well. 73 If she had rested and complained of her illness I doubt if she would have been well to-day. 74 She simply refused to take the unpleasant sensations into consideration except for the sake of resting out of them. 75 When she was well enough to take a little active exercise she knew she could rest better and get well faster for that, 76 and she insisted upon taking the exercise, although at first she had to do it with the greatest care. 77 Now that this woman is well she knows how to rest and she knows how to work better than ever before.

78 For normal rest we need the long sleep of night. 79 For shorter rests which we may take during the day, often opportunity comes at most unexpected times and in most unexpected ways, and we must be ready to take advantage of it. 80 We need also the habit of working restfully. This habit of course enables us to rest truly when we are only resting, and again the habit of resting normally helps us to work normally.

81 A wise old lady said: "My dear, you cannot exaggerate the unimportance of things." She expressed even more, perhaps, than she knew.

82 It is our habit of exaggerating the importance of things that keeps us hurried and rushed. 83 It is our habit of exaggerating the importance of ourselves that makes us hold the strain of life so intensely. 84 If we would be content to do one thing at a time, and concentrate on that one thing until it came time to do the next thing, it would astonish us to see how much we should accomplish. 85 A healthy concentration is at the root of working restfully and of resting restfully, for a healthy concentration means dropping everything that interferes.

86 I know there are women who read this article who will say; "Oh, yes, that is all very well for some women, but it does not apply in the least to a woman who has my responsibilities, or to a woman who has to work as I have to work."

87 My answer to that is: "Dear lady, you are the very one to whom it does apply!"

GOODNESS

88 The more work we have to do, the harder our lives are, the more we need the best possible principles to lighten our work and to enlighten our lives. 89 We are here in the world at school and we do not want to stay in the primary classes.

90 The harder our lives are and the more we are handicapped, the more truly we can learn to make every limitation an opportunity-- 91 and if we persistently do that through circumstances, no matter how severe, the nearer we are to getting our diploma. 92 To gain our freedom from the rushed feeling, to find a quiet mind in place of an unquiet one, is worth working hard for through any number of difficulties. 93 And think of the benefit such a quiet mind could be to other people! Especially if the quiet mind were the mind of a woman, for, at the present day, think what a contrast she would be to other women!

94 When a woman's mind is turbulent it is the worst kind of turbulence. When it is quiet we can almost say it is the best kind of quiet, humanly speaking.

WHY DOES MRS. SMITH
GET ON MY NERVES?
Annie Payson Call

7 IF you want to know the true answer to this question it is "because you are unwilling that Mrs. Smith should be herself." 2 You want her to be just like you, or, if not just like you, you want her to be just as you would best like her.

3 I have seen a woman so annoyed that she could not eat her supper because another woman ate sugar on baked beans. 4 When this woman told me later what it was that had taken away her appetite she added: "And isn't it absurd? 5 Why shouldn't Mrs. Smith eat sugar on baked beans? It does not hurt me. I do not have to taste the sugar on the beans; but is it such an odd thing to do. It seems to me such bad manners that I just get so mad I can't eat!"

6 Now, could there be anything more absurd than that? To see a woman annoyed; to see her recognise that she was uselessly and foolishly annoyed, and yet to see that she makes not the slightest effort to get over her annoyance.

7 It is like the woman who discovered that she spoke aloud in church, and was so surprised that she exclaimed: "Why, I spoke out loud in church!" 8 And then, again surprised, she cried: "Why, I keep speaking aloud in church!"-- and it did not occur to her to stop.

9 My friend would have refused an invitation to supper, I truly believe, if she had known that Mrs. Smith would be there and her hostess would have baked beans. 10 She was really a slave to Mrs. Smith's way of eating baked beans. "Well, I do not blame her," I hear some reader say; "it is entirely out of place to eat sugar on baked beans. Why shouldn't she be annoyed?"

11 I answer: "Why should she be annoyed? Will her annoyance stop Mrs. Smith's eating sugar on baked beans? Will she in any way-- selfish or otherwise-- be the gainer for her annoyance? 12 Furthermore, if it were the custom to eat sugar on baked beans, as it is the custom to put sugar in coffee, this woman would not have been annoyed at all. 13 It was simply the fact of seeing Mrs. Smith digress from the ordinary course of life that annoyed her."

14 It is the same thing that makes a horse shy. The horse does not say to itself, "There is a large carriage, moving with no horse to pull it, with nothing to push it, with-- so far as I can see-- no motive power at all. 15 How weird that is! How frightful!"-- and, with a quickly beating heart, jump aside and caper in scared excitement. 16 A horse when it first sees an automobile gets an impression on its brain which is entirely out of its ordinary course of impressions-- it is as if some one suddenly and unexpectedly struck the horse, and it shies and jumps. 17 The horse is annoyed, but it does not know what it is that annoys it. Now, when a horse shies you drive it away from the automobile and quiet it down, 18 and then, if you are a good trainer, you drive it back again right in front of that car or some other one, and you repeat the process until the automobile becomes an ordinary impression to it, and is no longer afraid of it.

19 There is, however, just this difference between a woman and a horse: the woman has her own free-will behind her annoyance, and a horse has not. 20 If my friend

had asked Mrs. Smith to supper twice a week, and had served baked beans each time and herself passed her the sugar with careful courtesy, 21 and if she had done it all deliberately for the sake of getting over her annoyance, she would probably have only increased it until the strain would have got on her nerves much more seriously than Mrs. Smith ever had. 22 Not only that, but she would have found herself resisting other people's peculiarities more than ever before; 23 I have seen people in nervous prostration from causes no more serious than that, on the surface. 24 It is the habit of resistance and resentment back of the surface annoyance which is the serious cause of many a woman's attack of nerves.

25 Every woman is a slave to every other woman who annoys her. She is tied to each separate woman who has got on her nerves by a wire which is pulling, pulling the nervous force right out of her. 26 And it is not the other woman's fault-- it is her own. 27 The wire is pulling, whether or not we are seeing or thinking of the other woman, for, having once been annoyed by her, the contraction is right there in our brains. 28 It is just so much deposited strain in our nervous systems which will stay there until we, of our own free-wills, have yielded out of it.

29 The horse was not resenting nor resisting the automobile; therefore the strain of its fright was at once removed when the automobile became an ordinary impression. 30 A woman, when she gets a new impression that she does not like, resents and resists it with her will, and she has got to get in behind that resistance and drop it with her will before she is a free woman.

31 To be sure, there are many disagreeable things that annoy for a time, and then, as the expression goes, we get hardened to them. 32 But few of us know that this hardening is just so much packed resistance which is going to show itself later in some unpleasant form and make us ill in mind or body. 33 We have got to yield, yield, yield out of every bit of resistance and resentment to other people if we want to be free. 34 No reasoning about it is going to do us any good. No passing back and forth in front of it is going to free

us. We must yield first and then we can see clearly and reason justly. 35 We must yield first and then we can go back and forth in front of it, and it will only be a reminder to yield every time 36 until the habit of yielding has become habitual and the strength of nerve and strength of character developed by means of the yielding have been established.

37 Let me explain more fully what I mean by "yielding." Every annoyance, resistance, or feeling of resentment contracts us in some way physically; 38 if we turn our attention toward dropping that physical contraction, with a real desire to get rid of the resistance behind it, we shall find that dropping the physical strain opens the way to drop the mental and moral strain, 39 and when we have really dropped the strain we invariably find reason and justice and even generousity toward others waiting to come to us.

40 There is one important thing to be looked out for in this normal process of freeing ourselves from other people. A young girl said once to her teacher: "I got mad the other day and I relaxed, and the more I relaxed the madder I got!"

41 "Did you want to get over the anger?" asked the teacher.

"No, I didn't," was the prompt and ready answer.

42 Of course, as this child relaxed out of the tension of her anger, there was only more anger to take its place, 43 and the more she relaxed the more free her nerves were to take the impression of the anger hoarded up in her; consequently it was as she said: the more she relaxed the "madder" she got. 44 Later, this same little girl came to understand fully that she must have a real desire to get over her anger in order to have better feelings come up after she had dropped the contraction of the anger.

45 I know of a woman who has been holding such steady hatred for certain other people that the strain of it has kept her ill. 46 And it is all a matter of feeling: first, that these people have interfered with her welfare; second, that they differ from her in opinion. 47 Every once in a while her hatred finds a vent and spends itself in tears and bitter words. 48 Then,

after the external relief of letting out her pent-up feeling, she closes up again and one would think from her voice and manner-- if one did not look very deep in-- that she had only kindliness for every one. But she stays nervously ill right along.

49 How could she do otherwise with that strain in her? If she were constitutionally a strong woman this strain of hatred would have worn on her, though possibly not have made her really ill; 50 but, being naturally sensitive and delicate, the strain has kept her an invalid altogether.

51 "Mother, I can't stand Maria," one daughter says to her mother, and when inquiry is made the mother finds that what her daughter "cannot stand" is ways that differ from her own. 52 Sometimes, however, they are very disagreeable ways which are exactly like the ways of the person who cannot stand them. 53 If one person is imperious and demanding she will get especially annoyed at another person for being imperious and demanding, without a suspicion that she is objecting vehemently to a reflection of herself.

54 There are two ways in which people get on our nerves. The first way lies in their difference from us in habit-- in little things and in big things; their habits are not our habits. 55 Their habits may be all right, and our habits may be all right, but they are "different." Why should we not be willing to have them different? 56 Is there any reason for it except the very empty one that we consciously and unconsciously want every one else to be just like us, or to believe just as we do, or to behave just as we do? And what sense is there in that?

57 "I cannot stand Mrs. So-and-so; she gets into a rocking-chair and rocks and rocks until I feel as if I should go crazy!" some one says. But why not let Mrs. So-and-so rock? 58 It is her chair while she is in it, and her rocking. Why need it touch us at all?

59 "But," I hear a hundred women say, "it gets on our nerves; how can we help its not getting on our nerves?" 60 The answer to that is: "Drop it off your nerves." I know many women who have tried it

and who have succeeded, and who are now profiting by the relief. 61 Sometimes the process to such freedom is a long one; sometimes it is a short one; but, either way, the very effort toward it brings nervous strength, as well as strength of character.

62 Take the woman who rocks. Practically every time she rocks you should relax, actually and consciously relax your muscles and your nerves. 63 The woman who rocks need not know you are relaxing; it all can be done from inside. 64 Watch and you will find your muscles strained and tense with resistance to the rocking. Go to work practically to drop every bit of strain that you observe. 65 As you drop the grossest strain it will make you more sensitive to the finer strain and you can drop that-- 66 and it is even possible that you may seek the woman who rocks, in order to practice on her and get free from the habit of resisting more quickly.

67 This seems comical-- almost ridiculous-- to think of seeking an annoyance in order to get rid of it; but, after laughing at it first, look at the idea seriously, and you will see it is common-sense. 68 When you have learned to relax to the woman who rocks you have learned to relax to other similar annoyances. 69 You have been working on a principle that applies generally. You have acquired a good habit which can never really fail you.

70 If my friend had invited Mrs. Smith to supper and served baked beans for the sake of relaxing out of the tension of her resistance to the sugar, then she could have conquered that resistance. 71 But to try to conquer an annoyance like that without knowing how to yield in some way would be, so far as I know, an impossibility. 72 Of course, we would prefer that our friends should not have any disagreeable, ill-bred, personal ways, but we can go through the world without resisting them, and there is no chance of helping any one out of them through our own resistances.

73 On the other hand a way may open by which the woman's attention is called to the very unhealthy habit of rocking-- or eating sugar on beans-- if we are ready, without resistance, to point

it out to her. 74 And if no way opens we have at least put ourselves out of bondage to her. 75 The second way in which other people get on our nerves is more serious and more difficult. Mrs. So-and-so may be doing very wrong-- really very wrong; 76 or some one who is nearly related to us may be doing very wrong-- and it may be our most earnest and sincere desire to set them right. 77 In such cases the strain is more intense because we really have right on our side, in our opinion, if not in our attitude toward the other person. 78 Then, to recognise that if some one else chooses to do wrong it is none of our business is one of the most difficult things to do-- for a woman, especially.

79 It is more difficult to recognise practically that, in so far as it may be our business, we can best put ourselves in a position to enable the other person to see their own mistake by dropping all personal resistance to it and all personal strain about it. 80 Even a mother with her son can help him to be a man much more truly if she stops worrying about and resisting his unmanliness.

81 "But," I hear some one say, "that all seems like such cold indifference." Not at all-- not at all. Such freedom from strain can be found only through a more actively affectionate interest in others. 82 The more we truly love another, the more thoroughly we respect that other's individuality.

83 The other so-called love is only love of possession and love of having our own way. It is not really love at all; it is sugar-coated tyranny. 84 And when one sugar-coated tyrant' antagonises herself against another sugar-coated tyrant the strain is severe indeed, and nothing good is ever accomplished.

85 The Roman infantry fought with a fixed amount of space about each soldier, and found that the greater freedom of individual activity enabled them to fight better and to conquer their foes. 86 This symbolises happily the process of getting people off our nerves. Let us give each one a wide margin and thus preserve a good margin for ourselves.

87 We rub up against other people's nerves by getting too near to them-- not too near to their real

selves, but too near, so to speak, to their nervous systems. 88 There have been quarrels between good people just because one phase of nervous irritability roused another. 89 Let things in other people go until you have entirely dropped your strain about them-- then it will be clear enough what to do and what to say, or what not to do and what not to say. 90 People in the world cannot get on our nerves unless we allow them to do so.

THE TRYING MEMBER OF THE FAMILY
Annie Payson Call

8 "TOMMY, don't do that. You know it annoys your grandfather."

"Well, why should he be annoyed? I am doing nothing wrong."

2 "I know that, and it hurts me to ask you, but you know how he will feel if he sees you doing it, and you know that troubles me."

3 Reluctantly and sullenly Tommy stopped. Tommy's mother looked strained and worried and discontented. Tommy had an expression on his face akin to that of a smouldering volcano.

4 If any one had taken a good look at the grandfather it would have been very clear that Tommy was his own grandson, 5 and that the old man and the child were acting and reacting upon one another in a way that was harmful to both; although the injury was, of course, worse to the child, for the grandfather had toughened. 6 The grandfather thought he loved his little grandson, and the grandson, at times, would not have acknowledged that he did not love his grandfather. At other times, with childish frankness, he said he "hated him."

7 But the worst of this situation was that although the mother loved her son, and loved her father, and sincerely thought that she was the family peacemaker, she was all the time fanning the antagonism.

8 Here is a contrast to this little story. An old uncle came into the family of his nephew to live, late in life, and with a record behind him of whims and crotchets in the extreme. 9 The father and mother talked it over. Uncle James must come. He had lost all his money. There was no one else to look after him and they could not afford to

support him elsewhere where he would be comfortable. 10 They took it into account, without offence, that it was probably just as much a cross to Uncle James to come as it was to them to have him. 11 They took no pose of magnanimity such as: "Of course we must be good and offer Uncle James a home," and "How good we are to do it!" 12 Uncle James was to come because it was the only thing for him to do. The necessity was to be faced and fought and conquered, and they had three strong, self-willed little children to face it with them. 13 They had sense enough to see that if faced rightly it would do only good to the children, but if made a burden to groan over it would make their home a "hornets' nest." 14 They agreed to say nothing to the children about Uncle James's peculiarities, but to await developments.

15 Children are always delighted at a visit from a relative, and they welcomed their great-uncle with pleasure. 16 It was not three days, however, before every one of the three was crying with dislike and hurt feelings and anger. Then was the time to begin the campaign.

17 The mother, with a happy face, called the three children to her, and said "Now listen, children. Do you suppose I like Uncle James's irritability any better than you do?"

18 "No," came in a chorus; "we don't see how you stand it, Mother."

Then she said: "Now look here, boys, do you suppose that Uncle James likes his snapping any better than we do?"

19 "If he does not like it why does he do it?" answered the boys.

"I cannot tell you that; that is his business and not yours or mine," said the mother; "but I can prove to you that he does not like it. 20 Bobby, do you remember how you snapped at your brother yesterday, when he accidentally knocked your house over?"

"Yes!" replied Bobby.

"Did you feel comfortable after it?"

"You bet I didn't," was the quick reply.

21 "Well," answered the mother, "you boys stop and think just how disagreeable it is inside of you when you snap, and then think how it would be if you had to feel like that as much as Uncle James does."

"By golly, but that would be bad," said the twelve-year-old.

22 "Now, boys," went on the mother, "you want to relieve Uncle James's disagreeable feelings all you can, and don't you see that you increase them when you do things to annoy him? 23 His snappish feelings are just like a sore that is smarting and aching all the time, and when you get in their way it hurts as if you rubbed the sore. 24 Keep out of his way when you can, and when you can't and he snaps at you, say: 'I beg your pardon, sir,' like gentlemen, and stop doing what annoys him; or get out of his way as soon as you can."

25 Uncle James never became less snappish. But the upright, manly courtesy of those boys toward him was like fresh air on a mountain, especially because it had become a habit and was all as a matter of course. 26 The father and mother realised that Uncle James had, unconsciously, made men of their boys as nothing else in the world could have done, 27 and had trained them so that they would grow up tolerant and courteous toward all human peculiarities.

28 Many times a gracious courtesy toward the "trying member" will discover good and helpful qualities that we had not guessed before. 29 Sometimes after a little honest effort we find that it is ourselves who have been the trying members, and that the other one has been the member tried. 30 Often it is from two members of the family that the trying element comes. Two sisters may clash, and they will generally clash because they are unlike. 31 Suppose one sister moves and lives in big swings, and the other in minute details. Of course when these extreme tendencies are accented in each the selfish temptation is for the larger mind to lapse into carelessness of details, and for the smaller mind to shrink into pettiness, 32 and as this process continues the sisters get more and more intolerant of each other, and farther and farther apart. 33 But if the sister who moves in the big swings will learn from the other to be careful in details, and if the smaller mind will allow itself to be enlarged by learning from the habitually broader view of the other, 34 each will grow in proportion, and two women who began life as enemies in

temperament can end it as happy friends.

35 There are similar cases of brothers who clash, but they are not so evident, for when men do not agree they leave one another alone. 36 Women do not seem to be able to do that. It is good to leave one another alone when there is the clashing tendency, but it is better to conquer the clashing and learn to agree.

37 So long as the normal course of my life leads me to live with some one who rubs me the wrong way I am not free until I have learned to live with that some one in quiet content. 38 I never gain my freedom by running away. The bondage is in me always, so long as the other person's presence can rouse it. The only way is to fight it out inside of one's self. 39 When we can get the co-operation of the other so much the better. But no one's co-operation is necessary for us to find our own freedom, and with it an intelligent, tolerant kindliness.

40 "Mother, you take that seat. No, not that one, Mother-- the sun comes in that window. Children, move aside and let your grandmother get to her seat."

41 The young woman was very much in earnest in seeing that her mother had a comfortable seat, that she had not the discomfort of the hot sun, that the children made way for her so that she could move into her seat comfortably. 42 All her words were thoughtful and courteous, but the spirit and the tone of her words were quite the reverse of courteous. 43 If some listener with his eyes shut had heard the tone without understanding the words he might easily have thought that the woman was talking to a little dog.

44 Poor "Mother" trotted into her seat with the air of a little dog who was so well trained that it did at once what its mistress ordered. 45 It was very evident that "Mother's" will had been squeezed out of her and trampled upon for years by her dutiful daughter, who looked out always that "Mother" had the best, without the first scrap of respect for "Mother's" free, human soul.

46 The grandchildren took the spirit of their mother's words rather than the words themselves, and treated their grandmother as if

she were a sort of traveling idiot tagged on to them, 47 to whom they had to be decently respectful whenever their mother's eye was upon them, and whom they ignored entirely when their mother looked the other way.

48 It so happened that I was sitting next to this particular mother who had been poked into a comfortable seat by her careful daughter. 49 And, after a number of other suggestions had been poked at her with a view to adding to her comfort, she turned to me and in a quaint, confidential way, 50 with the gentle voice of a habitual martyr, and at the same time a twinkle of humor in her eye, she said "They think, you know, I don't know anything."

51 And after that we had a little talk about matters of the day which proved to me that "Mother" had a mind broader and certainly more quiet than her daughter. 52 I studied the daughter with interest after knowing "Mother" better, and her habitual strain of voice and manner were pathetic. 53 By making a care of her mother instead of a companion, she was not only guilty of disrespect to a soul which, however weak it may have been in allowing itself to be directed in all minor matters, had its own firm principles which were not overridden nor even disturbed by the daughter's dominance. 54 If the daughter had only dropped her strain of care and her habit of "bossing" she would have found a true companion in her mother, and would have been a healthier and happier woman herself.

55 In pleasant contrast to this is the story of a family which had an old father who had lost his mind entirely, and had grown decrepit and childish in the extreme. 56 The sons and daughters tended him like a baby and loved him with gentle, tender respect. 57 There was no embarrassment for his loss of mind, no thought of being distressed or pained by it, 58 and because his children took their father's state so quietly and without shame, every guest who came took it in the same way, and there was no thought of keeping the father out of sight. 59 He sat in the living-room in his comfortable chair, and always one child or another was sitting right beside him with a smiling face. 60 Instead

of being a trying member of the family, as happens in so many cases, this old father seemed to bring content and rest to his children through their loving care for him.

61 Very often-- I might almost say always-- the trying member of the family is trying only because we make her so by our attitude toward her, let her be grandmother, mother, or maiden aunt. 62 Even the proverbial mother-in-law grows less difficult as our attitude toward her is relieved of the strain of detesting everything she does, and expecting to detest everything that she is going to do. 63 With every trying friend we have, if we yield to him in all minor matters we find the settling of essential questions wonderfully less difficult.

64 A son had a temper and the girl he married had a temper. The mother loved her son with the selfish love with which so many mothers burden their children, and thought that he alone of all men had a right to lose his temper. 65 Consequently she excused her son and blamed her daughter-in-law. If there were a mild cyclone roused between the two married people the son would turn to his mother to hear what a martyr he was and what misfortune he had to bear in having been so easily mistaken in the woman he married. 66 Thus the mother-in-law, who felt that she was protecting her poor son, was really breeding dissension between two people who could have been the best possible friends all their lives.

67 The young wife very soon became ashamed of her temper and worked until she conquered it, 68 but it was not until her mother-in-law had been out of this world for years that her husband discovered what he had lost in turning away from his wife's friendship, 69 and it was only by the happy accident of severe illness that he ever discovered his mistake at all, and gained freedom from the bondage of his own temper enough to appreciate his wife.

70 If, however, the wife had yielded in the beginning not only to her husband's bad temper but also to the antagonism of her mother-in-law, which was, of course, annoying in many petty

ways, she might have gained her husband's friendship, 71 and it is possible that she might, moreover, have gained the friendship of her mother-in-law.

72 The best rule with regard to all trying members of the family is to yield to them always in non-essentials; 73 and when you disagree in essentials stick to the principle which you believe to be right, but stick to it without resistance. 74 Believe your way, but make yourself willing that the trying member should believe her way. 75 Make an opportunity of what appears to be a limitation, and, believe me, your trying member can become a blessing to you.

76 I go further than that-- I truly believe that to make the best of life every family should have a trying member. 77 When we have no trying member of our family, and life goes along smoothly, as a matter of course, the harmony is very liable to be spurious, and a sudden test will all at once knock such a family into discord, much to the surprise of every member. 78 When we go through discord to harmony, and once get into step, we are very likely to keep in step:

79 Be willing, then, make yourself willing, that the trying member should be in the way. 80 Hope that she will stay in your family until you have succeeded in dropping not only all resistance to her being there, but every resistance to her various ways in detail. 81 Bring her annoying ways up to your mind voluntarily when you are away from her. If you do that you will find all the resistances come with them and you can relax out of the strain then and there. 82 You will find that when you get home or come down to breakfast in the morning (for many resistances are voluntarily thrown off in the night) you will have a pleasanter feeling toward the trying member, 83 and it comes so spontaneously that you will be surprised yourself at the absence of the strain of resistance in you.

84 Believe me when I say this: the yielding in the non-essentials, singularly enough, gives one strength to refuse to yield in principles. 85 But we must always remember that if we want to find real peace, while we refuse to

yield in our own principles so long as we believe them to be true, we must be entirely willing that others should differ from us in belief.

IRRITABLE HUSBANDS

Annie Payson Call

9 SUPPOSE your husband got impatient and annoyed with you because you did not seem to enter heartily into the interests of his work and sympathise with its cares and responsibilities and soothe him out of the nervous harassment. 2 Would you not perhaps feel a little sore that he seemed to expect all from you and to give nothing in return? 3 I know how many women will say that is all very well, but the husband and father should feel as much interest in the home and the children as the wife and mother does. 4 That is, of course, true up to a certain point, always in general, and when his help is really necessary in particular. 5 But a man cannot enter into the details of his wife's duties at home any more than a woman can enter into the details of her husband's duties at his office. 6 Then, again, my readers may say: "But a woman's nervous system is more sensitive than a man's; she needs help and consolation. She needs to have some one on whom she can lean." 7 Now the answer to that will probably be surprising, but an intelligent understanding and comprehension of it would make a very radical difference in the lives of many men and women who have agreed to live together for life-- for better and for worse. 8 Now the truth is man's nervous system is quite as sensitive as a woman's, but the woman's temptation to emotion makes her appear more sensitive, 9 and her failure to control her emotions ultimately increases the sensitiveness of her nerves so that they are more abnormal than her husband's. Even that is not always true. 10 The other day a woman sat in tears and distress telling of the hardness of heart, the restlessness, the irritability, the thoughtlessness, the unkindness of her husband. 11 Her face was drawn with suffering. She insisted that she was not complaining, that it was her deep and tender love for her husband that made her suffer so.

12 "But it is killing me, it is killing me," she said, and one who saw her could well believe it. 13 And if the distress and the great strain upon her nerves had kept on it certainly would have made her ill, if not have actually ended her life with a nervous collapse.

14 The friend in whom she confided sat quietly and heard her through. She let her pour herself out to the very finish until she stopped because there was nothing more to say. 15 Then, by means of a series of gentle, well-adapted questions, she drew from the wife a recognition-- for the first time-- of the fact that she really did nothing whatever for her husband and expected him to do everything for her. 16 Perhaps she put on a pretty dress for him in order to look attractive when he came home, but if he did not notice how well she looked, and was irritable about something in the house, she would be dissolved in tears because she had not proved attractive and pleased him. 17 Maybe she had tried to have a dinner that he especially liked; then if he did not notice the food, and seemed distracted about something that was worrying him, she would again be dissolved in tears because he "appreciated nothing that she tried to do for him."

18 Now it is perfectly true that this husband was irritable and brutal; he had no more consideration for his wife than he had for any one else. 19 But his wife was doing all in her power to fan his irritability into flame and to increase his brutality. She was attitudinising in her own mind as a martyr. 20 She was demanding kindness and attention and sympathy from her husband, and because she demanded it she never got it.

21 A woman can demand without demanding imperiously. There is more selfish demanding in a woman's emotional suffering because her husband does not do this or that or the other for her sake than there is in a tornado of man's irritability or anger. 22 You see, a woman's demanding spirit is covered with the mush of her emotions. A man's demanding spirit stands out in all its naked ugliness. One is just as bad as the other. One is just as repulsive as the other.

23 It is a radical, practical impossibility to bring loving-kindness out of any one by demanding it. 24 Loving-kindness, thoughtfulness, and consideration have got to be born spontaneously in a man's own mind to be anything at all, and no amount of demanding on the part of his wife can force it.

25 When this little lady of whom I have been writing found that she had been demanding from her husband what he really ought to have given her as a matter of course, 26 and that she had used up all her strength in suffering because he did not give it, and had used none of her strength in the effort to be patient and quiet in waiting for him to come to his senses, 27 she went home and began a new life. She was a plucky little woman and very intelligent when once her eyes were opened. 28 She recognised the fact that her suffering was resistance to her husband's irritable selfishness, and she stopped resisting.

29 It was a long and hard struggle of days, weeks, and months, but it brought a very happy reward. 30 When a man is irritable and ugly, and his wife offers no resistance either in anger or suffering, the irritability and ugliness react upon himself, and if there is something better in him he begins to perceive the irritability in its true colours. 31 That is what happened to this man. As his wife stopped demanding he began to give. As his wife's nerves became calm and quiet his nerves quieted and calmed. 32 Finally his wife discovered that much of his irritability had been roused through nervous anxiety in regard to his business about which he had told her nothing whatever because it "was not his way."

33 There is nothing in the world that so strengthens nerves as the steady use of the will to drop resistance and useless emotions and get a quiet control. 34 This woman gained that strength, and to her surprise one day her husband turned to her with a full account of all his business troubles and she met his mind quietly, as one business man might meet another, and without in the least expressing her pleasure or her surprise. 35 She took all the good change in him as a matter of course.

GOODNESS

36 Finally one day it came naturally and easily to talk over the past. She found that her husband from day to day had dreaded coming home. 37 The truth was that he had dreaded his own irritability as much as he had dreaded her emotional demanding. 38 But he did not know it-- he did not know what was the matter at all. He simply knew vaguely that he was a brute, that he felt like a brute, and that he did not know how to stop being a brute. 39 His wife knew that he was a brute, and at the same time she felt thoroughly convinced that she was a suffering martyr. 40 He was dreading to come home and she was dreading to have him come home-- and there they were in a continuous nightmare. 41 Now they have left the nightmare far, far behind, and each one knows that the other has one good friend in the world in whom he or she can feel entire confidence, and their friendship is growing stronger and clearer and more normal every day.

42 It is not the ceremony that makes the marriage: the ceremony only begins it. Marriage is a slow and careful adjustment. 43 A true story which illustrates the opposite of this condition is that of a man and woman who were to all appearances happily married for years. They were apparently the very closest friends. 44 The man's nerves were excitable and peculiar, and his wife adjusted herself to them by indulging them and working in every way to save him from friction. 45 No woman could stand that constant work of adjustment which was in reality maladjustment, and this wife's nerves broke down unexpectedly and completely.

46 When our nerves get weak we are unable to repress resistance which in a stronger state we had covered up. 47 This wife, while she had indulged and protected her husband's peculiarities, had subconsciously resisted them. 48 When she became ill her subconscious resistance came to the surface. She surprised herself by growing impatient with her husband. 49 He, of course; retorted. As she grew worse he did not find his usual comfort from her care, and instead of trying to help her to get well he turned his back

on her and complained to another woman. 50 Finally the friction of the two nervous systems became dangerously intense. Each was equally obstinate, and there was nothing to do but to separate. 51 The woman died of a broken heart, and the man is probably insane for the rest of his life.

52 It was nothing but the mismanagement of their own and each other's nerves that made all this terrible trouble. 53 Their love seemed genuine at first, and could certainly have grown to be really genuine if they had become truly adjusted. 54 And the saddest part of the whole story is that they were both peculiarly adapted to be of use to their fellow-humans. 55 During the first years of their life their home was a delight to all their friends.

56 Tired nerves are likely to close up a man or make him irritable, complaining, and ugly, whereas the tendency in a woman is to be irritable, complaining, and tearful. 57 Now of course when each one is selfishly looking out for his or her comfort neither one can be expected to understand the other. 58 The man thinks he is entirely justified in being annoyed with the woman's tearful, irritable complaints, and so he is-- in a way. 59 The woman thinks that she has a right to suffer because of her husband's irritable ugliness, and so she has-- in a way. 60 But in the truest way, and the way which appeals to every one's common-sense, neither one has a right to complain of the other, and each one by right should have first made things better and clearer in himself and herself.

61 Human nature is not so bad--really in its essence it is not bad at all. 62 If we only give the other man a real chance. It is the pushing and pulling and demanding of one human being toward another that smother the best in us, and make life a fearful strain. 63 Of course there is a healthy demanding as well as an unhealthy demanding, but, so far as I know, the healthy demanding can come only when we are clear of personal resistance and can demand on the strength of a true principle and without selfish emotion. 64 There is a kind of gentle, motherly contempt with which some women speak of their

husbands, which must get on a man's nerves very painfully. 65 It is intensely and most acutely annoying. And yet I have heard good women speak in that way over and over again. 66 The gentleness and motherliness are of course neither of them real in such cases. The gentle, motherly tone is used to cover up their own sense of superiority.

67 "Poor boy, poor boy," they may say; "a man is really like a child." So he may be-- so he often is childish, and sometimes childish in the extreme. 68 But where could you find greater and more abject childishness than in a woman's ungoverned emotions?

69 A woman must respect the manliness of her husband's soul, and must cling to her belief in its living existence behind any amount of selfish, restless irritability, if she is going to find a friend in him or be a friend to him. 70 She must also know that his nervous system may be just as sensitive as hers. Sometimes it is more sensitive, and should be accordingly respected. 71 Demand nothing and expect nothing, but hold him to his best in your mind and wait.

72 That is a rule that would work wonderfully if every woman who is puzzled about her husband's restlessness and lack of interest in home affairs would apply it steadily and for long enough. 73 It is impossible to manufacture a happy, sympathetic married life artificially-- impossible! 74 But as each one looks to one's self and does one's part fully, and then is willing to wait for the other, the happiness and the sympathy, 75 the better power for work and the joyful ability to play come-- they do come; they are real and alive and waiting for us as we get clear from the interferences.

76 "Why doesn't my husband like to stay with me when he comes home? Why can't we have nice, cozy times together?" a wife asks with sad longing in her eyes.

77 And to the same friend the husband says: "I should be glad to stay with Nellie often in the evening, but she will always talk about her worries, and she worries about the family in a way that is idiotic. 78 She is always sure that George will catch the measles

because a boy in the next street has them, and she is always sure that our children do not have the advantages nor the good manners that other children have. 79 If it is not one thing it is another; whenever we are alone there is something to complain of, and her last complaint was about her own selfishness." 80 Then he laughed at what he considered a good joke, and in five minutes had forgotten all about her.

81 This wife, in a weak, selfish little way, was trying to give her husband her confidence, and her complaint about her own selfishness was genuine. She wanted his help to get out of it. 82 If he had given her just a little gracious attention and told her how impossible it was really to discuss the children when she began the conversation with whining complaint, she would have allowed herself to be taught and their intercourse would have improved. 83 On the other hand, if the wife had realised that her husband came home from the cares of his business tired and nervous, 84 and if she had talked lightly and easily on general subjects and tried to follow his interests, when his nerves were rested and quiet she might have found him ready and able to give her a little lift with regard to the children.

85 It is interesting and it is delightful to see how, as we each work first to bear our own burdens, we not only find ourselves ready and able to lighten the burdens of others but find others who are helpful to us.

86 A woman who finds her husband "so restless and irritable" should remember that in reality a man's nervous system is just as sensitive as a woman's, 87 and, with a steady and consistent effort to bear her own burdens and to work out her own problems, should prepare herself to lighten her husband's burdens and help to solve his problems; 88 that is the truest way of bringing him to the place where he will be glad to share her burdens with her as well as his own.

89 But we want to remember that there is a radical difference between indulging another's selfishness, and waiting, with patient yielding, for him to discover his selfishness himself,

and to act unselfishly from his own free-will.

QUIET VS. CHRONIC EXCITEMENT

Annie Payson Call

10 SOME women live in a chronic state of excitement all the time and they do not find it out until they get ill. Even then they do not always find it out, and then they get more ill.

2 It is really much the same with excitable women as with a man who thinks he must always keep a little stimulant in himself in order to keep about his work. 3 When a bad habit is established in us we feel unnatural if we give the habit up for a moment-- and we feel natural when we are in it-- but it is poison all the same.

4 If a woman has a habit of constantly snuffing or clearing her throat, or rocking a rocking chair, or chattering to whoever may be near her she would feel unnatural and weird if she were suddenly wrenched out of any of these things. 5 And yet the poisoning process goes on just the same.

6 When it seems immaterial to us that we should be natural we are in a pretty bad way and the worst of it is we do not know it.

7 I once took a friend with me into the country who was one of those women who lived on excitement in every-day life. 8 When she dressed in the morning she dressed in excitement. She went down to breakfast in excitement. She went about the most humdrum everyday affairs excited. 9 Every event in life-- little or big-- was an excitement to her-- and she went to bed tired out with excitement-- over nothing.

10 We went deep in the woods and in the mountains, full of great powerful quiet. 11 When my friend first got there she was excited about her arrival, she was excited about the house and the people in it, but in the middle of the night she jumped up in bed with a groan of torture.

12 I thought she had been suddenly taken ill and started up quickly from my end of the room to see what was the trouble.

13 "Oh, oh," she groaned, "the quiet! It is so quiet!" Her brain which had been in a whirl of petty

excitement felt keen pain when the normal quiet touched it.

14 Fortunately this woman had common-sense and I could gradually explain the truth to her, and she acted upon it and got rested and strong and quiet.

15 I knew another woman who had been wearing shoes that were too tight for her and that pinched her toes all together. 16 The first time she wore shoes that gave her feet room enough the muscles of her feet hurt her so that she could hardly walk.

17 Of course, having been cramped into abnormal contraction the process of expanding to freedom would be painful.

18 If you had held your fist clenched tight for years, or months, or even weeks, how it would hurt to open it so that you could have free use of your fingers.

19 The same truth holds good with a fist that has been clenched, a foot that has been pinched, or a brain that has been contracted with excitement.

20 The process leading from the abnormal to the normal is always a painful one. To stay in the abnormal means blindness, constantly limiting power and death.

21 To come out into a normal atmosphere and into a normal way of living means clearer sight, constantly increasing power, and fresh life.

22 This habit of excitement is not only contracting to the brain; it has its effect over the whole body. If there is any organ that is weaker than any other the excitement eventually shows itself. 23 A woman may be suffering from indigestion, or she may be running up large doctor's bills because of either one of a dozen other organic disturbances, 24 with no suspicion that the cause of the whole trouble is that the noisy, excited, strained habits of her life have robbed her body of the vitality it needed to keep it in good running order.

25 As if an engineer threw his coal all over the road and having no fuel for his engine wondered that it would not run. Stupid women we are-- most of us!

26 The trouble is that many of us are so deeply immersed in the habit of excitement that we do not know it.

27 It is a healthy thing to test ourselves and to really try to find ourselves out. It is not only healthy; it is deeply interesting.

28 If quiet of the woods, or, any other quiet place, makes us fidgety, we may be sure that our own state is abnormal and we had better go into the woods as often as possible until we feel ourselves to be a part of the quiet there.

29 If we go into the woods and get soothed and quieted and then come out and get fussed up and excited so that we feel painfully the contrast between the quiet and our every-day life, 30 then we can know that we are living in the habit of abnormal excitement and we can set to work to stop it.

31 "That is all very well," I hear my readers say, "but how are you going to stop living in abnormal excitement when every circumstance and every person about you is full of it and knows nothing else?"

32 If you really want to do it and would feel interested to make persistent effort I can give you the recipe and I can promise any woman that if she perseveres until she has found the way she will never cease to be grateful.

33 If you start with the intention of taking the five minutes' search for quiet every day, do not let your intention be weakened or yourself discouraged if for some days you see no result at all.

34 At first it may be that whatever quiet you find will seem so strange that it will annoy you or make you very nervous, but if you persist and work right through, the reward will be worth the pains many times over.

35 Sometimes quieting our minds helps us to quiet our bodies; sometimes we must quiet our bodies first before we can find the way to a really quiet mind. 36 The attention of the mind to quiet the body, of course, reacts back on to the mind, and from there we can pass on to thinking quietly. 37 Each individual must judge for herself as to the best way of reaching the quiet. I will give several recipes and you can take your choice.

38 First, to quiet the body:—

(1.) Lie still and see how quietly you can breathe.

(2.) Sit still and let your head droop very slowly forward until finally it hangs down with its whole weight. 39 Then lift it up very, very slowly and feel as if you pushed it all the way up from the lower part of your spine, 40 or, better still, as if it grew up, so that you feel the slow, creeping, soothing motion all the way up your spine while your head is coming up, 41 and do not let your head come to an entirely erect position until your chest is as high as you can hold it comfortably. 42 When your head is erect take a long, quiet breath and drop it again. You can probably drop it and raise it twice in the five minutes. 43 Later on it should take the whole five minutes to drop it and raise it once and an extra two minutes for the long breath.

44 When you have dropped your head as far as you can, pause for a full minute without moving at all and feel heavy; then begin at the lower part of your spine and very slowly start to raise it. 45 Be careful not to hold your breath, and watch to breathe as easily and quietly as you can while your head is moving.

46 If this exercise hurts the back of your neck or any part of your spine, don't be troubled by it, but go right ahead and you will soon come to where it not only does not hurt, but is very restful.

47 When you have reached an erect position again stay there quietly--first take long gentle breaths and let them get shorter and shorter until they are a good natural length, 48 then forget your breathing altogether and sit still as if you never had moved, you never were going to move, and you never wanted to move.

49 This emphasises the good natural quiet in your brain and so makes you more sensitive to unquiet.

50 Gradually you will get the habit of catching yourself in states of unnecessary excitement; at such times you cannot go off by yourself and go through the exercises. 51 You cannot even stop where you are and go through them, but you can recall the impression made on your brain at the time you did them and in that way rule out your excitement and gain the real power that should be in its place.

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52 So little by little the state of excitement becomes as unpleasant as a cloud of dust on a windy day and the quiet is as pleasant as under the trees on top of a hill in the best kind of a June day.

53 The trouble is so many of us live in a cloud of dust that we do not suspect even the existence of the June day, 54 but if we are fortunate enough once or twice even to get to sneezing from the dust, and so to recognise its unpleasantness, then we want to look carefully to see if there is not a way out of it.

55 It is then that we can get the beginning of the real quiet which is the normal atmosphere of every human being.

56 But we must persist for a long time before we can feel established in the quiet itself. 57 What is worth having is worth working for-- and the more it is worth having, the harder work is required to get it.

58 Nerves form habits, and our nerves not only get the habit of living in the dust, but the nerves of all about us have the same habit. 59 So that when at first we begin to get into clear air, we may almost dislike it, and rush back into the dust again, because we and our friends are accustomed to it.

60 All that bad habit has to be fought, and conquered, and there are many difficulties in the way of persistence, but the reward is worth it all, as I hope to show in later articles.

61 I remember once walking in a crowded street where the people were hurrying and rushing, where every one's face was drawn and knotted, and nobody seemed to be having a good time. 62 Suddenly and unexpectedly I saw a man coming toward me with a face so quiet that it showed out like a little bit of calm in a tornado. 63 He looked like a common, every-day man of the world, so far as his dress and general bearing went, and his features were not at all unusual, but his expression was so full of quiet interest as to be the greatest contrast to those about him. 64 He was not thinking his own thoughts either-- he was one of the crowd and a busy, interested observer.

65 He might have said, "You silly geese, what are you making all this fuss about, you can do it much better if you will go more easily."

66 If that was his thought it came from a very kindly sense of humor, and he gave me a new realisation of what it meant, practically, to be in the world and not of it.

67 If you are in the world you can live, and observe, and take a much better part in its workings. 68 If you are of the world, you are simply whirled in an eddy of dust, however you may pose to yourself or to others.

THE TIRED EMPHASIS

Annie Payson Call

11 "I AM so tired, so tired-- I go to bed tired, I get up tired, and I am tired all the time."

2 How many women-- how many hundred women, how many thousand women-- say that to themselves and to others constantly.

3 It is perfectly true; they are tired all the time; they do go to bed tired and get up tired and stay tired all day.

4 If, however, they could only know how very much they increase their fatigue by their constant mental emphasis of it, 5 and if at the same time they could turn their wills in the direction of decreasing the fatigue, instead of emphasising it, 6 a very large percentage of the tired feeling could be done away with altogether.

7 Many women would gladly make more of an effort in the direction of rest if they knew how, and I propose in this article to give a prescription for the cure of the tired emphasis which, if followed, will bring happy results.

8 When you go to bed at night, no matter how tired you feel, instead of thinking how tired you are, think how good it is that you can go to bed to get rested.

9 It will probably seem absurd to you at first. You may say to yourself: "How ridiculous, going to bed to get rested, when I have only one short night to rest in, and one or two weeks in bed would not rest me thoroughly."

10 The answer to that is that if you have only one night in which to rest, you want to make the most of that night, and if you carry the tired emphasis to bed with you you are really holding on to the tired.

11 This is as practically true as if you stepped into a bog and then sat in it and looked forlorn and said. "What a terrible thing it is that I should be in a bog like this; just think of having to sit in a black, muddy bog all the time," 12 and staying there you made no effort whatever to get out of it, even though there was dry land right in front of you.

13 Again you may answer: "But in my tired bog there is no dry land in front of me, none at all."

I say to that, there is much more dry land than you think-- if you will open your eyes-- and to open your eyes you must make an effort.

14 No one knows, who has not tried, what a good strong effort will do in the right direction, when we have been living and slipping back in the wrong direction.

15 The results of such efforts seem at times wonderful to those who have learned the right direction for the first time.

16 To get rid of the tired emphasis when we have been fixed in it, a very strong effort is necessary at first, and gradually it gets easier, and easier, until we have cast off the tired emphasis entirely and have the habit of looking toward rest.

17 We must say to ourselves with decision in so many words, and must think the meaning of the words and insist upon it: "I am very tired. Yes, of course, I am very tired, but I am going to bed to get rested."

18 There are a hundred little individual ways that we can talk to ourselves, and turn ourselves toward rest, at the end of the day when the time comes to rest.

19 One way to begin, which is necessary to most of us, is to stop resisting the tired. 20 Every complaint of fatigue, whether it is merely in our own minds, or is made to others, is full of resistance, and resistance to any sort of fatigue emphasises it proportionately.

21 That is why it is good to say to ourselves: "Yes, I am tired; I am awfully tired. I am willing to be tired."

22 When we have used our wills to drop the nervous and muscular contractions that the fatigue has caused, we can add with more

emphasis and more meaning, "and I am going to bed to get rested."

23 Some one could say just here: "That is all very well for an ordinarily tired person, but it would never do me any good. I am too tired even to try it."

24 The answer to that is, the more tired you are, the more you need to try it, and the more interesting the experiment will be.

25 Also the very effort of your brain needed to cast off the tired emphasis will be new to you, and thought in a new direction is always restful in itself. 26 Having learned to cast off the tired emphasis when we go to bed at night, we can gradually learn to cast it off before we go to meals, and at odd opportunities throughout the day.

27 The more tired we are, the more we need to minimise our fatigue by the intelligent use of our own wills.

28 Who cares for a game that is simple and easy? Who cares for a game when you beat as a matter of course, and without any effort on your part at all?

29 Whoever cares for games at all cares most for good, stiff ones, where, when you have beaten, you can feel that you have really accomplished something; 30 and when you have not beaten, you have at least learned points that will enable you to beat the next time, or the next to the next time--or sometime. 31 And everyone who really loves a game wants to stick to it until you have conquered and is proficient.

32 Why not wake up, and realise that same interest and courage in this biggest game of all-- this game of life? We must play it!

33 Few of us are cowards enough to put ourselves out of it. Unless we play it and obey the rules we do not really play at all.

34 Many of us do not know the rules, but it is our place to look about and find them out.

35 Many more of us think that we can play the game better if we make up rules of our own, and leave out whatever regular rules we do know, that do not suit our convenience. But that never works.

36 It only sometimes seems to work; and although plain common-sense shows us over and over that the game played

according to our own ideas amounts to nothing, 37 it is strange to see how many work and push to play the game in their own way instead of in the game's way.

38 It is strange to see how many shove blindly in this direction, and that direction, to cut their way through a jungle, when there is the path just by them, if they will take it.

39 Most of us do not know our own power because we would rather stay in a ditch and complain.

40 Strength begets strength, and we can only find our greater power, by using intelligently, and steadily, the power we have.

HOW TO BE ILL AND GET WELL

Annie Payson Call

12 ILLNESS seems to be one of the hardest things to happen to a busy woman. Especially hard is it when a woman must live from hand to mouth, and so much illness means, almost literally, so much less food.

2 Sometimes one is taken so suddenly and seriously ill that it is impossible to think of whether one has food and shelter or not; one must just be taken care of or die. It does not seem to matter which at the time.

3 Then another must meet the difficulty. It is the little nagging illnesses that make the trouble-- 4 just enough to keep a woman at home a week or ten days or more, and deprive her of wages which she might have been receiving, and which she very much needs.

5 These are the illnesses that are hard to bear. Many a woman has suffered through an illness like this, which has dragged out from day to day, 6 and finally left her pale and weak, to return to her work with much less strength than she needs for what is before her.

7 After forcing herself to work day after day, her strength comes back so slowly, that she appears to go through another illness, on her feet, and "in the harness," before she can really call herself well again.

8 There are a few clear points which, if intelligently comprehended, could teach one how to meet an illness, 9 and if persistently acted upon, would not only shorten it, but would lighten

the convalescence so that when the invalid returned to her work she would feel stronger than before she was taken ill.

10 When one is taken with a petty illness, if it is met in an intelligent way, the result can be a good rest, and one feels much better, and has a more healthy appearance, than before the attack.

11 This effect has been so often experienced that with some people there is a little bit of pleasantry passed on meeting a friend, in the remark: "Why, how do you do; how well you look-- you must have been ill!"

12 If we remember when we are taken ill that nature always tends towards health, we will study carefully to fulfill Nature's conditions in order to cure the disease.

13 We will rest quietly, until Nature in Her process toward health has reached health. In that way our illness can be the means of giving us a good rest, 14 and, while we may feel the loss of the energy of which the disease has robbed us, we also feel the good effects of the rest which we have given to organs which were only tired.

15 These organs which have gained rest can, in their turn, help toward renewing the strength of the organs which had been out of order, 16 and thus we get up from an illness looking so well, and feeling so well, that we do not regret the loss of time, and feel ready to work, and to gradually make up the loss of money.

17 Of course, the question is, how to fulfill the conditions so that this happy result can be attained.

In the first place, ‘do not fret’.

18 "But how can I help not fretting?" someone will say, "when I am losing money every day, and do not know how many more days I may be laid up?"

19 The answer to that is: "If you will think of the common-sense of it, you can easily see that the strain of fretting is interfering radically with your getting well. 20 For when you are using up strength to fret, you are simply robbing yourself of the vitality which would be used directly in the cure of your illness."

21 Not only that, but the strain of fretting increases the strain of illness, and is not only preventing

you from getting well, but it is tending to keep you ill.

22 When we realise that fact, it seems as if it would be an easy matter to stop fretting in order to get well.

23 It is as senseless to fret about an illness, no matter how much just cause we may feel we have, as it would be to walk west when our destination was directly east.

24 Stop and think of it. Is not that true? Imagine a child with a pin pricking him, kicking, and screaming, and squirming with the pain, so that his mother-- try as carefully as she may-- takes five minutes to find the pin and get it out, 25 when she might have done it and relieved him in five seconds, if only the child had kept still and let her.

26 So it is with us when Mother Nature is working with wise steadiness to find the pin that is making us ill, and to get it out. 27 We fret and worry so that it takes her ten or twenty days to do the good work that she might have done in three.

28 In order to drop the fretting, we must use our wills to think, and feel, and act, so that the way may be opened for health to come to us in the quickest possible time.

29 Every contraction of worry which appears in the muscles we must drop, so that we lie still with a sense of resting, and waiting for the healing power, which is surely working within us, to make us well.

30 We can do this by a deliberate use of our wills. If we could take our choice between medicine, and the curative power of dropping anxiety and letting ourselves get well, there would be no hesitancy, provided we understood the alternatives.

31 I speak of fretting first because it is so often the strongest interference with health.

32 Defective circulation is the trouble in most diseases, and we should do all we can to open the channels so that the circulation, being free elsewhere, can tend to open the way to greater freedom in the part diseased. 33 The contractions caused by fretting impede the circulation still more, and therefore heighten the disease.

34 If once, by a strong use of the will, we drop the fretting and give ourselves up entirely to letting

Nature cure us, then we can study, with interest, to fulfill other necessary conditions. 35 We can give ourselves the right amount of fresh air, of nourishment, of bathing, and the right sort of medicine, if any is needed.

36 Thus, instead of interfering with Nature, we are doing all in our power to aid Her; and when Nature and the invalid work in harmony, health comes on apace.

37 When illness brings much pain and discomfort with it, the endeavor to relax out of the contractions caused by the pain, are of the same service as dropping contractions caused by the fretting.

38 If one can find a truly wise doctor, or nurse, in such an illness as I refer to, get full instructions in just one visit, and then follow those directions explicitly, only one visit will be needed, probably, and the gain from that will pay for it many times over.

39 This article is addressed especially to those who are now in health. It is perhaps too much to expect one in the midst of an illness to start at once with what we may call the curative attitude, although it could be done, 40 but if those who are now well and strong will read and get a good understanding of this healthy way of facing an illness, and get it into their subconscious minds, 41 they will find that if at any time they should be unfortunate enough to be attacked with illness, they can use the knowledge to very real advantage, and-- what is more-- they can, with the right tact, help others to use it also.

42 To see the common-sense of a process and, when we have not the opportunity to use the laws ourselves, to help others by means of our knowledge, impresses our own brains more thoroughly with the truth, especially if our advice is taken and acted upon and thus proved to be true.

43 It must not be forgotten, however, that to help another man or woman to a healthy process of getting well requires gentle patience and quiet, steady, unremitting tact.

GOODNESS

IS PHYSICAL CULTURE
GOOD FOR GIRLS?
Annie Payson Call

13 A NUMBER of women were watching a game of basket-ball played by some high-school girls. 2 In the interim for rest one woman said to her neighbour: "Do you see that girl flat on her back, looking like a very heavy bag of sand?"

3 "Yes," the answer was; "what under the sun is she doing that for? She looks heavy and lazy and logy, while the other girls are talking and laughing and having a good time."

"You wait and watch her play," responded the first woman. 4 And so they waited and watched, and to the astonishment of the friend the girl who had looked "lazy and logy," lying flat on her back during the rest-time, was the most active of the players, and really saved the game.

5 When the game was finished the woman said to her friend with surprise in her voice: "How did you see through that, and understand what that girl was aiming for?"

6 The answer was: "Well, I know the girl, and both she and I have read Kipling's 'The Maltese Cat.' Don't you remember how the best polo ponies in that story, when they were off duty, hung their heads and actually made themselves looked fagged, in order to be fresher when the time came to play? 7 And how 'The Maltese Cat' scouted the silly ponies who held their heads up and kicked and looked alert while they waited? And don't you remember the result?"

8 "No, I never read the story, but I have certainly seen your point prove itself to-day. I shall read it at once. Meanwhile, I want to speak to that clever girl who could catch a point like that and use it."

9 "Take care, please, that you do not mention it to her at all," said the friend. "You will draw her attention back to herself and likely as not make her lose the next game. Points like that have got to be worked on without self-consciousness, not talked about."

10 And so the women told the child they were glad that her side won the game and never mentioned her own part in it at all. 11 After all she had only found the law that the more passive you can be when it is time to rest, the more alert you are and the more powerful in activity. 12 The polo pony knew it as a

matter of course. We humans have to discover it.

13 Let us, just for the interest of it, follow that same basket-ball player a little more closely. Was she well developed and evenly trained in her muscles? Yes, very. 14 Did she go to gymnasium, or did she scorn it? She went, twice a week regularly, and had good fun there; 15 but there was just this contrast between her and most of the girls in the class: Jane, as we will call her, went to gymnasium as a means to an end. 16 She found that she got an even development there which enabled her to walk better, to play better, and to work better. 17 In gymnasium she laid her muscular foundation on which to build all the good, active work of her life. 18 The gymnasium she went to, however, was managed in an unusual way except for the chest weights, which always "opened the ball," the members of the class never knew what work they were to do. 19 Their minds were kept alert throughout the hour and a half. If their attention wavered they tripped or got behind in the exercise, 20 and the mental action which went into the movement of every muscle made the body alive with the healthy activity of a well-concentrated, well-directed mind.

21 Another point which our young friend learned at gymnasium was to direct her mind only on to the muscles that were needed. 22 Did you ever try to clench your fist so tight that it could not be opened? If not, try it, and relax all over your body while you are keeping your fist tight closed. 23 You will see that the more limp your body becomes the tighter you can keep your fist clenched. All the force goes in that one direction. 24 In this way a moderately strong girl can keep a strong man hard at work for several minutes before he can make any impression on the closed hand. 25 That illustrates in a simple way the fact that the most wholesome concentration is that which comes from dropping everything that interferes-- letting the force of mind or body flow only in the direction in which it is to be used.

26 Many girls use their brains in the wrong way while on the gymnasium floor by saying to themselves, "I cannot do that."

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27 The brain is so full of that thought that the impression an open brain would receive has no chance to enter, and the result is an awkward, nervous, and uncertain movement. 28 If a girl's brain and muscle were so relaxed that the impression on the one would cause a correct use and movement of the other how easy it would be thereafter to apply the proper tension to the muscle at the proper time without overtaxing the nerves.

29 Some one has well said that "it is training, not straining, that we want in our gymnasiums." Only when a girl is trained from this point of view does she get real training.

30 This basket-ball player had also been taught how to rest after exercise in a way which appealed to her especially, because of her interest which had already been aroused in Kipling's polo pony. 31 She was taught intelligently that if, after vigourous exercise, when the blood is coursing rapidly all over the body, you allow yourself to be entirely open and passive, 32 the blood finds no interruptions in its work and can carry away the waste matter much more effectually. In that way you get the full result of the exercise. 33 It is not necessary always to lie down to have your body passive enough after vigourous exercise to get the best results. 34 If you sit down after exercise you want to sit without tension. 35 Or if you walk home from gymnasium you want to walk loosely and freely, keeping your chest up and a little in advance, and pushing with the ball of your back foot with a good, rhythmic balance. 36 As this is the best way to sit and the best way to walk--gymnasium or no gymnasium-- to look out for a well-balanced sitting and a well-balanced walk directly after vigourous exercise, keeps us in good form for sitting and walking all the time.

37 I know of a professor in one of our large colleges who was offered also a professorship in a woman's college, and he refused to accept because he said women's minds did not react. 38 When he lectured to girls he found that, however attentively they might seem to listen, there was no response. They gave nothing in return.

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39 Of course this is not true of all girls, and of course the gentleman who refused the chair in the woman's college would agree that it is not true of all girls, 40 but if those who read the anecdote would, instead of getting indignant, just look into the matter a little, they would see how true it is of many girls, 41 and by thinking a little further we can see that it is not at present the girls' fault. A hundred years ago girls were not expected to think. 42 I remember an anecdote which a very intelligent old lady used to tell me about her mother. Once, when she was a little girl, her mother found some fault with her which the daughter knew to be unjust, 43 and she answered timidly, "But, Mother, I think--" "Abigail," came the sharp reminder, "you've no business to think."

44 One hundred years ago it was only the very exceptional girls who really thought. Now we are gradually working toward the place where every girl will think. 45 And surely it cannot be very long now before the united minds of a class of college girls will have the habit of reacting so that any man will feel in his own brain a vigourous result from lecturing to them.

46 This fact that a girl's brain does not react is proved in many ways. Most of the women who come to nerve specialists seem to feel that they are to sit still and be cured, while the men who come respond and do their part much more intelligently-- 47 the result being that men get out of "nerves" in half the time and stay out, whereas girls often get out a little way and slump (literally slump) back again before they can be helped to respond truly enough to get well and keep themselves well. 48 This information is given only with an idea of stirring girls up to their best possibilities, 49 for there is not a woman born with a sound mind who is not capable of reacting mentally, in a greater or less degree, to all that she hears, provided she uses her will consciously to form the new habit. 50 Now this need of intelligent reaction is just the trouble with girls and physical culture. Physical culture should be a means to an end-- and that is all, absolutely all.

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51 It is delightful and strengthening when it is taught thoughtfully as a means to an end, and I might almost say it is only weakening when it is made an end in itself.

52 Girls need to react intelligently to what is given them in physical training as much as to what is given them in a lecture on literature or philosophy or botany. 53 How many girls do we know who take physical culture in a class, often simply because it is popular at the time, and never think of taking a long walk in the country-- never think of going in for a vigourous outdoor game? 54 How many girls do we know who take physical culture and never think of making life easy for their stomachs, or seeing that they get a normal amount of sleep? 55 Exercise in the fresh air, with a hearty objective interest in all that is going on about us, is the very best sort of exercise that we can take, 56 and physical culture is worse than nothing if it is not taken only as a means to enable us to do more in the open air, and do it better, and gain from it more life.

57 There is one girl who comes to my mind of whom I should like to tell because she illustrates truly a point that we cannot consider too carefully. 58 She went to a nerve specialist very much broken in health, and when asked if she took plenty of exercise in the open air she replied "Yes, indeed." 59 And it was proved to be the very best exercise. She had a good horse, and she rode well; she rode a great deal, and not too much. 60 She had interesting dogs and she took them with her. She walked, too, in beautiful country. 61 But she was carrying in her mind all the time extreme resistance to other circumstances of her life. 62 She did not know how to drop the resistance or face the circumstances, and the mental strain in which she held herself day and night, waking or sleeping, prevented the outdoor exercise from really refreshing her. 63 When she learned to face the circumstances then the exercise could do its good work.

64 On the other hand, there are many forms of nervous resistance and many disagreeable moods which good, vigourous exercise

will blow away entirely, 65 leaving our minds so clear that we wonder at ourselves, and wonder that we could ever have had those morbid thoughts.

66 The mind acts and the body reacts, the body acts and the mind reacts, but of course at the root of it all is the real desire for what is normal, or-- alas!-- the lack of that desire.

67 If physical culture does not make us love the open air, if it does not make us love to take a walk or climb a mountain, if it does not help us to take the walk or climb the mountain with more freedom, 68 if it does not make us move along outdoors so easily that we forget our bodies altogether, and only enjoy what we see about us and feel how good it is to be alive-- 69 why, then physical culture is only an ornament without any use.

70 There is an interesting point in mountain-climbing which I should like to speak of, by the way, and which makes it much pleasanter and better exercise. 71 If, after first starting-- and, of course, you should start very slowly and heavily, like an elephant-- you get out of breath, let yourself stay out of breath. 72 Even emphasise the being out of breath by breathing harder than your lungs started to breathe, and then let your lungs pump and pump and pump until they find their own equilibrium. 73 The result is delightful, and the physical freedom that follows is more than delightful.

74 I remember seeing two girls climbing in the high Rocky Mountains in this way, when other women were going up on ponies. 75 Finally one of the guides looked back, and with an expression of mild astonishment said "Well, you have lungs!" This was a very pleasant proof of the right kind of breathing.

76 There are many good points for climbing and walking and swimming and all outdoor exercise that can be gained from the best sort of physical culture; 77 and physical culture is good for girls when it gives these points and leads to a spontaneous love for outdoor exercise. But when it results only in a self-conscious pose of the body then it is harmful.

78 We want to have strong bodies, free for every normal action, with

quiet nerves, and muscles well coordinated. 79 Then our bodies are merely instruments: good, clean, healthy instruments. They are the "mechanism of the outside." 80 And when the mechanism of the outside is well oiled and running smoothly it can be forgotten.

81 There can be no doubt but that physical culture is good for girls provided it is given and taken with intelligent interest, but it must be done thoroughly to be done to real advantage. 82 As, for instance, the part the shower-bath plays after exercising is most important, for it equalises the circulation. 83 Physical culture is good for girls who have little or no muscular action in their daily lives, for it gives them the healthiest exercise in the least space of time, and prepares them to get more life from exercise outdoors. 84 It is good for girls whose daily lives are full of activity, because it develops the unused muscles and so rests those that have been overused. 85 Many a hardworking girl has entered the gymnasium class tired and has left it rested.

WORKING RESTFULLY

Annie Payson Call

14 ONCE met a man who had to do an important piece of scientific work in a given time. 2 He worked from Saturday afternoon at 2-o'clock until Monday morning at 10 o'clock without interruption, except for one hour's sleep and the necessary time it took for nourishment.

3 After he had finished, he was, of course, intensely tired, but instead of going right to bed and to sleep, and taking all that brain strain to sleep with him he took his dog and his gun and went hunting for several hours.

4 Turning his attention to something so entirely different gave the other part of his brain a chance to recover itself a little. 5 The fresh air revived him, and the gentle exercise started up his circulation, 6 If he had gone directly to sleep after his work, the chances are that it would have taken him days to recover from the fatigue, for Nature would have had too much against Her to have reacted quickly from so abnormal a strain-- 7 getting an entire change

of attention and starting up his circulation in the fresh air gave Nature just the start She needed. After that She could work steadily while he slept, and he awakened rested and refreshed.

8 To write from Saturday afternoon until Monday morning seems a stupid thing to do-- no matter what the pressure is. 9 To work for an abnormal time or at an abnormal rate is almost always stupid and short sighted.

10 There are exceptions, however, and it would be good if for those exceptions people knew how to take the best care of themselves. 11 But it is not only after such abnormal work that we need to know how to react most restfully. It is important after all work, and especially for those who have some steady labour for the whole day.

12 Every one is more or less tired at the end of the day and the temptation is to drop into a chair or lie down on the sofa or to go right to bed and go to sleep. Don't do it.

13 Get some entire, active change for your brain, if it is only for fifteen minutes or half an hour. If you live in the city, even to go to walk and look into the shop windows is better than nothing. 14 In that way you get fresh air, and if one knows how to look into shop windows without wanting anything or everything they see there, then it is very entertaining.

15 It is a good game to look into a shop window for two or three minutes and then look away and see how well you can remember everything in it. It is important always to take shop windows that are out of one's own line of work.

16 If you live in the country, a little walk out of doors is pleasanter than in the city, for the air is better; and there is much that is interesting, in the way of trees and sky, and stars, at night.

17 As you walk, make a conscious effort to look out and about you. Forget the work of the day, and take good long breaths.

18 When you do not feel like going out of doors, take a story book-- or some other reading, if you prefer-- and put your mind right on it for half an hour. 19 The use of a really good novel cannot be overestimated. It not only serves as recreation, but it introduces us

to phases of human nature that otherwise we would know nothing whatever about. 20 A very great change from the day's work can be found in a good novel and a very happy change.

21 If the air in the theaters were fresher and good seats did not cost so much a good play, well acted, would be better than a good novel.

22 Sometimes it freshens us up to play a game after the day's work is over, and for those who love music there is of course the greatest rest in that. But there again comes in the question of cost.

23 Why does not some kind soul start concerts for the people where, for a nominal admission, the best music can be heard? 24 And why does not some other kind soul start a theater for the people where, for a very small price of admission, they can see the best plays and see them well acted?

25 We have public libraries in all our cities and towns, and a librarian in one large city loves to tell the tale of a poor woman in the slums with her door barred with furniture for fear of the drunken raiders in the house, quietly reading a book from the public library.

26 There are many similar stories to go with that. If we had really good theaters and really good concerts to be reached as simply and as easily as the books in our public libraries, the healthy influence throughout the cities would be proportionately increased. 27 The trouble is that people cater as much to the rich with their ideas of a national theater as the theatrical syndicate itself.

28 I could not pretend to suggest amusements that would appeal to any or every reader, but I can make my point clear that when one is tired it is healthy to have a change of activity before going to rest.

29 "Oh," I hear, "I can't! I can't! I am too tired."

I know the feeling.

30 I have no doubt the man who wrote for nearly two days had a very strong tendency to go right to bed, but he had common-sense behind it, and he knew the result would be better if he followed his common-sense rather than his inclination. And so it proved.

GOODNESS

31 It seems very hard to realise that it is not the best thing to go right to bed or to sit and do nothing when one is so tired as to make it seem impossible to do anything else.

32 It would be wrong to take vigourous physical exercise after great brain or body fatigue, but entire change of attention and gentle exercise is just what is needed, although care should always be taken not to keep at it too long. 33 Any readers who make up their minds to try this process of resting will soon prove its happy effect.

34 A quotation from a recent daily paper reads, "'Rest while you work,' says Annie Payson Call,"-- and then the editor adds, "and get fired," and although the opportunity for the joke was probably thought too good to lose, it was a natural misinterpretation of a very practical truth.

35 I can easily imagine a woman-- especially a tired out and bitter woman-- reading directions telling how to work restfully and exclaiming with all the vehemence of her bitterness: 36 "That is all very well to write about. It sounds well, but let any one take hold of my work and try to do it restfully".

37 "If my employer should come along and see me working in a lazy way like that, he would very soon discharge me. No, no. I am tired out; I must keep at it as long as I can, and when I cannot keep at it any longer, I will die-- and there is the end."

38 "It is nothing but drudge, drudge for your bread and butter-- and what does your bread and butter amount to when you get it?"

39 There are thousands of women working to-day with bodies and minds so steeped in their fatigue that they cannot or will not take an idea outside of their rut of work. 40 The rut has grown so deep, and they have sunken in so far that they cannot look over the edge.

41 It is true that it is easier to do good hard work in the lines to which one has been accustomed than to do easy work which is strange. 42 Nerves will go on in old accustomed habits-- even habits of tiresome strain-- more easily than they will be changed into new habits of working without strain.

43 The mind, too, gets saturated with a sense of fatigue until the

fatigue seems normal, and to feel well rested would-- at first-- seem abnormal. 44 This being a fact, it is a logical result that an habitually tired and strained mind will indignantly refuse the idea that it can do more work and do it better without the strain.

45 There is a sharp corner to be turned to learn to work without strain, when one has had the habit of working with it. 46 After the corner is turned, it requires steady, careful study to understand the new normal habit of working restfully, and to get the new habit established.

47 When once it is established, this normal habit of work develops its own requirements, and the working without strain becomes to us an essential part of the work itself.

48 For taken as a whole, more work is done and the work is done better when we avoid strain than when we do not. 49 What is required to find this out is common-sense and strength of character.

50 Character grows with practice; it builds and builds on itself when once it has a fair start, and a very little intelligence is needed if once the will is used to direct the body and mind in the lines of common-sense.

51 Intelligence grows, too, as we use it. Everything good in the soul grows with use; everything bad, destroys.

52 Let us make a distinction to begin with between "rest while you work" and "working restfully."

53 "Rest while you work" might imply laziness. There is a time for rest and there is a time for work. When we work we should work entirely. When we rest we should rest entirely.

54 If we try to mix rest and work, we do neither well. That is true. But if we work restfully, we work then with the greatest amount of power and the least amount of effort.

55 That means more work and work better done after the right habit is established than we did before, when the wrong habit was established. 56 The difficulty comes, and the danger of "getting fired," when we are changing our habit. To obviate that difficulty,

we must be content to change our habit more slowly.

57 Suppose we come home Saturday night all tired out; go to bed and go to sleep, and wake Sunday almost more tired than when we went to bed. On Sunday we do not have to go to work.

58 Let us take a little time for the sole purpose of thinking our work over, and trying to find where the unnecessary strain is.

59 "But," I hear some one say, "I am too tired to think." Now it is a scientific fact that when our brains are all tired out in one direction, if we use our wills to start them working in another direction, they will get rested.

60 "But," again I hear, "if I think about my work, why isn't that using my brain in the same direction?" Because in thinking to apply new principles to work, of which you have never thought before, you are thinking in a new direction.

61 Not only that, but in applying new and true principles to your work you are bringing new life into the work itself.

62 On this Sunday morning, when you take an hour to devote yourself to the study of how you can work without getting overtired ask yourself the following questions:—

63 (1) "What do I resist in or about my work?" Find out each thing that you do resist, and drop the contractions that come in your body, with the intention of dropping the resistances in your mind.

64 (2) "Do I drop my work at meals and eat quietly?"

65 (3) "Do I take every opportunity that I can to get fresh air, and take good, full breaths of it?"

66 (4) "Do I feel hurried and pushed in my work? Do I realise that no matter how much of a hurry there may be, I can hurry more effectively if I drop the strain of the hurry?"

67 (5) "How much superfluous strain do I use in my work? Do I work with a feeling of strain? How can I observe better in order to become conscious of the strain and drop it?"

68 These are enough questions for one time! If you concentrate on these questions and on finding the answers, and do it diligently, you will be surprised to see how the true answers will come to you, and

how much clearer they will become as you put them into daily practice.

IMAGINARY VACATIONS

Annie Payson Call

15 ONCE a young woman who had very hard work to do day after day and who had come to where she was chronically strained and tired, turned to her mother just as she was starting for work in the morning, and in a voice tense with fatigue and trouble, said:—

2 "Mother, I cannot stand it. I cannot stand it. Unless I can get a vacation long enough at least to catch my breath, I shall break down altogether."

3 "Why don't you take a vacation today?" asked her mother. The daughter got a little irritated and snapped out:—-

4 "Why do you say such a foolish thing as that, Mother? You know as well as I that I could not leave my work to-day."

5 "Don't be cross, dear. Stop a minute and let me tell you what I mean. I have been thinking about it and I know you will appreciate what I have to say, and I know you can do it. Now listen." 6 Whereupon the mother went on to explain quite graphically a process of pretense--good, wholesome pretense.

7 To any one who has no imagination this would not or could not appeal. To the young woman of whom I write, it not only appealed heartily, but she tried it and made it work. 8 It was simply that she should play that she had commenced her vacation and was going to school to amuse herself.

9 As, for instance, she would say to herself, and believe it: "Isn't it good that I can have a vacation and a rest. What shall I do to get all I can out of it?

10 "I think I will go and see what they are doing in the grammar school. Maybe when I get there it will amuse me to teach some of the children. 11 It is always interesting to see how children are going to take what you say to them and to see the different ways in which they recite their lessons."

12 By the time she got to school she was very much cheered. Looking up she said to herself: "This must be the building."

13 She had been in it every school day for five years past, but through the process of her little game it looked quite new and strange now.
14 She went in the door and when the children said "good morning," and some of them seemed glad to see her, she said to herself: "Why, they seem to know me; I wonder how that happens?" 15 Occasionally she was so much amused at her own consistency in keeping up the game that she nearly laughed outright. 16 She heard each class recite as if she were teaching for the first time. She looked upon each separate child as if she had never seen them before and they were interesting to her as a novel study.
17 She found the schoolroom more cheerful and was surprised into perceiving a pleasant sort of silent communication that started up between her pupils and herself.
18 When school was over she put on her hat and coat to go home, with the sense of having done something restful; 19 and when she appeared to her mother, it was with a smiling, cheerful face, which made her mother laugh outright; 20 and then they both laughed and went out for a walk in the fresh air, before coming in to go to bed, and be ready to begin again the next day.
21 In the morning the mother felt a little anxious and asked timidly: "Do you believe you can make it work again today, just as well as yesterday?"
"Yes, indeed and better," said the daughter. "It is too much fun not to go on with it."
22 After breakfast the mother with a little roguish twinkle, said: "Well, what do you think you will do to amuse yourself to-day, Alice?"
"Oh! I think--" and then they both laughed and Alice started off on her second day's "vacation."
23 By the end of a week she was out of that tired rut and having a very good time. 24 New ideas had come to her about the school and the children; in fact, from being dead and heavy in her work, she had become alive.
25 When she found the old tired state coming on her again, she and her mother always "took a vacation," and every time avoided the tired rut more easily.
26 If one only has imagination enough, the helpfulness and

restfulness of playing "take a vacation" will tell equally well in any kind of work.

27 You can play at dressmaking-- play at millinery-- play at keeping shop. You can make a game of any sort of drudgery, and do the work better for it, as well as keep better rested and more healthy yourself. 28 But you must be steady and persistent and childlike in the way you play your game.

29 Do not stop in the middle and exclaim, "How silly!"-- and then slump into the tired state again.

30 What I am telling you is nothing more nor less than a good healthy process of self-hypnotism. 31 Really, it is more the attitude we take toward our work that tires us than the work itself. 32 If we could only learn that and realise it as a practical fact, it would save a great deal of unnecessary suffering and even illness.

33 We do not need to play vacation all the time, of course. The game might get stale then and lose its power. 34 If we play it for two or three days, whenever we get so tired that it seems as if we could not bear it-- play it just long enough to lift ourselves out of the rut-- then we can "go to work again" until we need another vacation.

35 We need not be afraid nor ashamed to bring back that childlike tendency-- it will be of very great use to our mature minds.

36 If we try to play the vacation game, it is wiser to say nothing about it. It is not a game that we can be sure of sharing profitably either to ourselves or to others.

37 If you find it works, and give the secret to a friend, tell her to play it without mentioning it to you, even though she shares your work and is sitting in the next chair to you.

38 Another most healthy process of resting while you work is by means of lowering the pressure.

39 Suppose you were an engine, whose normal pressure was six hundred pounds, we will say. Make yourself work at a pressure of only three hundred pounds.

40 The human engine works with so much more strain than is necessary, 41 that if a woman gets overtired and tries to lighten her work by lightening the pressure with which she does it, she will

find that really she has only thrown off the unnecessary strain, 42 and is not only getting over her fatigue by working restfully, but is doing her work better, too.

43 In the process of learning to use less pressure, the work may seem to be going a little more slowly at first, but we shall find that it will soon go faster, and better, as time establishes the better habit.

44 One thing seems singular; and yet it appeals entirely to our common-sense as we think of it. There never comes a time when we cannot learn to work more effectively at a lower pressure. 45 We never get to where we cannot lessen our pressure and thus increase our power.

46 The very interest of using less pressure adds zest to our work, however it may have seemed like drudging before, 47 and the possibility of resting while we work opens to us much that is new and refreshing, and gives us clearer understanding of how to rest more completely while we rest.

48 All kinds of resting, and all kinds of working, can bring more vitality than most of us know, until we have learned to rest and to work without strain.

THE WOMAN AT THE NEXT DESK

Annie Payson Call

16 IT may be the woman sewing in the next chair; it may be the woman standing next at the same counter; it may be the woman next at a working table, or it may be the woman at the next desk.

2 Whichever one it is, many a working woman has her life made wretched by her, 3 and it would be a strange thing for this miserable woman to hear and a stranger thing-- at first-- for her to believe that the woman at the next desk need not trouble her at all.

4 That, if she only could realise it, the cause of the irritation which annoyed her every day and dragged her down so that many and many a night she had been home with a sick headache was entirely and solely in herself 5 and not at all in the woman who worked next to her, however disagreeable that woman may have been.

GOODNESS

6 Every morning when she wakes the woman at the next desk rises before her like a black specter. 7 "Oh, I would not mind the work; I could work all day happily and quietly and go home at night and rest; the work would be a joy to me compared to this torture of having to live all day next to that woman."

8 It is odd, too, and true, that if the woman at the next desk finds that she is annoying our friend, unconsciously she seems to ferret out her most sensitive places and rub them raw with her sharp, discourteous words.

9 She seems to shirk her own work purposely and to arrange it so that the woman next her must do the work in her place. 10 Then, having done all in her power to give the woman next her harder labour, she snaps out a little scornful remark about the mistakes that have been made.

11 If she-- the woman at the next desk-- comes in in the morning feeling tired and irritable herself, she vents her irritability on her companion until she has worked it off and goes home at night feeling much better herself, while her poor neighbour goes home tired out and weak.

12 The woman at the next desk takes pains to let little disagreeable hints drop about others-- if not directly in their hearing at least in ways which she knows may reach them.

13 She drops hint to others of what those in higher office have said or appeared to think, which might frighten "others" quite out of their wits for fear of their being discharged, and then, where should they get their bread and butter?

14 All this and more that is frightful and disagreeable and mean may the woman at the next desk do; or she may be just plain, every-day ‘ugly’.

15 Every one knows the trying phases of her own working neighbour. But with all this, and with worse possibilities of harassment than I have even touched upon, the woman at the next desk is powerless, so far as I am concerned, if I choose to make her so.

16 The reason she troubles me is because I resist her. If she hurts my feelings, that is the same thing.

17 I resist her, and the resistance, instead of making me angry, makes me sore in my nerves and makes me want to cry. 18 The way to get independent of her is not to resist her, and the way to learn not to resist her is to make a daily and hourly study of dropping all resistances to her.

19 This study has another advantage, too; if we once get well started on it, it becomes so interesting that the concentration on this new interest brings new life in itself.

20 Resistance in the mind brings contraction in the body. 21 If, when we find our minds resisting that which is disagreeable in another, we give our attention at once to finding the resultant contraction in our bodies, 22 and then concentrate our wills on loosening out of the contraction, we cannot help getting an immediate result.

23 Even though it is a small result at the beginning, if we persist, results will grow until we, literally, find ourselves free from the woman at the next desk.

24 This woman says a disagreeable thing; we contract to it mind and body. 25 We drop the contraction from our bodies, with the desire to drop it from our minds, for loosening the physical tension reacts upon the mental strain and relieves it.

26 We can say to ourselves quite cheerfully: "I wish she would go ahead and say another disagreeable thing; I should like to try the experiment again." 27 She gives you an early opportunity and you try the experiment again, and again, and then again, until finally your brain gets the habit of trying the experiment without any voluntary effort on your part. 28 That habit being established, ‘you are free from the woman at the next desk’. She cannot irritate you nor wear upon you, no matter how she tries, no matter what she says, or what she does.

29 There is, however, this trouble about dropping the contraction. We are apt to have a feeling of what we might call "righteous indignation" at annoyances which are put upon us for no reason; 30 that, so-called, "righteous indignation" takes the form of resistance and makes physical contractions.

31 It is useless to drop the physical contraction if the indignation is going to rise and tighten us all up again. 32 If we drop the physical and mental contractions we must have something good to fill the open channels that have been made. 33 Therefore let us give our best attention to our work, and if opportunity offers, do a kindness to the woman at the next desk.

34 Finally, when she finds that her ways do not annoy, she will stop them. She will probably, for a time at first, try harder to be disagreeable, 35 and then after recovering from several surprises at not being able to annoy, she will quiet down and grow less disagreeable.

36 If we realise the effect of successive and continued resistance upon ourselves and realise at the same time that we can drop or hold those resistances as we choose to work to get free from them, or suffer and hold them, 37 then we can appreciate the truth that if the woman at the next desk continues to annoy us, it is our fault entirely, and not hers.

TELEPHONES AND TELEPHONING

Annie Payson Call

17 MOST men-- and women-- use more nervous force in speaking through the telephone than would be needed to keep them strong and healthy for years.

2 It is good to note that the more we keep in harmony with natural laws the more quiet we are forced to be.

3 Nature knows no strain. True science knows no strain. Therefore ‘a strained high-pitched voice does not carry over the telephone wire as well as a low one’.

4 If every woman using the telephone would remember this fact the good accomplished would be thricefold. 5 She would save her own nervous energy. She would save the ears of the woman at the other end of the wire. She would make herself heard.

6 Patience, gentleness, firmness-- a quiet concentration-- all tell immeasurably over the telephone wire. 7 Impatience, rudeness, indecision, and diffuseness blur communication by telephone even more than they do when one is

face to face with the person talking.

8 It is as if the wire itself resented these inhuman phases of humanity and spit back at the person who insulted it by trying to transmit over it such unintelligent bosh.

9 There are people who feel that if they do not get an immediate answer at the telephone they have a right to demand and get good service by means of an angry telephonic sputter.

10 The result of this attempt to scold the telephone girl is often an impulsive, angry response on her part-- which she may be sorry for later on-- and if the service is more prompt for that time it reacts later to what appears to be the same deficiency.

11 No one was ever kept steadily up to time by angry scolding. It is against reason.

12 To a demanding woman who is strained and tired herself, a wait of ten seconds seems ten minutes. 13 I have heard such a woman ring the telephone bell almost without ceasing for fifteen minutes. I could hear her strain and anger reflected in the ringing of the bell. 14 When finally she "got her party" the strain in her high-pitched voice made it impossible for her to be clearly understood. 15 Then she got angry again because "Central" had not "given her a better connection," and finally came away from the telephone nearly in a state of nervous collapse and insisted that the telephone would finally end her life. 16 I do not think she once suspected that the whole state of fatigue which had almost brought an illness upon her was absolutely and entirely her own fault.

17 The telephone has no more to do with it than the floor has to do with a child's falling and bumping own head.

18 The worst of this story is that if any one had told this woman that her tired state was all unnecessary, it would have roused more strain and anger, more fatigue, and more consequent illness.

19 Women must begin to find out their own deficiencies before they are ready to accept suggestions which can lead to greater freedom and more common-sense.

20 Another place where science and inhuman humanity do not blend is in the angry moving up

and down of the telephone hook. 21 When the hook is moved quickly and without pause it does not give time for the light before the telephone girl to flash, therefore she cannot be reminded that any one is waiting at the other end.

22 When the hook is removed with even regularity and a quiet pause between each motion then she can see the light and accelerate her action in getting "the other party."

23 I have seen a man get so impatient at not having an immediate answer that he rattled the hook up and down so fast and so vehemently as to nearly break it. 24 There is something tremendously funny about this. The man is in a great hurry to speak to some one at the other end of the telephone, 25 and yet he takes every means to prevent the operator from knowing what he wants by rattling his hook. 26 In addition to this his angry movement of the hook is fast tending to break the telephone, so that he cannot use it at all. 27 So do we interfere with gaining what we need by wanting it overmuch!

28 I do not know that there has yet been formed a telephone etiquette; but for the use of those who are not well bred by habit it would be useful to put such laws on the first page of the telephone book. 29 A lack of consideration for others is often too evident in telephonic communication.

30 A woman will ask her maid to get the number of a friend's house for her and ask the friend to come to the telephone, and then keep her friend waiting while she has time to be called by the maid and to come to the telephone herself. 31 This method of wasting other people's time is not confined to women alone. 32 Men are equal offenders, and often greater ones, for the man at the other end is apt to be more immediately busy than a woman under such circumstances.

33 To sum up: The telephone may be the means of increasing our consideration for others; our quiet, decisive way of getting good service; 34 our patience, and, through the low voice placed close to the transmitter, it may relieve us from nervous strain; for nerves always relax with the voice.

35 Or the telephone may be the means of making us more selfish and self-centered, more undecided and diffuse, more impatient, more strained and nervous.

36 In fact, the telephones may help us toward health or illness. We might even say the telephone may lead us toward heaven or toward hell. We have our choice of roads in the way we use it.

37 It is a blessed convenience and if it proves a curse-- we bring the curse upon our own heads.

38 I speak of course only of the public who use the telephone. Those who serve the public in the use of the telephone must have many trials to meet, and, I dare say, are not always courteous and patient. 39 But certainly there can be no case of lagging or discourtesy on the part of a telephone operator that is not promptly rectified by a quiet, decided appeal to the "desk."

40 It is invariably the nervous strain and the anger that makes the trouble.

41 There may be one of these days a school for the better use of the telephone; 42 but such a school never need be established if every intelligent man and woman will be his and her own school in appreciating and acting upon the power gained if they compel themselves to go with science-- and never allow themselves to go against it.

DON'T TALK

Annie Payson Call

18 THERE is more nervous energy wasted, more nervous strain generated, more real physical harm done by superfluous talking than any one knows, or than any one could possibly believe who had not studied it. 2 I am not considering the harm done by what people say. We all know the disastrous effects that follow a careless or malicious use of the tongue. That is another question. 3 I simply write of the physical power used up and wasted by mere superfluous words, by using one hundred words where ten will do-- or one thousand words where none at all were needed.

4 I once had been listening to a friend chatter, chatter, chatter to no end for an hour or more, when the

idea occurred to me to tell her of an experiment I had tried by which my voice came more easily. 5 When I could get an opportunity to speak, I asked her if she had ever tried taking a long breath and speaking as she let the breath out. 6 I had to insist a little to keep her mind on the suggestion at all, but finally succeeded. She took a long breath and then stopped.

7 There was perhaps for half a minute a blessed silence, and then what was my surprise to hear her remark: "I-- I-- can't think of anything to say." 8 "Try it again," I told her. She took another long breath, and again gave up because she could not think of anything to say. 9 She did not like that little game very much, and thought she would not make another effort, and in about three minutes she began the chatter, and went on talking until some necessary interruption parted us.

10 This woman's talking was nothing more nor less than a nervous habit. Her thought and her words were not practically connected at all. 11 She never said what she thought for she never thought. She never said anything in answer to what was said to her, for she never listened.

12 Nervous talkers never do listen. That is one of their most striking characteristics.

13 I knew of two well-known men-- both great talkers-- who were invited to dine. Their host thought, as each man talked a great deal and--, as he thought-- talked very well, if they could meet their interchange of ideas would be most delightful. 14 Several days later he met one of his guests in the street and asked how he liked the friend whom he had met for the first time at his house. 15 "Very pleasant, very pleasant," the man said, "but he talks too much."

16 Not long after this the other guest accosted him unexpectedly in the street "For Heaven's sake, don't ask me to dine with that Smith again-- why, I could not get a word in edgewise."

17 Now, if only for selfish reasons a man might realise that he needs to absorb as well as give out, and so could make himself listen in order to be sure that his neighbour did not get ahead of him. 18 But a conceited man, a self-centered

man or a great talker will seldom or never listen.

19 That being the case, what can you expect of a woman who is a nervous talker? The more tired such a woman is the more she talks; the more ill she is the more she talks. 20 As the habit of nervous talking grows upon a woman it weakens her mind. Indeed, nervous talking is a steadily weakening process.

21 Some women talk to forget. If they only knew it was slow mental suicide and led to worse than death they would be quick to avoid such false protection. 22 If we have anything we want to forget we can only forget it by facing it until we have solved the problem that it places before us, and then working on, according to our best light: 23 We can never really cover a thing up in our minds by talking constantly about something else.

24 Many women think they are going to persuade you of their point of view by talking. A woman comes to you with her head full of an idea and finds you do not agree with her. 25 She will talk, talk, talk until you are blind and sick and heartily wish you were deaf, in order to prove to you that she is right and you are wrong.

26 She talks until you do not care whether you are right or wrong. You only care for the blessed relief of silence, and when she has left you, she has done all she could in that space of time to injure her point of view. 27 She has simply buried anything good that she might have had to say in a cloud of dusty talk.

28 It is funny to hear such a woman say after a long interview, "Well, at any rate, I gave him a good talking to. I guess he will go home and think about it."

29 Think about it, madam? He will go home with an impression of rattle and chatter and push that will make him dread the sight of your face; and still more dread the sound of your voice, lest he be subjected to further interviews. 30 Women sit at work together. One woman talks, talks, talks until her companions are so worn with the constant chatter that they have neither head nor nerve enough to do their work well. 31 If they know how to let the chatter go on and turn their attention away from it, so that it makes no impression,

they are fortunate indeed, and the practice is most useful to them. 32 But that does not relieve the strain of the nervous talker herself; she is wearing herself out from day to day, and ruining her mind as well as hurting the nerves and dispositions of those about her who do not know how to protect themselves from her nervous talk. 33 Nervous talking is a disease.

34 Now the question is how to cure it. It can be cured, but the first necessity is for a woman to know she has the disease. 35 For, unlike other diseases, the cure does not need a physician, but must be made by the patient herself.

36 First, she must know that she has the disease. Fifty nervous talkers might read this article, and not one of them recognise that it is aimed straight at her.

37 The only remedy for that is for every woman who reads to believe that she is a nervous talker until she has watched herself for a month or more-- without prejudice-- and has discovered for a certainty that she is not. Then she is safe.

38 But what if she discover to her surprise and chagrin that she is a nervous talker? What is the remedy for that? 39 The first thing to do is to own up the truth to herself without equivocation. To make no excuses or explanations but simply to acknowledge the fact. 40 Then let her aim straight at the remedy-- silence-- steady, severe, relaxed silence. Work from day to day and promise herself that for that day she will say nothing but what is absolutely necessary. 41 She should not repress the words that want to come, but when she takes breath to speak she must not allow the sentence to come out of her mouth, but must instead relax all over, as far as it is possible, and take a good, long, quiet breath. 42 The next time she wants to speak, even if she forgets so far as to get half the sentence out of her mouth, stop it, relax, and take a long breath.

43 The mental concentration necessary to cure one's self of nervous talking will gather together a mind that was gradually becoming dissipated with the nervous talking habit, and so the life and strength of the mind can be saved.

44 And, after that habit has been cured, the habit of quiet thinking will begin, and what is said will be worthwhile.

"WHY FUSS SO MUCH ABOUT WHAT I EAT?"

Annie Payson Call

19 I KNOW a woman who insisted that it was impossible for her to eat strawberries because they did not agree with her. A friend told her that that was simply a habit of her mind. 2 Once, at a time when her stomach was tired or not in good condition for some other reason, strawberries had not agreed with her, and from that time she had taken it for granted that she could not eat strawberries. 3 When she was convinced by her friend that her belief that strawberries did not agree with her was merely in her own idea, and not actually true, she boldly ate a plate of strawberries. 4 That night she woke with indigestion, and the next morning she said "You see, I told you they would not agree with me."

5 But her friend answered: "Why, of course you could not expect them to agree right away, could you? Now try eating them again to-day."

6 This little lady was intelligent enough to want the strawberries to agree with her and to be willing to do her part to adjust herself to them, so she tried again and ate them the next day; and now she can eat them every day right through the strawberry season and is all the better for it.

7 This is the fact that we want to understand thoroughly and to look out for. If we are impressed with the idea that any one food does not agree with us, whenever we think of that food we contract, and especially our stomachs contract. 8 Now if our stomachs contract when a food that we believe to disagree with us is merely mentioned, of course they would contract all the more when we ate it. 9 Naturally our digestive organs would be handicapped by the contraction which came from our attitude of mind and, of course, the food would appear not to agree with us.

10 Take, for instance, people who are born with peculiar prenatal impressions about their food. 11 A woman whom I have in mind

could not take milk nor cream nor butter nor anything with milk or cream or butter in it. 12 She seemed really proud of her milk-and-cream antipathy. She would air it upon all occasions, when she could do so without being positively discourteous, and often she came very near the edge of discourtesy. 13 I never saw her even appear to make an effort to overcome it, and it is perfectly true that a prenatal impression like that can be overcome as entirely, as can a personally acquired impression, although it may take a longer time and a more persistent effort.

14 This anti-milk-and-cream lady was at work every day over-emphasising her milk-and-cream contractions; 15 whereas if she had put the same force into dropping the milk-and-cream contraction she would have been using her will to great advantage, 16 and would have helped herself in many other ways as well as in gaining the ability to take normally a very healthful food. 17 We cannot hold one contraction without having its influence draw us into many others. 18 We cannot give our attention to dropping one contraction without having the influence of that one effort expand us in many other ways. 19 Watch people when they refuse food that is passed them at table; you can see whether they refuse and at the same time contract against the food, or whether they refuse with no contraction at all. 20 I have seen an expression of mild loathing on some women's faces when food was passed which "did not agree with them," but they were quite unconscious that their expressions had betrayed them.

21 Now, it is another fact that the contraction of the stomach at one form of food will interfere with the good digestion of another form. 22 When cauliflower has been passed to us and we contract against it how can we expect our stomachs to recover from that contraction in time to digest perfectly the next vegetable which is passed and which we may like very much? 23 It may be said that we expand to the vegetable we like, and that immediately counteracts the former contraction to the vegetable which we do not like. 24 That is true only to a certain extent, for

the tendency to cauliflower contraction is there in the back of our brains influencing our stomachs all the time, until we have actually used our wills consciously to drop it.

25 Edwin Booth used to be troubled very much with indigestion; he suffered keenly from it. 26 One day he went to dine with some intimate friends, and before the dinner began his hostess said with a very smiling face: "Now, Mr. Booth, I have been especially careful with this dinner not to have one thing that you cannot digest."

27 The host echoed her with a hearty "Yes, Mr. Booth, everything that will come to the table is good for your digestion."

28 The words made a very happy impression on Mr. Booth. First there was the kind, sympathetic friendliness of his hosts; and then the strong suggestion they had given him that their food would agree with him. 29 Then there was very happy and interesting talk during the whole time that they were at table and afterward. 30 Mr.. Booth ate a hearty dinner and, true to the words of his host and hostess, not one single thing disagreed with him. 31 And yet at that dinner, although care had been taken to have it wholesome, there were served things that under other conditions would have disagreed.

32 While we should aim always to eat wholesome food, it is really not so much the food which makes the trouble as the attitude we take toward it and the way we test it.

33 All the contractions which are made by our fussing about food interfere with our circulation; 34 the interference with our circulation makes us liable to take cold, and it is safe to say that more than half the colds that women have are caused principally by wrong eating. 35 Somewhat akin to grandmother's looking for her spectacles when all the time they are pushed to the top of her head is the way women fuss about their eating and then wonder why it is that they cannot seem to stand drafts.

36 There is no doubt but that our food should be thoroughly masticated before it goes into our stomachs. 37 There is no doubt but that the first process of digestion should be in our mouths. 38 The

relish which we get for our food by masticating it properly is greater and also helps toward digesting it truly. 39 All this cannot be over-emphasised if it is taken in the right way. But there is an extreme which perhaps has not been thought of and for which happily I have an example that will illustrate what I want to prove. 40 I know a woman who was, so to speak, daft on the subject of health. She attended to all points of health with such minute detail that she seemed to have lost all idea of why we should be healthy. 41 One of her ways of over-emphasising the road to health was a very careful mastication of her food. She chewed and chewed and chewed and chewed, 42 and the result was that she so strained her stomach with her chewing that she brought on severe indigestion, simply as a result of an overactive effort toward digestion. 43 This was certainly a case of "vaulting ambition, which overleaps itself, and falls on the other." And it was not unique.

44 The over-emphasis of "What shall I eat? How much shall I eat? How often shall I eat? When shall I eat? How shall I eat?"-- 45 all extreme attention to these questions is just as liable to bring chronic indigestion as a reckless neglect of them altogether is liable to upset a good, strong stomach and keep it upset. 46 The woman who chewed herself into indigestion fussed herself into it, too, by constantly talking about what was not healthful to eat. 47 Her breakfast, which she took alone, was for a time the dryest-looking meal I ever saw. It was enough to take away any one's healthy relish just to look at it, if you was not forewarned.

48 Now our relish is one of our most blessed gifts. When we relish our food our stomachs can digest it wholesomely. When we do not, our stomachs will not produce the secretions necessary to the most wholesome digestion. 49 Constant fussing about our food takes away our relish. A gluttonous dwelling upon our food takes away our relish. 50 Relish is a delicate gift, and as we respect it truly, as we do not degrade it to selfish ends nor kill it with selfish fastidiousness, 51 it grows upon us and is in its place like any other fine

perception, and is as greatly useful to the health of our bodies as our keener and deeper perceptions are useful to the health of our minds.

52 Then there is the question of being sure that our stomachs are well rested before we give them any work to do, 53 and being sure that we are quiet enough after eating to give our stomachs the best opportunity to begin their work.

54 Here again one extreme is just as harmful as the other. I knew a woman who had what might be called the fixed idea of health, 55 who always used to sit bolt upright in a high-backed chair for half an hour after dinner, and refuse to speak or to be spoken to in order that "digestion might start in properly." 56 If I had been her stomach I should have said: "Madam, when you have got through giving me your especial attention I will begin my work--which, by the way, is not your work but mine!" 57 And, virtually, that is what her stomach did say. Sitting bolt upright and consciously waiting for your food to begin digestion is an over-attention to what is none of your business, which contracts your brain, contracts your stomach and stops its work.

58 Our business is only to fulfill the conditions rightly. The French workmen do that when they sit quietly after a meal talking of their various interests. 59 Any one can fulfill the conditions properly by keeping a little quiet, having some pleasant chat, reading a bright story or taking life easy in any quiet way for half an hour. 60 Or, if work must begin directly after eating, begin it quietly. But this feeling that it is our business to attend to the working functions of our stomachs is officious and harmful. 61 We must fulfill the conditions and then forget our stomachs. If our stomachs remind us of themselves by some misbehavior we must seek for the cause and remedy it, 62 but we should not on any account feel that the cause is necessarily in the food we have eaten. It may be, and probably often is, entirely back of that. 63 A quick, sharp resistance to something that is said will often cause indigestion. In that case we must stop resisting and not blame the food.

GOODNESS

64 A dog was once made to swallow a little bullet with his food and then an X-ray was thrown on to his stomach in order that the process of digestion might be watched by means of the bullet. 65 When the dog was made angry the bullet stopped, which meant that the digestion stopped; when the dog was over-excited in any way digestion stopped. When he was calmed down it went on again. 66 There are many reasons why we should learn to meet life without useless resistance, and the health of our stomachs is not the least.

67 It would surprise most people if they could know how much unnecessary strain they put on their stomachs by eating too much. 68 A nervous invalid had a very large appetite. She was helped twice, sometimes three times, to meat and vegetables at dinner. 69 She thought that what she deemed her very healthy appetite was a great blessing to her, and often remarked upon it, as also upon her idea that so much good, nourishing food must be helping to make her well. And yet she wondered why she did not gain faster.

70 Now the truth of the matter was that this invalid had a nervous appetite. Not only did she not need one third of the food she ate, but indeed the other two thirds was doing her positive harm. 71 The tax which she put upon her stomach to digest so much food drained her nerves every day, and of course robbed her brain, so that she ate and ate and wept and wept with nervous depression. 72 When it was suggested to her by a friend who understood nerves that she would get better very much faster if she would eat very much less she made a rule to take only one helping of anything, no matter how much she might feel that she wanted another. 73 Very soon she began to gain enough to see for herself that she had been keeping herself ill with overeating, and it was not many days before she did not want a second helping.

74 Nervous appetites are not uncommon even among women who consider themselves pretty well. 75 Probably there are not five in a hundred among all the well-fed men and women in this country who would not be more healthy if they ate less.

76 Then there are food notions to be looked out for and out of which any one can relax by giving a little intelligent attention to the task.

77 "I do not like eggs. I am tired of them." "Dear, dear me! I ate so much ice cream that it made me ill, and it has made me ill to think of it ever since."

78 Relax, drop the contraction, pretend you had never tasted ice cream before, and try to eat a little-- not for the sake of the ice cream, but for the sake of getting that knot out of your stomach.

79 "But," you will say, "can every one eat everything?"

"Yes," the answer is, "everything that is really good, wholesome food is all right for anybody to eat."

80 But you say: "Won't you allow for difference of tastes?"

And the answer to that is: "Of course we can like some foods more than others, but there is a radical difference between unprejudiced preferences and prejudiced dislikes."

81 Our stomachs are all right if we will but fulfill their most simple conditions and then leave them alone. 82 If we treat them right they will tell us what is good for them and what is not good for them, 83 and if we will only pay attention, obey them as a matter of course without comment and then forget them, there need be no more fuss about food and very much less nervous irritability.

TAKE CARE OF YOUR STOMACH

Annie Payson Call

20 WE all know that we have a great deal to do. Some of us have to work all day to earn our bread and butter and then work a good part of the night to make our clothes. 2 Some of us have to stand all day behind a counter. Some of us have to sit all day and sew for others, and all night to sew for ourselves and our children. 3 Most of us have to do work that is necessary or work that is self-imposed. Many of us feel busy without really being busy at all. 4 But how many of us realise that while we are doing work outside, our bodies themselves have good, steady work to do inside.

5 Our lungs have to take oxygen from the air and give it to our

blood; our blood has to carry it all through our bodies and take away the waste by means of the steady pumping of our hearts. 6 Our stomachs must digest the food put into them, give the nourishment in it to the blood, and see that the waste is cast off.

7 All this work is wholesome and good, and goes on steadily, giving us health and strength and new power; 8 but if we, through mismanagement, make heart or lungs or stomach work harder than they should, then they must rob us of power to accomplish what we give them to do, and we blame them, instead of blaming ourselves for being hard and unjust taskmasters.

9 The strain in a stomach necessary to the digesting of too much food, or the wrong kind of food, makes itself felt in strain all through the whole system.

10 I knew a woman whose conscience was troubling her very greatly. She was sure she had done many very selfish things for which there was no excuse, and that she herself was greatly to blame for other people's troubles. 11 This was a very acute attack of conscience, accompanied by a very severe stomach ache. 12 The doctor was called in and gave her an emetic. She threw a large amount of undigested food from her stomach, 13 and after that relief the weight on her conscience was lifted entirely and she had nothing more to blame herself with than any ordinary, wholesome woman must have to look out for every day of her life.

14 This is a true story and should be practically useful to readers who need it. This woman's stomach had been given too much to do. It worked hard to do its work well, and had to rob the brain and nervous system in the effort. 15 This effort brought strain to the whole brain, which was made evident in the region of the conscience. 16 It might have come out in some other form. It might have appeared in irritability. It might even have shown itself in downright ugliness.

17 Whatever the effects are, whether exaggerated conscience, exaggerated anxiety, or irritability, the immediate cause of the trouble in such cases as I refer to is in the

fact that the stomach has been given too much to do.

18 We give the stomach too much to do if we put a great deal of food into it when it is tired. We give it too much to do if we put into it the wrong kind of food. We give it too much to do if we insist upon working hard ourselves, either with body or brain, directly after a hearty meal. 19 No matter how busy we are we can protect our stomachs against each and all of these three causes of trouble.

20 If a woman is very tired her stomach must necessarily be very tired also. 21 If she can remember that at such times even though she may be very hungry, her body is better nourished if she takes slowly a cup of hot milk, 22 and waits until she is more rested before taking solid food, than if she ate a hearty meal. It will save a strain, and perhaps eventually severe illness.

23 If it is possible to rest and do absolutely nothing for half an hour before a meal, and for half an hour after that insures the best work for our digestion. 24 If one is pretty well, and cannot spare the half hour, ten or fifteen minutes will do, unless there is a great deal of fatigue to be conquered.

25 If it is necessary to work right up to mealtime, let up a little before stopping. 26 As the time for dinner approaches do not work quite so hard; the work will not lose; in the end it will gain-- 27 and when you begin work again begin lightly, and get into the thick of it gradually. That gives your stomach a good chance.

28 If possible get a long rest before the last meal, and if your day is very busy, it is better to have the heartiest meal at the end of it, 29 to take a good rest afterward and then a walk in the fresh air, which may be long or short, according to what other work you have to do or according to how tired you are.

30 I know many women will say: "But I am tired all the time; if I waited to rest before I ate, I should starve." 31 The answer to that is "protect your stomach as well as you can. If you cannot rest before and after each meal try to arrange some way by which you can get rid of a little fatigue."

32 If you do this with attention and interest you will find gradually that you are less tired all the time,

33 and as you keep on steadily toward the right path, you may be surprised some day to discover that you are only tired half the time, and perhaps even reach the place where the tired feeling will be the exception.

34 It takes a good while to get our misused stomachs into wholesome ways, but if we are persistent and intelligent we can surely do it, 35 and the relief to the overstrained stomach-- as I have said-- means relief to the whole body.

36 Resting before and after meals amounts to very little, however, if we eat food that is not nourishing.

37 Some people are so far out of the normal way of eating that they have lost a wholesome sense of what is good for them, and live in a chronic state of disordered stomach, which means a chronic state of disordered nerves and disposition. 38 If such persons could for one minute literally experience the freedom of a woman whose body was truly and thoroughly nourished, the contrast from the abnormal to the normal would make them dizzy. 39 If, however, they stayed in the normal place long enough to get over the dizziness, the freedom of health would be so great a delight that food that was not nourishing would be nauseous to them.

40 Most of us are near enough the normal to know the food that is best for us, through experience of suffering from food which is not best for us, as well as through good natural instinct.

41 If we would learn from the normal working of the involuntary action of our organs, it might help us greatly toward working more wholesomely in all our voluntary actions.

42 If every woman who reads this article would study not to interfere with the most healthy action of her own stomach, her reward after a few weeks' persistent care would be not only a greater power for work, but a greater power for good, healthy, recuperative rest.

ABOUT FACES

Annie Payson Call

21 WATCH the faces as you walk along the street! If you get the habit of noticing, your observations will grow keener. 2 It is surprising to see how seldom we

find a really quiet face. I do not mean that there should be no lines in the face. We are here in this world at school and we cannot have any real schooling unless we have real experiences. 3 We cannot have real experiences without suffering, and suffering which comes from the discipline of life and results in character leaves lines in our faces. It is the lines made by unnecessary strain to which I refer.

4 Strange to say the unquiet faces come mostly from shallow feeling. Usually the deeper the feeling the less strain there is on the face. 5 A face may look troubled, it may be full of pain, without a touch of that strain which comes from shallow worry or excitement.

6 The strained expression takes character out of the face, it weakens it, and certainly it detracts greatly from whatever natural beauty there may have been to begin with. 7 The expression which comes from pain or any suffering well borne gives character to the face and adds to its real beauty as well as its strength.

8 To remove the strained expression we must remove the strain behind; therefore the hardest work we have to do is below the surface. The surface work is comparatively easy.

9 I know a woman whose face is quiet and placid. The lines are really beautiful, but they are always the same. 10 This woman used to watch herself in the glass until she had her face as quiet and free from lines as she could get it-- 11 she used even to arrange the corners of her mouth with her fingers until they had just the right droop.

12 Then she observed carefully how her face felt with that placid expression and studied to keep it always with that feeling, until by and by her features were fixed and now the placid face is always there, 13 for she has established in her brain an automatic vigilance over it that will not allow the muscles once to get "out of drawing."

14 What kind of an old woman this acquaintance of mine will make I do not know. I am curious to see her-- but now she certainly is a most remarkable hypocrite. 15 The strain in behind the mask of a face which she has made for herself

must be something frightful. And indeed I believe it is, for she is ill most of the time-- 16 and what could keep one in nervous illness more entirely than this deep interior strain which is necessary to such external appearance of placidity.

17 There comes to my mind at once a very comical illustration of something quite akin to this although at first thought it seems almost the reverse. 18 A woman who constantly talked of the pre-eminency of mind over matter, and the impossibility of being moved by external circumstances to any one who believed as she did-- this woman I saw very angry.

19 She was sitting with her face drawn in a hundred cross lines and all askew with her anger. 20 She had been spouting and sputtering what she called her righteous indignation for some minutes, when after a brief pause and with the angry expression still on her face she exclaimed: "Well, I don't care, it's all peace within."

21 I doubt if my masked lady would ever have declared to herself or to any one else that "it was all peace within." 22 The angry woman was-- without doubt-- the deeper hypocrite, but the masked woman had become rigid in her hypocrisy. 23 I do not know which was the weaker of the two, probably the one who was deceiving herself.

24 But to return to those drawn, strained lines we see on the people about us. They do not come from hard work or deep thought. They come from unnecessary contractions about the work. 25 If we use our wills consistently and steadily to drop such contractions, the result is a more quiet and restful way of living, and so quieter and more attractive faces.

26 This unquietness comes especially in the eyes. It is a rare thing to see a really quiet eye; and very pleasant and beautiful it is when we do see it. 27 And the more we see and observe the unquiet eyes and the unquiet faces the better worthwhile it seems to work to have ours more quiet, but not to put on a mask, or be in any other way a hypocrite.

28 The exercise described in a previous chapter will help to bring a quiet face. 29 We must drop our heads with a sense of letting every

strain go out of our faces, and then let our heads carry our bodies down as far as possible, dropping strain all the time, and while rising slowly we must take the same care to drop all strain.

30 In taking the long breath, we must inhale without effort, and exhale so easily that it seems as if the breath went out of itself, like the balloons that children blow up and then watch them shrink as the air leaves them.

31 Five minutes a day is very little time to spend to get a quiet face, but just that five minutes-- 32 if followed consistently-- will make us so much more sensitive to the unquiet that we will sooner or later turn away from it as by a natural instinct.

ABOUT VOICES

Annie Payson Call

22 I KNEW an old German-- a wonderful teacher of the speaking voice-- who said "the ancients believed that the soul of the human is here"-- pointing to the pit of his stomach. 2 "I do not know," and he shrugged his shoulders with expressive interest, "it may be and it may not be-- but I know the soul of the voice is here-- and you Americans-- you squeeze the life out of the word in your throat and it is born dead."

3 That old artist spoke the truth-- we Americans-- most of us-- do squeeze the life out of our words and they are born dead. 4 We squeeze the life out by the strain which runs all through us and reflects itself especially in our voices. 5 Our throats are tense and closed; our stomachs are tense and strained; with many of us the word is dead before it is born.

6 Watch people talking in a very noisy place; hear how they scream at the top of their lungs to get above the noise. Think of the amount of nervous force they use in their efforts to be heard.

7 Now really when we are in the midst of a great noise and want to be heard, what we have to do is to pitch our voices on a different key from the noise about us. 8 We can be heard as well, and better, if we pitch our voices on a lower key than if we pitch them on a higher key; and to pitch your voice on a

low key requires very much less effort than to strain to a high one.

9 I can imagine talking with some one for half an hour in a noisy factory-- for instance-- and being more rested at the end of the half hour than at the beginning. 10 Because to pitch your voice low you must drop some superfluous tension and dropping superfluous tension is always restful.

11 I beg any or all of my readers to try this experiment the next time they have to talk with a friend in a noisy street. 12 At first the habit of screaming above the noise of the wheels is strong on us and it seems impossible that we should be heard if we speak below it. 13 It is difficult to pitch our voices low and keep them there. But if we persist until we have formed a new habit, the change is delightful.

14 There is one other difficulty in the way; whoever is listening to us may be in the habit of hearing a voice at high tension and so find it difficult at first to adjust his ear to the lower voice and will in consequence insist that the lower tone cannot be heard as easily.

15 It seems curious that our ears can be so much engaged in expecting screaming that they cannot without a positive effort of the mind readjust in order to listen to a lower tone. But it is so. 16 And, therefore, we must remember that to be thoroughly successful in speaking intelligently below the noise we must beg our listeners to change the habit of their ears as we ourselves must change the pitch of our voices.

17 The result both to speaker and listener is worth the effort ten times over.

18 As we habitually lower the pitch of our voices our words cease gradually to be "born dead." 19 With a low-pitched voice everything pertaining to the voice is more open and flexible and can react more immediately to whatever may be in our minds to express.

20 Moreover, the voice itself may react back again upon our dispositions. If a woman gets excited in an argument, especially if she loses her temper, her voice will be raised higher and higher until it reaches almost a shriek. 21 And to hear two women "argue" sometimes it may be truly said that we are listening to a

"caterwauling." That is the only word that will describe it.

22 But if one of these women is sensitive enough to know she is beginning to strain in her argument and will lower her voice and persist in keeping it lowered the effect upon herself and the other woman will put the "caterwauling" out of the question.

23 "Caterwauling" is an ugly word. It describes an ugly sound. If you have ever found yourself in the past aiding and abetting such an ugly sound in argument with another-- say to yourself "caterwauling," "caterwauling," 24 "I have been 'caterwauling' with Jane Smith, or Maria Jones," or whoever it may be, and that will bring out in such clear relief the ugliness of the word and the sound that you will turn earnestly toward a more quiet way of speaking.

25 The next time you start on the strain of an argument and your voice begins to go up, up, up-- something will whisper in your ear "caterwauling" and you will at once, in self-defense, lower your voice or stop speaking altogether.

26 It is good to call ugly things by their ugliest names. It helps us to see them in their true light and makes us more earnest in our efforts to get away from them altogether.

27 I was once a guest at a large reception and the noise of talking seemed to be a roar, when suddenly an elderly man got up on a chair and called "silence," 28 and having obtained silence he said, "it has been suggested that every one in this room should speak in a lower tone of voice."

29 The response was immediate. Every one went on talking with the same interest only in a lower tone of voice with a result that was both delightful and soothing.

30 I say every one-- there were perhaps half a dozen whom I observed who looked and I have no doubt said "how impudent." 31 So it was "impudent" if you chose to take it so-- but most of the people did not choose to take it so and so brought a more quiet atmosphere and a happy change of tone.

32 Theophile Gautier said that the voice was nearer the soul than any other expressive part of us. It is certainly a very striking indicator of the state of the soul. 33 If we

accustom ourselves to listen to the voices of those about us we detect more and more clearly various qualities of the man or the woman in the voice, 34 and if we grow sensitive to the strain in our own voices and drop it at once when it is perceived, we feel a proportionate gain.

35 I knew of a blind doctor who habitually told character by the tone of the voice, and men and women often went to him to have their characters described as one would go to a palmist.

36 Once a woman spoke to him earnestly for that purpose and he replied, "Madam, your voice has been so much cultivated that there is nothing of you in it-- I cannot tell your real character at all." 37 The only way to cultivate a voice is to open it to its best possibilities-- not to teach its owner to pose or to imitate a beautiful tone until it has acquired the beautiful tone habit.

38 Such tones are always artificial and the unreality in them can be easily detected by a quick ear.

39 Most great singers are arrant hypocrites. There is nothing of themselves in their tone. The trouble is to have a really beautiful voice one must have a really beautiful soul behind it.

40 If you drop the tension of your voice in an argument for the sake of getting a clearer mind and meeting your opponent without resistance, your voice helps your mind and your mind helps your voice.

41 They act and react upon one another with mutual benefit. 42 If you lower your voice in general for the sake of being more quiet, and so more agreeable and useful to those about you, then again the mental or moral effort and the physical effort help one another.

43 It adds greatly to a woman's attraction and to her use to have a low, quiet voice-- 44 and if any reader is persisting in the effort to get five minutes absolute quiet in every day let her finish the exercise by saying something in a quiet, restful tone of voice.

45 It will make her more sensitive to her unrestful tones outside, and so help her to improve them.

GOODNESS

ABOUT FRIGHTS
Annie Payson Call

23 HERE are two true stories and a remarkable contrast. 2 A nerve specialist was called to see a young girl who had had nervous prostration for two years. 3 The physician was told before seeing the patient that the illness had started through fright occasioned by the patient's waking and discovering a burglar in her room.

4 Almost the moment the doctor entered the sick room, he was accosted with: "Doctor, do you know what made me ill? It was frightful." Then followed a minute description of her sudden awakening and seeing the man at her bureau drawers.

5 This story had been lived over and over by the young girl and her friends for two years, until the strain in her brain caused by the repetition of the impression of fright was so intense that no skill nor tact seemed able to remove it. 6 She simply would not let it go, and she never got really well.

7 Now, see the contrast. Another young woman had a similar burglar experience, and for several nights after she woke with a start at the same hour. 8 For the first two or three nights she lay and shivered until she shivered herself to sleep.

9 Then she noticed how tightened up she was in every muscle when she woke, and she bethought herself that she would put her mind on relaxing her muscles and getting rid of the tension in her nerves. 10 She did this persistently, so that when she woke with the burglar fright it was at once a reminder to relax. 11 After a little she got the impression that she woke in order to relax and it was only a very little while before she succeeded so well that she did not wake until it was time to get up in the morning.

12 The burglar impression not only left her entirely, but left her with the habit of dropping all contractions before she went to sleep, and her nerves are stronger and more normal in consequence.

13 The two girls had each a very sensitive, nervous temperament, and the contrast in their behavior was simply a matter of intelligence.

14 This same nerve specialist received a patient once who was

positively blatant in her complaint of a nervous shock. "Doctor, I have had a horrible nervous shock. It was horrible. I do not see how I can ever get over it."

15 Then she told it and brought the horrors out in weird, over-vivid colours. It was horrible, but she was increasing the horrors by the way in which she dwelt on it.

16 Finally, when she paused long enough to give the doctor an opportunity to speak, he said, very quietly: "Madam, will you kindly say to me, as gently as you can, 'I have had a severe nervous shock.'"

17 She looked at him without a gleam of understanding and repeated the words quietly: "I have had a severe nervous shock."

18 In spite of herself she felt the contrast in her own brain. The habitual blatancy was slightly checked. 19 The doctor then tried to impress upon her the fact that she was constantly increasing the strain of the shock by the way she spoke of it and the way she thought of it, and that she was really keeping herself ill.

20 Gradually, as she learned to relax the nervous tension caused by the shock, a true intelligence about it all dawned upon her; the over-vivid colours faded, and she got well. 21 She was surprised herself at the rapidity with which she got well, but she seemed to understand the process and to be moderately grateful for it.

22 If she had had a more sensitive temperament she would have appreciated it all the more keenly; but if she had had a more sensitive temperament she would not have been blatant about her shock.

CONTRARINESS

Annie Payson Call

24 I KNOW a woman who says that if she wants to get her father's consent to anything, she not only appears not to care whether he consents or not, but pretends that her wishes are exactly opposite to what they really are. 2 She says it never fails; the decision has always been made in opposition to her expressed desires, and according to her real wishes. In other words, she has learned how to manage her father.

3 This example is not unique. Many of us see friends managing other friends in that same way.

4 The only thing which can interfere with such astute management is the difficulty that you may have in concealing your own will in order to accomplish what you desires. 5 Willfulness is such an impulsive quantity that it will rush ahead in spite of us and spoil everything when we feel that there is danger of our not getting our own way. 6 Or, if we have succeeded in getting our own way by what might be called the "contrary method," we may be led into an expression of satisfaction which will throw light on the falseness of our previous attitude and destroy the confidence of the friend whom we were tactfully influencing.

7 To work the "contrary method" to perfection requires a careful control up to the finish and beyond it. 8 In order never to be found out, we have to be so consistent in our behaviour that we gradually get trained into nothing but a common every-day hypocrite, 9 and the process which goes on behind hypocrisy must necessarily be a process of decay. 10 Beside that, the keenest hypocrite that ever lived can only deceive others up to a certain limit.

11 But what is one to do when a friend can only be reached by the "contrary method"? 12 What is one to do when if, for instance, you want a friend to read a book, you know that the way to prevent his reading it is to mention your desire? 13 If you want a friend to see a play and in a forgetful mood mention the fact that you feel sure the play would delight her, you know as soon as the words are out of your mouth you have put the chance of her seeing the play entirely out of the question? 14 What is one to do when something needs mending in the house, and you know that to mention the need to the person of the house would be to delay the repair just so much longer? 15 How are our contrary-minded friends to be met if we cannot pretend we do not want what we do want in order to get their cooperation and consent?

16 No one could deliberately plan to be a hypocrite understanding what a hypocrite really is. A hypocrite is a sham-- a sham has nothing solid to stand on. 17 No one really respects a sham, and the

most intelligent, the most tactful hypocrite that ever lived is nothing but a sham,-- ‘false’ and a sham!

18 Beside, no one can manage another by the process of sham and hypocrisy without sooner or later being found out, and when you are found out, all your power is gone.

19 The trouble with the contrary-minded is they have an established habit of resistance. 20 Sometimes the habit is entirely inherited, and has never been seen or acknowledged. Sometimes it has an inherited foundation, with a cultivated super-structure.

21 Either way it is a problem for those who have to deal with it,-- until they understand. 22 The "contrary method" does not solve the problem; it is only a makeshift; it never does any real work, or accomplishes any real end. It is not even lastingly intelligent.

23 The first necessity in dealing truly with these people is ‘not to be afraid of their resistances’. The second necessity, which is so near the first that the two really belong side by side, is ‘never to meet their resistances with resistances of our own’.

24 If we combat another person's resistance, it only increases their tension. No matter how wrong one may be, and how right we are, meeting resistance with resistance only breeds trouble. 25 Two minds can act and react upon one another in that way until they come to a lock which not only makes lasting enemies of those who should have been and could be always friends, 26 but the contention locks up strain in each person's brain which can never be removed without pain, and a new awakening to the common-sense of human intercourse.

27 If we want a friend to read a book, to go a journey, or to do something which is more important for their own good than either, and we know that to suggest our desire would be to rouse their resistance, the only way is to catch them in the best mood we can, 28 say what we have to say, give our own preference, and at the same time feel and express a willingness to be refused. 29 Every human is a free agent, and we have no right not to respect another’s freedom, even if they uses that freedom to stand in

their own light or in ours. 30 If one is standing in our light and refuses to move, we can move out of their shadow, even though we may have to give up our most cherished desire in order to do so.

31 If one is standing in own light, and refuses to move, we can suggest or advise and do whatever in us lies to make the common-sense of our opinion clear; 32 but if one still persists in standing in own light, it is their business, not ours.

33 It requires the cultivation of a strong will to put a request before a friend which we know will be resisted, and to yield to that resistance so that it meets no antagonism in us. 34 But when it is done, and done thoroughly, consistently, and intelligently, the other person's resistance reacts back upon own self, and one finds own self out as one never could in any other way. 35 Having found own self out, unless their mulishness is almost past sanity, one begins to reject own habit of resistance of one’s own accord.

36 In dealing with the contrary minded, the "contrary method" works so long as it is not discovered; and the danger of its being discovered is always imminent. 37 The upright, direct method is according to the honourable laws of human intercourse, and brings always better results in the end, even though there may be some immediate failures in the process.

38 To adjust ourselves rightly to another nature and go with it to a good end, along the lines of least resistance, is of course the best means of a real acquaintance, 39 but to allow ourselves to manage a fellow-being is an indignity to the person and worse than an indignity to the mind who is willing to do the managing.

40 Our humanity is in our freedom. Our freedom is in our humanity. 41 When one, person tries to manage another, you are putting that other in the attitude of a beast. 41 The person who is allowing own self to be managed is classing own self with the beasts.

42 Although this is a fact so evident on the base of it that it needs neither explanation nor enlargement, 43 there is hardly a day passes that some one does not say to some one, "You cannot

manage me in that way," and the answer should be, "Why should you want to be managed in any way; and why should I want to insult you by trying to manage you at all?"

44 The girl and her father might have been intelligent friends by this time, if the practice of the "contrary method" had not tainted the girl with habitual hypocrisy, 45 and cultivated in the father the warped mind which results from the habit of resistance, and blind weakness which comes from the false idea that he is always having his own way.

46 If we want an open brain and a good, freely working nervous system, we must respect our own freedom and the freedom of other people,-- 47 for only as individuals stand alone can they really influence one another to any good end.

48 It is curious to see how the people of habitual resistance pride themselves on being in bondage to no one, not knowing that the fear of such bondage is what makes them resist, 49 and the fear of being influenced by another is one of the most painful forms of bondage in which a human can be.

50 The people who are slaves to this fear do not stop even to consider the question. They resist and refuse a request at once, for fear that pausing for consideration would open them to the danger of appearing to yield to the will of another.

51 When we are quite as willing to yield to another as to refuse them, then we are free, and can give any question that is placed before us intelligent consideration, and decide according to our best judgment. 52 No amount of willfulness can force a person to any action or attitude of mind if you are willing to yield to the willful pressure if it seems to you best.

53 The worse bondage of human to human is the bondage of fear.

HOW TO SEW EASILY

Annie Payson Call

25 IT is a common saying that we should let our heads save our heels, but few of us know the depth of it or the freedom and health that can come from obedience to it.

GOODNESS

2 For one thing we get into ruts. If a woman grows tired sewing she takes it for granted that she must always be tired. Sometimes she frets and complains, which only adds to her fatigue. 3 Sometimes she goes on living in a dogged state of over-tiredness until there comes a "last straw" which brings on some organic disease, and still another "straw" which kills her altogether.

4 We, none of us, seem to realise that our heads can save not only our heels, but our hearts, and our lungs, our spines and our brains--indeed our whole nervous systems. 5 Men and women sometimes seem to prefer to go on working--chronically tired-- getting no joy from life whatever, rather than to take the trouble to think enough to gain the habit of working restfully. 6 Sometimes, to be sure, they are so tired that the little extra exertion of the brain required to learn to get rid of the fatigue seems too much for them.

7 It seems easier to work in a rut of strain and discomfort than to make the effort to get out of the rut--even though they know that by doing so they will not only be better themselves, but will do their work better.

8 Now really the action of the brain which is needed to help one to work restfully is quite distinct from the action which does the work, 9 and a little effort of the brain in a new direction rests and refreshes the part of the brain which is drudging along day after day, 10 and not only that, but when one has gained the habit of working more easily life is happier and more worthwhile. 11 If once we could become convinced of that fact it would be a simple matter for the head to learn to save the heels and for the whole body to be more vigourous in consequence.

12 Take sewing, for instance: If a woman must sew all day long without cessation and she can appreciate that ten or fifteen minutes taken out of the day once in the morning and once in the afternoon is going to save fatigue and help her to do her sewing better, 13 doesn't it seem simply a lack of common-sense if she is not willing to take that half hour and use it for its right purpose? 14 Or, if she is employed with others, is it

not a lack of common-sense combined with cruelty in her employer if he will not permit the use of fifteen minutes twice a day to help his employees to do their work better and to keep more healthy in the process of working?

15 It seems to me that all most of us need is to have our attention drawn to the facts in such cases as this and then we shall be willing and anxious to correct the mistakes.

16 First, we do not know, and, secondly, we do not think, intelligently. It is within our reach to do both.

17 Let me put the facts about healthy sewing in numerical order: First-- A woman should never sew nor be allowed to sew in bad air.

18 The more or less cramped attitude of the chest in sewing makes it especially necessary that the lungs should be well supplied with oxygen, 19 else the blood will lose vitality, the appetite will go and the nerves will be straining to bring the muscles up to work which they could do quite easily if they were receiving the right amount of nourishment from air and food.

20 Second-- When our work gives our muscles a tendency steadily in one direction we must aim to counteract that tendency by using exercises with a will to pull them in the opposite way.

21 If a person writes constantly, to stop writing half a dozen times a day and stretch the fingers of your hand wide apart and let them relax back slowly will help you so that you need not be afraid of writer's paralysis.

22 Now a woman's tendency in sewing is to have her chest contracted and settled down on her stomach, and her head bent forward. 23 Let her stop even twice a day, lift her chest off her stomach, see that the lifting of her chest takes her shoulders back, let her head gently fall back, take a long quiet breath in that attitude, then bring the head up slowly, 24 take some long quiet breaths like gentle sighs, gradually let the lungs settle back into their habitual state of breathing, and then try the exercise again.

25 If this exercise is repeated three times in succession with quiet care, its effect will be very evident in the refreshment felt when a

woman begins sewing again. 26 At the very most it can only take two minutes to go through the whole exercise and be ready to repeat it. That will mean six minutes for the three successive times.

27 Six minutes can easily be made up by the renewed vigour that comes from the long breath and change of attitude. 28 Stopping for the exercise three times a day will only take eighteen-- or at the most twenty-minutes out of the day's work and it will put much more than that into the work in new power.

29 Third-- We must remember that we need not sew in a badly cramped position. 30 Of course the exercises will help us out of the habitually cramped attitude, but we cannot expect them to help us so much unless we make an effort while sewing to be as little cramped as possible.

31 The exercises give us a new standard of erectness, and that new standard will make us sensitive to the wrong attitude.

32 We will constantly notice when our chests get cramped and settled down on our stomachs and by expanding them and lifting them, even as we sew, the healthy attitude will get to be second nature.

33 Fourth-- We must sew with our hands and our arms, not with our spines, the backs of our necks, or our legs. 34 The unnecessary strain she puts into her sewing makes a woman more tired than anything else. 35 To avoid this she must get sensitive to the strain, and every time she perceives it drop it; consciously, with a decided use of her will, until she has established the habit of working without strain. 36 The gentle raising of the head to the erect position after the breathing exercise will let out a great deal of strain, and so make us more sensitive to its return when we begin to sew, and the more sensitive we get to it the sooner we can drop it.

37 I think I hear a woman say, "I have neither the time nor the strength to attend to all this." My answer is, such exercise will save time and strength in the end.

GOODNESS

DO NOT HURRY
Annie Payson Call

26 HOW can any one do anything well while in a constant state of rush? 2 How can any one see anything clearly while in a constant state of rush? 3 How can any one expect to keep healthy and strong while in a constant state of rush?

4 But most of my readers may say, "I am not in a constant state of rush-- I only hurry now and then when I need to hurry." 5 The answer to that is "Prove it, prove it." Study yourself a little, and see whether you find yourself chronically in a hurry or not.

6 If you will observe yourself carefully with a desire to find the hurry tendency, and to find it thoroughly, in order to eliminate it, you will be surprised to see how much of it there is in you.

7 The trouble is that all our standards are low, and to raise our standards we must drop that which interferes with the most wholesome way of living.

8 As we get rid of all the grosser forms of hurry we find in ourselves other hurry habits that are finer and more subtle, and gradually our standards of quiet, deliberate ways get higher; 9 we become more sensitive to hurry, and a hurried way of doing things grows more and more disagreeable to us.

10 Watch the women coming out of a factory in the dinner hour or at six o'clock. They are almost tumbling over each other in their hurry to get away. 11 They are putting on their jackets, pushing in their hatpins, and running along as if their dinner were running away from them.

12 Something akin to that same attitude of rush we can see in any large city when the clerks come out of the shops, for their luncheon hour, or when the work of the day is over.

13 If we were to calculate in round numbers the amount of time saved by this rush to get away from the shop, we should find three minutes, probably the maximum-- 14 and if we balance that against the loss to body and mind which is incurred, we should find the three minutes' gain quite over-weighted by the loss of many hours, perhaps days, because of the illness which

must be the result of such habitual contraction.

15 It is safe to predict when we see a woman rushing away from factory or shop that she is not going to "let up" on that rate of speed until she is back again at work. 16 Indeed, having once started brain and body with such an exaggerated impetus, it is not possible to quiet down without a direct and decided use of the will, 17 and how is that decided action to be taken if the brain is so befogged with the habit of hurry that it knows no better standard?

18 One of the girls from a large factory came rushing up to the kind, motherly head of the boarding house the other day saying:-- 19 "It is abominable that I should be kept waiting so long for my dinner. I have had my first course and here I have been waiting twenty minutes for my dessert."

20 The woman addressed looked up quietly to the clock and saw that it was ten minutes past twelve. "What time did you come in?" she said. "At twelve o'clock."

21 "And you have had your first course?"

"Yes."

"And waited twenty minutes for your dessert?"

"Yes!" (snappishly).

22 "How can that be when you came in at twelve o'clock, and it is now only ten minutes past?"

23 Of course there was nothing to say in answer, but whether the girl took it to heart and so raised her standard of quiet one little bit, I do not know.

24 One can deposit a fearful amount of strain in the brain with only a few moments' impatience.

25 I use the word "fearful" advisedly, for when the strain is once deposited it is not easily removed, especially when every day and every moment of every day is adding to the strain.

26 The strain of hurry makes contractions in brain and body with which it is impossible to work freely and easily or to accomplish as much as might be done without such contractions.

27 The strain of hurry befogs the brain so that it is impossible for it to expand to an unprejudiced point of view.

28 The strain of hurry so contracts the whole nervous and muscular systems that the body can take

neither the nourishment of food nor of fresh air as it should.

29 There are many women who work for a living, and women who do not work for a living, who feel hurried from morning until they go to bed at night, and they must, perforce, hurry to sleep and hurry awake.

30 Often the day seems so full, and one is so pressed for time that it is impossible to get in all there is to do, 31 and yet a little quiet thinking will show that the important things can be easily put into two thirds of the day, and the remaining third is free for rest, or play, or both.

32 Then again, there is real delight in quietly fitting one thing in after another when the day must be full, and the result at the end of the day is only healthy fatigue from which a good night's rest will refresh us entirely.

33 There is one thing that is very evident-- a feeling of hurry retards our work, it does not hasten it, and the more quietly we can do what is before us, the more quickly and vigourously we do it.

34 The first necessity is to find ourselves out-- to find out for a fact when we do hurry, and how we hurry, and how we have the sense of hurry with us all the time.

35 Having willingly, and gladly, found ourselves out, the remedy is straight before us.

36 Nature is on the side of leisure and will come to our aid with higher standards of quiet, the possibilities of which are always in every one's brain, if we only look to find them.

37 To sit five minutes quietly taking long breaths to get a sense of leisure every day will be of very great help-- 38 and then when we find ourselves hurrying, let us stop and recall the best quiet we know-- that need only take a few seconds, and the gain is sure to follow.

39 ‘Festina lente’ (hasten slowly) should be in the back of our brains all day and every day.

40 "'T is haste makes waste, the sage avers, And instances are far too plenty; Whenever the hasty impulse stirs, Put on the brake, Festina Lente."

THE CARE OF AN INVALID
Annie Payson Call

27 TO take really good care of one who is ill requires not only knowledge but intelligent patience and immeasurable tact.

2 A little knowledge will go a great way, and we do not need to be trained nurses in order to help our friends to bear their illnesses patiently and quietly and to adjust things about them so that they are enabled to get well faster because of the care we give them.

3 Sometimes if we have only fifteen minutes in the morning and fifteen minutes at night to be with a sick friend, we can so arrange things for the day and for the night 4 that we will have left behind us a directly curative influence because our invalid feels cared for in the best way, and has confidence enough to follow the suggestions we have given.

5 More depends upon the spirit with which we approach an invalid than anything else. 6 A trained nurse who has graduated at the head of her class and has executive ability, who knows exactly what to do and when to do it, 7 may yet bring such a spirit of self-importance and bustle that everything she does for the invalid's ease, comfort, and recuperation is counteracted by the unrestful "professional" spirit with which the work is done.

8 On the other hand, a woman who has only a slight knowledge of nursing can bring so restful and unobtrusive an atmosphere with her that the invalid gains from her very presence.

9 Overwhelming kindness is not only tiresome and often annoying, but a serious drag on one who is ill. 10 People who are so busy doing kindnesses seldom consult the invalid's preferences at all. They are too full of their own selfish kindliness and self-importance.

11 I remember a woman who was suffering intensely from neuralgia in her face. A friend, proud of the idea of caring for her and giving up her own pleasure to stay in the darkened room and keep the sufferer's face bathed in hot water, 12 made such a rustling back and forth with her skirts in getting the water that the strain of the constant noise and movement not only counteracted any relief that might

have come from the heat, but it increased the pain and made the nervous condition of the patient much worse.

13 So it is with a hundred and one little "kindnesses" that people try to do for others when they are ill. 14 They talk to amuse them when the invalids would give all in their power to have a little quiet. 15 They sit like lumps and say nothing when a little light, easy chatting might divert the invalid's attention and so start up a gentle circulation which would tend directly toward health. 16 Or, they talk and are entertaining for a while in a very helpful way, but not knowing when to stop, finally make the patient so tired that they undo all the good of the first fifteen minutes. 17 They flood the room with light, "to make it look pleasant," when the invalid longs for the rest of a darkened room; or they draw the shades when the patient longs for the cheerfulness of sunlight. 18 They fuss and move about to do this or that and the other "kindness" when the sick person longs for absolute quiet. 19 They shower attentions when the first thing that is desired is to be let alone.

20 One secret of the whole trouble in this oppressive care of the sick is that this sort of caretaker is interested more to please herself and feel the satisfaction of her own benefactions than she is to really please the friend for whom she is caring.

21 Another trouble is common ignorance. Some women would gladly sacrifice anything to help a friend to get well; they would give their time and their strength gladly and count it as nothing, but they do not know how to care for the sick. 22 Often such people are sadly discouraged because they see that they are only bringing discomfort where, with all their hearts, they desire to bring comfort.

23 The first necessity in the right care for the sick is to be quiet and cheerful. 24 The next is to aim, without disturbing the invalid, to get as true an idea as possible of the condition necessary to help the patient to get well. 25 The third is to bring about those conditions with the least possible amount of friction.

GOODNESS

26 Find out what the invalid likes and how she likes it by observation and not by questions. 27 Sometimes, of course, a question must be asked. If we receive a snappish answer, let us not resent it, but blame the illness and be grateful if, along with the snappishness, we find out what suits our patient best. 28 If we see her increasing her pain by contracting and giving all her attention to complaining, we cannot help her by telling her that that sort of thing is not going to make her well. 29 But we can soothe her in a way that will enable her to see it for herself.

30 Often the right suggestion, no matter how good it is, will only annoy the patient and send her farther on in the wrong path; 31 but if given in some gentle roundabout way, so that she feels that she has discovered for herself what you have been trying to tell her, it will work wonders toward her recovery.

32 If you want to care for the sick in a way that will truly help them toward recovery, you must observe and study,-- study and observe, and never resent their irritability. 33 See that they have the right amount of air; that they have the right nourishment at the right intervals. 34 Let them have things their own way, and done in their own way so far as is possible without interfering with what is necessary to their health.

35 Remember that there are times when it is better to risk deferring recovery a little rather than force upon an invalid what is not wanted, especially when it is evident that resistance will be harmful. 36 Quiet, cheerfulness, light, air, nourishment, orderly surroundings, and to be let judiciously alone; 37 those are the conditions which the amateur nurse must further, according to her own judgment and, her knowledge of the friend she is nursing.

38 For this purpose she must, as I have said, study and observe, and observe and study. 39 I do not mean necessarily to do all this when she is "off duty," but to so concentrate when she is attending to the wants of her friend that every moment and every thought will be used to the best gain of the

patient herself, and not toward our ideas of her best gain.

40 A little careful effort of this kind will open a new and interesting vista to the nurse as well as the patient.

THE HABIT OF ILLNESS

Annie Payson Call

28 IT is surprising how many invalids there are who have got well and do not know it! 2 When you feel ill and days drag on with one ill feeling following another, it is not a pleasant thing to be told that you are quite well. Who could be expected to believe it? 3 I should like to know how many men and women there are who will read this article, who are well and do not know it; 4 and how many of such men and women will take the hint I want to give them and turn honestly toward finding themselves out in a way that will enable them to discover and acknowledge the truth?

5 Nerves form habits. They actually form habits in themselves. 6 If a woman has had an organic trouble which has caused certain forms of nervous discomfort, when the organic trouble is cured the nerves are apt to go on for a time with the same uncomfortable feelings because during the period of illness they had formed the habit of such discomfort. 7 Then is the time when the will must be used to overcome such habits. 8 The trouble is that when the doctor tells these victims of nervous habit that they are really well they will not believe. "How can I be well," they say, "when I suffer just as I did while I was ill?" 9 If then the doctor is fortunate enough to convince them of the fact that it is only the nervous habit formed from their illness which causes them to suffer, 10 and that they can rouse their wills to overcome intelligently this habit, then they can be well in a few weeks when they might have been apparently ill for many months-- or perhaps even years.

11 Nerves form the habit of being tired. A woman can get very much over-fatigued at one time and have the impression of the fatigue so strongly on her nerves that the next time she is only a little tired she will believe she is very tired, 12 and so her life will go until the

habit of being tired has been formed in her nerves and she believes that she is tired all the time-- whereas if the truth were known she might easily feel rested all the time.

13 It is often very difficult to overcome the habit which the nerves form as a result of an attack of nervous prostration. 14 It is equally hard to convince any one getting out of such an illness that the habit of your nerves tries to make you believe you cannot do a little more every day-- when you really can, and would be better for it. 15 Many cases of nervous prostration which last for years might be cured in as many months if the truth about nerve habits were recognised and acted upon.

16 Nerves can form bad habits and they can form good habits, but of all the bad habits formed by nerves perhaps the very worst is the habit of being ill. 17 These bad habits of illness engender an unwillingness to let go of them. They seem so real. 18 "I do not want to suffer like this," I hear an invalid say; "if it were merely a habit don't you think I would throw it off in a minute?"

19 I knew a young physician who had made somewhat of a local reputation in the care of nerves, and a man living in a far-distant country, who had been for some time a chronic invalid, happened by accident to hear of him. 20 My friend was surprised to receive a letter from this man, offering to pay him the full amount of all fees he would earn in one month and as much more as he might ask if he would spend that time in the house with him and attempt his cure.

21 Always interested in new phases of nerves, and having no serious case on hand himself at the time, he assented and went with great interest on this long journey to, as he hoped, cure one man. 22 When he arrived he found his patient most charming. He listened attentively to the account of his years of illness, inquired of others in the house with him, and then went to bed and to sleep. 23 In the morning he woke with a sense of unexplained depression. In searching about for the cause he went over his interviews of the day before and found a doubt in his mind which he would hardly acknowledge; 24 but by the end of

the next day he said to himself: "What a fool I was to come so far without a more complete knowledge of what I was coming to! 25 This man has been well for years and does not know it. It is the old habit of his illness that is on him; the illness itself must have left him ten years ago."

26 The next day-- the first thing after breakfast-- he took a long walk in order to make up his mind what to do, and finally decided that he had engaged to stay one month and must keep to his promise. 27 It would not do to tell the invalid the truth-- the poor man would not believe it. 28 He was self-willed and self-centered, and his pains and discomforts, which came simply from old habits of illness, were as real to him as if they had been genuine. 29 Several physicians had emphasised his belief that he was ill. One doctor-- so my friend was told-- who saw clearly the truth of the case, ventured to hint at it and was at once discharged. 30 My friend knew all these difficulties and, when he made up his mind that the only right thing for him to do was to stay, he found himself intensely interested in trying to approach his patient with so much delicacy that he could finally convince him of the truth; 31 and I am happy to say that his efforts were to a great degree successful. The patient was awakened to the fact that, if he tried, he could be a well man. 32 He never got so far as to see that he really was a well man who was allowing old habits to keep him ill; 33 but he got enough of a new and healthy point of view to improve greatly and to feel a hearty sense of gratitude toward the man who had enlightened him. 34 The long habit of illness had dulled his brain too much for him to appreciate the whole truth about himself.

35 The only way that such an invalid's brain can be enlightened is by going to work very gently and leading him to the light-- never by combating. 36 This young physician whom I mention was successful only through making friends with his patient and leading him gradually to appear to discover for himself the fact which all the time the physician was really telling him. 37 The only way to help others is to help them to

help themselves, and this is especially the truth with nerves.
38 If you, my friend, are so fortunate as to find out that your illness is more a habit of illness than illness itself, do not expect to break the habit at once. Go about it slowly and with common-sense. 39 A habit can be broken sooner than it can be formed, but even then it cannot be broken immediately. 40 First recognise that your uncomfortable feelings whether of eyes, nose, stomach, back of neck, top of head, or whatever it may be, are mere habits, and then go about gradually but steadily ignoring them. 41 When once you find that your own healthy self can assert itself and realise that you are stronger than your habits, these habits of illness will weaken and finally disappear altogether.
42 The moment an illness gets hold of one, the illness has the floor, so to speak, and the temptation is to consider it the master of the situation-- 43 and yielding to this temptation is the most effectual way of beginning to establish the habits which the illness has started, and makes it more difficult to know when one is well. 44 On the other hand it is clearly possible to yield completely to an illness and let Nature take its course, and at the same time to take a mental attitude of wholesomeness toward it which will deprive the illness of much of its power. 45 Nature always tends toward health; so we have the working of natural law entirely on our side. 46 If the attitude of a person's mind is healthy, when you gets well you are well. You are not bothered long with the habits of your illness, for you have never allowed them to gain any hold upon you. 47 You have neutralised the effect of the would be habits in the beginning so that they could not get a firm hold. 48 We can counteract bad habits with good ones any time that we want to if we only go to work in the right way and are intelligently persistent.
49 It would be funny if it were not sad to hear a person say, "Well, you know I had such and such an illness years ago and I never really recovered from the effects of it," 50 and to know at the same time that you had kept yourself in the effects of it, or rather the habits of

your nerves had kept you there, 51 and you had been either ignorant or unwilling to use your will to throw off those habits and gain the habits of health which were ready and waiting.

52 People who cheerfully turn their hearts and minds toward health have so much, so very much, in their favour.

53 Of course, there are laws of health to be learned and carefully followed in the work of throwing off habits of illness. 54 We must rest; take food that is nourishing, exercise, plenty of sleep and fresh air-- 55 yet always with the sense that the illness is only something to get rid of, and our own healthy attitude toward the illness is of the greatest importance.

56 Sometimes a person can go right ahead with own work, allow an illness to run its course, and get well without interrupting own work in the least, because of your strong aim toward health which keeps your illness subordinate. 57 But this is not often the case. An illness, even though it be treated as subordinate, must be respected more or less according to its nature. But when that is done normally no bad habits will be left behind.

58 I know a young girl who was ill with strained nerves that showed themselves in weak eyes and a contracted stomach. 59 She is well now-- entirely well-- but whenever she gets a little tired the old habits of eyes and stomach assert themselves, and she holds firmly on to them, 60 whereas each time of getting overtired might be an opportunity to break up these evil habits by a right amount of rest and a healthy amount of ignoring.

61 This matter of habit is a very painful thing when it is supported by inherited tendencies. 62 If a young person overdoes and gets pulled down with fatigue the fatigue expresses itself in the weakest part of the body. 63 It may be in the stomach and consequently appear as indigestion; it may be in the head and so bring about severe headaches, and it may be in both stomach and head.

64 If it is known that such tendencies are inherited the first thought that almost inevitably comes to the mind is: "My father always had headaches and my

grandfather, too. Of course, I must expect them now for the rest of my life." 65 That thought interpreted rightly is: "My grandfather formed the headache habit, my father inherited the habit and clinched it-- now, of course, I must expect to inherit it, and I will do my best to see if I cannot hold on to the habit as well as they did-- 66 even better, because I can add my own hold to that which I have inherited from both my ancestors."

67 Now, of course, a habit of illness, whether it be of the head, stomach, or of both, is much more difficult to discard when it is inherited than when it is first acquired in a personal illness of our own; 68 but, because it is difficult, it is none the less possible to discard it, and when the work has been accomplished the strength gained from the steady, intelligent effort fully compensates for the difficulty of the task.

69 One must not get impatient with a bad habit in one's self; it has a certain power while it lasts, and can acquire a very strong hold. Little by little it must be dealt with-- patiently and steadily. 70 Sometimes it seems almost as if such habits had intelligence-- for the more you ignore them the more rampant they become, 71 and there is a Rubicon to cross, in the process of ignoring which, when once passed, makes the work of gaining freedom easier; 72 for when the backbone of the habit is broken it weakens and seems to fade away of itself, and we awaken some fine morning and it has gone-- really gone.

73 Many persons are in a prison of bad habits simply because they do not know how to get out-- not because they do not want to get out. 74 If we want to help a friend out of the habit of illness it is most important first to be sure that it is a habit, and then to remember that a suggestion is seldom responded to unless it is given with generous sympathy and love. 75 Indeed, when a suggestion is given with lack of sympathy or with contempt the tendency is to make the invalid turn painfully away from the speaker and hug own bad habits more closely to own self. 76 What we can do, however, is to throw out a suggestion here and there which may lead such a one to discover the truth for oneself; 77 then, if one comes to you with

sincere interest in own discovery, don't say: "Yes, I have thought so for some time." Keep yourself out of it, except in so far as you can give aid which is really wanted, and accepted and used.

78 Beware of saying or doing anything to or for any one which will only rouse resentment and serve to push deeper into the brain an impression already made by a mistaken conviction. 79 More than half of the functional and nervous illnesses in the world are caused by bad habit, either formed or inherited.

80 Happy are those who discover the fact for themselves and, with the intelligence born from such discovery, work with patient insight until they have freed themselves from bondage. 81 Happy are those who feel willing to change any mistaken conviction or prejudice and to recognise it as a sin against the truth.

WHAT IS IT THAT MAKES ME SO NERVOUS?

Annie Payson Call

29 THE two main reasons why women are nervous are, first, that they do not take intelligent care of their bodies, and secondly, that they do not govern their emotions.

2 I know a woman who prefers to make herself genuinely miserable rather than take food normally, to eat it normally, and to exercise in the fresh air.

3 "Everybody is against me," she says; and if you answer her, "My dear, you are acting against yourself by keeping your stomach on a steady strain with too much unmasticated, unhealthy, undigested food," 4 she turns a woe-begone face on you and asks how you can be "so material." "Nobody loves me; nobody is kind to me. Everybody neglects me," she says.

5 And when you answer, "How can any one love you when you are always whining and complaining? 6 How can any one be kind to you when you resent and resist every friendly attention because it does not suit your especial taste? 7 Indeed, how can you expect anything from any one when you are giving nothing yourself?"

8 She replies, "But I am so nervous. I suffer. Why don't they sympathise?"

9 "My dear child, would you sympathise with a woman who went down into the cellar and cried because she was so cold, when fresh air and warm sunshine were waiting for her outside?"

10 This very woman herself is cold all the time. She piles covers over herself at night so that the weight alone would be enough to make her ill. 11 She sleeps with the heat turned on in her room. She complains all day of cold when not complaining of other things. 12 She puts such a strain on her stomach that it takes all of her vitality to look after her food; therefore she has no vitality left with which to resist the cold. 13 Of course she resists the idea of a good brisk walk in the fresh air, and yet, if she took the walk and enjoyed it, it would start up her circulation, give her blood more oxygen, and help her stomach to go through all its useless labour better.

14 When a woman disobeys all the laws of nervous health how can she expect not to have her nerves rebel? 15 Nerves in themselves are exquisitely sensitive-- with a direct tendency toward health.

16 "Don't give me such unnecessary work," the stomach cries. "Don't stuff me full of the wrong things. Don't put a bulk of food into me, but chew your food, so that I shall not have to do my own work and yours, too, when the food gets down here."

17 And there is the poor stomach, a big nervous centre in close communication with the brain, protesting and protesting, and its owner interprets all these protestations into: 18 "I am so unhappy. I have to work so much harder than I ought. Nobody loves me. Oh, why am I so nervous?"

19 The blood also cries out: "Give me more oxygen. I cannot help the lungs or the stomach or the brain to do their work properly unless you take exercise in the fresh air that will feed me truly and send me over the body with good, wholesome vigour."

20 Now there is another thing that is sadly evident about the young woman who will not take fresh air, nor eat the right food, nor masticate properly the food that she does eat. 21 When she goes out for a walk she seems to fight the

fresh air; she walks along full of resistance and contraction, and tightens all her muscles so that she moves as if she were tied together with ropes. 22 The expression of her face is one of miserable strain and endurance; the tone of her voice is full of complaint. 23 In eating either she takes her food with the appearance of hungry grabbing, or she refuses it with a fastidious scorn. 24 Any nervous woman who really wants to find herself out, in order to get well and strong, and contented and happy, will see in this description a reflection of herself, even though it may be an exaggerated reflection.

25 Did you ever see a tired, hungry baby fight own food? The mother tries to put the bottle to child's mouth, and the baby cries and cries, and turns own head away, and brandishes own little arms about, as if the mother were offering something bitter. 26 Then, finally, when the mother succeeds in getting child to open own mouth and take the food it makes you smile all over to see the contrast: 27 child looks so quiet and contented, and you can see child's whole little body expand with satisfaction.

28 It is just the same inherited tendency in a nervous woman that makes her either consciously or unconsciously fight exercise and fresh air, 29 fight good food and eating it rightly, fight everything that is wholesome and strengthening and quieting to her nerves, 30 and cling with painful tenacity to everything that is contracting and weakening, and productive of chronic strain.

31 There is another thing that a woman fights: she fights rest. 32 Who has not seen a tired woman work harder and harder, when she was tired, until she has worn herself to a state of nervous irritability and finally has to succumb for want of strength? 33 Who has not seen this same tired woman, the moment she gets back a little grain of strength, use it up again at once instead of waiting until she had paid back her principal and could use only the interest of her strength while keeping a good balance in reserve? 34 "I wish my mother would not do so many unnecessary things," said an anxious daughter.

GOODNESS

35 A few days after this the mother came in tired, and, with a fagged look on her face and a fagged tone in her voice, said: 36 "Before I sit down I must go and see poor Mrs. Robinson. I have just heard that she has been taken ill with nervous prostration. Poor thing! Why couldn't she have taken care of herself?"

37 "But, mother," her daughter answered, "I have been to see Mrs. Robinson, and taken her some flowers, and told her how sorry you would be to hear that she was ill."

38 "My dear," said the fagged mother with a slight tone of irritation in her voice, 39 "that was very good of you, but of course that was not my going, and if I should let to-day pass without going to see her, when I have just heard of her illness, it would be unfriendly and unneighbourly and I should not forgive myself."

40 "But, mother, you are tired; you do need to rest so much."

"My dear," said the mother with an air of conscious virtue, "I am never too tired to do a neighbourly kindness."

41 When she left the house her daughter burst into tears and let out the strain which had been accumulating for weeks.

42 Finally, when she had let down enough to feel a relief, a funny little smile came through the tears.

43 "There is one nervously worn-out woman gone to comfort and lift up another nervously worn-out woman-- if that is not the blind leading the blind then I don't know. I wonder how long it will be before mamma, too, is in the ditch?"

44 This same story could be reversed with the mother in the daughter's place, and the daughter in the mother's. And, indeed, we see slight illustrations of it, in one way or the other, in many families and among many friends.

45 This, then, is the first answer to any woman's question, "Why am I so nervous?" Because you do not use common-sense in taking exercise, fresh air, nourishment, and rest.

46 Nature tends toward health. Your whole physical organism tends toward health. 47 If you once find yourself out and begin to be sensible you will find a great, vigorous power carrying you along, and you will be surprised to see how fast you gain. 48 It may be

some time before Nature gets Her own way with you entirely, because when one has been off the track for long it must take time to readjust; 49 but when we begin to go with the laws of health, instead of against them, we get into a healthy current and gain faster than would have seemed possible when we were outside of it, habitually trying to oppose the stream.

50 The second reason why women are nervous is that they do not govern their emotions. 51 Very often it is the strain of unpleasant emotions that keeps women nervous, and when we come really to understand we find that the strain is there because the woman does not get her own way. She has not money enough. 52 She has to live with some one she dislikes. She feels that people do not like her and are neglectful of her. She believes that she has too much work to do. She wishes that she had more beauty in her life.

53 Sometimes a woman is entirely conscious of when or why she fails to get her own way; then she knows what she is fretting about, and she may even know that the fretting is a strain that keeps her tired and nervously irritated. 54 Sometimes a woman is entirely unconscious of what it is that is keeping her in a chronic state of nervous irritability. 55 I have seen a woman express herself as entirely resigned to the very circumstance or person that she was unconsciously resisting so fiercely that her resistance kept her ill half of the time. In such cases the strain is double. 56 First, there is the strain of the person or circumstance chronically resisted and secondly, there is the strain of the pose of saintly resignation. 57 It is bad enough to pose to other people, but when we pose to other people and to ourselves too the strain is twice as bad.

58 Imagine a nerve specialist saying to his patient, "My dear madam, you really must stop being a hypocrite. You have not the nervous strength to spare for it." 59 In most cases, I fear, the woman would turn on him indignantly and go home to be more of a hypocrite than ever, and so more nervously ill.

60 I have seen a woman cry and make no end of trouble because

she had to have a certain relative live in the house with her, simply because her relative "got on her nerves." 61 Then, after the relative had left the house, this same woman cried and still kept on making no end of trouble because she thought she had done wrong in sending "Cousin Sophia" away; and the poor, innocent, uncomplaining victim was brought back again. 62 Yet it never seemed to occur to the nervous woman that "Cousin Sophia" was harmless, and that her trouble came entirely from the way in which she constantly resented and resisted little unpolished ways.

63 I do not know how many times "Cousin Sophia" may be sent off and brought back again; nor how many times other things in my nervous friend's life may have to be pulled to pieces and then put together again, 64 for she has not yet discovered that the cause of the nervous trouble is entirely in herself, and that if she would stop resisting "Cousin Sophia's" innocent peculiarities, stop resisting other various phases of her life that do not suit her, 65 and begin to use her will to yield where she has always resisted, her load would be steadily and happily lifted.

66 The nervous strain of doing right is very painful; especially so because most women who are under this strain do not really care about doing right at all. 67 I have seen a woman quibble and talk and worry about what she believed to be a matter of right and wrong in a few cents, 68 and then neglect for months to pay a poor man a certain large amount of money which he had honestly earned, and which she knew he needed.

69 The nervous conscience is really no conscience at all. I have seen a woman worry over what she owed to a certain other woman in the way of kindness, and go to a great deal of trouble to make her kindness complete; 70 and then, on the same day, show such hard, unfeeling cruelty toward another friend that she wounded her deeply, and that without a regret.

71 A nervous woman's emotions are constantly side-tracking her away from the main cause of her difficulty, and so keeping her nervous. 72 A nervous woman's desire to get her own way-- and

strained rebellion at not getting her own way-- 73 bedazzles or befogs her brain so that her nerves twist off into all sorts of emotions which have nothing whatever to do with the main cause. 74 The woman with the troublesome relative wants to be considered good and kind and generous. The woman with the nervous money conscience wants to be considered upright and just in her dealings with others. 75 All women with various expressions of nervous conscience want to ease their consciences for the sake of their own comfort-- not in the least for the sake of doing right.

76 I write first of the nervous hypocrite because in her case the nervous strain is deeper in and more difficult to find. 77 To watch such a woman is like seeing her in a terrible nightmare, which she steadily "sugar-coats" by her complacent belief in her own goodness. 78 If, among a thousand nervous "saints" who may read these words, one is thereby enabled to find herself out, they are worth the pains of writing many times over. 79 The nervous hypocrites who do not find themselves out get sicker and sicker, until finally they seem to be of no use except to discipline those who have the care of them.

80 The greatest trouble comes through the befogging emotions. A woman begins to feel a nervous strain, and that strain results in exciting emotions; 81 these emotions again breed more emotions until she becomes a simmering mass of exciting and painful emotions which can be aroused to a boiling point at any moment by anything or any one who may touch a sensitive point. 82 When a woman's emotions are aroused, and she is allowing herself to be governed by them, reason is out of the question, 83 and any one who imagines that a woman can be made to understand common-sense in a state like that will find himself entirely mistaken. 84 The only cure is for the woman herself to learn first how entirely impervious to common-sense she is when she is in the midst of an emotional nerve storm, so that she will say, "Don't try to talk to me now; I am not reasonable, wait until I get quiet." 85 Then, if she will go off by herself and drop her

emotions, and also the strain behind her emotions, she will often come to a good, clear judgment without outside help; 86 or, if not, she will come to the point where she will be ready and grateful to receive help from a clearer mind than her own.

87 "For goodness' sake, don't tell that to Alice," a young fellow said of his sister. "She will have fits first, and then indigestion and insomnia for six weeks." 88 The lad was not a nerve specialist; neither was he interested in nerves--except to get away from them; but he spoke truly from common-sense and his own experience with his sister.

89 The point is, to drop the emotions and face the facts. If nervous women would see the necessity for that, and would practice it, it would be surprising to see how their nerves would improve.

90 I once knew a woman who discovered that her emotions were running away with her and making her nervously ill. 91 She at once went to work with a will, and every time something happened to rouse this great emotional wave she would deliberately force herself to relax and relax until the wave had passed over her and she could see things in a sensible light. 92 When she was unable to go off by herself and lie down to relax, she would walk with her mind bent on making her feet feel heavy. 93 When you drop the tension of the emotion, the emotion has nothing to hold on to and it must go.

94 I knew another woman who did not know how to relax; so, to get free from this emotional excitement, she would turn her attention at once to figures, to her personal accounts or even to saying the multiplication table. 95 The steady concentration of her mind on dry figures and on "getting her sums right" left the rest of her brain free to drop its excitement and get into a normal state again.

96 Again it is sometimes owing to the pleasant emotions which some women indulge in to such an extreme that they are made ill. 97 How many times have we heard of women who were "worn to a shred" by the delight of an opera, or a concert, or an exciting play?

98 If these women only knew it, their pleasure would be far keener if they would let the enjoyment pass through them, instead of tightening up in their nerves and trying to hold on to it.

99 Nature in us always tends toward health, and toward pleasant sensations. If we relax out of painful emotions we find good judgment and happy instincts behind them. 100 If we relax so that pleasant emotions can pass over our nerves they leave a deposit of happy sensation behind, which only adds to the store that Nature has provided for us.

101 To sum up: The two main reasons why women are nervous are that they do not take intelligent care of their bodies, and that they do not govern their emotions; but back of these reasons is the fact that they want their own way altogether too much. 102 Even if a woman's own way is right, she has no business to push for it selfishly. 103 If any woman thinks, "I could take intelligent care of my own body if I did not have to work so hard, or have this or that interference," let her go to work with her mind well armed to do what she can, 104 and she will soon find that there are many ways in which she can improve in the normal care of her body, in spite of all the work and all the interferences.

105 To adapt an old saying, the women who are overworked and clogged with real interferences should aim to be healthy; and, if they cannot be healthy, then they should be as healthy as they can.

POSITIVE AND NEGATIVE EFFORT

Annie Payson Call

30 DID you ever have the grip? If you ever have you may know how truly it is named and how it does actually grip you so that it seems as if there were nothing else in the world at the time-- it appears to entirely possess you. 2 As the Irishman says, the grip is "the disease that lasts fur a week and it takes yer six weeks ter get over it." 3 That is because it has possessed you so thoroughly that it must be routed out of every little fiber in your body before you are yourself again, 4 and there are hidden corners where it lurks and hides, and it often has to be actually

pulled out of them. 5 Now it has been already recognised that if we relax and do not resist a severe cold it leaves us open so that our natural circulation carries away the cold much more quickly than if we allowed ourselves to be full of resistance to the discomfort 6 and the consequent physical contraction that impeded the circulation and holds the cold in our system.

7 My point is this-- that it is comparatively easy to relax out of a cold. 8 We can do it with only a negative effort, but to relax so that Nature in Her steady and unswerving tendency toward health can lift us out of the grip is quite another matter. 9 When we feel ourselves entirely in the power of such a monster as that is at its worst, it is only by a very strong and positive effort of the will that we can yield so that Nature can guide us into health, and we do not need the six weeks of getting well. 10 In order to gain this positive sense of yielding away from the disease rather than of letting it hold us, we must do what seems at the time the impossible-- 11 we must refuse to give our attention to the pain or discomfort and insist upon giving our attention entirely to yielding out of the contractions which the painful discomforts cause. 12 In other words, we must give up resisting the grip. It is the same with any other disease or any pain. 13 If we have the toothache and give all our attention to the toothache, it inevitably makes it worse; 14 but if we give our attention to yielding out of the toothache contractions, it eases the pain even though it may be that only the dentist can stop it.

15 Once I had an ulcerated tooth which lasted for a week. I had to yield so steadily to do my work during the day and to be able to sleep at all at night that it not only made the pain bearable, 16 but when the tooth got well I was surprised to find how many habitual contractions I had dropped and how much more freedom of action I had before my tooth began to ulcerate. 17 I should not wish to have another ulcerated tooth in order that I might gain more freedom, 18 but I should wish to take every pain of body and mind so truly that when the pain was over I should have

gained greater freedom than I had before it began.

19 You see it is the same with every pain and with every disease. Nature tends toward health 20 and if we make the disease simply a reminder to yield-- and to yield more deeply-- and to put our positive effort there, we are opening the way for Nature to do Her best work. 21 If our entire attention is given to yielding and we give no attention whatever to the pain, except as a reminder to yield, the result seems wonderful. 22 It seems wonderful because so few of us have the habit of giving our entire attention to gaining our real freedom.

23 With most of us, the disease or discomfort is positive, and our effort against it is negative or no effort at all. 24 A negative effort probably protects us from worse evil, but that is all; it does not seem to me that it can ever take us ahead, 25 whereas a positive effort, while sometimes we seem to move upward in very slow stages, often takes us in great strides out of the enemy's country.

26 If we have the measles, the whooping cough, scarlet fever-- even more serious diseases-- and make the disease negative and our effort to free ourselves from it positive, the result is one thousand times worthwhile. 27 And where the children have the measles and the whooping cough, and do not know how to help Nature, the mothers can be positive for the children and make their measles and whooping cough negative. 28 The positive attitude of a mother toward her sick child puts impatience or despair out of the question.

29 Do not think that I believe one can be positive all at once. We must work hard and insist over and over again before we can attain the positive attitude 30 and having attained it, we have to lose it and gain it again, lose it and gain it again, many times before we get the habit of making all difficulties of mind and body negative, and our healthy attitude toward conquering them positive.

31 I said "difficulties of mind and body." I might better have said "difficulties of body, mind and character," or even character alone, 32 for, after all, when you come to sift things down, it is the

character that is at the root of all human life.

33 I know a woman who is constantly complaining. Every morning she has a series of pains to tell of, and her complaints spout out of her in a half-irritated, whining tone as naturally as she breathes. 34 Over and over you think when you listen to her how useful all those pains of hers would be if she took them as a reminder to yield and in yielding to do her work better. 35 But if one should venture to suggest such a possibility, it would only increase the complaints by one more-- that of having unsympathetic friends and being misunderstood. 36 "Nobody understands me-- nobody understands me." How often we hear that complaint. How often in hearing it we make the mental question, "Do you understand yourself?"

37 You see the greatest impediment to our understanding ourselves is our unwillingness to see what is not good in ourselves. 38 It is easy enough in a self-righteous attitude of what we believe to be humility to find fault with ourselves, but quite another thing when others find fault with us. 39 When we are giving our attention to discomforts and pains in a way to give them positive power, and some one suggests that we might change our aim, then the resistance and resentment that are roused in us are very indicative of just where we are in our character.

40 Another strong indication of allowing our weaknesses and faults to be positive and our effort against them negative is the destructive habit of giving excuses. 41 If fault is found with us and there is justice in it, it does not make the slightest difference how many things we have done that are good, or how much better we do than some one else does-- 42 the positive way is to say "thank you" in spirit and in words, and to aim directly toward freeing ourselves from the fault. 43 How ridiculous it would seem if when we were told that we had a smooch on our left cheek, we were to insist vehemently upon the cleanliness of our right cheek, or our forehead, or our hands, 44 instead of being grateful that our attention should be called to the smooch and taking soap and water and at once

washing it off. 45 Or how equally absurd it would be if we went into long explanations as to how the smooch would not have been there if it had not been for so and so, and so and so, or so and so,-- 46 and then with all our excuses and explanations and protestations, we let the smooch stay-- and never really wash it off.

47 And yet this is not an exaggeration of what most of us do when our attention is called to defects of character. 48 When we excuse and explain and tell how clean the other side of our face is, we are putting ourselves positively on the side of the smooch. 49 So we are putting ourselves entirely on the side of the illness or the pain or the oppression of difficult circumstances when we give excuses or resist or pretend not to see fault in ourselves, 50 or when we confess faults and are contented about them, or when we give all our attention to what is disagreeable and no attention to the normal way of gaining our health or our freedom.

51 Then all these expressions of self or of illness are to us positive, and our efforts against them only negative. 52 In such cases, of course, the self possesses us as surely as the grip possesses us when we succumb entirely to all its horrors and make no positive effort to yield out of it. 53 And the possession of the self is much worse, much deeper, much more subtle. 54 When possessed with selfishness, we are laying up in our subconsciousness any number of self-seeking motives which come to the surface disguised and compel us to make impulsive and often foolish efforts to gain our own ends. 55 The self is every day proving to be the enemy of the man or woman whom it possesses.

56 God leaves us free to obey Him or to choose our own selfish way, and in His infinite Providence He is constantly showing us that our own selfish way leads to death and obedience to Him leads to life. 57 That is, that only in obedience to God do we find our real freedom.

58 God is constantly showering us with a tender generousity and kindness that seems inconceivable, and sometimes it seems as if more often than not we were refusing to see. 59 Indeed we blind ourselves by making all pains of body and

faults of soul positive and our efforts against them negative.

60 If we had a disagreeable habit which we wanted to conquer and asked a friend to remind us with a pinch every time he saw the habit, wouldn't it seem very strange if when he pinched us, according to agreement, we jumped and turned on him, rubbing our arm with indignation that he should have pinched? 61 Or would it not be even funnier if we made the pinch merely a reminder to go on with the habit?

62 God is pinching us in that way all the time, and we respond by being indignant at or complaining at our fate, or reply by going more deeply into our weaknesses of character by allowing them to be positive and the pinches only to emphasise them to us.

63 One trouble is that we do not recognise that there is an agreement between us and God, or that we recognise and then forget it; 64 and yet there should be-- there is-- more than an agreement, there is a covenant. And God is steadily, unswervingly doing His part, and we are constantly failing in ours. 65 God in His loving kindness pinches-- that is, reminds us-- and we in our stupid selfishness do not use His reminders.

66 As an example of making our faults positive and our effort to conquer them negative, one very common form is found in a woman I know, who has times of informing her friends quite seriously and with apparent regret of her very wrong attitudes of mind. 67 She tells how selfish she is and she gives examples of the absolute selfishness of her thoughts when she is appearing to do unselfish things. 68 She tells of her efforts to do better and confesses what she believes to be the absolute futility of her effort. 69 At first I was quite taken in by these confessions, and attracted by what seemed to be a clear understanding of herself and her own motives, 70 but after a little longer acquaintance with her, made the discovery, which was at first surprising to me, that her confessions of evil came just as much from conceit as if she had been standing at the mirror admiring her own beauty. 71 Selfish satisfaction is often found

quite as much in mental attitudes of grief as in sensations of joy. 72 Finally this woman has recognised for herself the conceit in her contemplation of her faults, and that she has not only allowed them to be positive while her attitude against them is negative; 73 she has actually nursed them and been positive herself with their positiveness. Her attitude against them was therefore more than ordinarily negative.

74 The more common way of being negative while we allow our various forms of selfishness to positively govern us is, first in bewailing a weakness seriously, 75 but constantly looking at it and weeping over it, and in that way suggesting it over and over to our brains so that we are really hypnotising ourselves with the fault and enforcing its expression when we think we are in the effort to conquer it. Such is our negative attitude.

76 Now if we are convinced that evil in ourselves has no power unless we give it power, that is the first step toward making our efforts positive and so negativing the evil. 77 If we are convinced that evil in ourselves has not only no power but no importance unless we give it power, that is a step still farther in advance. 78 The next step is to refuse to submit to it and refuse to resist it. 79 That means a positive yielding away from it and a positive attention to doing our work as well as we can do it, whatever that work may be.

80 There is one way in which people suffer intensely through being negative and allowing their temptations to be positive, and that is in the question of inherited evil.

81 "How can I ever amount to anything with such inheritances? If you could see my father and what he is, and know that I am his daughter, you would easily appreciate why I have no hope for myself," said a young woman, 82 and she was perfectly sincere in believing that because of her inherited temptations her life must be worthless. 83 It took time and gentle, intelligent reasoning to convince her that not only are no inherited forms of selfishness ours unless by indulging we make them ours, 84 but that, through knowing our inheritances, we are forewarned and forearmed, and the

strength we gain from positive effort to free ourselves fully compensates us for what we have suffered in oppression from them. 85 Such is the loving kindness of our Creator.

86 This woman of whom I am writing awoke to the true meaning of the story of the man who asked, before he went with the Lord Jesus Christ, first to go back and bury his father. 87 The Lord answered, "Let the dead bury their dead, and come thou and follow me." When we feel that we must be bound down by our inheritances, we are surely not letting the dead bury their dead.

88 And so let us study the whole question more carefully and learn the necessity of letting all that is sickness and all that is evil be negative to us and our efforts to conquer it be positive; 89 in that way the illness and the evil become less than negative,-- they gradually are removed and disappear.

90 Why, in the mere matter of being tired, if we refuse to let the impression of the fatigue be positive to us, and insist upon being positive ourselves in giving attention to the fact that now we are going to rest, we get rested in half the time,-- in much less than half the time. 91 Some people carry chronic fatigue with them because of their steady attention to fatigue.

92 "I am tired, yes, but I am going to get rested!" That is the sensible attitude of mind.

93 Nature tends toward health. As we realise that and give our attention to it positively, we come to admire and love the healthy working of the laws of Nature, and to feel the vigour of interest in trying to obey them intelligently. 94 Nature's laws are God's laws, and God's laws tend toward the health of the spirit in all matters of the spirit as surely as they tend toward health of body in all natural things. 95 That is a truth that as we work to obey we grow to see and to love with deepening reverence, 96 and then indeed we find that God's laws are all positive, and that the workings of self are only negative.

HUMAN DUST
Annie Payson Call

31 WHEN we face the matter squarely and give it careful thought, it seems to appear very plainly that the one thing most flagrantly in the way of the people of to-day living according to plain common-sense-- 2 spiritual common-sense as well as material-- is the fact that we are all living in a chronic state of excitement. 3 It is easy to prove this fact by seeing how soon most of us suffer from ennui when "there is not anything going on." 4 It seems now as if the average man or woman whom we see would find it quite impossible to stop and do nothing-- for an hour or more. 5 "But," some one will say, "why should I stop and do nothing when I am as busy as I can be all day long, and have my time very happily full?" 6 Or some one else may say, "How can I stop and do nothing when I am nearly crazy with work and must feel that it is being accomplished?"

7 Now the answer to that is, "Certainly you should not stop and do nothing when you are busy and happily busy;" 8 or, "Although your work will go better if you do not get 'crazy' about it, there is no need of interrupting it or delaying it by stopping to do nothing-- 9 but you should be able to stop and do nothing, and to do it quietly and contentedly at any time when it might be required of you."

10 No man, woman, or child knows the power, the very great power, for work and play-- there is with one who has in the background always the ability to stop and do nothing.

11 If we observe enough, carefully enough, and quietly enough, to get sensitive to it, we can see how every one about us is living in excitement. 12 I have seen women with nothing important to do come down to breakfast in excitement, give their orders for the day as if they were about running for a fire; 13 and the standard of all those about them is so low that no one notices what a human dust is stirred up by all this flutter over nothing.

14 A man told me not long ago that he got tired out for the day in walking to his office with a friend, because they both talked so

intensely. And that is not an unusual experience. 15 This chronic state of strain and excitement in everyday matters makes a mental atmosphere which is akin to what the material atmosphere would be if we were persistently kicking up a dust in the road every step we took. 16 Every one seems to be stirring up your own especial and peculiar dust and adding it to every one else's especial and peculiar dust.

17 We are all mentally, morally and spiritually sneezing or choking with our own dust and the dust of other people. 18 How is it possible for us to get any clear, all-round view of life so long as the dust stirring habit is on us? 19 So far from being able to enlarge our horizon, we can get no horizon at all, and so no perspective until this human dust is laid. 20 And there is just this one thing about it, that is a delight to think of: When we know how to live so that our own dust is laid, that very habit of life keeps us clear from the dust of other people. 21 Not only that, but when we are free from dust ourselves, the dust that the other men are stirring up about us does not interfere with our view of them. 22 We see the men through their dust and we see how the dust with which they are surrounding themselves befogs them and impedes their progress. 23 From the place of no dust you can distinguish dust and see through it. From the place of dust you cannot distinguish anything clearly. 24 Therefore, if one wishes to learn the standards of living according to plain common-sense, for body, mind, and spirit, and to apply the principles of such standards practically to their every-day life, the first absolute necessity is to get quiet and to stay quiet long enough to lay the dust.

25 You may know the laws of right eating, of right breathing, of exercise, and rest-- but in this dust of excitement in daily life such knowledge helps one very little. 26 You constantly forget, and forget, and forget. 27 Or, if in a moment of forced acknowledgment to the need of better living, you make up your mind that you will live according to sensible laws of hygiene, 28 you go along pretty well for a few weeks, perhaps even months, and then as you feel better

physically, you get whirled off into the excitement again, 29 and before you know it you are in the dust with the rest of the world, and all because you had no background for your good resolutions. You never had found and you did not understand quiet.

30 Did you ever see a wise mother come into a noisy nursery where perhaps her own children were playing excitedly with several little companions, who had been invited in to spend a rainy afternoon? 31 The mother sees all the children in a great state of excitement over their play, and two or three of them disagreeing over some foolish little matter, 32 with their brains in such a state that the nursery is thick with infantile human dust. What does the wise mother do? 33 Add dust of her own by scolding and fretting and fuming over the noise that the children are making? No--no indeed. 34 She first gets all the children's attention in any happy way she can, one or two at a time, and then when she has their individual attention to a small degree, she gets their united attention by inviting their interest in being so quiet that they "can hear a pin drop." 35 The children get keenly interested in listening. The first time they do not hear the pin drop because Johnnie or Mollie moved a little. 36 Mother talks with interest of what a very delightful thing it is to be for a little while so quiet that we can hear a pin drop. 37 The second time something interferes, and the third time the children have become so well focused on listening that the little delicate sound is heard distinctly, and they beg mother to try and see if they cannot hear it again. 38 By this time the dust is laid in the nursery, and by changing the games a little, or telling them a story first, the mother is able to leave a nursery full of quiet, happy children.

39 Now if we, who would like to live happily and keep well, according to plain common-sense, can put ourselves with intelligent humility in the place of these little children 40 and study to be quiet, we will be working for that background which is never failing in its possibilities of increasing light and warmth and the expanse of outlook.

GOODNESS

41 First with regard to a quiet body. Indigestion makes us unquiet, therefore we must eat only wholesome food, and not too much of it, and we must eat it quietly. 42 Poor breathing and poor blood makes us unquiet, therefore we should learn to expand our lungs to their full extent in the fresh air and give the blood plenty of oxygen. 43 Breathing also has a direct effect on the circulation and the brain, 44 and when we breathe quietly and rhythmically, we are quieting the movement of our blood as well as opening the channels so that it can flow without interruption. We are also quieting our brain and so our whole nervous system.

45 Lack of exercise makes us unquiet, because exercise supplies the blood more fully with oxygen and prevents it from flowing sluggishly, a sluggish circulation straining the nervous system. 46 It is therefore important to take regular exercise.

47 Want of rest especially makes us unquiet; therefore we should attend to it that we get-- as far as possible-- what rest we need, and take all the rest we get in the best way. 48 We cannot expect to fulfill these conditions all at once, but we can aim steadily to do so, and by getting every day a stronger focus and a steadier aim we can gain so greatly in fulfilling the standards of a healthy mind in a healthy body, 49 and so much of our individual dust will be laid, that I may fairly promise a happy astonishment at the view of life which will open before us, and the power for use and enjoyment that will come.

50 Let us see now how we would begin practically, having made up our minds to do all in our power to lay the dust and get a quiet background. 51 We must begin in what may seem a very small way. It seems to be always the small beginnings that lead to large and solidly lasting results. 52 Not only that, but when we begin in the small way and the right way to reach any goal, we can find no short cuts and no seven-league boots.

53 We must take every step and take it decidedly in order to really get there. We must place one brick and then another, exactly, and

place every brick-- to make a house that will stand.

54 But now for our first step toward laying the dust. Let us take half an hour every day and do nothing in it. 55 For the first ten minutes we will probably be wretched, for the next ten minutes we may be more wretched, but for the last five minutes we will get a sense of quiet and at first the dust, although not laid, will cease to whirl. 56 And then-- an interesting fact-- what seems to us quiet in the beginning of our attempt, will seem like noise and whirlwinds, after we have gone further along. 57 Some one may easily say that it is absurd to take half an hour a day to do nothing in. Or that "Nature abhors a vacuum, and how is it possible to do nothing? Our minds will be thinking of or working on something."

58 In answer to this, I might say with the Irishman, "Be aisy, but if you can't be aisy, be as aisy as you can!" Do nothing as well as you can. 59 When you begin thinking of anything, drop it. When you feel restless and as if you could not keep still another minute, relax and make yourself keep still. 60 I should take many days of this insistence upon doing nothing and dropping everything from my mind before taking the next step. 61 For to drop everything from one's mind, for half an hour is not by any means an easy matter. Our minds are full of interests, full of resistances. With some of us, our minds are full of resentment. 62 And what we have to promise ourselves to do is for that one-half hour a day to take nothing into consideration. 63 If something comes up that we are worrying about, refuse to consider it. If some resentment to a person or a circumstance comes to mind, refuse to consider it.

64 I know all this is easier to say than to do, but remember, please, that it is only for half an hour every day-only half an hour. Refuse to consider anything for half an hour. 65 Having learned to sit still, or lie still, and think of nothing with a moderate degree of success, and with most people the success can only be moderate at best, 66 the next step is to think quietly of taking long, gentle, easy breaths for half an hour. A long breath and then a rest, two long

breaths and then a rest. 67 One can quiet and soothe oneself inside quite wonderfully with the study of long gentle breaths. But it must be a study. 68 We must study to begin inhaling gently, to change to the exhalation with equal delicacy, and to keep the same gentle, delicate pressure throughout, each time trying to make the breath a little longer.

69 After we have had many days of the gentle, long breaths at intervals for half an hour, then we can breathe rhythmically (inhale counting five or ten, exhale counting five or ten), steadily for half an hour, 70 trying all the time to have the breath more quiet, gentle and steady, drawing it in and letting it out with always decreasing effort. 71 It is wonderful when we discover how little effort we really need to take a full and vigourous breath. 72 This half hour's breathing exercise every day will help us to the habit of breathing rhythmically all the time, and a steady rhythmic breath is a great physical help toward a quiet mind.

73 We can mingle with the deep breathing simple exercises of lifting each arm slowly and heavily from the shoulder, and then letting it drop a dead weight, and pausing while we feel conscious of our arms resting without tension in the lap or on the couch.

74 But all this has been with relation to the body, and it is the mental and moral dust of which I am writing. 75 The physical work for quiet is only helpful as it makes the body a better instrument for the mind and for the will. 76 A quiet body is of no use if it contains an unquiet mind which is going to pull it out of shape or start it up in agitation at the least provocation. 77 In such a case, the quiet body in its passive state is only a more responsive instrument to the mind that wants to raise a dust. 78 One-- and the most helpful way of quieting the mind-- is through a steady effort at concentration. 79 One can concentrate; on doing nothing-- that is, on sitting quietly in a chair or lying quietly on the bed or the floor. 80 Be quiet, keep quiet, be quiet, keep quiet. That is the form of concentration, that is the way of learning to do nothing to

advantage. 81 Then we concentrate on the quiet breathing, to have it gentle, steady, and without strain. 82 In the beginning we must take care to concentrate without strain, and without emotion, use our minds quietly, as one might watch a bird who was very near, to see what it will do next, and with care not to frighten it away.

83 These are the great secrets of true strengthening concentration. The first is dropping everything that interferes. The second is working to concentrate easily without emotion. They are really one and the same. 84 If we work to drop everything that interferes, we are so constantly relaxing in order to concentrate that the very process drops strain bit by bit, little by little.

85 An unquiet mind, however, full of worries, anxieties, resistances, resentments, and full of all varieties of agitation, going over and over things to try to work out problems that are not in human hands, or complaining and fretting and puzzling because help seems to be out of human power, 86 such a mind which is befogged and begrimed by the agitation of its own dust is not a cause in itself-- it is an effect. 87 The cause is the reaching and grasping, the unreasonable insistence on its own way of kicking, dust-raising self-will at the back of the mind.

88 A quiet will, a will that can remain quiet through all emergencies, is not a self-will. 89 It is the self that raises the dust-- the self that wants, and strains to get its own way, and turns and twists and writhes if it does not get its own way.

90 God's will is quiet. We see it in the growth of the trees and the flowers. We see it in the movement of the planets of the Universe. 91 We see God's mind in the wonderful laws of natural science. Most of all we see and feel, when we get quiet ourselves, God's love in every thing and every one.

92 If we want the dust laid, we must work to get our bodies quiet. We must drop all that interferes with quiet in our minds, and we must give up wanting our own way. 93 We must believe that God's way is immeasurably beyond us and that if we work quietly to obey Him, He will

reveal to us His way in so far as we need to know it, and will prepare us for and guide us to His uses.

94 The most perfect example we have of a quiet mind in a quiet body, guided by the Divine Will, is in the character of the Lord Jesus Christ. 95 As we study His words and His works, we realise the power and the delicacy of His human life, and we realise-- as far as we are capable of realising-- the absolute clearness of the atmosphere about Him. 96 We see and feel that atmosphere to be full of quiet-- Divine Human Love.

97 There is no suffering, no temptation, that any man or woman ever had or ever will have that He did not meet in Himself and conquer. 98 Therefore, if we mean to begin the work in ourselves of finding the quiet which will lay our own dust from the very first, 99 if we have the end in our minds of truer obedience and loving trust, we can, even in the simple beginning of learning to do nothing quietly, find an essence of life which eventually we will learn always to recognise and to love, and to know that it is not ourselves, but it is from the Heavenly Father of ourselves.

100 Some of us cannot get that motive to begin with; some of us will, if we begin at all, work only for relief, or because we recognise that there is more power without dust than with it, 101 but no one of us is ever safe from clouds of dust unless at the back of all our work there is the desire to give up all self-will for the sake of obeying and of trusting the Divine Will more and more perfectly as time goes on. 102 If we are content to work thoroughly and to gain slowly, not to be pulled down by mistakes or discouragements, but to learn from them, 103 we are sure to be grateful for the new light and warmth and power for use that will come to us, increasing day by day.

PLAIN EVERY-DAY COMMON-SENSE

Annie Payson Call

32 PLAIN common-sense! When we come to sift everything down which will enable us to live wholesome, steady, every-day, interesting lives, plain common-

sense seems to be the first and the simplest need. 2 In the working out of any problem, whether it be in science or in art or in plain everyday living, we are told to go from the circumference to the center, from the known to the unknown, from simplest facts to those which would otherwise seem complex. 3 And whether the life we are living is quiet and commonplace, or whether it is full of change and adventure, to be of the greatest and most permanent use, a life must have as its habitual background plain every-day common-sense.

4 When we stop and think a while, the lack of this important quality is quite glaring, 5 and every one who has your attention called to it and recognises that lack enough to be interested to supply it in your own life, is doing more good toward bringing plain common-sense into the world at large than we can well appreciate. 6 For instance, it is only a fact of plain common-sense that we should keep rested, and yet how many of us do? 7 How many readers of this article will smile or sneer, or be irritated when they read the above, and say, 8 "It is all very well to talk of keeping rested. How is it possible with all I have to do? Or with all the care I have? Or with all I have to worry me?"

9 Now that is just the point-- the answer to that question, "How is it possible?" So very few of us know how to do it, and if "how to keep rested though busy" were regularly taught in all schools in this country, 10 so far from making the children self-conscious and over-careful of themselves, it would lay up in their brains ideas of plain common-sense 11 which would be stocked safely there for use when, as their lives grew more maturely busy, they would find the right habits formed, enabling them to keep busy and at the same time to keep quiet and rested. 12 What a wonderful difference it would eventually make in the wholesomeness of the manners and customs of this entire nation. 13 And that difference would come from giving the children now a half hour's instruction in the plain common-sense of keeping well rested, and in seeing that such instruction was entirely and only practical. 14 It has often seemed to me that the tendency of education

in the present day is more toward giving information than it is in preparing the mind to receive and use interesting and useful information of all kinds: 15 that is, in helping the mind to attract what it needs; to absorb what it attracts, and digest what it absorbs as thoroughly as any good healthy stomach ever digested the food it needed to supply the body with strength. 16 The root of such cultivation, it seems to me, is in teaching the practical use and application of all that is studied. 17 To be sure, there is much more of that than there was fifty years ago, but you have only to put to the test the minds of young graduates to see how much more of such work is needed, and how much more intelligent the training of the young mind may be, even now.

18 Take, for instance, the subject of ethics. How many boys and girls go home and are more useful in their families, more thoughtful and considerate for all about them, for their study of ethics in school? 19 And yet the study of ethics has no other use than this. If the mind absorbed and digested the true principles of ethics, so that the heart felt moved to use them, 20 it might-- it probably would-- make a great change in the lives of the boys and girls who studied it-- a change that would surprise and delight their parents and friends.

21 If the science of keeping rested were given in schools in the way that, in most cases, the science of ethics seems to be given now, the idea of rest would lie in an indigestible lump on the minds of the students, 22 and instead of being absorbed, digested and carried out in their daily lives, would be evaporated little by little into the air, 23 or vomited off the mind in various jokes about it, and other expressions that would prove the children knew nothing of what they were being taught.

24 But again, I am glad to repeat-- if instruction, practical instruction, were given every day in the schools on how to form the habit of keeping rested, it would have a wonderful effect upon the whole country, 25 not to mention where in many individual cases it would actually prevent the breaking out of hereditary disease.

26 Nature always tends toward health; 27 so strongly, so

habitually does Nature tend toward health that it seems at times as if the working of natural laws pushed some people into health in spite of chronic antagonism they seem to have against health-- one might even say in spite of the willful refusal of health.

28 When one's body is kept rested, Nature is constantly throwing off germs of disease, constantly working, and working most actively, to protect the body from anything that would interfere with its perfect health. 29 When one's body is not rested, Nature works just as hard, 30 but the tired body-- through its various forms of tension that impede the circulation, prevent the healthy absorption of food and oxygen, and clog the way so that impurities cannot be carried off-- interferes with Nature's work and thus makes it impossible for Her to keep the machine well oiled. 31 When we are tired, the very fact of being tired makes us more tired, unless we rest properly.

32 A great deal-- it seems to me more than one-half-- of the fatigue in the world comes from the need of an intelligent understanding of how to keep rested. 33 The more that lack of intelligence is allowed to grow, the worse it is going to be for the health of the nation. 34 We have less of that plain common-sense than our grandfathers and grandmothers. They had less than their fathers and mothers. We need more than our ancestors, because life is more complicated now, than it was then. 35 We can get more if we will, because there is more real understanding of the science of hygiene than our fathers and mothers had before us. 36 Our need now is to use practically the information which a few individuals are able to give us, and especially to teach such practical use to our children.

37 Let us find out how we would actually go to work to keep rested, and take the information of plain common-sense and use it. 38 To keep rested we must not overwork our body inside or outside. We must keep it in an equilibrium of action and rest.

39 We overwork our body inside when we eat the wrong food and when we eat too much or not enough of the right food, 40 for then the stomach has more than its

share of work to do, and as the effort to do it well robs the brain and the whole nervous system, 41 so, of course, the rest of the body has not its rightful supply of energy and the natural result is great fatigue.

42 We overwork our body inside when we do not give it its due amount of fresh air. The blood needs the oxygen to supply itself and the nerves and muscles with power to do their work. 43 When the oxygen is not supplied to the blood, the machinery of the body has to work with so much less power than really belongs to it, 44 that there is great strain in the effort to do its work properly, and the effect is, of course, fatigue.

45 In either of the above cases, both with an overworked stomach and an overworked heart and lungs, the complaint is very apt to be, "Why am I so tired when I have done nothing to get tired?" 46 The answer is, "No, you have done nothing outside with your muscles, but the heart and lungs and the stomach are delicate and exquisite instruments. 47 You have overworked them all, and such overwork is the more fatiguing in proportion to what is done than any other form, except overwork of the brain." 48 And the overtired stomach and heart and lungs tire the brain, of course.

49 Of the work that is given to the brain itself to overtire it we must speak later. So much now for that which prevents the body from keeping rested inside, in the finer working of its machinery.

50 It is easy to find out what and how to eat. A very little careful thought will show us that. It is only the plain common-sense of eating we need. 51 It is easy to see that we must not eat on a tired stomach, and if we have to do so, we must eat much less than we ordinarily would, and eat it more slowly. 52 So much good advice is already given about what and how to eat, I need say nothing here, and even without that advice, which in itself is so truly valuable, 53 most of us could have plain common-sense about our own food if we would use our minds intelligently about it, and eat only what we know to be nourishing to us. That can be done without fussing.

54 Fussing about food contracts the stomach, and prevents free

digestion almost as much as eating indigestible food.

55 Then again, if we deny ourselves that which we want and know is bad for us, and eat only that which we know to be nourishing, it increases the delicacy of our relish. 56 We do not lose relish by refusing to eat too much candy. We gain it. 57 Human pigs lose their most delicate relish entirely, and they lose much-- very much more-- than that.

58 Unfortunately with most people, there is not the relish for fresh air that there is for food. 59 Very few people want fresh air selfishly; the selfish tendency of most people is to cut it off for fear of taking cold. 60 And yet the difference felt in health, in keeping rested, in ease of mind, is as great between no fresh air and plenty of fresh air as it is between the wrong kind of food and enough (and not too much) of the right kind of food.

61 Why does not the comfort of the body appeal to us as strongly through the supply of air given to the lungs as through that of food given to the stomach? 62 The right supply of fresh air has such wonderful power to keep us rested!

63 Practical teaching to the children here would, among other things, give them training which would open their lungs and enable them to take in with every breath the full amount of oxygen needed toward keeping them rested. 64 There are so many cells in the lungs of most people, made to receive oxygen, which never receive one bit of the food they are hungry for.

65 There is much more, of course, very much more, to say about the working of the machinery of the inside of the body and about the plain common-sense needed to keep it well and rested, but I have said enough for now to start a thoughtful mind to work.

66 Now for keeping the body well rested from the outside. It is all so well arranged for us-- the night given us to sleep in, a good long day of work and a long night of rest; 67 so the time for rest and the time for work are equalised and it is so happily arranged that out of the twenty-four hours in the day, when we are well, we need only eight hours' sleep. 68 So well does

Nature work and so truly that She can make up for us in eight hours' sleep what fuel we lose in sixteen hours of activity.

69 Only one-third of the time do we need to sleep, and we have the other two-thirds for work and play. This regular sleep is a strong force in our aim to keep rested. 70 Therefore, the plain common-sense of that is to find out how to go to sleep naturally, how to get all the rest out of sleep that Nature would give us, and so to wake refreshed and ready for the day.

71 To go to sleep naturally we must learn how to drop all the tension of the day and literally ‘drop’ to sleep like a baby. 72 ‘Let go into sleep’-- there is a host of meaning in that expression. When we do that, Nature can revive and refresh and renew us. 73 Renew our vitality, bring us so much more brain power for the day, all that we need for our work and our play; or almost all-- 74 for there are many little rests during the day, little openings for rest that we need to take, and that we can teach ourselves to take as a matter of course. 75 We can sit restfully at each one of our three meals. Eat restfully and quietly, and so make each meal not only a means of getting nourishment, but of getting rest as well. 76 There is all the difference of illness and health in taking a meal with strain and a sense of rush and pressure of work, and in taking it as if to eat that one meal were the only thing we had to do in the day. 77 Better to eat a little nourishing food and eat it quietly and at leisure than a large meal of the same food with a sense of rush. This is a very important factor in keeping rested. 78 Then there are the many expected and unexpected times in the day when we can take rest and so ‘keep rested’. If we have to wait we can sit quietly. 79 Whatever we are doing we can make use of the between times to rest. Each person can find your own "between times." 80 If we make real use of them, intelligent use, they not only help us to keep rested, they help us to do our work better, if we will but watch for them and use them.

81 Now the body is only a servant, and in all I have written above, I have only written of the servant. 82 How can a servant keep well and

rested if the master drives you to such an extent that you are brought into a state, not where you won't go, but where you can't go, and must therefore drop? 83 It is the intelligent master, who is a true disciple of plain common-sense, who will train own servant, the body, in the way of resting, eating and breathing, in order to fit it for the maximum of work at the minimum of energy. 84 But if you obey every external law for the health and strength of the body, and obey it implicitly, and to the letter, with all possible intelligence, you cannot keep it healthy if the mind that owns the body is pulling it and twisting it, and 'twanging' on its delicate machinery with a flood of resentment and resistance; 85 and the spirit behind the mind is eager, wretched, and unhappy, because it does not get its own way, or elated with an inflamed egoism because it is getting its own way.

86 All plain common-sense in the way of health for the body falls dead unless followed up closely with plain common-sense for the health of the mind; 87 and then again, although when there is "a healthy mind in a healthy body," the health appears far more permanent than when a mind full of personal resistance tries to keep its body healthy, 88 even that happy combination cannot be really permanent unless there is found back of it a healthy spirit.

89 With regard to the mind, let us look and see not only that it is not sensible to allow it to remain full of resistance, but is it not positively stupid?

90 What an important factor it should be in the education of children to teach them the plain common-sense needed to keep the mind healthy-- to teach them the uselessness of a mental resistance, and the wholesomeness of a clean mind.

91 If a child worries about own lessons, he or she is resisting the possibility of failing in own class; let the child learn that the worry 'interferes' with own getting own lesson. 92 Teach the child how to drop the worry, and will find not only that one gets the lesson in less time, but own mind is clearer to remember it.

93 By following the same laws, children could be taught that a

feeling of rush and hurry only impedes their progress. 94 The rushed feeling sometimes comes from a nervous unquiet which is inherited, and should be trained out of the child.

95 But alas! alas! how can a mother or a father train a child to live common sensibly without useless resistance when neither the mother nor the father can do that same themselves. 96 It is not too late for any mother or father to learn, and if each will have the humility to confess to the child that they are learning and help the child to learn with them, no child would or could take advantage of that 97 and as the children are trained rightly, what a start they can give their own children when they grow up-- and what a gain there might be from one generation to another! Will it ever come? Surely we hope so.

GIVE UP RESENTMENT, GIVE UP UNHEALTHY RESISTANCE

Annie Payson Call

33 If circumstances, or persons, arouse either resentment or resistance in us, let us ignore the circumstances or persons until we have quieted ourselves. 2 Freedom does not come from merely yielding out of resentment or unhealthy resistance, it comes also from the strong and steady focus on such yielding. 3 Concentration and relaxation are just as necessary one to another to give stability to the nerves of a human-- as the centrifugal and centripetal forces are necessary to give stability to the Earth.

4 As the habit of healthy concentration and relaxation grows within us, our perception clears so that we see what is right to do, and are given the power to do it. 5 As our freedom from bondage to our fellow-humans becomes established, our relation to our fellow-humans grows happier, more penetrating and more full of life, 6 and later we come to understand that at root it is ourselves-- our own resentment and resistance-- to which we have been in bondage,-- circumstances or other people have had really nothing to do with it. 7 When we have made that discovery, and are steadily acting

upon it, we are free indeed, 8 and with this new liberty there grows a clear sense and conviction of a wise, loving Power which, while leaving us our own free-will, is always tenderly guiding us.

9 No one ever really believed anything without experiencing it. 10 We may think we believe all sorts of beautiful truths, but how can any truth be really ours unless we have proved it by living? 11 We do not fully believe it until it runs in our blood-- that is-- we must see a truth with our minds, love it with our hearts and live it over and over again in our lives before it is ours.

12 If the reader will think over this little book-- you will see that every chapter has healthy yielding at the root of it. It is a constant repetition of the same principle applied to the commonplace circumstances of life, 13 and if the reader will take this principle into your mind, and work practically to live it in your life, you will find the love for it growing in your heart, and with it a living conviction that when truly applied, it always works.

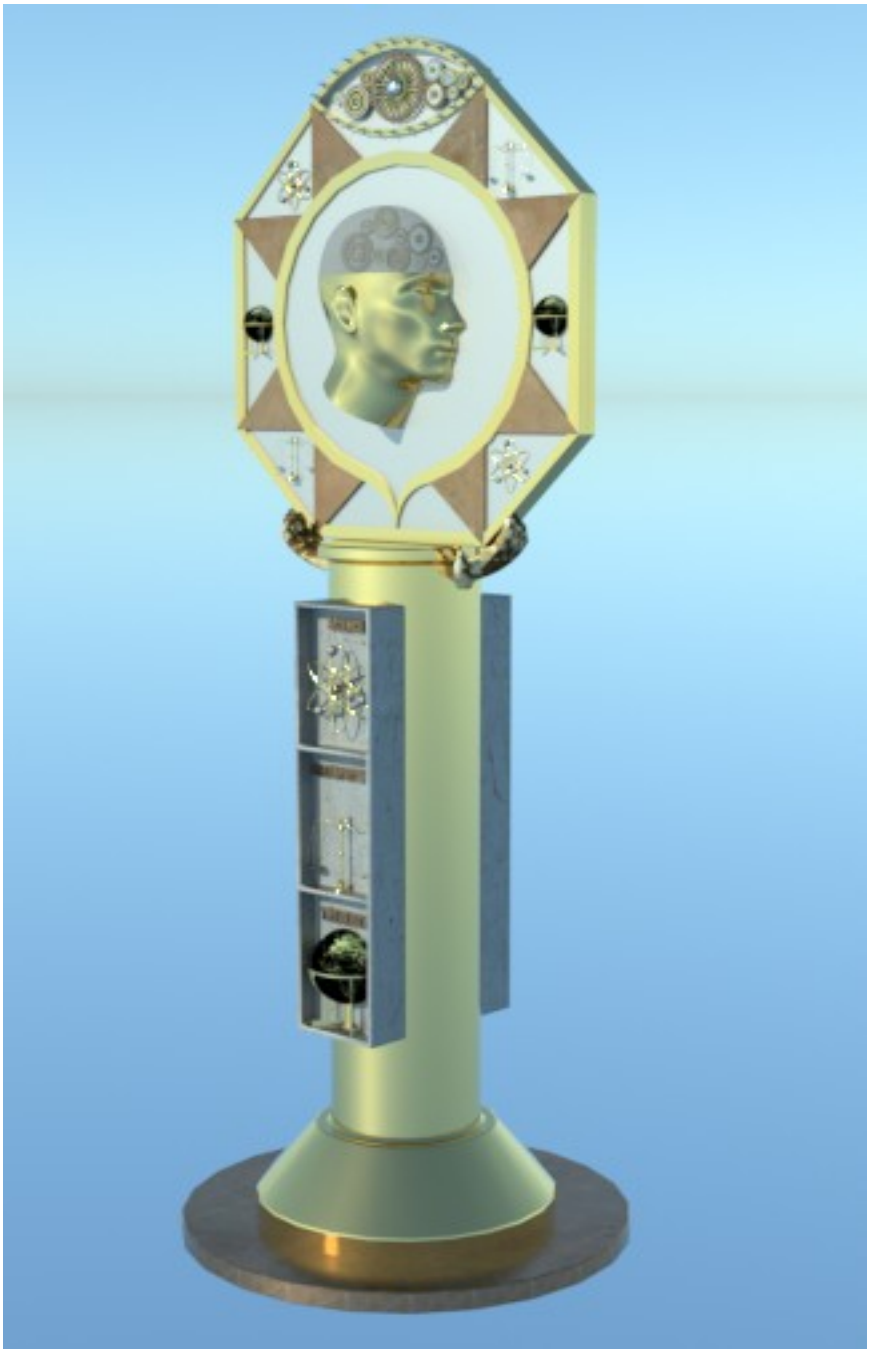
14 Some one once described the difference between good breeding and bad breeding as that between a man who works as a matter of course to conquer his limitations-- and a man to whom his limitations are inevitable.

15 There is spiritual good breeding and natural good breeding. The first comes from the achievement of personal character-- the second is born with us-- to use or misuse as we prefer.

16 It is a happy thing to realise that our freedom from bondage to circumstances, and our loving, intelligent freedom from other people, is the true spiritual good breeding which gives vitality to every action of our lives, and brings us into more real and closer touch with our fellow-humans. 17 Courtesy is alive when it has genuine love of all human nature at the root of it-- it is dead when it is merely a matter of good form.

18 In so far as I know, the habit of such freedom and good breeding cannot be steadily sustained without an absolute, conscious dependence upon the Lord God Almighty.

DIVINE PANAGOGUE



ORTHODOX-PANTHEISM